

Jefferson County Bicycle and Pedestrian Plan Update

Jefferson County, Wisconsin
Facility and Programming Implementation Guide

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Jefferson County Bicycle and Pedestrian Plan Update

Executive Summary

Introduction

This plan was developed to update the highly acclaimed *1996 Jefferson County Bikeway and Pedestrianway Plan*. It assesses the existing bicycle routes within Jefferson County and its communities and addresses route effectiveness, connectivity to key destinations, and safety. This plan also updates existing bike plans for Fort Atkinson, Jefferson, Waterloo, Watertown, Whitewater, Johnson Creek, Sullivan, Lake Mills, and Palmyra. In addition, off-road bike trails are identified to link to primary Glacial Heritage Area (GHA) destinations, and estimated costs and funding sources for future implementation of recommended improvements are also identified.

The primary goal of this plan is to develop a well-connected route network that links a variety of bicycle and pedestrian facilities together into an effective transportation system. To accomplish this, several key objectives were established. They include:

- a. Linking the Glacial River Trail to the Glacial Drumlin State Trail and connect to other city and county bike routes where appropriate.
- b. Promoting non-motorized transportation modes by linking pedestrian and bicycle systems throughout the region.
- c. Building on existing shared-use facilities development (such as the STH 26 Corridor) to link unique destinations and resources (Glacial Heritage Area).
- d. Capitalizing on the availability of easements and access corridors to enhance the existing linear trail network throughout and beyond Jefferson County.

Developing a well-connected route network will enhance the livability of Jefferson County in several ways. Key outcomes include:

- a. Showcasing the natural and scenic beauty of Jefferson County through appropriate placement and development of multimodal transportation resources.
- b. Building the current multimodal transportation system to increase the desirability of the Jefferson County region to visitors.
- c. Promoting economic vitality by utilizing and preserving access to natural features within the region (especially the GHA).
- d. Increasing the amount of facilities along routes and trails (including benches, rest areas, trailheads) so they can be actively enjoyed by a variety of users.

Existing Conditions

Jefferson County urbanized areas connect to each other and to surrounding rural areas by a system of state and county highways. Bicycle and pedestrian travel are prohibited on Interstate I-94, and many state highways include high traffic volumes, vehicle speeds, and heavy-vehicle traffic which can decrease comfort for bicyclists and pedestrians. The county highway system is a primary linkage between many communities within Jefferson County and generally provides a higher level of bicycle accommodation, primarily due to reduced vehicle volumes.

Within Jefferson County there are a variety of trails, such as the Glacial Drumlin Trail and the Glacial River Recreation Trail, that provide important linkages between commercial centers, recreation areas, and environmental resources. Enhancing the usability of existing trails by increasing the number of connections to priority destinations is vital to creating a more bicycle and pedestrian friendly transportation system.

Intergovernmental linkages are just as important. Census 2000 indicates 82 percent of workers who reside within Jefferson County also work within the county. Connections between places of residence to places of employment are integral to increasing mode share.

Most roadways, aside from the busiest state highways, in Jefferson County are suitable for shared bicycle and motor vehicle use. Designated bicycle routes are marked with Jefferson County Bike Route Signs and provide connections between communities, recreational trail networks and open spaces. Although the existing bicycle route network is reasonably complete, there are gaps in the system that prevent easy access to some wildlife areas, parks and neighboring communities.

The Jefferson County Parks Department and the University of Wisconsin-Extension Jefferson County office provide a guide to 12 Recreation Loops within the county. Materials for the loop ride guide were developed in 1999 by Bicycles &, Inc., The Jefferson County Land Information Office and The Tour de Fort Bicycle Club. The loop rides, which vary in distance from approximately 16 to 37 miles, are routed along a variety of trails, local roads, state and county highways.

Recommendations and Implementation

The *1996 Jefferson County Bikeway and Pedestrianway Plan* established a countywide bike route system. The primary purpose of the Jefferson County Bike Routes was to identify direct, safe connections between communities in the County. While the *1996 Plan* did not recommend any paths parallel to highways due to cost considerations and safety conflicts at intersections, the STH 26 bypass will include segregated facilities parallel to the highway and are included in this plan update.

Priorities within Jefferson County include wide paved shoulders in transition areas between urbanized streets and rural roads. These “urban escape” routes are often the most heavily utilized roads for cyclists engaging in longer tours, traveling to another urbanized community, or accessing one of the Jefferson County Recreation Loops or GHA facilities. Adding to the number of Bike Routes through increased signage is also a priority. However, destination-based signage would greatly add to the usability of the existing bicycle network.

Another option that would enhance the current system would be formalizing the 12 Jefferson County Recreation Loops as Bike Routes. This would include assigning a unique number to each loop and signing the loop at key decision-making points along each route.

In addition to facilities development, operational procedures are critical if Jefferson County wants to improve the level of safety and convenience for local bicyclists and people who travel to the area to enjoy its natural resources. Operational recommendations focus on education, encouragement, enforcement, and facility maintenance.

Four Priority Projects

This plan has identified four priority projects. They have been prioritized to take advantage of the momentum created by concurrent state planning activities and to further integrate the entire bicycle and pedestrian network.

Priority #1: Formalize Routes for Uninterrupted Travel on Glacial Drumlin State Trail (east-to-west) and Glacial River Trail (north-to-south)

Includes creation of a trail to replace the on-road section north of Junction Road and formalizing the bicycle routes and trails developed as part of the STH 26 Bypass.

Priority #2: Waterloo To Lake Mills Trail

Creation of an off-road trail to connect Waterloo to Lake Mills. Possible alignments include connecting the Garman Heritage Area (Waterloo) to Korth Park (Lake Mills).

Priority #3: Formalize Connections throughout the Glacial Heritage Area (Sign Campaign)

Update the Jefferson County Bike Routes to include new segments and to formalize the 12 Recreation Loops as part of the Bike Route network.

Priority #4: Waterloo to Watertown Trail

Creation of a connecting trail between Waterloo and Watertown including a link to the Holzhueter Property which may be developed to contain mountain bike trails and a cross country running trail system.

Funding

Jefferson County, its municipalities, and coterminous communities should appropriate annual funds for bicycle and pedestrian improvements just as they do for other roadway projects. In addition, bicycle and pedestrian projects may be eligible for state or federal funding. Pedestrian improvements that benefit public health and safety should be funded through the general fund, supplemented by available state and federal grants, rather than through assessment.

As part of the state and federal initiatives to enhance bicycling and walking as regular transportation modes, several grants and funding sources are available to communities in the county for planning, facility development, and land acquisition. Although some grants may be available for improving on-street facilities, opportunities to fund off-street facilities (such as bicycle trails) are substantial--particularly if the facility is intended to provide both utilitarian and recreational benefits. The Wisconsin Department of Transportation offers several programs, such as STP-R, TE, and BFPF that should be utilized to implement some on-street recommendations of this plan update.

Off-street trails may have overlapping recreational and transportation value. For these bicycle improvements, the Wisconsin Department of Natural Resources' Stewardship Program may be an appropriate source of funding. In addition, impact fees provide a potential source of funding for multi-use trails both within and connecting to residential subdivisions. Current ordinances permit the use of impact fees by municipalities for transportation improvements as well as for parks and recreational facilities.

Alternate funding strategies through private interests should also be considered. Local private interests will benefit from an improved system that offers transportation choices and attracts tourists to the area. Private agencies that share the county's vision for an integrated bicycle system may be willing to invest in development or maintenance of facilities. These private partnerships should be explored to provide better bicycle facilities.

INTRODUCTION & PUBLIC PARTICIPATION

This document has been prepared to update the highly acclaimed 1996 *Jefferson County Bikeway and Pedestrianway Plan*. The success of the 1996 plan has provided a solid foundation for bicycling efforts throughout Jefferson County. This document seeks to build upon these successes while reassessing the current bicycling culture and the extent to which conditions for pedestrians and bicyclists have changed since the adoption of the original plan.

Several new developments are expected to impact conditions for non-motorized transportation and recreation users in Jefferson County. These include:

- Integration of multiuse trails in the reconstruction of STH 26. Linking these trails to local communities, parks, and wildlife areas will enhance the usefulness of these facilities for a variety of users;
- The Glacial Heritage Area (GHA) plan includes a variety of active and passive use natural areas and off-road trails. To maximize the appeal and economic impact of the GHA, the ability to move seamlessly throughout Jefferson County communities and its natural areas is vital;
- Economic impacts present when this update was being prepared. Families and individuals are seeking recreation opportunities closer to home and as gas prices continue to be volatile, transportation alternatives are being sought.

Recognizing the need to update the 1996 plan, the Jefferson County Parks Department, local municipalities, and private partners including Trek Bicycle Corporation, Fort Health Care, and WE Energies, provided their financial and collaborative support for development of a comprehensive bicycling and walking strategy.

The strategies set forth in this plan have the potential to increase transportation safety for pedestrians, bicyclists and motorists. Infrastructure improvements such as sidewalks, marked crosswalks, designated bikeways, bike lanes, paved shoulders, multi-use trails and informational signs are among the type of facilities recommended to improve conditions for the non-motoring public. Opportunities to educate bicyclists about safety and promote bicycling as a viable mode of transportation are also discussed. Additionally, recommendations to improve enforcement and education regarding traffic laws affecting bicyclists and pedestrians and to promote bicycling and walking as viable modes of transportation are also included.

1.1 Why is this Plan Important?

Before the 1900's, bicycling and walking were common modes of transportation in the United States. Transportation infrastructure and land use patterns reflected the need to accommodate these travel modes. Compact communities allowed people to walk to most destinations. Interestingly, early American urban roads were originally paved to help bicyclists reach their destinations. As the pace of the American lifestyle quickened and automobiles were made affordable to a larger portion of the population, bicycling and walking gradually dropped in priority. Since the late 1940's, motor vehicles have been the dominant influence on transportation and land use patterns and subsequently, these land use patterns have changed behavior patterns. The convenience and flexibility of the automobile are easily recognized; however, automobiles are not the most efficient mode of travel for some types of trips. The benefits of alternative modes of travel such as bicycling and walking are particularly

significant for short urban trips. The arguments for encouraging these modes of travel are both functional and philosophical:

- Bicycling and walking are two of the most cost efficient modes of transportation with regard to operation, development and maintenance of facilities.
- Bicycling and walking are two of the best forms of physical exercise and therefore can effectively enhance the health of the user.
- Bike and pedestrian facilities developed for transportation purposes can simultaneously enhance recreation and tourism opportunities.
- National, state and local units of government increasingly acknowledge the benefits of bicycling and walking beyond merely recreational values. Recognizing the efficiency of bicycling and walking for certain types of trips among the other modes of travel is the basis for multi-modal transportation planning.
- Bicycling and walking do not contribute to noise or air pollution and thus contribute to the health of the community. Off-road facilities developed for bicycling and walking can protect and enhance natural resources.
- Bicycling and walking promote social interaction of families and community members.

The premise of multi-modalism is simple: to create a transportation system that offers not only choices among travel modes for specific trips, but more importantly, presents these options so that they are viable choices that meet the needs of individuals and society as a whole.

As part of the federal initiative to encourage multi-modal transportation in general and bicycle transportation in particular, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) requires that long range planning of transportation systems include provisions for bicycling and walking. This legislation builds on the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and the Transportation Equity Act for the 21st Century (TEA-21) to supply funds and a programmatic framework for investments in transportation infrastructure.

In Wisconsin, bicycling and walking have been promoted through a variety of plans, including the latest multimodal planning document, *Connections 2030*. The Connections plan calls for bicycle and pedestrian provisions on state highway projects, inclusion in the Metropolitan Planning Organization's (MPO) plans and also recommends continued investment through dedicated funding programs such as Transportation Enhancements. Biking and walking will continue to be vital components of Wisconsin's multimodal transportation system. Bicycle and pedestrian modes currently account for 8.2 percent of all trips in Wisconsin for all 12 months of the year. However, just a small percentage of all trips made by bicycle and foot are for commuting purposes. In fact, nearly 40% of trips made in the U.S. are less than two miles. Trips of this length are very easily accomplished by average bicyclists, and when compared to driving, require little additional time.

Walking and bicycling are underutilized modes of transportation in Jefferson County. While the majority of Jefferson County residents reported a travel time to work of about 20 minutes in 2000, very few choose to commute by bicycle or by walking. The relatively small number of walking and bicycling trips can be attributed to impediments such as traffic conditions, safety concerns, transportation infrastructure and topography. This plan is designed to increase levels of bicycle use by making recommendations to remove these impediments, and to change the prevailing attitude that using an automobile is easier and more convenient than bicycling or walking.

1.2 How was the Plan Developed?

Development of this plan was administered by County Parks Department staff with oversight from an ad hoc subcommittee (Steering Committee) comprised of local community members, Jefferson County Bike Club representatives, Trek Bicycles Corporation employees, and other individuals including UW-Extension and Department of Natural Resources staff. The plan was prepared by Schreiber | Anderson Associates, Madison, Wisconsin.

The planning process began with an inventory of conditions including historical data, field observations (conducted by traveling the planning area), research of local and county planning documents and meetings with the public and government agency staff. Planning and design criteria derived from Wisconsin Bicycle Planning Guidelines, Wisconsin Bicycle Facility Design Handbook, AASHTO Guidelines for Developing Bicycle Facilities, AASHTO Guidelines for the Planning, Design, and Operation Pedestrian Facilities, and The National Bicycling and Walking Study were used as general analysis criteria. In addition, this plan sought to build upon existing prerogatives described in the Jefferson County Bicycleway and Pedestrianway Plan (1996) as well as the Glacial Heritage Area Plan (DNR) and STH 26 Corridor Plan (WisDOT). The following sections describe the public process used to generate the recommendations contained within this plan.

1.2.1 Stakeholders

Jefferson County Bicycle and Pedestrian Plan Steering Committee

Development of this plan began with the formation of the Steering Committee. Membership includes advocates, municipal representatives, recreation groups, private companies, and regional or state agencies. The Steering Committee was the direct oversight authority over creation of this plan and helped to shape its vision and recommendations. The Committee met as needed to discuss progress and to plan implementation strategies. It is strongly recommended that this body remain intact after adoption of this plan to act as a clearinghouse and resource for regional decision making and to help grow mobility options for non-motorized transportation within the Jefferson County area.

Meeting #1

The first meeting of the Steering Committee was February 18, 2009 at Trek Bicycle Corporation in Waterloo. The purpose of this meeting was to introduce the planning process, develop a timeline, and collect pertinent plans, data, and information from participants. Representatives from the following agencies were in attendance: cities of Fort Atkinson, Jefferson, Lake Mills, Johnson Creek, Waterloo, and Watertown; Jefferson County Parks; Jefferson County Bicycle Club; Trek Bicycles; UW-Extension Jefferson County; Wisconsin Department of Natural Resources.

Participants were asked to discuss their organization's progress or aspirations for improving the bicycle and pedestrian network. Data were also collected in the form of completed plans and reports, and some existing bicycle events were discussed to help establish existing conditions for biking in the county.

Meeting #2

The second meeting of the Steering Committee was held June 11, 2009 at Trek Bicycle Corporation in Waterloo. The meeting was used to evaluate the existing conditions document that was created based on the data and discussion from Meeting #1 and the meeting with the Jefferson County Bicycle Club. Data used to generate the maps, including WisDOT traffic counts and crash data from the Bicycle Level of Service map, were discussed in detail to enhance understanding and record concerns.

The meeting was also used to discuss content for the online straw poll survey, and preferred format and venues for the Hopes and Concerns Workshops. Edits and revisions to the planning document and maps (Chapter 2) were made following the meeting.

Meeting #3

The Steering Committee met on January 28, 2010 to review a complete draft of the planning document. The meeting was held at the Jefferson County Courthouse and was attended by eight people. Focus items included discussion of goals and objectives, the priority corridors for implementation in the next 2-3 years, and how to best distill the salient points of the plan in the executive summary.

The overall layout of the plan was discussed with Committee members preferring that the important components of the plan (primary corridors, etc.) are easily locatable. Other items discussed included the redundancy on-street facilities on CTH E between Palmyra and Sullivan with the possibility of an off-road corridor in approximately the same location. The addition of other primary corridors, such as Whitewater to Palmyra (Kettle Moraine) and Fort Atkinson to Dorothy Carnes Park, were also discussed.

Jefferson County Bicycle Club Meeting

A special meeting with the Jefferson County Bicycle Club was held on March 17, 2009 to discuss priority corridors connecting communities, parks, trails, and other destinations and to determine additions needed to improve those connections. The meeting was also used to test the existing "12 Recreational Loop Rides" assembled by Jefferson County Parks, UW-Extension, and the bicycle club.

The segment receiving the highest priority was the Waterloo to Lake Mills connector (CTH O/Airport Road). The second highest rated priority was a connection from CamRock Park (Cambridge) to the Glacial Drumlin State Trail. The preferred connection was along STH 134 to CTH O. Paving shoulders was also discussed along CTH G between USH 12 and STH 89 (Fort Atkinson to Lake Mills) and on CTH B between Lake Mills and Johnson Creek.

Special Meetings

GHA Consistency Assessment

A special meeting to review the GHA Plan for consistency with the Jefferson bicycle route system was held in November 2009. Meeting participants reviewed a composite map of

current Jefferson County Bicycle Routes and Recreation Loops for connectivity with existing and proposed GHA facilities. The analysis revealed most GHA facilities were connected via current Jefferson County Recreation Loops. This prompted attendees to discuss formalizing the Recreation Loops through unique signage and to provide additional wayfinding markers along these loops to GHA facilities and nearby communities.

Outcomes of the exercise revealed a number of priority areas for focusing GHA efforts. These routes, trails, DNR lands, and recreation loops are discussed in greater detail in Chapter 6: Connecting the Network. The intent was to demonstrate the potential connectivity of the current route and recreation loop system and how they integrate with proposed GHA facilities.

1.2.2 Surveys

Online Straw Poll Survey

An online survey was developed to record public opinion concerning key issues and opportunities for walking and bicycling as recreation and transportation alternatives. The survey was also used to test recommendations from the 1996 plan, develop priorities for development of off-road trails in the Glacial Heritage Area, and determine attitudes about walking and bicycling opportunities throughout Jefferson County.

A web link to the survey was distributed to the Jefferson County Bicycle and Pedestrian Plan Steering Committee, and through Trek Bicycle Corporation, and the Jefferson County Bicycle Club. A link was also posted on the home page of the Jefferson County website. The survey was activated in late June 2009 and closed at the end of December 2009. There were 231 responses collected. Summary responses for the entire survey are available for review in Appendix A. General findings are summarized below.

The survey revealed that most respondents lived in Jefferson County (85%) with about half also working in the county (53%). It is important to note that nearly 15% of respondents were retired or were not employed when the survey was recorded. For those who were employed, the survey sought to collect information on commuting preferences. Most workers drove to work alone (71%) while an impressive 29% bicycled. Due to the distribution method of this survey, it is biased toward populations who regularly ride, however, the strong bicycle commuting population helps to demonstrate the overall bikeability of the county especially since only 22% of respondents lived within 4 miles of where they work (target population). The highest percentage of workers (25%) lived between 10 and 20 miles from where they work and an additional 20% lived more than 20 miles away.

Preferred destinations for bicycle trips included parks (89%), shopping centers (62%), and libraries (59%). "Workplaces" drew 55% of the response. Currently, 78% of these respondents reported walking or biking to these destinations. When asked how far they would be willing to walk to bicycle to their destination, the highest percentage (29%) was "5-9 miles". An additional 27% would be willing to travel "between 10-20 miles".

In terms of recreation-based riding, respondents were provided a map of the existing Jefferson County Recreation Loops and asked which loop or area they rode most often. The highest percentages of response were recorded for "Loop 1 – Waterloo/Lake Mills" (30%), "Loop 12 – Glacial Drumlin Trail" (28%), "Loop 5 – Fort Atkinson/Jefferson" (24%), and "Loop 10 – Tour de Fort Glacial River Trail" (16%). Respondents selected the Glacial Drumlin State

Trail most often (60%) when asked which parks/recreation facilities they were most interested in accessing via walking, hiking, or biking.

Over half of respondents did not think there was a safe way to access their preferred local or county park and almost 80% thought that an off-road trail would increase their ability to arrive at that park more safely. Since the Glacial Heritage Area plan identifies a number of park facilities that may eventually be linked by off-road trails, the survey asked respondents to identify which were preferred for implementation as soon as possible. Waterloo to Lake Mills (39%) and Marshall to Waterloo (30%) recorded the highest percentage under “most important”. Important connections were also identified for Cambridge to Glacial Drumlin State Trail (36%) and Kettle Moraine (Palmyra) to Glacial Drumlin State Trail (33%) among others.

Issues affecting respondent’s decision to walk to bicycle included the amount of traffic along the route (77%), speed of traffic along route (67%), distance (58%), and weather (42%). When asked if the decision to walk to bicycle would improve if those issues changed, “amount of traffic along route” received the highest percentage with 91%. The addition of sidewalks or pathways received 81% response.

When asked what methods might be most effective to encourage walking and biking the highest percentage of response was recorded for “maps that identify safe places to walk or bike” (57%), followed by “driver education about how to interact with bicyclists and pedestrians” (48%), and “enforcement of traffic regulations” (44%). Most respondents (79%) strongly agreed that increasing the number of walkers and bicyclists would have positive health impacts.

1.2.3 Hopes and Concerns Workshops

Purpose and Format

Public participation meetings were held in two different locations to ease the transfer of information and increase the ability to interact at the local level with individuals and communities interested or affected by the non-motorized transportation network in Jefferson County.

The purpose of the workshops was to discuss existing bicycle routes, determine preferred destinations for off-road trails, and to explain the planning process. Displays stations were assembled throughout the meeting space to educate and inform attendees. Display stations included:

- Station 1: Registration Center (Comment Sheet and Sign-In)
- Station 2: Information Center (general bicycling information)
- Station 3: Existing Conditions Materials (existing bicycle routes, BLOS, Recreation Loop Rides, etc.)
- Station 4: Sub-Area Maps (county was divided into 8 sub-areas so attendees could record areas of interest or conflict)

A formal presentation was given at the beginning of the meeting to introduce the outcomes of the 1996 plan, discuss the Glacial Heritage Area (GHA) Plan, and explain the types of users and facilities that may be considered as part of the updated plan. Afterward, attendees were asked about their hopes and concerns for the non-motorized transportation system. Users

were provided a variety of recording tools including the sub-area maps, comment sheets, and in Watertown, a group exercise.

Public Notice Process

Notice of the workshops was listed on the final page of the online straw poll (survey) that was disseminated to the Jefferson County Bicycle Club and Trek Employees. The survey is also linked on the homepage of the Jefferson County website. Public notices were sent on July 16th, 23rd, and 27th to the following county newspapers: Watertown Daily Times, Courier, Daily Union, Jefferson County Advertiser, Lake Mills Leader, and Palmyra Enterprise/Whitewater Register. Emails were sent to the Jefferson County Bicycle and Pedestrian Plan Steering Committee, and noticed through the Jefferson County Bicycle Club as well as to employees of Trek Bicycles.

Workshop Outcomes and Meeting Notes

Meeting #1: Watertown

The meeting was held at the Watertown Senior Center located at 514 S. First Street, Watertown, Wisconsin. There were twelve people in attendance. Following the formal presentation, the attendees were asked to present their hopes and concerns for the plan. Hopes were considered to be those things that they would like to see improved, that could be beneficial in the future, or places they would like to access easier. Concerns were considered to be things that attendees would not like to see changed, conditions that could be harmful in the future, or challenges for implementation. The results are shown below.

Hopes	Concerns
Rebuild county highways with wide shoulders	Traditional road design (no new accommodations for bikes/peds)
Complete Streets policies in municipalities	Do facilities recommendations relate to county roads only or local too? Need both.
Enforce policies related to bicycle and pedestrian accommodation	How do we justify the case for wide paved shoulders?
Utilize more consistent curb lane/fog line location on roadways	Where should 4' paved shoulders be applied? It makes sense to put them in some places (urban escape routes).
Improve off-road facilities (connections and destinations)	Current bicycle and pedestrian policies have no teeth, are not followed. What will change?
Improve education for both bicyclists and motorists	How will cars react to more bikes/peds?

One bicycle route linkage that was identified during the workshop includes an off-road facility that would link Fort Atkinson to Lake Mills. Route options should include a connection to Sandhill Station Campground. CTH G currently provides the most direct on-street connection. A second connection identified was one that would accommodate north/south movement through the rural hamlets of Farmington and Rome (via S. Farmington Road/Cushman Road, others). Waterloo to Lake Mills is also a highly desirable connection.

Other notes:

- CTH D is being repaved this year (no additional bicycle accommodations)

- CTH SC is currently recommended to receive wide paved shoulders
- STH 26 multiuse trail has a couple of problem spots (Airport Road, potential bypass, etc.)
- Parks are great destinations; Aztalan is a great destination to highlight
- Signage that conveys information about destinations would be appreciated. For example, bicyclists who are out on long tours need to know where water is located. Some attendees thought an information panel labeled “water” on a bicycle route sign assembly would be helpful (bathrooms too).
- South of Sullivan there is a historical marker
- Tyrannena Brewery is a destination

Meeting #2: Fort Atkinson

The meeting was held at the Fort Atkinson Senior Center located at 307 Robert Street, Fort Atkinson, Wisconsin. There were four people in attendance. Following the formal presentation, the attendees were asked to discuss the sub-area maps and delineate preferred routes and destinations.

The primary off-road corridor that needs to be identified in the plan update is the connection from Waterloo to Lake Mills. This would link Waterloo (including Trek Bicycle headquarters) with the Glacial Drumlin Trail and other area amenities (like Aztalan State Park).

A secondary need that was identified was finishing the Glacial River Trail from Fort Atkinson south the county boarder. Currently, the paved area ends short of the county line and is treated as a barrier by many trail users. There is also a covered bridge in this location that is a scenic destination.

Key destinations identified include Berres Brothers Coffee (Watertown), Jelli’s Market (south of Farmington), Aztalan State Park, a bakery in Cambridge, coffee shops in Whitewater.

Other notes:

- Fort Atkinson
 - o Robert Street bridge is a problem (if solved a park on both sides offers good accommodation for visitors). A facility along STH 106 is preferred, but may be tricky due to historic and archaeological limitations. Preferred facility goes through Rock River Park.
 - o Lexington (to High School) has multiuse trail mapped. Opportunity to work with the school district to increase off-road trail network.
 - o Good SRTS candidate
 - o Madison Avenue is also tricky for bikes
- Off-road trails need to include Watertown to Lake Mills. Madison Audubon Society owns large parcels of land in this region. Also, ATC is putting a powerline through the region, there may be an opportunity for trail development (such as with Capital City Trail in Dane County).
- CTH E from Palmyra to Sullivan has a wide paved shoulder (good facility)
- Oconomowoc to Watertown – there is an existing ROW easement here
- Recreational loops would be improved if each started and ended inside an incorporated community

Hopes and Concerns Workshops Map

The map generated during the workshops is available in Appendix B. It delineates popular or preferred road segments that may or may not be part of the existing countywide bike route network. The map also shows approximate locations of any points of interest that may be valuable for cyclists along their journey such as recreation or shopping opportunities. Priority connections are also shown in locations where an off-road trail or formalized on-street facility is preferred.

1.2.4 Municipality Workshop***Purpose and Format***

On October 27, 2009 a joint meeting was held with incorporated communities that had a local improvements map generated in the 1996 Plan. The purpose of the meeting was to answer any questions about how to update individual community maps, and to share implementation that has already occurred.

In attendance were representatives from Jefferson County (Parks Department, Highway Department), Whitewater Parks and Recreation, Watertown Parks and Recreation, Jefferson Parks and Recreation, Johnson Creek, and Palmyra. Attendees reviewed comprehensive land use plans, outdoor plans, and the previous bicycle and pedestrian plans and were asked to identify completed facilities and any additional facilities plans.

In subsequent weeks, the maps and tables were updated, in some cases field checked, and then resubmitted to each community for review and comment. The results are discussed in greater detail in Chapter 5: County and Local Bike Routes.

2 CURRENT CONDITIONS INVENTORY

The inventory and analysis of factors affecting bicycle and pedestrian transportation include an assessment of bicycle and pedestrian access, population and transportation patterns, existing bicycle and pedestrian facilities, level of service, and a review of state and local ordinances and plans.

2.1 Assessment of Bicycle and Pedestrian Friendliness

2.1.2 Street and Highway System Access

Jefferson County urbanized areas connect to each other and to surrounding rural areas by a system of state and county highways. For motorized vehicles, I-94 provides the primary east-west route through the County with state highways 19, 16, 106, and 59 providing additional lateral movement. USH 18 and USH 12 also provide direct access to a variety of incorporated communities. North-south travel is primarily accommodated on state highways 89 and 26 and county highways enhance motor vehicle mobility throughout the region.

Bicycle and pedestrian travel are prohibited on Interstate I-94, and many state highways include high traffic volumes, vehicle speeds, and heavy-vehicle traffic which can decrease comfort for bicyclists and pedestrians. The county highway system is a primary linkage between many communities within Jefferson County and generally provides a higher level of bicycle accommodation, primarily due to reduced vehicle volumes.

2.1.3 Bicycle and Pedestrian System Access

This section includes a discussion on the importance of connectivity of transportation facilities, identifying origin/destination points, and understanding the function of bicycles and pedestrian facilities for both transportation and recreation.

Connectivity

The importance of connectivity cannot be understated. If a segment of road, trail, or sidewalk does not link a user's origin with their intended destination it may not be a viable transportation option for that trip. However, if linkages are available from this segment to other segments, facilities, or destinations, then the whole system is improved. For example, many bicycle commuters will use a series of on-road facilities (e.g. bike lanes), off-road facilities (shared use trails), and other connections (local paths to buildings or structures) during a typical trip. Ensuring these facilities are "connected" in some way increases the likelihood they will be considered for regular transportation.

Within Jefferson County there are a variety of trails, such as the Glacial Drumlin Trail and the Glacial River Recreation Trail, that provide important linkages between commercial centers, recreation areas, and environmental resources. Enhancing the usability of existing trails by increasing the number of connections to priority destinations is vital to creating a more bicycle and pedestrian friendly transportation system.

Intergovernmental linkages are just as important. Census 2000 indicates 82 percent of workers who reside within Jefferson County also work within the county. Connections between places of residence to places of employment are integral to increasing mode share. Often, bicycle commuters who reside in rural areas use county highways to access the urban

transportation network. Providing safe and adequate facilities along these “urban escape routes” creates opportunities for commuters who want to bike to work the opportunity to do so. Similarly, connections to area trails can increase comfort levels for bicyclists of all abilities.

Transportation v. Recreation Function

In terms of federally funded transportation projects, there is a restriction in 23 U.S.C. 217(i) that a bicycle project must be principally for transportation, rather than recreation, purposes.

A facility serves a transportation purpose when it is used to get people from Point A to Point B, and could likely substitute for motor vehicle trips. Recreation trips also may occur on the same facility.

A facility is a recreation facility when the primary purpose is to use the facility itself. For example, a backcountry hiking trail is a recreational facility because its intent is not transportation. Similarly, most mountain biking trails are recreation trails, not transportation facilities. A great majority of the trails, routes, and facilities in Jefferson County are recreation or tourism facilities that also serve a transportation function.

Origins and Destinations

Generally, motorized and non-motorized transportation users share similar origins and destinations - but use different modes to accomplish their goal of arriving at a destination safely and efficiently. Arterial and collector roads that effectively deliver many motorists also provide the most direct and continuous routes for many bicyclists. These systems, however, are not always designed to accommodate the special needs of the average bicyclist. When roadway conditions are unsuitable for bicyclists, infrastructure design treatments may be used to improve the roadway or an alternative corridor may be selected.

Potential use patterns are not always reflected by the existing transportation system, but can be estimated by locating trip generators (origins and destinations) and projecting areas of population growth and future land use patterns.

Generally speaking, people are less willing to commute to work by bicycling and walking if the travel time is more than 20 minutes. Directness of the route, physical condition of the bicyclist, number of stops and availability and proximity of parking facilities will affect how far one is able to cycle in 20 minutes. The average adult cyclist commonly travels 3 to 4 miles in 20 minutes.

From a bicyclist's standpoint, this 3-4 mile trip defines the service area of each destination and helps to define commuting use patterns. Recreational riders will ride much farther in a day - trips of 30 to 40 miles are not unusual and tours of 80 to 100 miles are offered regularly during the biking season in Wisconsin. Fitness riders and bike racers will travel 30 to 50 miles in a typical training ride.

At the regional level, other communities and major recreational destinations are the prime trip generators. Within the urban and suburban areas, these destinations also include local shopping, employment, government centers, schools, or park and recreation facilities.

2.2 Community and User Characteristics

This section includes Census 2000 data related to walking and biking in Jefferson County. It should be noted that most of these data are derived from the “long-form” which was randomly distributed to 1 in 6 households and while this should not skew results, the time of enumeration may have an impact. The Census is recorded in March making conditions in north central Wisconsin less than ideal for biking and walking. These data should be used to establish a baseline of users in the planning area, to compare to other communities, and to reserve for evaluation against the next Census (2010).

2.2.1 Socioeconomic Data (2000)

This analysis is based on the information gathered by the U.S. Census Bureau in 2000. As such, it's quite dated and should be used for comparative purposes only.

Population

In 2000, Jefferson County included approximately 80,792 people and 33,991 households. The area has continued to grow over the past couple decades, increasing in population by two percent between 1980 and 1990 and eight percent between 1990 and 2000. In the early part of the decade, Jefferson County reported a continued growth in new housing starts, which suggests that the area has continued to grow in population since 2000. This anecdotal evidence is substantiated by January 2008 Annual Estimates of Housing Units for Counties developed by Wisconsin Department of Administration. The estimates show a 14% increase (4,165 units) between 2000 and 2008 in Jefferson County. During this same time, population in the County increased by almost seven percent from 75,767 in 2000 to an estimated 81,022 in 2008.

Table 2.2.1a: Jefferson County Municipal Populations 1990-2008

Municipality	1990	2000	2008 est.	% Change 2000-2008
C. Waterloo	3,047	3,259	3,352	2.9%
C. Watertown	21,006	21,598	23,163	7.2%
C. Lake Mills	4,655	4,843	5,389	11.3%
C. Jefferson	6,962	7,208	7,777	7.9%
C. Fort Atkinson	11,163	11,621	12,130	4.4%
C. Whitewater	13,569	13,437	14,110	5.0%
V. Johnson Creek	1,633	1,581	2,122	34.2%
V. Palmyra	1,686	1,766	1,782	0.9%
T. Sullivan	2,060	2,124	2,244	5.6%

Source: U.S. Census Bureau, Wisconsin DOA

Households

In the Jefferson County, the average household size in 2000 was 2.55 persons per household. However, average household size can vary significantly by neighborhood. Household size can also change over time. Over the last several decades, average household size has decreased dramatically, due to people having fewer children, people waiting longer to have children, more single-parent families, more older people living alone, and rising incomes which allow persons to afford to live alone.

Income

The following table demonstrates the median income generated by individual people, families, and households by municipality. Although median household income is higher in Jefferson County overall than the state, it is slightly lower in median family income and per capita income. Differences between the municipalities listed vary widely.

Three income means are considered:

- ✓ The median divides the total frequency distribution into two equal parts: one-half of the cases fall below the median and one-half of the cases exceed the median.
- ✓ Median Household Income is the average income for a household, which includes all the people who occupy a housing unit as their usual place of residence.
- ✓ Median Family Income is the average income of a group of two or more people who reside together and who are related by birth, marriage, or adoption.
- ✓ Per Capita Income is an average obtained by dividing aggregate income by total population of an area.

Table 2.2.1b: Municipal Income Estimates 2000

Municipality	Median Household Income	Median Family Income	Per Capita Income
C. Waterloo	\$49,221	\$56,027	\$22,099
C. Watertown	\$42,562	\$50,686	\$18,977
C. Lake Mills	\$44,132	\$54,131	\$21,929
C. Jefferson	\$40,962	\$47,373	\$19,124
C. Fort Atkinson	\$43,807	\$51,689	\$21,008
C. Whitewater	\$31,739	\$48,185	\$13,965
V. Johnson Creek	\$45,964	\$49,348	\$19,671
V. Palmyra	\$45,521	\$50,192	\$19,849
T. Sullivan	\$43,229	\$50,833	\$24,621
County	\$46,901	\$52,632	\$21,236
State	\$45,349	\$66,725	\$21,271
Source: U.S. Census Bureau			

2.2.2 Travel to Work

Means of Travel

This table reflects how workers aged 16 years or older in Jefferson County get to work on a daily basis compared to state and national figures for same. These data show that marginally more Jefferson County workers drove alone (81%) in 2000 to get to work than did others in the state (80%) or nation (76%). The mean travel time to work was reported to be 21 minutes. A greater percentage of Jefferson County workers biked to work than in the state or nation, if only slightly.

Table 2.2.2a: Means of Travel to Work for Workers 16 Years or Older (2000)

2000 Bureau of Census Data	United States		Wisconsin		Jefferson County	
<i>Means of Travel to Work</i>	Number	Percent	Number	Percent	Number	Percent
Total Population 16 and over	128,279,228		2,690,704		39,264	
Drove Alone	97,102,050	75.7	2,138,832	79.5	31,679	80.7
Bicycled	488,497	0.4	11,635	0.4	323	0.8
Walked	3,758,982	2.9	100,301	3.7	1,412	3.6

Source: U.S. Census Bureau

Journey to Work

These data represent County-to-County worker flows from the Census 2000 Journey to Work files. Roughly 59% of working Jefferson County residents reported traveling less than 20 minutes to work and nearly 74% reported less than a 30 minute commute. A vast majority (82%) of residents who live in Jefferson County also work in Jefferson County. Of the remaining counties listed, Waukesha County has the highest percentage of workers with 9% (3,997).

Table 2.2.2b: Journey to Work from Jefferson County to Place of Employment (2000)

Place of Employment	Jefferson Co. residents commuting to listed county	Residents of listed county commuting into Jefferson Co.	Net gain or loss of workers
Waukesha County	5,407	1,410	-3,997
Dane County	3,971	1,901	-2,070
Walworth County	1,830	1,087	-743
Dodge County	1,491	4,021	2,530
Milwaukee County	1,281	483	-798
Rock County	734	1,262	528
Washington County	152	115	-37
Racine County	100	72	-28
Columbia County	53	211	158
Kenosha County	52	16	-36
Elsewhere	429	692	263

Source: U.S. Census Bureau

2.2.3 Land Use

The importance between land use and transportation should not be underestimated. Land use patterns and development decisions are often seen as controlled solely by market forces, leaving public agencies to respond to the transportation demand created in their wake. However, public land use policies directly affect private land use decisions such as zoning regulations and minimum parking requirements. Therefore, land use policies need to be

considered in relation to the impact of transportation just as transportation policies need to be considered in relation to land use.

Transportation systems and land use patterns have a well-documented reciprocal relationship. As communities have grown, the demands for transportation system improvements have also grown. However, these transportation improvements have also provided more convenient access to undeveloped land farther away from city centers. More than any other transportation system, it has been the road network and the prevalence of the automobile that has impacted land use patterns over the past half-century.

Notable land use patterns or issues for Jefferson County include:

- East/West Travel Barrier: the Crawfish and Rock rivers split the county and pose crossing issues.
- North/South Travel Barrier: I-94 bisects Jefferson County limiting existing and potential crossings for bicycle routes.
- Development is often not contiguous; in general, municipalities have distinct edges which divide urban and rural transportation amenities. This was done to preserve unique community identities, but as a result urban facilities including sidewalks and curb lanes terminate outside of the urbanized area. Fort Atkinson was identified as a community that has good transitions between the urbanized area and rural roads.
- Development as it exists today directly corresponds to the highway system.

2.3 Inventory and Assessment of Existing Facilities

All maps in Appendix B.

2.3.1 Existing Bicycle Routes

Most roadways, aside from the busiest state highways, in Jefferson County are suitable for shared bicycle and motor vehicle use. Designated bicycle routes are marked with Jefferson County Bike Route Signs (see Figure 2.3.1) and provide connections between communities, recreational trail networks and open spaces. Although the existing bicycle route network is reasonably complete, there are gaps in the system that prevent easy access to some wildlife areas, parks and neighboring communities. See Map B-2.

2.3.2 Priority Corridors and Loop Rides

The Jefferson County Parks Department and the University of Wisconsin-Extension Jefferson County office provide a guide to 12 recreational bicycle loop rides within the county. Materials for the loop ride guide were developed in 1999 by Bicycles &, Inc., The Jefferson County Land Information Office and The Tour de Fort Bicycle Club. The loop rides, which vary in distance from approximately 16 to

Figure 2.3.1



Jefferson County Bike Route signage includes a unique route display panel.

37 miles, are routed along a variety of trails, local roads, state and county highways. See Map B-3.

In March 2009, the Jefferson County Bike Club met to review and discuss route effectiveness, connectivity to centers of activity, desirability, and safety of the loop rides. The Bike Club did not offer any modifications to the loop rides as they are currently mapped and the discussion focused on identifying priority corridors within the county. The 11 Priority Corridors were delineated with the goal of creating better connections to urbanized areas and strengthen connections to parks and open spaces. This map was used to develop recommendations in Chapter 5. See Map B-4.

2.3.3 Crash Data and AADT

Crash data for county roadways confirm 10 crash events involving motor vehicles and bicyclists from 2003-2008. All crashes appear to be caused by operator error or failure to observe traffic regulations by both motor vehicle operators and bicyclists. Injuries resulted in all events and a total of 6 citations were issued. See Map B-5.

Table 2.3.3: Crash Events in Jefferson County (Bicycles) 2003-2008

Date	Crash Location	Description
5/23/03	CTH D	Car mirror struck cyclist
8/28/03	CTH P & Ranch Rd	Cyclist ran stop sign at Ranch Rd and struck by car
6/30/04	CTH S	Car turned left in front of cyclist causing cyclist to strike car
6/21/06	Aspen Dr	Child on bicycle darted out in front of car
9/15/06	Shorewood Hills Rd & CTH B	Car turned left in front of group of cyclists striking one cyclist who collided with car
5/23/07	CTH Y	Car parked in lot struck by bicycle
8/4/07	Koshkonong Mounds Rd & Old Hwy 26	Cyclist on bike path did not stop at Old Hwy 26 and was struck a car
6/25/08	CTH F & Stephan Ln	Child on bicycle darted out in front of car
6/28/08	CTH A & Crossman Rd	Car overtaking cyclist struck cyclist while cyclist turning left
10/14/08	CTH B & Gomoll Rd	Truck mirror struck cyclist

Source: Jefferson County Sheriff's Dept.

Annual Average Daily Traffic (AADT) for Jefferson County highways is shown on Map 4. AADT is a useful and simple measurement of how much traffic a particular roadway receives and can be helpful in verifying anecdotal evidence as to the safety of certain routes.

2.3.4 Bicycle Level of Service

Bicycle Level of Service (BLOS) is a standard for quantifying the bike-friendliness of a roadway. The level of service rating, used for on-road facilities only, indicates bicyclist level of comfort with specific traffic conditions and roadway geometries. BLOS evaluation can be useful in determining the most appropriate routes, finding priority areas for roadway improvement, and evaluating the use of alternate traffic control treatments.

The League of Illinois Bicyclists has an online BLOS calculator that was utilized for this report. The BLOS Calculator uses the following data to determine a level of service rating.

- Number of through lanes per direction
- Width (in feet) of outside lane
- Width (in feet) of paved shoulder (state highways only)
- Bi-directional Traffic Volume in AADT
- Posted speed limit in mph
- Percentage of heavy vehicles (see sidebar)
- Pavement condition ratings (PASER and PDI)
- Presence of residential zoning

Jefferson County provided pavement width, traffic volume and pavement rating data. The number of through lanes was determined by dividing the total roadway width by typical lane widths (ie. 12 feet). Jefferson County pavement rating data was provided on a scale of 1-10 and required modification in order to be used in the BLOS calculator, which uses a scale of 1-5. State highway pavement condition ranking is based on the Pavement Distress Index (PDI), which ranks pavement quality from 0 (perfect) to 100 (gravel). The PDI ranking was also adapted to a 1-5 scale in order to work with the BLOS calculator. Speed limits for most roadways were obtained from Jefferson County ordinances and the remaining roadways in rural areas were assumed to have a speed limit of 55 mph. The percentage of heavy vehicles was assumed to be 2% (the BLOS calculator default) and, although some portions of roadway in the study area do have segments of narrow paved shoulder, the majority of roadway shoulders are unpaved and were calculated as such. On-street parking facilities do not exist on the study area roadways and residential areas are generally not found along these routes.

The BLOS calculator produces both a numerical score and an alphabetical level of service rating based on a range of scores. According to Ed Barsotti, creator of the League of Illinois Bicyclists BLOS Calculator, most experienced cyclists feel comfortable on roads with a “C” rating or better and will ride on many “D” rated roadways. In comparison, casual cyclists prefer to ride only on “B” or better roads. See Table 1 below for BLOS Score Ranges, Level of Service ratings and Compatibility Levels. Results shown on Map B-6.

Table 2.3.4: BLOS Rankings

BLOS Score Range	Level of Service	Compatibility Level
<1.50	A	Extremely High
1.51-2.50	B	Very High
2.51-3.50	C	Moderately High

Sidebar: Heavy Vehicles



Due to the lack of data for the percentage of heavy vehicles the default value was used on all roadways except state highways (where data were available.) This seems to have greatly decreased the level of service on state highways. However, since heavy vehicles are often encouraged or legislated to use state highways, the low bicycle level of service (BLOS) is acceptable and expected.

3.51-4.50	D	Moderately Low
4.51-5.50	E	Very Low
>5.50	F	Extremely Low

Map B-7 is a composite map that overlays the BLOS results on top of current Jefferson County Bike Routes. Overall, the system is primarily rated “C” Moderately High Level of Service. There are a few “D” Moderately Low rated roadways, and one “E” Extremely Low segment of STH 59 between Whitewater and Palmyra.

2.3.5 Walking Conditions

Walking as Transportation

Walking is often overlooked and undervalued as a transportation mode. Yet, everyone is a pedestrian at some point in his or her trip, whether it is walking to the parking lot, a bus stop, or to work from home. The most common pedestrian facilities people think of are sidewalks. Other facilities include pedestrian ramps, pedestrian islands (i.e. road medians), crosswalks and pedestrian signals. Where sidewalks are not available, roads and/or road shoulders provide the public right-of-way for pedestrians. However, what constitutes a “pedestrian-friendly” or “walkable” neighborhood or business district is much more than merely having the aforementioned facilities in place.

A walkable or pedestrian-friendly community is one that provides a comfortable and safe environment for pedestrians. Having sidewalks certainly is one part of the equation; however, other amenities such as street trees, pedestrian-scale lighting, street furniture and boulevard space separating vehicle traffic lanes from sidewalks are also important. In the Jefferson County snow is another important consideration.

The quick and effective removal of snow on sidewalk and shared-use trail facilities has a major effect on the usability of those facilities. All sidewalks are required to be cleared within a certain timeframe from the snowfall (varies by community, many are 24 hours), however the maintenance of many of these facilities falls on the homeowner and work schedules, vacations, and the physical abilities of the resident can make for inconsistent snow removal. Shared-use facilities are maintained in selected areas as budgets dictate, or, as appropriate if also utilized for a range of activities including skiing.

Another important element of walkable communities is having something to walk to. Destinations, such as commercial areas, parks, churches, and schools, need to be within walking distance and accessible if walking is going to be a serious transportation alternative. The scale and interest of buildings can add or detract from the pedestrian experience. Studies have also found that pedestrians like company and seeing other pedestrians increases one’s comfort level and sense of safety and security.

Neighborhoods constructed prior to World War II generally included sidewalks. Post war era neighborhoods tended to be built without sidewalks. Retrofitting areas with sidewalks is often controversial given cost and funding issues (i.e. who should pay).

Many trails proposed for development as part of the Glacial Heritage Area (GHA) are suitable for, or reserved for pedestrian activity. The GHA Plan proposes a wide range of hiking experiences from fully developed, handicap-accessible trails to remote areas without any improved paths. There are also over 100 miles of proposed multiuse/biking trails.

Safe Routes to School

Safe Routes to School planning is necessitated by a number of factors. Chief among them are health and safety concerns for children. The National Highway Traffic Safety Administration (NHTSA) determined in 1998 that motor vehicle injury is the leading cause of death for children aged two to eighteen. Recent studies also report the incidence of childhood asthma continues to escalate due in part to exacerbated air pollutants caused by a number of sources including automobile emissions. Childhood obesity rates are also increasing and today one in four kids are overweight and at higher risk for chronic conditions such as diabetes.

In response to these and other deleterious health conditions and statistics, the Safe Routes to School model has been developed to increase the number of kids walking and biking to school safely. Doing so also provides noteworthy ancillary benefits. For one, increasing the number of children who walk or ride bikes to school can lessen the amount of traffic congestion on local roadways. A recent NHTSA statistic reports between 20-25 percent of morning rush-hour traffic may be parents driving kids to school. At the same time, school districts are facing decreased budgets and rising gas prices. In fact, the National Center for Education Statistics reports school bus transportation is frequently the second largest budget item for school districts after salaries. In light of these and other conditions, Safe Routes to School planning makes good sense in any community working to increase the livability and sustainability of their neighborhoods.

The Safe Routes to School initiative is centered around five core areas, called “The Five E’s”. They include Engineering, Enforcement, Education, Encouragement, and Evaluation.

- Engineering is a broad concept used to describe the design, implementation, operation, and maintenance of traffic control devices or physical measures. It is one of the complementary strategies of SRTS, because engineering alone cannot produce safer routes to school.
- Enforcement includes policies that address safety issues such as speeding or illegal turning, but also includes getting community members to work together to promote safe walking, bicycling, and driving.
- Education includes identifying safe routes, teaching students to look both ways at intersections, and how to handle potentially dangerous situations. This strategy is closely tied to Encouragement strategies.
- Encouragement combines the results of the other “E’s” to improve knowledge, facilities and enforcement to encourage more students to walk or ride safely to school. Most importantly, encouragement activities build interest and enthusiasm. Programs may include “Walk to School Days” or “Mileage Clubs and Contests” with awards to motivate students.
- Evaluation involves monitoring outcomes and documenting trends through data collection before and after SRTS activities. Surveys and audits can help provide quantitative support for improvements brought about through SRTS programming.

From 2005-2009, the Wisconsin Department of Transportation administered a federal grant program (SAFETEA-LU) to qualified communities that demonstrated a need for bicycle and pedestrian safety improvements for students. To date, planning or infrastructure improvement grants have not been awarded to any Jefferson County communities. Reauthorization of SRTS

funding is anticipated for an additional five-year period starting in 2010.

2.4 Bicycle and Pedestrian Statutes and Ordinances

In the 1960's, the national Institute of Transportation Engineers produced a publication titled -- *Recommended Practice for Subdivision Streets*. This publication contained a set of recommended standards for residential street design. These included: a 60 foot ROW; 32-34 feet of pavement; a 6-7 foot planting strip; and a 5 foot sidewalk on both sides of the street. Typical front yard setbacks were set at 40-60 feet. These standards have been widely used as the basis for many of today's subdivision regulations.

Many modern subdivisions continue to build the right-of-way for motorized transportation at the expense of walking or biking. Wide, curvilinear streets are thought to be appealing by many developers engaged in designing new housing projects and sidewalks are included as an afterthought, if at all. Unfortunately, it isn't until after these neighborhoods are built that residents begin to question street width and speeding that comes with wide lanes, and the lack of pedestrian facilities such as sidewalks.

In response to traffic congestion and neighborhood concerns, many planners and engineers are looking to the past for answers. A key component of neo-traditional neighborhoods is creating neighborhoods where people enjoy walking. The minimum requirement is to provide sidewalks and safe street crossings. However, providing shade trees, planter strips, landscaping, benches, and other amenities can make an enormous qualitative difference in the pedestrian environment. Similarly, bicycle facilities can greatly enhance the usability of a transportation network. The best strategy for accommodating bicycle trips is to provide adequate on-street bicycle accommodations and to educate the driving public on the need to share the road with bicyclists.

Wisconsin Statutes

The State of Wisconsin does not require municipalities to provide sidewalk facilities, but does require clearing of sidewalks after snow conditions. Statutes are written to provide guidance for the use and enforcement of rules governing pedestrian activities and facilities. Likewise, rules for bicycles regulate the proper use of facilities including roadways. Local communities are provided a great deal of discretion in the placement and usage of bicycle and pedestrian facilities under state law.

Jefferson County Subdivision Code

The Jefferson County Land Division and Subdivision Ordinance (Chapter 15) does not include regulations for the development of sidewalk facilities or multi-use paths. This is not uncommon for county ordinances since they control for development in unincorporated areas that often do not supply the density required to necessitate sidewalks. Still, if the county develops standards for a "traditional neighborhood development" or "conservation development" that may contain higher densities, standards for pedestrian and bicycle transportation should be included.

2.5 Existing Plans

Glacial Heritage Area Plan (2006)

The Glacial Heritage Area (GHA) provides the foundation upon which recreation and transportation planning in the Jefferson County Bikeway and Pedestrianway Plan can be based. Specifically, identifying connections between the communities and recreation areas within the GHA will be the primary goal of the Jefferson County Bikeway / Pedestrianway Plan Update. The Wisconsin Department of Natural Resources (WDNR) has established the GHA as a coordinated network of parks, farmland, recreation areas, and open spaces to be connected by transportation corridors in a “strings and pearls” approach. The open spaces and recreation areas, located primarily in Jefferson County, represent the “pearls” that attract visitors, while the highways, roads, and multi-use paths compose the “strings” connecting the pearls, allowing access for visitors.

One of the primary goals of the GHA is to provide land uses for the variety of recreation and environmental-based needs of the community. Planning for a network of open spaces allows for the provision of amenities for a variety of recreational opportunities, including hiking, camping, hunting, wildlife watching, horse riding, and bike riding. In addition, the network approach to planning in the GHA improves the ability to protect and restore native savanna, woodland, and wetland habitats and improve the water quality in lakes, wetlands, and rivers. The GHA also seeks to protect and enhance the cultural and historical resources of the area and promote them as another asset to regional tourism efforts.

A secondary goal of the GHA is to collaborate with the farming community to maintain a network of working farms that enhance the open landscape that the plan intends to create.

Many of the “pearls” composing the GHA are already in place and include 11 State Wildlife Areas, 12 State Natural Areas, numerous county parks, and several privately-owned parcels. A variety of “strings” are also in place, including the Glacial Drumlin Trail, the Glacial River Trail, and numerous local roads and county highways suitable for cycling. See “Glacial Heritage Area – Proposed Plan” in Appendix B.

Highway 26 Bike Route Planning Study (2005)

Wisconsin State Highway 26 runs through Dodge, Jefferson, and Rock counties and provides important connections between communities and major highways along that stretch. The 48-mile section of Highway 26 between Janesville and Watertown received additional attention and is targeted for expansion from two lanes to four lanes between 2009 and 2015.

As part of the Highway 26 expansion study, the Wisconsin Department of Transportation (WisDOT) also examined the bicycle connections between communities and amenities along the corridor. The resulting Highway 26 Bike Route Planning Study proposed routes paralleling Highway 26 that would be suitable for bicycle travel, which consisted of on-street routes, as well as separated facilities. While some of the current roads and highways that parallel Highway 26 are suitable for bicycle travel, there is demand for a separated facility, as evidenced by staff support and resolutions in support of such a facility from 6 local governments, as well as the Jefferson County Economic Development Consortium.

The goal of connecting communities along the Highway 26 corridor for purposes of recreation and transportation is apparent as inter-city routes are the basis for examining bicycle conditions. The Jefferson County area is broken into three separate corridors:

1. Fort Atkinson to Jefferson
2. Jefferson to Johnson Creek
3. Johnson Creek to Watertown

A separate bicycle facility along State Highway 26 is favored by local officials. Separate from that recommendation, however, the proposed routes along each segment include combinations of the following streets and highways.

Corridor 1. Fort Atkinson to Jefferson Potential Routes

- a. County Highway K
- b. Business Highway 26
- c. State Highway 89
- d. County Highway W

Corridor 2. Jefferson to Johnson Creek Potential Routes

- e. Dewey Road
- f. Junction Road
- g. County Highway Y
- h. County Highway N
- i. County Highway B
- j. Rock River Corridor Multi-use Path
- k. Watertown Road
- l. Jefferson Road
- m. Other local roads constructed as part of the State Highway 26 improvement project

Corridor 3. Johnson Creek to Watertown

- n. Dewey Road
- o. Junction Road
- p. Marsh Road
- q. Switzke Road
- r. Airport Road
- s. County Highway B

City of Fort Atkinson Comprehensive Plan (2008)

The City of Fort Atkinson developed a comprehensive plan in 2008 to guide its growth for the next twenty years and to ensure that its citizens have a role in the development of their community. The plan addresses a number of key topics, including the following:

- Identification of areas appropriate for development and preservation
- Recommendations regarding appropriate types of land use for specific areas
- Preservation of natural and agricultural resources
- Identification of transportation and community facilities to serve future land uses
- Direction of housing and economic investments
- Provision of detailed strategies to implement plan recommendations

The plan also provides a vision for Fort Atkinson for the year 2030 highlighted by the following statement. “Fort Atkinson will be a healthy, dynamic community characterized by sustainable housing, employment, entertainment, and educational opportunities.” In addition to providing a vision for the city, the plan is also intended to serve as an action-oriented implementation plan, with lists of goals, objectives, policies, programs, and recommendations to reach the vision.

The chapter of the plan dedicated to transportation thoroughly addresses bicycle and pedestrian travel goals and requirements. One of the four primary transportation goals for the City is to “enhance citizen mobility and promote biking and walking through the development of new multi-use trails and the promotion of compact, mixed use development patterns.” In addition, the City’s primary transportation goal reveals that the City is focused on providing a complete transportation system that addresses the needs of all users. Several objectives have been established to support the goal of providing a multi-modal transportation system, with an emphasis on bicyclists and pedestrians.

- Maintain and require an interconnected road, pedestrian, and bike network.
- Discourage high traffic volumes and speeds in existing and proposed residential neighborhoods.
- Encourage new development designs that support a range of transportation options, including biking and walking.
- Plan for an interconnected network of sidewalks and bicycle routes in and around Fort Atkinson.

City of Jefferson Comprehensive Plan (2008)

As part of a county-wide planning effort, the City of Jefferson developed a comprehensive plan in 2008 to guide its growth for the next twenty years and to ensure that its citizens have a role in the development of their community. Through the planning process and much citizen input, the City of Jefferson determined its vision was to “preserve the ‘small town’ lifestyle within the City through careful planning, design, and placement of land uses; appropriate non-residential development that compliments existing uses; community-sensitive regional transportation solutions; and intergovernmental cooperation to manage growth.” The goals devised to support the overall vision address issues, such as environmental quality, housing, land use, and economic development. In terms of transportation, the City of Jefferson’s goal is to “provide a safe and efficient transportation system that meets the needs of multiple users and minimizes the impacts on landowners and farming.”

Implicit in the City’s transportation goal is the desire to accommodate bicyclists and pedestrians, as evidenced by the facilities and goals addressed in the Transportation element of the Comprehensive Plan. The City is very near the Glacial Drumlin State Trail and is making efforts to acquire the land necessary to complete a missing segment of the trail adjacent to the City. The City of Jefferson provides two primary transportation goals in its comprehensive plan.

1. Provide a safe, efficient transportation system that serves multiple users.
2. Develop and maintain a comprehensive system of bicycle and pedestrian facilities in the Jefferson area.

Specific programs and recommendations from the City of Jefferson Comprehensive Plan related to bicycle and pedestrian facilities include:

- Bicycle and sidewalk facilities should be integrated into public street improvements whenever possible.
- Off-street facilities should be pursued in conjunction with public and private partners whenever possible.

The City's comprehensive plan also inventories the community's current and future bicycle and pedestrian facilities, highlighted by the two pedestrian bridges over the Rock River, as well as the nearby Glacial Drumlin State Trail, which runs just north of the City limits. The Glacial Drumlin trail has a missing link just north of the City of Jefferson and the City is working to acquire the land necessary to complete the trail. Proposed facilities include multi-use paths along both sides of the Rock River from Puerner Street to Main Street and a pedestrian bridge over the Rock River at Jackson Avenue.

Village of Johnson Creek Comprehensive Plan (2008)

As part of a county-wide planning effort, the Village of Johnson Creek developed a comprehensive plan in 2008 to guide its growth for the next twenty years and to ensure that its citizens have a role in the development of their community. The plan lays out the community's vision for the year 2030, which includes broad statements regarding land use, quality of life, transportation, and environmental resources. Overall, the vision carries a strong commitment to balancing economic development needs with quality of life considerations. Planning goals were also devised for each of the areas addressed in the vision statement. Of particular interest, the bicycle and pedestrian transportation goal for the Village of Johnson Creek is to "develop and maintain a comprehensive system of bicycle and pedestrian facilities in and around the Village to encourage alternative transportation and a healthy, active lifestyle."

Primary recommendations from the Transportation element of the Johnson Creek Comprehensive Plan include the following:

- Continue to make enhancements to the Village's bike and pedestrian facilities, including trails, bike lanes, and sidewalks.
- Continue to utilize the Village's 5-year CIP and Official Map to plan for updates to the transportation network.

The Village of Johnson Creek, like the City of Jefferson, is located very near the Glacial Drumlin State Trail. Unlike other communities in the county, however, Johnson Creek has a system of bicycle facilities which includes bicycle lanes on the following streets.

- Grell Lane
- Bobcat Lane
- County Highway Y
- River Drive
- North Watertown Street / Old State Highway 26
- Aztalan Street
- West Street
- County Highway B

City of Lake Mills Comprehensive Plan (2008)

The City of Lake Mills drafted a Comprehensive Plan as part of the county-wide planning effort in 2008 to ensure the community develops in accordance with its citizens' input. The

development vision for Lake Mills is aligned with those of other communities in the county, sharing many common themes with each. Of particular interest in Lake Mills is the protection of its natural resources and the continued focus on its downtown as the civic and commercial heart of the City. Like the other county plans, the Lake Mills Comprehensive Plan addresses issues of land use, transportation, environmental resources, and quality of life. The City's transportation goal supporting its vision emphasizes the need to address all system users through a series of complete streets, "provide an efficient and safe transportation system for cars, trucks, transit, bicycles, and pedestrians."

Further examination of the transportation goals of Lake Mills emphasizes the desire to include bicycling and walking as part of the City's transportation system. The following transportation goals are integral to creating a transportation environment conducive to bicycle and pedestrian travel.

- Maintain and upgrade existing roads, sidewalks, and trails
- Expand the transportation infrastructure as necessary to serve multiple modes of transportation
- Link transportation planning and land use planning to ensure appropriate transportation facilities for a given location and land use

Specific recommendations in the Lake Mills Comprehensive Plan regarding bicycle and pedestrian travel include the following.

- Provide bicycle and pedestrians facilities to cross Interstate 94 at State Highway 89 and County Highway A
- Update the City Zoning Code as necessary requiring the installation of bicycle racks and other facilities at all multi-family and non-residential development
- Construction of multi-use paths of sufficient width and design to safely accommodate bicycle and pedestrian traffic
- Update the City Zoning Code to require bicycle facilities improvements as a standard transportation improvement with the same standing as a public street

City of Waterloo Comprehensive Plan (2008)

The City of Waterloo drafted a Comprehensive Plan as part of the county-wide planning effort in 2008 to ensure the community develops wisely and in accordance with the wishes of its citizens. The vision for the future of Lake Mills is closely aligned with the visions of other communities in the county, sharing many common themes with each. As a comprehensive plan, Waterloo's plan addresses all issues affecting the community, including economic development, environmental resources, transportation, and quality of life. The vision statement for the comprehensive plan focuses on the need for balance between economic development and the preservation of open spaces and parks, with an emphasis on creating a vibrant and healthy downtown district. The bicycling and walking goal in support of Waterloo's vision is to become "more bicycle friendly through the completion of new trails and community design approaches that support biking—a natural fit given that Waterloo is Trek's world headquarters."

Waterloo has a number of bicycle and pedestrian goals, all of which are guided by the overarching goal of developing and maintaining a "comprehensive system of bicycle and pedestrian facilities in and around the City to encourage alternative transportation and a healthy, active lifestyle." Some of the objectives included in the Waterloo Comprehensive Plan to reach that goal include the following.

- Maintain and require an interconnected road, pedestrian, and bike network
- Ensure that transportation system improvements are coordinated with land development
- Encourage new neighborhood and non-residential development designs that support a range of transportation options
- Actively participate in multi-jurisdictional transportation system planning and improvements
- Provide for adequate road capacities and safe road conditions in cooperation with the County and State

In addition, the Waterloo Comprehensive Plan recommends that the City apply for Bicycle Friendly Community status through the League of American Bicyclists and outlines the methods by which the community could improve its chances of receiving such recognition. Some of the recommended methods to improve the bicycle and pedestrian environment include the following.

- Design neighborhoods to be bikeable and walkable
- Incorporate bike and pedestrian routes into a Park and Open Space Plan
- Expand the Safe Routes to School program for Waterloo schools
- Develop a wayfinding signage system that serves bicyclists and visitors

City of Watertown Comprehensive Plan (2000)

The City of Watertown is currently working on an update to the comprehensive plan it completed in 2000 to account for changes in the community and to comply with state comprehensive planning regulations. Like the other plans created by communities in Jefferson County, the Watertown Comprehensive Plan addresses issues of land use, transportation, environmental resources, and quality of life and contains a vision statement with broad goals related to those issues. The bicycling and walking goal in support of Watertown's vision is to "develop and maintain a comprehensive system of bicycle and pedestrian facilities in the Watertown area." Specific objectives in support of that goal include the following.

- Encourage pedestrian-oriented neighborhood designs as new developments are platted and existing neighborhoods are revitalized.
- Plan and implement a comprehensive network of sidewalks and bicycle routes.
- Ensure that schools, parks, playgrounds, and similar activity centers are well-served by sidewalks and bicycle routes.
- Consider pedestrian and bicycle accessibility when selecting sites for new public facilities such as schools, parks, libraries, and community centers.
- Encourage a land development pattern that minimizes absolute reliance on the automobile, particularly in terms of neighborhood-oriented goods and services.
- Officially map future pedestrian and bicycle routes, per the Jefferson County/City of Watertown Bikeway and Pedestrianway Plan.
- Require pedestrian and bicycle access to be carefully considered during site plan reviews.
- Ensure that all pedestrian crossings at major intersections are properly designed to provide maximum safety to those crossing these streets.

3 GOALS & OBJECTIVES

This chapter contains goals and objectives to enable Jefferson County to achieve a bicycle and pedestrian system that will benefit County businesses, visitors, and residents.

3.1 Key Objectives of this Plan

The objectives described in the *1996 Jefferson County Bikeway and Pedestrianway Plan* are listed below. Each represents a specific outcome that the 1996 Plan and this plan update seek to achieve.

- a. To identify desirable bicycle and pedestrian facility routes within Jefferson County and its communities along with recommended linkages between the communities.
- b. To develop detailed bicycle and pedestrian plans within the communities of Fort Atkinson, Jefferson, Waterloo, Watertown, Whitewater, Johnson Creek, Sullivan, Lake Mills, and Palmyra. Where local plans had been updated independent of the county process, utilize these plans and forge connections to County routes and recreation loops.
- c. To provide recommendations including but not limited to new off-road routes, improved existing street routes, signage and marking, and route promotion. Build on the existing system to offer additional route options and to connect to scenic or unique areas within the Glacial Heritage Area.
- d. To develop a comprehensive plan which outlines recommended projects, priorities, estimated costs, and funding sources for future implementation of bicycle and pedestrian facility improvements.
- e. To recommend specific educational and promotional approaches associated with bicycling, walking, and other non-motorized alternative forms of safe transportation. In addition, identify strategies for improved intergovernmental cooperation for promoting natural, cultural, and historic resources throughout the County.

3.2 Goals and Objectives for Improvement of the Bicycle and Pedestrian Network

Goals and objectives that should be followed by all entities working toward an improved multimodal transportation network are listed below. Numerical listing is for reference purposes only and should not suggest order of importance

Goal 3.2.1: Develop a well-connected trail system that links a variety of facilities together into a cohesive transportation system.

Objectives:

- a. To link the Glacial River Trail to the Glacial Drumlin State Trail and connect to other city and county bike routes where appropriate.
- b. To promote bicycle and pedestrian travel modes by linking pedestrians and bicycle systems throughout the region.

- c. To build on existing shared-use facilities development (such as the STH 26 Corridor) to link additional destinations and resources (Glacial Heritage Area).
- d. To capitalize on the availability of easements and access corridors to enhance the existing linear trail network throughout and beyond Jefferson County.

Goal 3.2.2: Increase the utilization, availability, and demand for funding to improve bicycle and pedestrian facilities.

Objectives:

- a. To target resources for bicycle and pedestrian improvements to areas of greatest need.
- b. To leverage available funding that will be available for implementation of the Glacial Heritage Area plan, and to a lesser extent, any high-speed rail funding that may allow for other multimodal improvements.
- c. To increase education that encourages bicycle and pedestrian commuting and creates advocates.
- d. To identify and pursue all available grants.

Goal 3.2.3: Design roads to be compatible with surrounding uses and be pedestrian, bicycle and transit friendly.

Objectives:

- a. To integrate the existing trail system into a bicycle and pedestrian transportation network which supports linkages to mass transit facilities and automobile modes of travel.
- b. To identify priority origins and destinations and increase access to these locations by a variety of travel modes.
- c. To better accommodate the provision and identification of bicycle facilities on roadways including use of appropriate striping or signage.
- d. To utilize the existing Jefferson County Bike Route network to link to Recreation Loops and other places of recreational and commercial value.

Goal 3.2.4: Reduce the number and severity of vehicular crashes with particular emphasis on reducing vehicle-bicycle and vehicle-pedestrian conflicts and crashes.

Objectives

- a. To increase reporting and tracking of crashes throughout Jefferson County.
- b. To reduce speeding in high-traffic areas.
- c. To increase the media attention given to bicycle, pedestrian, and automobile responsibilities.
- d. Work with Bicycle Federation of Wisconsin to air public service announcements focused on educating bicyclists and motorists alike.

Goal 3.2.5: Supplement facilities improvements with adequate education, encouragement, and enforcement programs.

Objectives:

- a. To increase educational opportunities to educate pedestrians, bicyclists, and motorists about rights and responsibilities on roadways and shared-use facilities.
- b. To promote incentives for walking or biking to work.
- c. To increase the safety of transportation facilities by enforcing speed limits, rights of way, etc.
- d. To encourage healthy lifestyles and reduce obesity rates.

Goal 3.2.6: Enhance intergovernmental cooperation and coordination for improving multimodal transportation.

Objectives:

- a. To work jointly with multiple jurisdictions in planning and funding linear trail and dedicated on-street transportation facilities.
- b. To increase political buy-in by engaging elected officials and residents in development and utilization of bicycle and pedestrian facilities.
- c. To work cooperatively in developing grant-writing workshops, maintenance seminars, and training sessions.

Goal 3.2.7: Develop shared-use transportation standards to include in development review processes used by local communities when reviewing new developments.

Objectives:

- a. To ensure “complete streets” are built when transportation facilities are originally installed to prevent costly retrofitting.
- b. To promote connectivity to destinations and promote alternative methods of transportation within neighborhoods.

Goal 3.2.8: Enhance the livability of Jefferson County by improving transportation variety throughout the region.

Objectives:

- a. To showcase the natural and scenic beauty of Jefferson County through appropriate placement and development of multimodal transportation resources.
- b. To build on the current multimodal transportation system to increase the desirability of the Jefferson County region to visitors.
- c. To promote economic vitality by utilizing and preserving access to natural features within the region (especially the GHA).
- d. To increase the amount of facilities along routes and trails (including benches, rest areas, trailheads).

Goal 3.2.9: Increase the numbers of commuters who live within urbanized areas that bicycle to work.

Objectives:

- a. To require secure bicycle parking at all new employment centers with 30 or more employees and encourage adequate bicycle parking outside existing structures.
- b. To work with the Bicycle Federation of Wisconsin, local certified instructors, or other groups increase bicycle education for bicycle commuters.
- c. To work with neighborhood organizations and business improvement districts to match potential bicycle commuters together to increase ridership, camaraderie, and encouragement.
- d. To encourage provision of appropriate worksite accommodations for bicycle and pedestrian commuters.

Goal 3.2.10: Increase the number of commuters who walk to work.

Objectives:

- a. To improve walking conditions in area business districts by restriping crosswalks, installing crosswalk signals, and slowing traffic.
- b. To create a more enticing walking environment by maintaining pedestrian facilities and safe distances (boulevards or barriers) between these facilities and automobile traffic.
- c. To increase encouragement activities in workplaces through contests, special recognition, or time off.

Goal 3.2.11: Continue to monitor progress toward implementing this plan and increasing mode share for non-motorized transportation.

Objectives:

- a. To develop a list of comparable communities (or counties) to compare mode share for pedestrian and bicycle travel.
- b. To set a benchmark for pedestrian and bicycle mode share over the next ten years.
- c. To regularly monitor police reports to determine if the incidence of vulnerable user crashes is affected by safety education programming and/or increased enforcement.
- d. To formalize events, such as Bike to Work Week, with recorded data so empirical data for number of trips (or other measures) can be compared year-to-year.
- e. To survey participants of education workshops or encouragement programs to see if these programs have an effect or could be better administered to enhance effectiveness or delivery.

4 GENERAL RECOMMENDATIONS

The following general practices are presented as a means to address the goals and objectives identified by Jefferson County in previous chapters. These practices were developed using an inventory and analysis of existing facilities, ordinances, and plans, and rely on suggestions outlined in the *1996 Jefferson County Bikeway/Pedestrianway Plan* and the ad hoc Jefferson County Bike/Ped Steering Committee. This chapter recommends bicycle and pedestrian programs, facility improvements, route configuration, and implementation strategies.

4.1 General Facilities and Programming Recommendations

The following operational recommendations focus on education, encouragement, enforcement, and facility maintenance. Attention to operational procedures is critical if Jefferson County wants to improve the level of safety and convenience for local bicyclists and people who travel to the area to enjoy its natural resources.

Education, Encouragement, & Outreach

Education, encouragement, and outreach programs are designed to foster a safe bicycling and walking environment and increase the prevalence and enjoyment of walking and bicycling. Successful encouragement and outreach efforts largely rest on a foundation of extensive and effective educational programs. Education programs include identifying safe routes for bicyclists and pedestrians, teaching bicycling techniques, disseminating information regarding regulations that govern bicyclists and pedestrians, and instructing bicyclists and pedestrians how to handle potentially dangerous situations. Encouragement activities are valuable because they enable or promote biking and walking through incentives (such as rewards) or provisions (such as shower facilities). Outreach activities are among the easiest and least cost intensive initiatives that advance bicyclist and pedestrian safety. The following recommendations promote biking and walking as part of a healthy transportation system.

- 4.1.1 Teaching children how to safely walk and bicycle is an important step in securing a lasting non-motorized transportation legacy throughout Jefferson County. Safe Routes to School (SRTS) programs seek to encourage and educate students and parents about safe walking and bicycling techniques. The Wisconsin Department of Transportation (WisDOT) sponsors both infrastructure and non-infrastructure grants to facilitate safely walking and bicycling to school. Encourage school districts and incorporated communities to apply for planning and infrastructure funds.
- 4.1.2 Utilize local firefighters, police officers, or certified bicycle instructors to hold regular bicycle-training rodeos. These one-day events teach safe bicycling and good judgment to elementary and middle school children and their parents. Often, these programs can be combined with free or reduced helmet distribution programs and other healthy living seminars.
- 4.1.3 Support coordination of non-motorized transportation planning through the Jefferson County Parks Committee. If there is a need for more focused coordination, establish an area-wide bicycle and pedestrian advisory committee. The committee should focus on areas of concern recognized in multiple communities and to coordinate intergovernmental planning and implementation efforts. Extending the range of this

planning and coordination to a multicounty initiative may better promote the resources within the region (eg. entire GHA project area, Kettle Moraine, etc).

- 4.1.4 Promote the idea of employer incentive programs to encourage employees to try bicycling and walking to work. Ideas may include flexible arrival and departure times and/or monthly raffle contests.
- 4.1.5 Create a multimodal transportation guide highlighting how to access specific destinations with emphasis on biking, walking, and park and ride facilities. Access guides should include graphics, specific step-by-step travel directions, and information about the benefits of walking and bicycling. Access guides are usually developed by facility managers, employers, downtown business owners, or the Department of Transportation. The transportation guide should be available at local visitor centers.
- 4.1.6 Contact local governments and police departments to develop a *Sunday Parkways* event. *Sunday Parkways* are times set aside on weekends and holidays for traffic-free bicycling, skating, and walking on a network of selected streets. Existing automobile infrastructure is effectively transformed into bicycle and pedestrian trails gathering neighbors outdoors to celebrate walking and bicycling. The program has been successful in promoting public health and alternative transportation in cities from New York City, NY to San Francisco, CA but is scalable and can be implemented in smaller communities. In August 2009, Madison, WI closed six miles of downtown streets to motorized traffic for their “Ride the Drive” event.

Figure 4.1.1: Madison’s “Ride the Drive” event



- 4.1.7 Promote public bicycle rides, events, programs, and bicycle advocacy groups including bike to work week, bike swaps, club rides, fundraising events, and competitive sporting events.
- 4.1.8 Commit to becoming a recognized Bicycle Friendly Community, a designation sponsored by the League of American Bicyclists. The League provides technical assistance and other information for communities working toward Bicycle Friendly Community status at www.bicyclefriendlycommunity.org.

- 4.1.9 Create a Bicycle Ambassador Program to periodically interact with people on area streets and trails (Glacial Drumlin State Trail, etc.). Ambassadors can answer questions, give out free safety gear and resources, teach “ABC Quick Check” techniques, and speak with motorists about bicycle and pedestrian issues. Potential ambassadors should attend a training program, such as the Teaching Safe Bicycle program through the Wisconsin DOT.
- 4.1.10 Educate motorists and bicyclists through a Share the Road Campaign by developing Share the Road flyers--one targeting bicyclists and pedestrians and one targeting motorists. Fliers outline safe and courteous behavior, collision reporting procedures, and local bicycling resources.
- 4.1.11 Order free materials from WisDOT to promote pedestrian and bicyclist safety, including Myths & Facts about Pedestrian Safety, I Stop for Pedestrians Bumper Stickers, and Walk on the Safe Side pamphlets and distribute in public places and at recreation facilities.

Enforcement

Consistent enforcement of traffic laws plays an important role in advancing bicyclist and pedestrian safety.

- 4.1.12 In conjunction with the local police or sheriff department, hold periodic traffic stops where motorists, bicyclists and pedestrians may be stopped, given a Share the Road flyer, and have the opportunity to provide feedback to officers regarding the campaign.
- 4.1.13 Implement bicycle patrols in urbanized areas to enforce traffic laws and model safe bicycling techniques. Although it may not be feasible to have an officer on a bike during the entire riding season, having a trained bike patrol officer or Community Service Officer available during special events, such as the county fair, music festivals, or other events, would help to make Jefferson County’s commitment to bicycling more visible.
- 4.1.14 Continue to educate and train law enforcement personnel in the enforcement of laws concerning bicyclists’ rights and responsibilities. Consider sending an officer to the WisDOT-Bureau of Transportation Safety (DOT-BOTS) Pedestrian and Bicycle Law Enforcement training course, new recruit training, and refresher courses.
- 4.1.15 Train crossing guards to report motorists who violate crosswalk regulations or otherwise endanger children through illegal or unsafe driving. Crossing guards should be encouraged to record license plate numbers and other descriptors of alleged violators and provide reports to local law enforcement authorities.

- 4.1.16 Install driver feedback signs to display driver's rate of speed in real time. These devices work best when programmed to display a message such as "Slow Down" to speeding motorists. They should be used in combination with periodic enforcement efforts by local police.
- 4.1.17 Work with residents, school districts, and neighborhood groups to identify crosswalks where motorists fail to yield to pedestrians. The listing should be compiled by local law enforcement agencies and periodic targeted enforcement operations set up to implement crosswalk regulations. Involve the local media and explicitly identify those locations which will be subject to the targeted enforcement effort in order to create discussion and promote awareness.

Figure 4.1.2: Driver Feedback Sign



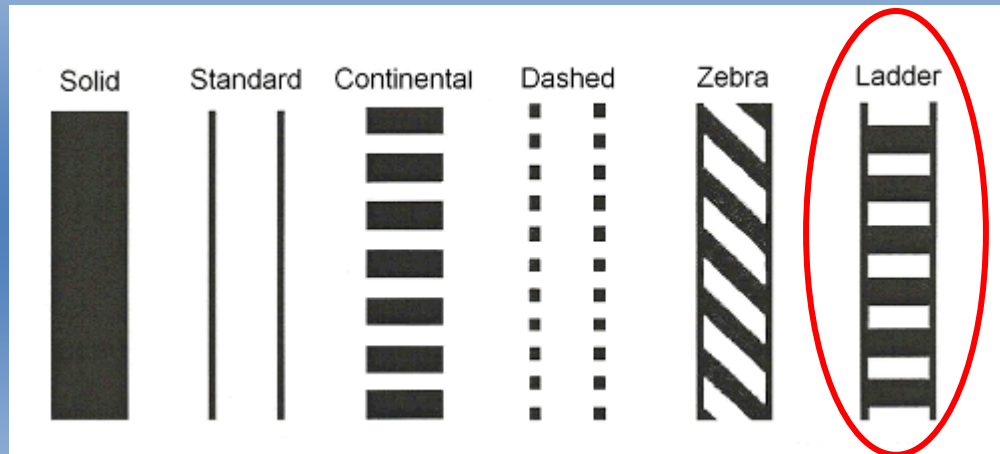
Facility Maintenance

Maintenance procedures are important for all types of transportation facilities. Poorly maintained facilities can increase liability by being unsafe or unsuitable for use. Periodic and consistent removal of debris and resurfacing/patching of deteriorated pavement are important procedures for ensuring that users are provided with safe and reliable transportation facilities. Bicycles, especially, are more sensitive than motor vehicles to roadway irregularities such as potholes and loose gravel.

- 4.1.18 Develop a maintenance policy that addresses the special needs of bicyclists, including more frequent street sweeping on streets frequented by bicyclists and minor pothole and crack remediation.
- 4.1.19 Develop a web-based system for bicyclists, pedestrians and motorists to proactively identify needed repairs to roadways, bikeways, and sidewalks. Link these items to a central clearinghouse (such as the Jefferson County site) for quick download and review.
- 4.1.20 Reduce disturbance of bicycle routing during construction, maintenance, and repair work on roadways and trails. For example, if feasible, avoid parking construction or maintenance vehicles in bicycle lanes, shoulders, or on designated bicycle routes. Signage should warn bicyclists well in advance of any location where the bike lane or shoulder is closed for construction or maintenance activities and a 3' to 5' coned-off area between the construction zone and vehicle lane should be maintained for bicycle travel. Bicycle traffic should be detoured, like automobile traffic, when facilities are under repair.

- 4.1.21 Continue to regularly inspect and maintain signs and pavement markings. Use uniform crosswalk striping in school zones. Such striping may include ladder or zebra-style crosswalks that better identify these facilities to motorists. The newest designs use a “staggered ladder” pattern to allow automobile wheels to pass between the markings and increase the life of the facility.

Figure 4.1.3: Crosswalk Marking Patterns



- 4.1.22 Implement an “Adopt-a-Bikeway” program and other similar public/private cooperative agreements to offset maintenance costs and provide reliable, routine roadway clean-up on heavily-used bicycle routes. In some Wisconsin communities, nearby elementary schools initiate an “Adopt-a-Trail” program where local school children and neighbors contribute to trail maintenance.
- 4.1.23 To facilitate public safety on sidewalks and shared-use trails, install pedestrian-scale lighting at select, popular locations.
- 4.1.24 Ensure curb cuts and curb ramps are available in heavily traveled areas. These facilities allow people with mobility limitations to utilize the pedestrian network and are required under Title II of the Americans with Disabilities Act (ADA).
- 4.1.25 On bridges, ensure outside lanes are regularly swept to ensure a clear travel lane is provided for bicycles.
- 4.1.26 Investigate the adequacy of pedestrian signals at traffic controlled intersections. In some cases, these signals may not allow enough time for a pedestrian to completely cross the street. These instances should be reported to the local traffic authority. To help pedestrians in decision-making, consider installing pedestrian countdown timers at intersections that experience a lot of pedestrian traffic. These signals have been shown

to reduce pedestrian crashes by up to 25%. Where multiuse trail facilities are located at intersections, these timers also help bicycles gauge whether there is adequate time to cross the street.

Policies

Encouragement and enforcement efforts coupled with the provision of well-maintained sidewalks and bicycle facilities may not be sufficient to increase non-motorized transportation mode share. County and municipal land use patterns and development policies, which accommodate bicyclists and pedestrians, are also important. Many of these policies need to be developed and implemented at the community level following extensive public participation.

Figure 4.1.4: Pedestrian Countdown Timer (Portland, OR)



- 4.1.27 Review and strengthen existing zoning and subdivision ordinances to reflect adequate on-site pedestrian and bicycle access, parking, and circulation. Considerations may include connections to existing or planned bicycle and pedestrian facilities, maximum block lengths, and reservation of right-of-way for shared-use paths.
- 4.1.28 Future updates to local planning documents, such as a Comprehensive Plan, or Park and Open Space Plan, should incorporate recommendations for accommodating bicycling and walking.
- 4.1.29 Investigate sources of funding, including impact fees, for shared use paths and on-street bicycle and pedestrian facilities in new developments. Local engineering departments should also keep abreast of state or federal monies available to help fund local facilities development. Examples include Transportation Enhancement (TE) and Bicycle and Pedestrian Facility Program (BPPF) funds through the Wisconsin DOT.
- 4.1.30 Establish a schedule and capital improvement plan (CIP) to maintain and improve paths, sidewalks and roads. Make bicycle and pedestrian infrastructure development part of regular CIP programming.
- 4.1.31 Ensure all new or reconstructed county and local roads and reconstructed bridges meet standards within the Wisconsin Bicycle Facility Design Handbook. Promote development of a policy that requires the Jefferson County Highway Department to build, or rebuild when scheduled, county roads to these minimum standards, especially when that roadway has been identified as a bike route.
- 4.1.32 Increase public bicycle parking facilities at public destinations, including community centers, parks, schools and shopping centers. Consider custom racks that can serve not only as bike racks, but also as public artwork or advertising.

- 4.1.33 Require secure bicycle parking at all new employment centers with 30 or more employees and encourage adequate bicycle parking outside existing structures. Parking requirements should include bicycle accommodation and can be written to reduce the amount of automobile parking required if a certain level of bike parking is available.
- 4.1.34 Support efforts to adopt a statewide “complete streets” policy. This policy ensures that all streets are designed and operated to enable safe access for all users (pedestrians, bicyclists, motorists, transit users).
- 4.1.35 Encourage incorporated communities to perform biennial inspections of all sidewalk and crosswalk facilities. Some communities hire summer interns to evaluate and map crosswalks and sidewalks. This detailed listing will help prioritize capital improvement planning and identify gaps in the current pedestrian network.
- 4.1.36 Enforce existing property maintenance regulations that require trimming vegetation, clearing snow from sidewalks, and maintaining clear pathways on sidewalks. Encourage volunteers to report instances of improper maintenance to increase the usability of pedestrian facilities.

4.2 General Signage, Pedestrian, and Railroad ROW Recommendations

While useful to encourage and sustain walking and bicycling as transportation, operational programs and policies are futile without adequate facilities. It is often most efficient to make use of established transportation right-of-ways to provide accommodation. Wherever possible, on-street accommodation is preferred since it’s often the easiest way to reach your destination. Off-street trails are also essential for year-round travel, to provide vital links between destinations, and to encourage new users.

Beyond roads and trails, signage, installation of bicycle parking, a strong education system and policy improvements are perhaps the best and most cost effective means of improving conditions for bicycling and walking.

Signage

Many roads in Jefferson County are currently suitable for bicycling due to wide outside travel lanes, paved shoulders, and/or low traffic volume. Considering these factors, many roads require only “Route Signage” to formalize the segment as a bicycle route. This section discusses route signage more in depth.

Signing “Bike Routes” allows the communities who post these signs to better prioritize bicycle improvements on local roadways and to direct potential bicyclists to the preferred routes within the community. The route signs are good for users inside the community because they give local residents the ability to negotiate the local street pattern using established routes. Visitors from outside can also enter the community using recommended routes that they know link up with other connections or destinations. These routes also increase the likelihood that motorists will encounter bicyclists along the route which may heighten driver attentiveness and bicyclist camaraderie.

Signage can convey a variety of information. Chief among these are locational attributes such as where the nearest commercial center is located, distance to a local trail connection (such as Glacial Drumlin State Trail), or other marketing opportunities. Unique signage can also establish a community's identity and replicate the efforts of beautification taken in other parts of the community (such as a unique downtown district). Signage should be authorized and placed by the local traffic authority and consistent with MUTCD standards. They should also be consistent throughout the County.

- 4.2.1 Build upon the existing Jefferson County Bike Route signage network to sign all recommended county and local "Bike Routes" identified in this plan as soon as possible. Coordinate any new map development with signage so route users can navigate effectively within and between all Jefferson communities.
- 4.2.2 Seek grants at the federal, state, and local level to install uniform signage along "Bike Routes" throughout the county.
- 4.2.3 Facilities identified as "Bike Routes" should receive evaluation considering all modes of travel. Provide six-foot (no less than 4') paved shoulders in the redesign of County highways that are signed as bicycle routes. Maintain this standard in winter.
- 4.2.4 Bridges that link segments of bike routes should be considered for bicycle lane accommodation upon redesign or re-decking. Properly signing bridges on bicycle routes enables safer bicycle travel.
- 4.2.5 Display signs indicating "Bikes Use Full Lane" where narrow road shoulders preclude side-by-side bicycle and

Figure 5.2.1 Sign Panels



Top: Unique Jefferson County Route Signage.



Middle: Portland, OR includes travel time information to inform cyclists how long a bicycle trip will take at 10mph.

Bottom: Example of a panel combination using a more traditional route sign graphic (NCUTCD).



automobile travel in the same travel lane. Alternative treatments include painting a shared lane marking, also known as a “sharrow”, on the street surface to identify where bicycles should be positioned within the lane.

- 4.2.6 Consider signing existing Jefferson County Recreation Loops as “Bike Routes” within the county network. This signing approach should utilize a numbered system (each loop receives a unique number). This would provide uninitiated riders the freedom to ride the loop without cue sheets. Additional on-street pavement markings, such as those utilized in Portland, OR, provide a directional arrow which aid in navigation for all users.

Figure 4.2.2 Additional Signage Considerations



Left: “Wheatridge”, Bicycle Route signage in Denver, CO includes a route number (D-4) and periodic maps displaying user location along the route.

Top Right: “Bike Dot”, on-street Bicycle Route stencil in Portland, OR identifies the roadway as a bicycle route; the arrow shows which direction the route travels.

Bottom Right: “13”, numbered Bicycle Route panel. In Jefferson County these could be used to identify Jefferson County Recreation Loop numbers (MUTCD M1-8).

Railroad Right-of-Way Trails

Railroad right-of-ways provide opportunities for multimodal travel because trains operating within the right-of-way require very little of the 50' typically reserved (25' on each side of the track). There are two options that exist on railroad right-of-ways; the first is "rails to trails" that utilizes the rail bed itself for a multiuse trail by removing the tracks and ties of an abandoned rail corridor. Many Wisconsin state trails were developed on abandoned rail lines (including the Glacial Drumlin State Trail). The second option is to develop "rail-with-trail" facilities. In this example, a multiuse trail is developed alongside a maintained railroad track. There are examples of this design on many state trails including the Wild Rivers, La Crosse River, 400, Military Ridge, Badger, and Capital City.

There are a number of local trails that are forecast for development within incorporated areas. These trails will be used to enhance connections between important destinations (parks, schools, etc.), to preserve unique natural areas (such as the Rock River Corridor) and to provide recreational facilities. The vast majority of these trails will not include railroad right-of-way. However, there are a few places where the conversion of rails to trails has been included in both local and county plans. One example is extension of the Glacial River Trail in Fort Atkinson.

The addition of high-speed rail between Chicago, IL and Minneapolis, MN will mean that substantial investments in the rail corridor are likely in several Jefferson County communities. The high-speed rail connection between Milwaukee and Madison in particular is likely to include a connection in Watertown. The rail line will also traverse Waterloo, though a stop is not planned in the near-term. Current plans do not include rails-with-trails (RWT) facilities however plans are underway to ensure that these rail lines benefit the community in some way. The easiest way to provide amenity is to enhance the railroad right-of-way to include a multiuse trail facility that can provide important linkages for pedestrians and bicyclists throughout the region. In Waterloo for example, addition of a rails-with-trails along the proposed high-speed rail corridor would provide an alternative to STH 19/Madison Street for bicyclists and pedestrians.

The following trail segments are likely to utilize railroad rights-of-way.

- A. Extension of Glacial River Trail: Potential for rails-to-trails or rails-with-trails to extend the Glacial River Trail from its northern terminus at STH 89/N Main Street to approximately Rita Lane. From Rita Lane, a trail is proposed as part of the STH 26 bypass project that will lead into the City of Jefferson (on CTH W/Wisconsin Drive).
- B. Watertown High-Speed Rail: When formalized, explore coordination with the high-speed rail development to include a rails-with-trails facility.
- C. Waterloo High-Speed Rail: When formalize, explore coordination with the high-speed rail development to include a rails-with-trails facility south of the current railroad tracks. This connection would provide an alternative to STH 19.

Pedestrian Facility Improvements

It is critical to maintain a comprehensive vision for creating walkable communities in Jefferson County. This includes integrating trails, parks, and roadways into the pedestrian network. Pedestrian planning as it applies to municipal governments is best done at the local level. Rather than recommend specific facility improvements within municipalities, this countywide plan sets policy priorities and offers guidance and tools to municipal governments to help them promote walking and pedestrian safety.

Because of the health and community benefits derived from walking, it is highly recommended that county and municipal governments adopt ordinances requiring that sidewalk improvements occur regularly in existing neighborhoods. In all but the most extreme circumstances, it is also recommended that every municipality adopt a sidewalk ordinance requiring sidewalks to be built on at least one side of the street in all new developments and to be included when roads are reconstructed or resurfaced. These facilities can be paid for through a variety of means including general funds, special assessment, and impact fees among others.

The overriding principle in providing for pedestrians is to create public rights-of-way that work effectively for and benefit all modes of transportation. A transportation system that works for pedestrians will generally work better for bicyclists, disabled persons, automobile drivers, and for all other users, including transit and commercial vehicles.

In the Wisconsin Pedestrian Policy Plan 2020, the Wisconsin Department of Transportation (WisDOT) articulated its commitment to accommodate pedestrians. In Objective 1.0, WisDOT recognized its responsibilities for pedestrians on state trunk highways (STH) and agreed to evaluate pedestrian needs on STH projects and minimize barriers in STH designs.

Communities working to improve the pedestrian network utilize a number of programs. Examples include a sidewalk gap closure program, a pedestrian countdown signal program, and a high-visibility sidewalk installation program. All of these programs seek to identify barriers and enhance existing pedestrian networks.

In order to prioritize future funding for pedestrian improvements and pedestrian facilities, the following section sets forth recommended project priorities.

Pedestrian Project Priorities**4.2.7 Encourage children to walk to school.**

- a. Add or replace existing school zone signs with bright green signs and arrows marking crosswalks, in accordance with the Manual on Uniform Traffic Control Devices (MUTCD).
- b. Consider initiating a formal Safe Routes to School program in area elementary and middle schools.
- c. Make crosswalks more visible and paint them as needed.
- d. At signalized and non-signalized intersections that parents or children identify as dangerous encourage an adult crossing guard program.
- e. Encourage parents and children to conduct walkability audits using the SRTS Walkability Checklist to help improve the safety of their route to school.
- f. Complete gaps in sidewalk systems from neighborhoods to schools. Even small gaps that disrupt safe routes to school should be prioritized and completed.

- 4.2.8 Make it practical for people to walk to the library, grocery store, pharmacy, swimming pool, neighborhood park, government buildings, and other destinations.
- a. Governments and school districts should focus construction of public buildings and facilities in places where multimodal transportation is possible. Off-street connections to area neighborhoods or parks should be prioritized as part of the site planning process.
 - b. Encourage elected officials, staff and citizens to conduct walkability audits to record hazardous conditions.
 - c. Use educational materials from WisDOT to promote pedestrian safety.
 - d. Install pedestrian-scale street lights along popular walking routes or between popular destinations to encourage pedestrian use and enhance security.
- 4.2.9 Encourage public and private employers to promote walking for transportation.
- a. Establish a countywide "walk to work" program in partnership with public and private health care providers and employers.
- 4.2.10 Adopt planning policies that promote transportation equity.
- a. Encourage amending building ordinances to require that buildings front the street whenever practical.
 - b. Encourage amending building ordinances to enable a "maximum" parking standard as opposed to minimum standards which encourage the development of large parking lots.
 - c. Enforce snow removal policies on all facilities – roads, sidewalks, multiuse trails.
 - d. Encourage or require pedestrian facilities and amenities, such as benches, awnings for shelter and other services consistent with the community's character.
 - e. Advocate shared-use transportation standards, including "complete streets" guidelines, in the development review process.
 - f. Encourage new developments to provide sidewalks (5' minimum) on at least one side of the street.
 - g. Ensure ADA guidelines are met when new sidewalks, curb ramps, or other pedestrian facilities are installed or when facilities are reconstructed

Implementation Costs for Pedestrian Facilities

In each municipality, it is recommended that one-quarter of all streets be studied annually to determine if pedestrian improvements are needed. "Improvements" include construction, maintenance and replacement. If there is a gap in the sidewalk network, or a pedestrian system needs to be put in place, this information will show up during the inventory process. If it is determined that sidewalks are needed to promote more walking trips, then the community should add them, drawing from funds set aside for this purpose. Each municipality is encouraged to include in their annual budget a specific and appropriate sum of money to maintain existing sidewalks and install new sidewalks.

A variety of tools are available to assist communities in providing sidewalks. The best time to install sidewalks is when a neighborhood is developing. It is often very difficult to install sidewalks after houses are developed and residents have moved in. Many communities require sidewalks are developed on one or both sides of new streets as part of their subdivision ordinance. This ensures that the pedestrian network grows with the population. Special provisions include widening sidewalks where important linkages are anticipated, such

as near a school, or providing pedestrian connections from cul-de-sacs to other streets or parks. Often, the costs for sidewalk development can be transferred to the property developer through impact fees or as part of standard subdivision development requirements.

5 COUNTY AND LOCAL BICYCLE ROUTES

This chapter details on- and off-street bicycle facilities recommendations for Jefferson County as a whole (Section 5.1) and for nine incorporated communities within the county (Section 5.2). Careful consideration was used when determining the best connections between local and county transportation networks. These routes and facilities also recognize how mobility will be expanded through implementation of the Glacial Heritage Area and STH 26 Bypass and how increased access to these and other regional amenities will benefit the overall bicycling network.

A narrative description, map and table are provided for each jurisdiction. Maps can be found in Appendix C: County and Local Bicycle Routes. Tables include the following information:

Term

5-Year.....targeted for implementation in the next five years
10-Yeartargeted for implementation in the next ten years
10+.....long-term recommendation that should be evaluated when plan is updated

Project

Name of street segment or approximate location or name of trail segment

Limits

Segment limits from project beginning to end point

For incorporated communities, only trail segments located inside corporate limits are included in the estimates unless otherwise identified.

Recommendation

A summary of suggested improvements

Implementing Agency

Identifies state, county and local agencies who should take leadership responsibility for each respective project. For all projects, developing partnerships between agencies and with the private sector is recommended to foster broad-based community support.

Length (in feet)

The approximate length of the project within defined limits; “TBD” used when the extent of the project is unknown

Total Cost

\$ figures.....represent estimated total cost of project, unless unit costs are shown

TBD.....costs to be determined because project scope is unknown at this time

Facilities development costs and maintenance costs are discussed in more detail in Chapter 7: Implementation

Funding Opportunities

State or local funding that should be explored for implementation. The term “General” is used when allocation is most likely to occur through the municipality’s general fund. Funding opportunities available through the State of Wisconsin include:

- Wisconsin Department of Transportation
 - Transportation Enhancement (TE)
 - Bicycle and Pedestrian Facilities Program (BPFP)
 - Surface Transportation Program – Urban/Rural (STP-U, STP-R)
 - Safe Routes to School (SRTS)
- Wisconsin Department of Natural Resources
 - Stewardship Funds (Stewardship)
 - Recreation Trails Program (RTP)

Funding programs are described in greater detail in Chapter 7: Implementation.

5.1 Jefferson County Bicycle Routes

The 1996 Jefferson County Bikeway/Pedestrianway Plan established a countywide bike route system. The primary purpose of the Jefferson County Bike Routes was to identify direct, safe connections between communities in the County. Implementation of these routes included development of a unique Jefferson County Bike Route sign, and posting these signs in key decision-making locations to provide direction to users.

A majority of the county’s designated bike system utilized roadways with low volumes of automobile and truck traffic. Such roads present the fewest opportunities for user conflicts and are reasonably safe for use by adult bicyclists without major construction improvements. However, destination-based signage would greatly add to the usability of the existing bicycle network.

Another option that would enhance the current system would be formalizing the Jefferson County Recreation Loops as Bike Routes. This would include assigning a unique number to each loop and signing the loop at key decision-making points along each route. Signing options are discussed in greater detail in Chapter 4.

The county highway system remains an excellent resource for a variety of transportation and recreation trips. In many cases, improvements such as paved shoulders are a priority where these segments of roadway are needed to complete intercommunity travel. Adding width to the existing paved area also provides comfort for road users, both motorized and non, and increases the pavement life of the roadway by pushing the pavement edge beyond where heavy vehicles generally operate.

While the 1996 Plan did not recommend any paths parallel to highways due to cost considerations and safety conflicts at intersections, the STH 26 bypass will include segregated facilities parallel to the highway. Considerations for this highway are discussed in greater detail in Chapter 6.

Just as intra-county travel is essential to promote regular bicycle use within Jefferson County, so too is inter-county travel. Connections to other counties will greatly enhance Jefferson County’s position within the region as a natural and cultural recreation destination. Planned

bicycle routes in adjacent counties that may warrant additional design considerations when reconstructing roadways or designing trails in Jefferson County are listed below.

From Dodge County...

CTH I to Waterloo

CTH G to Lake Mills

CTH Q to Glacial Drumlin State Trail

CTH SC to Jefferson County Recreation Loop 3: Rural Highlands Loop

From Waukesha County...

Glacial Drumlin State Trail

CTH ZZ to Palmyra (links Palmyra to Kettle Moraine State Forest)

Watertown/Ixonia/Oconomowoc Interurban Trail (links Watertown to Oconomowoc)

From Walworth County...

CTH H to Palmyra

From Rock County...

CTH KK to McMillen Road/McIntyre Road/CTH KK/Poeppel Rd in Fort Atkinson

From Dane County...

Glacial Drumlin State Trail to Cambridge Connector Trail

CTH O from Cambridge to Glacial Drumlin State Trail

CTH BB to Lake Mills

CTH A to Fort Atkinson

Priorities within Jefferson County include wide paved shoulders in transition areas between urbanized streets and rural roads. These “urban escape” routes are often the most heavily utilized roads for cyclists engaging in longer tours, traveling to another urbanized community, or accessing one of the Jefferson County Recreation Loops or GHA facilities. Timing of these projects should observe the Jefferson County Highway Department improvement schedule and a coordinated effort should result. See Table 5.1. The proposed countywide system is delineated on Map C-1 in Appendix C.

Table 5.2.1 : Jefferson County Implementation Table for On- and Off-Street Facility Improvements

Term	Project	Limits	Recommendation	Implementing Agency	Length (in feet)	Total Cost	Funding Opportunities
5-Year	Proposed On-Street Improvements						
	CTH B	CTH O to Shorewood Hills Rd (Lake Mills)	Construct paved shoulder	Jefferson County	20768	\$830,720	STP-R; Scheduled for improvement in 2014
	CTH J	CTH G to Jefferson city limits	Construct paved shoulder	Jefferson County	17534	\$701,360	STP-R; Scheduled for improvement in 2013
	STH 106/Riverside Dr	State HWY 26 to Fort Atkinson city limits	Construct paved shoulder	Fort Atkinson, DOT	5517	\$220,680	TE, BPFP
	CTH E	Palmyra city limits to Front St (Sullivan)	Construct paved shoulder	Jefferson County	43407	\$1,736,280	STP-R; Scheduled for improvement in 2014
	Proposed Trails						
	Glacial Drumlin Missing Link	Jahn Rd. to CTH Y	Future Trail Connection	DNR	~8830	TBD	RTP
	Waterloo to Lake Mills Trail	Waterloo to Lake Mills	Future Trail Connection	Jefferson County, DNR	~26763	TBD	RTP
	Glacial Drumlin State Trail to Cambridge Connector Trail	Glacial Drumlin State Trail to Cambridge	Future Trail Connection	Jefferson County, Dane County, DNR	~13259	TBD	RTP
	Waterloo to Watertown Trail	Waterloo to Watertown	Future Trail Connection	Jefferson County, DNR	~54838	TBD	RTP
	WIS 26 Corridor Bike Route						
	WIS 26 Bypass - Proposed off-street trail	Rita Ln (Fort Atkinson) to CTH W (Jefferson)	Proposed off-street trail	DOT	14732	TBD	WisDOT
	WIS 26 Bypass - Proposed off-street trail	Glacial Drumlin Trail (Jefferson) to Junction Rd	Proposed off-street trail	DOT	4982	TBD	WisDOT
	WIS 26 Bypass - Proposed off-street trail	Baneck Ln (Johnson Creek) to High Rd	Proposed off-street trail	DOT	12844	TBD	WisDOT
	WIS 26 Bypass - Business 26	CTH K (Fort Atkinson) to Rita Ln	Proposed 5' paved shoulder	DOT	2200	TBD	WisDOT
	WIS 26 Bypass - Jefferson Rd	State HWY 26 to Johnson Creek city limits	Proposed 2' lane widening	DOT	8042	TBD	WisDOT
	WIS 26 Bypass - Old HWY 26	River Rd (Johnson Creek) to State HWY 26	Proposed 3' paved shoulder	DOT	2818	TBD	WisDOT
	WIS 26 Bypass - High Rd	South end of High Rd to Jefferson Rd (Watertown)	Proposed 3' paved shoulder	DOT	13466	TBD	WisDOT

Term	Project	Limits	Recommendation	Implementing Agency	Length (in feet)	Total Cost	Funding Opportunities
5-Year	WIS 26 Bypass - Proposed road with 5' paved shoulder	CTH A to CTH Y (Watertown)	Proposed road with 5' paved shoulder	DOT	4277	TBD	WisDOT
	WIS 26 Bypass - Proposed road with 5' paved shoulder	Proposed road to proposed road	Proposed road with 5' paved shoulder	DOT	1602	TBD	WisDOT
	WIS 26 Bypass - Proposed road with 5' paved shoulder	CTH Y to HWY 26	Proposed road with 5' paved shoulder	DOT	6037	TBD	WisDOT
10-Year	CTH B	Harvey Rd (Lake Mills) to Johnson Creek city limits	Construct paved shoulder	Jefferson County	22938	\$917,520	STP-R; TE
	CTH G	US HWY 18 to Hope Lake Rd	Construct paved shoulder	Jefferson County	7242	\$289,680	STP-R; TE
	CTH N	CTH U (Whitewater) to Cams Rd (Cold Spring)	Construct paved shoulder	Jefferson Co., C. Whitewater	13351	\$534,040	TE, STP-R, STP-U
	Glacial Drumlin State Trail to Kettle Moraine	Glacial Drumlin State Trail to Kettle Moraine	Future Trail Connection	Jefferson County, DNR	~49199	TBD	RTP
10+	CTH A	Tyrana Park Rd (Lake Mills) to Riverdale Ln (Watertown)	Construct paved shoulder	Jefferson County	53341	\$2,133,640	STP-R; TE
	Watertown/Ixonia/Oconomowoc Trail	Watertown to Oconomowoc	Future Trail Connection	Jefferson County, DOT	~45668	TBD	RTP

5.2 Bicycle Routes for Incorporated Communities in Jefferson County

The following narratives and tables identify recommended improvement projects for nine incorporated communities located in whole or in part within Jefferson County. A majority of facilities included are shared-use streets. Preferred bicycle facilities improvements for roadways include bike lanes in urban areas and paved shoulders outside the urbanized areas. Paved shoulders are especially important for primary “urban escape routes” that link urban street networks with rural highways and roadways.

The projects listed in the facilities tables are those viewed as important to improve bicyclist safety, mobility and access. This includes off-road facilities where connections to important natural and cultural features exist. Primary off-road connections within Glacial Heritage Area parks and linkages to the Glacial Drumlin State Trail, and Glacial River Trail are also included. Off-road trails will likely be used for pedestrian and bicycle trips. However, sidewalks will serve the majority of pedestrian trips and should be provided within all transportation corridors as discussed in Chapter 4: General Recommendations.

Route determination included review of the routes and trails identified in the *1996 Jefferson County Bikeway/Pedestrian Way Plan*. These routes were determined by examining preferred bicycle routes between major origins and destinations within the county including individual communities, the Kettle Moraine, and the Glacial Drumlin State Trail. Many routes identified in 1996 have been formalized and remain on the local bike route maps as established routes.

All existing routes were compared against Jefferson County Bike Routes and Jefferson County Recreation Loops to enhance connections. Other transportation plans, including the WIS-26 Bike Route Planning Study (2005), or local comprehensive land use and recreation plans were also incorporated. A joint meeting with Jefferson County municipalities was held in October 2009 to discuss issues and opportunities for completing the bicycle network identified in the 1996 Plan within each community.

Facilities recommendations were based on a variety of data including existing routes, value of the connection to other features, average annual daily traffic (AADT), and likelihood for implementation. Whenever deemed practicable, the highest functioning facility was recommended – generally a bike lane or paved shoulder. This does not convey that absence of a bike lane or paved shoulder renders the route unsafe, instead the recommendation is meant to formalize the street segment as a formal bicycle route that communicates to all users that bicycles are likely to be encountered along the segment. Installation of facilities will be impacted by local budgets, priorities, and timing in relation to other street improvement activities. This is especially true for highway projects (including county highways) that are improved based upon a transportation improvement schedule that cites specific design and construction dates.

5.2.1 City of Fort Atkinson

The Rock River forms a substantial barrier to bicycle travel. The primary crossing for active transportation is the Glacial River Trail Bridge. Although the Robert Street bridge can also accommodate bicycle travel, it is less preferred due to high traffic volume, a busy intersection north of the bridge at Robert Street (STH 26/BUS 12) and Riverside Drive (STH 106). North of the river, the Glacial River Trail links directly to two streets containing bike accommodations – Sherman Avenue and Madison Avenue.

South of the Rock River, the Glacial River Trail is located in the far western portion of the urbanized area. A more centralized “backbone” for north/south travel is desirable. Both the 1996 Plan and this update recommend installing bike lanes on S Main Street. Facilities should be installed from Hackbarth Road on the south to the Main Street Bridge on the north which contains existing bicycle lanes.

Additional on-street facilities are recommended on Riverside Drive from Sherman Avenue to Rock River Park. If the centerline on Riverside Drive were moved bike lanes might fit on existing pavement. West of Rock River Park paved shoulders would increase bicyclist comfort and should be installed from River Park to the STH 26 Bypass. Paved shoulders should also be added to Hackbarth Road from STH 26 to CTH K. Fort Atkinson should coordinate with the Town of Koshkonong on street segments not located within city limits.

Off-road trails are forecast for long-term development south of Hackbarth Road from CTH K east to the Glacial River Trail and continuing the extension of the Glacial River Trail from N Main St/N 4th St to the north city limits and beyond. The STH 26 bypass plan includes a trail section from approximately Rita Lane north to CTH W (Wisconsin Road), south of Collins Road in the City of Jefferson. In the near-term, establishing a connection between the Fort Atkinson High School area and Dorothy Carnes Park is a priority.

Curb lane signs on Madison Avenue/USH 12 should be changed to communicate to bicyclists that this lane can be used for bicycle travel. The current “No Thru Traffic” sign is confusing for users when paired with the bike stencil pavement markings. Suggest changing the sign to read “Curb Lane: Bicycles and Right Turns Only” to clearly communicate that bicycles may use the curb lane for through travel. See Appendix C, Map C-2.

Table 5.2.1 : City of Fort Atkinson Implementation Table for On- and Off-Street Facility Improvements

Term	Project	Limits	Recommendation	Implementing Agency	Length (in feet)	Total Cost	Funding Opportunities
5-Year	Main St.	Hackbarth Rd to Milwaukee Ave	Stripe bike lanes	C. Fort Atkinson	8964	\$22,410	TE, BPFP, STP-R
	Riverside Dr. / STH 106	Park Dr to Sherman Ave	Stripe bike lanes	C. Fort Atkinson / DOT	5111	\$12,800	TE, BPFP
	Connection to Dorothy Carnes Park	City limits near Montclair Place to Hoard Road	Off-street trail	C. Fort Atkinson, T. Jefferson, DNR	TBD	TBD	Stewardship, RTP
10-Year	Proposed off-street trail	Intersection of Main St and 4th St to north city limits	Construct off-street trail	C. Fort Atkinson	4709	\$188,360	RTP
		North City Limits near Woodland Drive to Rita Lane	Proposed off-street trail	C. Fort Atkinson, T. Jefferson	TBD	TBD	
	Hackbarth Rd.	Poeppel Rd east to city limits	Construct paved shoulder	C. Fort Atkinson	1314	\$52,560	TE, STP-R
	Hackbarth Rd.	City limits to STH 26	Construct paved shoulder	C. Fort Atkinson; Coordinate with T. Koshkonong	595	\$23,800	TE, STP-R
10+	Trail from Glacial River Trail east to CTH K	City limits west of STH 26 east to city limits	Construct off-street trail	C. Fort Atkinson	1455	\$58,200	Stewardship, RTP
		City limits to city limits west of Poeppel Rd	Construct off-street trail	C. Fort Atkinson	1367	\$54,680	
		Poeppel Rd east to CTH K	Construct off-street trail	C. Fort Atkinson, T. Koshkonong	TBD	TBD	
		Commerce Pkwy to proposed off-street trail	Construct off-street trail	C. Fort Atkinson	1429	\$57,160	
	Trail southeast of Rock River Road along Bark River	Intersection of Milwaukee Ave and Zida St to southeast city limits	Construct off-street trail	C. Fort Atkinson	3924	\$156,960	Stewardship, RTP
		Southeast city limits along Bark River	Construct off-street trail	C. Fort Atkinson, T. Koshkonong, T. Cold Spring, DNR	TBD	TBD	
	Trail from proposed Glacial River Trail extension to east city limits	Proposed trail to city limits 240' east of McMillen St	Construct off-street trail	C. Fort Atkinson	2377	\$95,080	RTP
		East city limits to Rock River	Construct off-street trail	C. Fort Atkinson	TBD	TBD	
	Trail from Madison Ave. to Hoard Road	Intersection of Madison Ave and Lexington Blvd to north city limits	Construct off-street trail	C. Fort Atkinson	3135	\$125,400	Stewardship, RTP

5.2.2 City of Jefferson

Bicycle travel through the City of Jefferson is dependent upon river crossings because the Rock and Crawfish Rivers divide the community into thirds. North/south travel over the Rock and Crawfish Rivers must utilize either the Main Street Bridge or Wisconsin Drive Bridge. The former is not currently good for bicycle travel, though it contains sidewalks which could accommodate one-way bicycle travel on each side. When the Main Street Bridge is replaced, accommodating bicycle lanes will be necessary as this corridor offers the only north/south river crossing on the east side of town. The Wisconsin Drive Bridge includes very wide travel lanes and could likely be striped for bike lanes as existing.

East/west bicycle travel is easily accommodated on two bike/ped bridges, one links W Milwaukee Street south of Racine Street, the other links North Street. Farther to the north, the W Puerner Street Bridge includes wide travel lanes which can accommodate automobile and bicycle travel side-by-side. This plan recommends striping bike lanes on the entire length of Puerner Street to formalize the connection between Dewey Road on the east and CTH N on the west, both of which are Jefferson County Bike Routes.

Bike lanes are recommended on S Jackson Avenue/CTH N from approximately W Linden Drive to W Spangler Street. Paved shoulders are existing north of W Spangler Street on CTH N. A contraflow bike lane is recommended for the segment of S Jackson Avenue between W Milwaukee Street and W Racine Street near Jefferson High School. This is the most direct bicycle route and cyclists are likely to ride against traffic here. Formalizing a contraflow lane will enable safer passage through this one-way block. An "Except Bikes" panel should be added to the one-way sign assembly, and a contraflow bicycle lane and arrow marking added to the pavement.

Bike lanes should also be added to Collins Road between CTH K, where existing paved shoulders exist, to Wisconsin Drive. Collins Road carried over 2,300 cars per day in 2006. Wisconsin Drive carried over 2,600 vehicles per day that same year and should include bike lanes from the Wisconsin Drive Bridge to where the STH 26 trail will terminate near Annex Road.

Long term, bike lanes should also be added on N. Dewey Avenue from E Clancy to E Puerner Street. North of E Puerner Street, paved shoulders would add to cyclist comfort, but this road carries a very low traffic volume.

A series of off-road trail are also recommended. A planned trail segment will be constructed between the bike/ped bridge on Milwaukee Street south to the dam along the Rock River. Long-term extensions would take this segment south to Wisconsin Drive, then along the south bank of the Crawfish River. Another long-term extension would add to the existing trail segment east of the Rock River and extend south the Main Street. See Appendix C, Map C-3.

Table 5.2.2: City of Jefferson Implementation Table for On- and Off-Street Facility Improvements

Term	Project	Limits	Recommendation	Implementing Agency	Length (in feet)	Total Cost	Funding Opportunities
5-Year	Jackson Ave Counterflow Lane	W Milwaukee St to W Racine St	Stripe Contraflow Bike Lane	C. Jefferson	340	\$850	General
	Wisconsin Bridge	W Riverview Dr to north end of bridge	Stripe Bike Lane	C. Jefferson / Jefferson Co. / DOT	220	\$500	General
	Puerner St. / Co. Rd. N	Jackson Ave to Dewey Ave	Stripe Bike Lane	C. Jefferson / Jefferson Co.	5351	\$13,380	General, TE, BPFP
	Planned off-street trail	East of Rock River extending south from Milwaukee St	Planned off-street trail	C. Jefferson	755 (est.)	TBD	TBD
	Wisconsin Dr. / CTH W	Collins Rd. north to Wisconsin Bridge	Stripe Bike Lane	C. Jefferson / Jefferson Co.	4635	\$11,600	General, TE, BPFP
10-Year	Jackson Ave. / Co. Rd. N	Linden Dr to Spangler St	Stripe Bike Lane	C. Jefferson / Jefferson Co.	4865*	TBD	STP-R, TE, BPFP
	Collins Rd.	Wisconsin Dr. to CTH K	Stripe Bike Lane	C. Jefferson	5189	\$6,000	General, TE, BPFP
	Wisconsin Dr. / CTH W	Collins Rd south to proposed STH 26 trail	Construct Bike Lanes	C. Jefferson / Jefferson Co.	904	\$54,240	STP-R, TE, BPFP
	Proposed off-street trail	East of Rock River extending south from planned trail to Wisconsin Dr	Construct off-street trail	C. Jefferson	528	\$21,120	Stewardship, RTP
10+	Main Street Bridge	W Riverview Dr to E Dane St (Est.)	Reconstruct Bridge	C. Jefferson / DOT	TBD	TBD	STP-U, TE
	Clancy St.	Whitewater Ave to Dewey Ave	Stripe Bike Lane	C. Jefferson	618	\$37,080	TE, BPFP
	Dewey Ave.	Clancy St to Puerner St	Construct Bike Lanes	C. Jefferson	6559	\$393,540	TE, BPFP
	Dewey Ave.	Puerner St to north city limits	Construct Paved Shoulders	C. Jefferson	3195	\$127,800	STP-R, TE, BPFP
	Proposed off-street trail	South of Crawfish River across river to Willow Dr	Construct off-street trail and bridge	C. Jefferson	2015	\$80,600 + Bridge	Stewardship, RTP
	Proposed off-street trail	Existing Rock River trail to Main Street Bridge	Construct off-street trail	C. Jefferson	2385	\$95,400	Stewardship, RTP

*Does not include contraflow lane from W Milwaukee St to W Racine St

5.2.3 Village of Johnson Creek

Improvements to the local roadway network since the 1996 Plan have included a number of bicycle accommodations. Bike lanes now exist on Grell Lane, and portions of N Watertown Street, River Drive, CTH Y, and Aztalan Street. Off-road trails have also been developed along a portion of Grell Lane, Resort Drive, and along the Rock River north of I-94.

To complete the network, bike lanes should be extended on Union Street/CTH Y from existing lanes to Milwaukee Street. Milwaukee Street/Aztalan Street/CTH B should also have bike lanes and paved shoulders as this roadway carries close to 4,000 vehicles per day and links to a number of local routes, Jefferson County Bike Routes, and Jefferson County Recreation Loops. South Street/CTH Y should also be formalized as a bicycling route through the addition of bike lanes and paved shoulders from Milwaukee Street to the City of Jefferson.

Long-term, an off-road trail network will be developed to link local parks and preserve the Rock River corridor. Trail extensions from existing trails near Resort Drive should be connected to Centennial Park south of the interstate to increase access for all users. Due to flooding concerns, an underpass is unlikely. The Village should coordinate with state officials for development of a pedestrian overpass that would provide crucial access across the interstate and link Rock River trail facilities that could be linked to other significant off-road trails within the county including the STH 26 Trail, Glacial Drumlin State Trail, and Glacial River Trail. See Appendix C, Map C-4.

Table 5.2.3: Village of Johnson Creek Implementation Table for On- and Off-Street Facility Improvements							
Term	Project	Limits	Recommendation	Implementing Agency	Length (in feet)	Total Cost	Funding Opportunities
5-Year	Milwaukee St. / CTH B	Union St. to Deer Crossing Rd.	Stripe bike lanes	V. Johnson Creek / Jefferson Co.	2439	\$6,100	General
	CTH Y	North of River Drive	Construct paved shoulders	Jefferson Co.	TBD	TBD	Scheduled for resurfacing in 2012
	Resort Drive Curb Ramp	West end of Resort Dr	Install curb cut from Resort Dr to trail	V. Johnson Creek	12	\$1,000	General
10-Year	Union St. / CTH Y	Milwaukee St. north to existing lanes	Construct bike lanes	V. Johnson Creek / Jefferson Co.	3732	\$223,920	TE, BPFP
	South St. / CTH Y	STH 26 to Milwaukee St	Construct bike lanes	V. Johnson Creek / Jefferson Co.	1907	\$114,420	TE, BPFP, STP-R
		STH 26 south	Construct paved shoulders	Jefferson Co.	TBD	TBD	
	Aztalan St. / CTH B	West city limits east to existing lanes near Serenity Ct	Construct paved shoulders	V. Johnson Creek / Jefferson Co.	9918	\$396,720	TE, BPFP, STP-R
	CTH B	West city limits west	Construct paved shoulders	Jefferson Co.	TBD	TBD	STP-R, TE
		Deer Crossing east to Switzke Rd	Construct paved shoulders	Jefferson Co.	TBD	TBD	
10+	Resort Drive / Rock River Trails	Resort Dr. to I-94	Construct off-street trail	V. Johnson Creek	3454	\$138,160	RTP
		Proposed trail north of I-94 to north city limits	Construct off-street trail	V. Johnson Creek	739	\$29,560	Stewardship, RTP
		Trail north of city limits along Rock River	Construct off-street trail	V. Johnson Creek / Jefferson Co.	TBD	TBD	Stewardship, RTP
		Existing trail north of I-94 to Centennial Park	Construct overpass	V. Johnson Creek/ DOT	TBD	TBD	TE, RTP
	Centennial Park Trail	I-94 to proposed trail south of Centennial Park	Construct off-street trail	V. Johnson Creek	1204	\$48,160	Stewardship, RTP
	South Rock River Trail to Aztalan St	City limits south of CTH B to Gosdeck Ln	Construct off-street trail	V. Johnson Creek	1741	\$69,640	Stewardship, RTP
		West city limits to Rock River and south	Construct off-street trail	V. Johnson Creek / Jefferson Co.	TBD	TBD	

5.2.4 City of Lake Mills

The City of Lake Mills serves as a major stop for the Jefferson County portion of the Glacial Drumlin State Trail. The community offers restaurants/breweries, bed-and-breakfasts, swimming in Rock Lake, travel supplies, and the State DNR trail headquarters/information center.

To welcome trail users into the community and provide the most direct access to destinations for residents and visitors alike, the City should consider striping bicycle lanes on Main and Lake Streets. As an alternative, cyclists may be routed on parallel lower traffic streets, with short segments of trails provided to complete connections. Since many cyclists will elect to ride on Main and Lake Streets, and these streets carry a lot of traffic, bike lanes are the preferred treatment. Bike lanes are also recommended on W Madison Street from Main Street to the existing paved shoulder on CTH B north of Rock Lake. Completing the bicycle lane network on CTH V/Tyranena Park Road is also recommended.

Paved shoulders are recommended on CTH B west of Rock Lake in the short-term. The Jefferson County Highway Department is exploring improvement options on this segment in 2014. Long-term, paved shoulders on CTH B east of city limits and CTH A are advised if these roadways are formalized as connections between Johnson Creek and Watertown respectively. See Appendix C, Map C-5.

Table 5.2.4: City of Lake Mills Implementation Table for On- and Off-Street Facility Improvements

Term	Project	Limits	Recommendation	Implementing Agency	Length (in feet)	Total Cost	Funding Opportunities
5-Year	Main St / CTH G / STH 89	Glacial Drumlin Trail to Tyranena Park Rd	Stripe bike lanes	C. Lake Mills / Jefferson Co. / DOT	9493	\$23,733	TE, BPFP, STP-U, SRTS
	W. Madison St. / CTH B	Main St. to Pine St	Stripe bike lanes	C. Lake Mills / Jefferson Co. / DOT	2911	\$7,278	TE, BPFP, STP-U, SRTS
	W. Madison St. / CTH B	Pine St. to Bade Ln.	Construct bike lanes	C. Lake Mills / Jefferson Co. / DOT	2771	\$166,260	TE, BPFP, STP-U
	E. Lake St. / CTH B	Main St. to Enterprise Dr.	Stripe bike lanes	C. Lake Mills / Jefferson Co. / DOT	5194	\$12,985	TE, BPFP, STP-U
	Off-street trail (Sandy Beach Rd to Ferry Dr)	Sandy Beach Rd. to W. Woodland Dr.	Proposed off-street trail	C. Lake Mills	738	\$29,520	General, RTP, SRTS
10-Year	Tyranena Park Rd / CTH V	W. Madison St. to Main St.	Construct bike lanes	C. Lake Mills / Jefferson Co.	2709	\$162,540	TE, BPFP, STP-U
	E. Lake St. / CTH B	Main St. to Enterprise Dr.	Stripe bike lanes	C. Lake Mills / Jefferson Co.	5194	\$12,985	TE, BPFP, STP-U
	E. Lake St. / CTH B	Enterprise Dr. to Brookstone Dr.	Construct bike lanes	C. Lake Mills / Jefferson Co.	3583	\$214,980	TE, BPFP, STP-U
	Off-street trail	Owen St. to Stony Rd.	Proposed off-street trail	C. Lake Mills	801	\$32,040	SRTS
	Off-street trail	Prairie Ave to Prairie Ave	Proposed off-street trail	C. Lake Mills	732	\$29,240	SRTS
	Off-street trail (East Lake Park Place to Brookstone Dr)	Lake Park Pl. to proposed trail east of Enterprise Dr.	Proposed off-street trail	C. Lake Mills	2975	\$119,000	RTP
		Along American Way and Brookstone Rd.	Proposed off-street trail	C. Lake Mills	3457	\$138,280	
10+	Mulberry St. / CTH A	Prairie Ave to Tyranena Park Rd	Construct bike lanes	C. Lake Mills / Jefferson Co.	710	\$42,600	TE, BPFP, STP-U
	Off-street trail (Rock Creek/Ditch 35 ROW)	Prairie Ave to Tyranena Park Rd	Proposed off-street trail	C. Lake Mills	1854	\$74,160	RTP
		American Way to proposed trail north	Proposed off-street trail	C. Lake Mills	6150	\$246,000	
	Off-street trail	Lee St. to Lee St.	Proposed off-street trail	C. Lake Mills	438	\$17,520	General

5.2.5 Village of Palmyra

The Village of Palmyra is uniquely positioned adjacent to the Kettle Moraine area. To capture some of the tourism activity generated by mountain biking, increasing the ability for cyclists to travel to and through Palmyra is important.

With the exception of Main Street/STH 59/CTH H, local streets and town roads around Palmyra are low volume/low speed roadways well suited for bicycling activities. Major roadway improvement projects are therefore not a high priority. However, encouraging movement through the village is essential to ensuring that Palmyra becomes a regular destination for Kettle Moraine visitors.

Paved shoulders/bike lanes are recommended for installation along W Main Street/CTH H from Marsh Road to N 5th Street. This segment links downtown with Jefferson County Recreation Loop #11, is a Jefferson County Bike Route, and carries a lot of automobile traffic. Similarly, E Main Street/STH 59 should include bicycle accommodations from approximately N 1st Street to Zion Road. A portion of this segment already contains paved shoulders, this should be extended to create a linkage between Jefferson County Recreational Loop #8 and downtown.

Jefferson Street/CTH E is being considered for improvement by the Jefferson County Highway Department in 2014. Paved shoulders should be recommended to provide north/south access from Sullivan and the Glacial Drumlin State Trail to the Kettle Moraine. Wayfinding signage should be installed at major decision points along established routes to enable first-time cyclists easy passage through Palmyra. Including destination-based information, such as “downtown”, on route signs will enable users to make informed decisions about where to stop for leisure and food/shopping activities. See Appendix C, Map C-6.

Term	Project	Limits	Recommendation	Implementing Agency	Length (in feet)	Total Cost	Funding Opportunities
5-Year	E. Main St. / CTH H	First St. northeast to existing paved shoulder	Stripe bike lanes	V. Palmyra / Jefferson Co	1904	\$4,800	TE, BPPF
		496' west of Zion Rd. to Zion Rd.	Construct paved shoulder	V. Palmyra / Jefferson Co	496	\$19,840	
	Jefferson St. / CTH E	N. First St. to north city limits	Construct paved shoulder	V. Palmyra / Jefferson Co	2338	\$93,520	STP-R
	CTH E	North city limits to V. Sullivan	Construct paved shoulder	Jefferson Co	TBD	TBD	STP-R; Scheduled for improvement in 2014
10-Year	W. Main St. / CTH H	South city limits to Fifth St.	Construct paved shoulder	V. Palmyra / Jefferson Co	2649	\$105,960	TE, BPPF
		Marsh Rd north to city limits	Construct paved shoulder	Jefferson Co	TBD	TBD	STP-R, TE, BPPF
10+	Connector Trail	E Main St to Jefferson St along Scuppernong River	Construct off-street trail	V. Palmyra	1845	\$73,800	RTP

5.2.6 Village of Sullivan

The Village of Sullivan contains a trailhead to the Glacial Drumlin State Trail with restrooms, maps, and travel information. The trail combined with low traffic local streets serve bicyclists within the community. High traffic volumes on USH 18, and County Highways E and F may decrease bicyclist comfort and may warrant facilities development.

Facilities development that would enhance the bicycle network within Sullivan includes striping a wide curb lane on Main Street from Palmyra Street to Bakertown Drive/Pleasant Street. The curb lane would be a dual purpose lane and accommodate both parked vehicles and bicycles. The lane should be painted at least 10' from the curb on both sides of the street. North of Palmyra Street there is a paved shoulder on Main Street to CTH E/F. CTH F is forecast for resurfacing both north and south of village limits in 2010. Paved shoulders would also enhance Palmyra Street/CTH E south of the Glacial Drumlin State Trail. This is a Jefferson County Bike Route and Recreation Loop #8.

Future subdivisions planned for Sullivan are recommended to include access to the Glacial Drumlin State Trail. This would enhance mobility for all transportation users and increase recreational opportunity for area residents. See Appendix C, Map C-7.

Table 5.2.6: Village of Sullivan Implementation Table for On- and Off-Street Facility Improvements							
Term	Project	Limits	Recommendation	Implementing Agency	Length (in feet)	Total Cost	Funding Opportunities
10-Year	Main St. / USH 18 / CTH F	Bakertown Dr. to Palmyra St.	Stripe wide curb lane (both sides)	V. Sullivan / DOT / Jefferson Co	812	\$2,030	General, TE, BPFP
	Palmyra St. / CTH E	Glacial Drumlin State Trail to south village limits	Construct paved shoulder	V. Sullivan / Jefferson Co	2990	\$119,600	TE, BPFP, STP-R
		South village limits to V. Palmyra	Construct paved shoulder	Jefferson Co	TBD	TBD	STP-R; Scheduled for improvement in 2014

5.2.7 City of Waterloo

The City of Waterloo contains bike lanes on S Monroe Street/CTH O from Waterloo Road to Knowlton Street. Continuation of bike lanes on Washington Street/Mills Street to an existing off-road trail at Firemen Park would complete the north/south bicycle network and provide linkages to a number of east/west routes as well as to the Jefferson County Bike Route and Jefferson County Recreation Loop #1 on CTH O. Since there is on-street parking on Washington Street, a wide striped curb lane (10' from curb) may serve dual-purpose as a parking/bike lane. If there is not adequate width on Mills Street for a lane marking, a shared lane marking could be installed to formalize the bike route (such as a "sharrow").

Existing paved shoulders are provided on STH 19 from E Madison Street to north of city limits. This highway is ridden regularly by experienced bicyclists with few problems, but because many destinations are located off STH 19 and because it crosses the river, better bicycle accommodation is preferred where paved shoulders do not exist. The entire segment of Madison Street/STH 19/89 should include bike lanes from city limits on the west to the proposed McKay Way extension on the east. If the proposed high-speed rail corridor will accommodate a rails-with-trails project, this connection linking the east and west side of town could be provided off-street along the rail corridor and preclude the need for bike lanes along Madison Street/STH 19/89.

Bike lanes are also recommended on Minnetonka Way to formalize this as the primary north/south route east of the river. A secondary east/west route is recommended when McKay Way is constructed between S Monroe Street/CTH O and STH 89. The entire length of McKay Way/Knowlton Road should contain bike lanes. The Garman Nature Preserve/Knowlton Field Trailhead Facility is proposed to be constructed on Knowlton Road. Other off-road trails will occur throughout the community providing linkages between parks, neighborhoods, and other natural features and transportation facilities. See Appendix C, Map C-8.

Table 5.2.7: City of Waterloo Implementation Table for On- and Off-Street Facility Improvements							
Term	Project	Limits	Recommendation	Implementing Agency	Length (in feet)	Total Cost	Funding Opportunities
5-Year	Washington St. / CTH O	Knowlton St. to Madison St.	Stripe bike lane	C. Waterloo	2238	\$6,000	General, BPFP
	Mill St.	Madison St. to Firemen Park	Stripe bike lane	C. Waterloo	1116	\$2,800	General, BPFP
	Minnetonka Way	Madison St. to Porter St.	Stripe bike lane	C. Waterloo	2478	\$6,200	General, BPFP
	Saddle Ridge Park	Birch St. to Arbor Vitae Ln.	Construct off-street trail	City of Waterloo	682	\$27,280	Stewardship, RTP
	Garman Nature Preserve/Knowlton Field Trailhead Facility	Knowlton Rd	Trailhead facility	C. Waterloo, Jefferson Co, DNR	TBD	TBD	Stewardship
10-Year	Madison St. / STH 19 / STH 89*	West city limits to east city limits	Construct bike lanes	C. Waterloo, DOT	11592	\$695,520	TE, BPFP
	East/West Trail*	West city limits to east city limits	Rails-with-trails project south of Madison St	C. Waterloo, RTA	9900	\$396,000	TE
10+	Knowlton Rd	W. Madison St. to McKay Way	Construct bike lanes	C. Waterloo	1438	\$86,280	TE, BPFP
	McKay Way	W. Madison St. to S. Monroe St.	Construct bike lanes	C. Waterloo	3156	\$189,360	TE, BPFP
		S. Monroe St. to east city limits	Construct bike lanes	C. Waterloo	7754	\$465,240	
	Southwest Trails	Waterloo Rd. to Knowlton Rd.	Construct off-street trail	C. Waterloo	3806	\$152,240	RTP
		Waterloo Rd. to McKay Way	Construct off-street trail	C. Waterloo	2541	\$101,640	
		McKay Way to Knowlton St.	Construct off-street trail	C. Waterloo	689	\$27,560	
		West city limits to W. Madison St.	Construct off-street trail	C. Waterloo	1648	\$65,920	
	Northwest Trails	Canal Rd to Herron Dr	Construct off-street trail	C. Waterloo	5986	\$239,440	RTP
		Herron Dr to north city limits	Construct off-street trail	C. Waterloo	1535	\$61,400	
		Minnetonka Way to Crestview Dr	Construct off-street trail	C. Waterloo	450	\$18,000	
	Northeast Trails	Maunasha River Trail north to STH 19	Construct off-street trail	C. Waterloo	3982	\$159,280	Stewardship, RTP
		Commercial Ave. to STH 19	Construct off-street trail	C. Waterloo	500	\$20,000	RTP

*The east/west connection will either be on-street (Madison St) -OR- off-street (rails-with-trails)

5.2.8 City of Watertown

Local streets in Watertown are bikeable. While not every street is signed as a formal bike route, there has been identified a skeletal system of preferred bicycling corridors that allow cyclists to travel between different sectors of the community. Individual trips may utilize all or part of this designated system, as applicable, to reach various destinations. In certain areas where heavier traffic conditions dictate, striping bike lanes or wide curb lanes is required to safely accommodate bicycle travel.

One-way streets east of the Rock River and primarily south of E Main Street/STH 16/19 complicate bicycle movement and make S 1st Street the best option for bicycle travel. Many streets within this grid are adequate to accommodate bicycles and no additional facilities are recommended other than signage to communicate the presence of the local bike route.

Bike lanes are recommended on West Street/CTH T because this is a Jefferson County Bike Route to Waterloo and leads to the Milwaukee Street Bridge. This bridge should be improved to provide formal bicycle accommodation. Western Avenue and S 12th Street/CTH X should also be improved to provide the backbone of the bicycle network. Paved shoulders are recommended where curb and gutter are not provided.

Off-road facilities exist in some locations throughout the city and enhance connections to natural resources (Rock River) and community facilities (Watertown High School). Long-term installation of trail facilities along the Rock River is part of countywide strategy to preserve this natural resource. In Watertown, trail development along the Rock River will also enhance mobility in the city center. See Appendix C, Map C-9.

Table 5.2.8: City of Watertown Implementation Table for On- and Off-Street Facility Improvements

Term	Project	Limits	Recommendation	Implementing Agency	Length (in feet)	Total Cost	Funding Opportunities
5-Year	Western Ave.	1st St. to 12th St.	Stripe bike lanes	C. Watertown	3235	\$8,100	TE, BPFP
	Millford St. / CTH A	West St. to Milwaukee St.	Construct bike lanes	C. Watertown / Jefferson Co	330	\$19,800	TE, BPFP
	Trail from Spaulding St to High School Trail	Spaulding to Endeavor Dr.	Construct off-street trail	C. Watertown	930	\$37,200	RTP
10-Year	West St. / CTH T	CTH Q to Horseshoe Rd.	Construct paved shoulder	Jefferson Co	TBD	TBD	STP-R
		Horseshoe Rd. to Benton St.	Construct paved shoulder	C. Watertown / Jefferson Co	3651	\$146,040	STP-R
		Benton St. to Millford St.	Construct bike lanes	C. Watertown / Jefferson Co	5107	\$306,420	TE, BPFP
	Milwaukee St.	Millford St. to Water St.	Construct bike lanes	C. Watertown	1009	\$60,540	TE, BPFP
	12th St. / CTH X	Western Ave. to Falcon Ct.	Construct bike lanes	C. Watertown / Jefferson Co	5945	\$356,700	TE, BPFP
		Falcon Ct. to south city limits	Construct paved shoulder	C. Watertown / Jefferson Co	2528	\$101,120	TE, BPFP
		City limits south to Ebenezer Rd	Expand 2' paved shoulder to 4'	Jefferson Co	9740	\$389,600	STP-R
	Boughton St. / CTH CW	Werner St. to 400' west of Hwy 16	Stripe bike lanes	C. Watertown / Jefferson Co	1783	\$4,500	General
10+	Rock River Trail	STH 26 to Milwaukee St. (Southeast side of River)	Construct off-street trail	C. Watertown	2953	\$118,120	RTP
		STH 26 to STH 19/E Main St (Northwest side of river)	Construct off-street trail	C. Watertown	4150	\$166,000	
	Redeck Milwaukee St Bridge	Bridge	Redeck bridge to include 5' bike lanes and sidewalks on both sides	C. Watertown/ DOT	TBD	TBD	TE

5.2.9 City of Whitewater (See Appendix C, Map C-10)

There are a variety of facilities available for active transportation in the City of Whitewater. The network includes a series of off-road trails, sidepaths, paved shoulders and bike lanes. Major on-road facilities include bike lanes on W Starin Road, Warhawk Drive, and a portion of N Prairie Street, all near the UW-Whitewater campus. Paved shoulders exist on portions of CTH S, Willis Ray Road, and Glover Valley Road.

Improvements are recommended to formalize long contiguous segments of roadway that will provide a skeletal system of bicycle routes. North/south bike lanes would be ideal for N Prince Street and N Prairie Street, but the need for on-street parking doesn't provide sufficient room for dedicated bike facilities. Still, these streets should be identified as formal bike routes. Bike lanes should be installed on S Wisconsin Street. East/west bike lanes are proposed for W Walworth Street/CTH S. Paved shoulders along CTH U, CTH N, and CTH S would also enhance bicycle movement from outside the urbanized area.

The off-road trail network is more complete than the on-road network. Current trails extend from the north city limits (west of Fremont Road) south to Cravath Lake. Separate trail segments also exist near Tripp Lake and Whitewater High School. The trail network is planned for expansion by connecting the Tripp Lake and Whitewater High School trails in the near-term. Longer-term trail segments will link the Tripp Lake trail network to the eastern city limits terminating north of Bluff Road. Sidepaths will be installed south of Willis Ray Road on the city's south side, and along the future Starin Road connection between N Fremont Street and STH 59.

Table 5.2.9: City of Whitewater Implementation Table for On- and Off-Street Facility Improvements

Term	Project	Limits	Recommendation	Implementing Agency	Length (in feet)	Total Cost	Funding Opportunities
5-Year	N. Prairie St.	Lauderdale Dr. to Schwager Dr.	Construct bike lanes	C. Whitewater / UW-W	1110	\$66,600	TE, BFPF
	N. Tratt St. / CTH N	W. Starin Rd. to Hillcrest Dr.	Stripe bike lanes*	C. Whitewater / Walworth Co	1647	\$4,200	TE, BFPF
	Trail south of Starin Road	W Starin Rd. to STH 59	Construct off-street trail	C. Whitewater	3875	\$155,000	General, RTP
	Trail north of Bluff Rd. west of Moraine View Blvd.	Bluff Rd. to Corporate Dr.	Construct off-street trail	C. Whitewater	2244	\$89,760	General, RTP
	Trails south of Tripp Lake	S. Rice St. to Existing Trail	Construct off-street trail	C. Whitewater	5621	\$224,840	General, RTP
	Trail south of Willis Ray Rd.	Franklin St. to S Wisconsin St.	Construct off-street trail	C. Whitewater	2680	\$107,200	General, RTP
	S. Wisconsin St.	South city limits to E. Main St.	Construct bike lanes	C. Whitewater	4928	\$295,680	TE, BFPF
10-Year	W. Walworth Ave. / CTH S	Indian Mound Pkwy to S Franklin St	Stripe bike lanes*	C. Whitewater / Walworth Co	6877	\$17,200	TE, BFPF
	W. Schwager Dr.	N. Tratt St. to Stadium Dr.	Construct bike lanes	C. Whitewater / UW-W	736	\$44,160	TE, BFPF
	Stadium Dr.	W. Schwager Dr. to Winnebago / Warhawk	Construct bike lanes	C. Whitewater / UW-W	2839	\$170,340	TE, BFPF
	N. Tratt St. / CTH N	Hillcrest Dr. to County Road U	Construct paved shoulder	C. Whitewater / Jefferson Co	5781	\$231,240	STP-R
	Trail from Tripp Lake To Moraine View Blvd.	Proposed trail south of Tripp Lake across USH 12 to Moraine View Blvd.	Construct off-street trail	C. Whitewater	3762	\$150,480	RTP
	Trail from Franklin St to High School	S Elizabeth St to STH 59	Construct off-street trail	C. Whitewater	2155	\$86,200	RTP
		STH 59 to S Franklin St	Construct off-street trail	C. Whitewater	3300	\$132,000	RTP
10+	Executive Dr.	STH 59 to Prospect Dr.	Proposed bike lanes	C. Whitewater	1349	\$80,940	General, TE, BFPF
	CTH S	CTH S from Walworth Co limits east	Construct paved shoulders	Rock Co	TBD	TBD	STP-R

*Striping bike lanes may require changes to on-street parking

6 CONNECTING THE NETWORK

The development of this plan update was borne out of a desire to capitalize on state and regional efforts occurring throughout the Jefferson County region. State efforts include bicycle improvements planned as part of the STH 26 Bypass (DOT) and improving connections to recreational areas planned in the Glacial Heritage Area (DNR). At the same time, this plan explores the addition of two local trail corridors. Working in concert with existing Jefferson County Bike Routes and Recreation Loops these connections have the ability to substantially improve the non-motorized transportation network within the region.

6.1 Evaluated Corridors

As part of this plan, identification and preliminary route assessment for two priority off-road bike corridors was determined. Based on survey results, connection of primary destinations, and taking into account geographic distribution throughout the county, the corridors studied were 1: Lake Mills to Waterloo, and 2: Palmyra to Glacial Drumlin State Trail. After review of these corridors, the Bicycle and Pedestrian Plan Steering Committee determined that an off-road corridor from Waterloo to Watertown through Holzhueter Park was a higher priority corridor than the Palmyra to Glacial Drumlin State Trail.

SAA worked with Ann Freiwald (Velo-City Planning & Design, LLC) to develop these corridors. Analysis of the two corridors (1: Lake Mills to Waterloo; 2: Palmyra to Glacial Drumlin State Trail) is provided below.

6.1.1 Introduction

Several potential off-road trail corridors were considered for this analysis. The final design for each trail will be determined at a later date when the exact route is available and the exact site conditions are understood. However, generally speaking it is anticipated that the multi-use trail will be 10 foot in width, with wayfinding signs, rest areas and other amenities. The trail's tread will vary depending on site conditions and anticipated use from asphalt paving to crushed limestone to boardwalk, where necessary. The trail will be built on easements across private land as well as currently owned public land and public land that is acquired in the future as part of the implementation of the Glacial Heritage Area Plan. Trail segments will be managed by various agencies depending on the specifics of ownership.

A few words about the rationale used to select the routes for the two corridors described below:

- a. Information used to select the corridors included maps and text from the Wisconsin Department of Natural Resources Glacial Heritage Area Plan (GHA), Jefferson County Land Records GIS, Bing Maps (formally MSN), and information gathered by the consultant in conjunction with their development of the Jefferson County Bike Plan
- b. Route selection attempted to follow environmental corridors, avoid wetlands and take advantage of public lands such as parks and wildlife areas
- c. Route selection also incorporated future land acquisitions or easements called for in the Glacial Heritage Area
- d. On-road routes were not discussed as our mission is to identify off-road routes. In both corridors, however, there are county highways and town roads that carry light traffic and would be acceptable bike routes, if desired

It is important to note that easements or acquisitions from private landowners will be necessary to achieve the multi-use trail corridors set forth in this document. The corridors shown on the maps should be considered flexible, allowing the implementation of this plan to follow the path of least resistance. Some landowners will be more willing to sell or have public easements on their land than other landowners, efforts should be made to work with these landowners. Development of land in the study area may bring up opportunities to make trail provision part of the subdivision approval process. Opportunities such as these should not be missed if the trail corridor can flex to accommodate them.

6.1.2 Corridor 1: Lake Mills to Waterloo

Rationale for this corridor:

This corridor was the number one corridor in the on-line survey taken in conjunction with the Jefferson County Bicycle Plan update

- This corridor is part of the Glacial Heritage Area Plan
- The corridor will connect two of the largest cities in the county

Corridor General Description

The corridor begins in Lake Mills (which has a direct connection to the Glacial Drumlin Trail) and connects to Waterloo (either the 4000 acre Waterloo Wildlife Area or Garman Nature Preserve). The two alternative trail corridors are located east of STH 89 due to the large amount of publicly owned land just to the east of the highway. A third alternative is located west of STH 89 with a long on-road segment on Newville Road. (See Appendix D, Map D-1)

A challenge to the implementation of the eastern corridors is that most of the environmental corridors located in this area and most of the publicly owned (DNR) lands in this area are mapped as wetlands on the Jefferson County Land Records GIS. Building a trail through wetlands requires permits and can be difficult. A trail built on “high/dry” lands in this area would require a lot of land acquisition or building in the right of way of existing roads and highways.

Three alternative corridors are discussed below. The eastern options include one alternative on public lands or environmental corridors while the other alternative follows existing highways and town roads, which will not be in wetlands but may require additional land acquisition. The “Western Option” is shown primarily on private property and includes major on-road segments.

Potential trailhead locations include:

Eastern

- Rock Lake Park (Jefferson County Parks)
- Re use of an abandoned building along the rail line in downtown Waterloo
- Parking lot at the proposed North Shore Moraine Conservation Park (GHA)

Western

- Garman Nature Preserve
- Korth Park

Detailed Eastern Corridor Description (south to north)**Segment 1 (Rock Lake Park to Rock Lake Road and I-94)**

Beginning at Rock Lake County Park and CTH B continue through the existing park to the underpass at Rock Lake Park and I-94. Improve the underpass for biking and walking traffic to the north side of I-94.

Segment 2 Alt A (Rock Lake Road and I-94 to approximately 3000' north of the intersection of Rock Lake Road and Cemetery Road)

The corridor crosses to the east side of Rock Lake Road and uses easements along the west side of the mapped wetlands to travel north to about 3000' north of the intersection of Rock Lake Road and Cemetery Road. Here the route joins up with Alt B as a side path in the right of way of Rock Lake Road.

Segment 2 Alt B (Rock Lake Road and I-94 to approximately 3000' north of the intersection of Rock Lake Road and Cemetery Road)

Continue north on the west side of Rock Lake Road to the intersection of Rock Lake Road and Cemetery Road. Cross Cemetery Road at the T-intersection and continue north on the east side of Rock Lake Road to 3000' north of the intersection.

Segment 3 (3000' north of the intersection of Rock Lake Road and Cemetery Road to Rock Lake Road and STH 89)

Continue as a side path within the right of way of Rock Lake Road (right of way is approximately 70 feet wide, acquisition may be necessary) north to the intersection of Rock Lake Road and STH 89. STH 89 carries about 2700 cars per day in this location. Traffic control signs and well marked crosswalks will be necessary to help trail users safely cross the highway.

Segment 4 Alt A (Rock Lake Road and STH 89 to Waterloo)

Corridor heads west on the north side of the STH 89 right of way (right of way is about 135' wide, there appears to be 3 lots on this side of the road if acquisition is necessary). Approximately 1600 feet west of the intersection, the corridor will turn directly north and follow the west side of the environmental corridor located just north of STH 89 and west of Springer Road to the south end of the Waterloo Wildlife Area.

Once in the Waterloo Wildlife Area property, continue on the west side of mapped wetlands as much as possible. Cross Blue Joint Road at the stream crossing and continue north through the wildlife area on the west side of the stream all the way north to the east/west railroad right of way located on the south side of Waterloo. Turn west and continue into Waterloo on the rail right of way with a rail and trail segment. See FHWA Rails with Trails Study (2002) for successful examples of rails with trails, including some in Wisconsin.

Segment 4 Alt A-1 (Rock Lake Road to Segment 4 Alt A at south end of Waterloo Wildlife Area)

As an on-road alternative to Segment 4 Alt A, the corridor would head east as a side path on the south side of STH 89 and cross at the T-intersection created by Springer Road and STH 89. The trail would then become an on-road facility sharing the travel lanes north on Springer Road to Conservation Lane, taking a left to the end of Conservation Lane which ends at the southern border of the Waterloo Wildlife Area with a small parking lot. From here, connect back up to Segment 4 Alt A.

Segment 4 Alt B (Rock Lake Road and STH 89 to Waterloo)

Crossing STH 89 to the north side, the corridor continues as a side path on the north/east side to Waterloo. Right of way varies from 200' wide to as narrow as 95'. Acquisition may be necessary. Careful design will be necessary as the trail approaches Waterloo and the frequency of intersections and driveways increases. Please see AASHTO Guidelines and the Wisconsin Bike Facility Design Guidelines for additional information on the proper design of side paths.

Western Corridor Description (south to north)

Korth Park is the origin of this corridor. Trail corridor users will find a parking lot and trailhead at Korth Park located on Elm Point Road. A trail links Korth Park to the Glacial Drumlin State Trail.

Western Option A (Korth Park via CTH S)

Beginning at Korth Park head west to CTH S and follow it north to CTH B. At CTH B, turn east toward Lake Mills. Turn left onto Newville Road.

Western Option B (Korth Park via Cedar Lane/Shorewood Hills Road)

Travel north through Korth Park to Cedar Lane until it ends at Shorewood Hills Road. Turn right onto Shorewood Hills Road and take it to Bridle Path Lane then turn left. Follow Bridle Path Lane to Polo Lane then turn right. Take Polo Lane to CTH B. This corridor alternative proposes an off-road side path is constructed on the north side of CTH B from approximately Polo Lane west to Newville Road. This northern trail was chosen based on the presence of only one driveway. Property acquisition will be necessary.

Newville Road

This western route utilizes Newville Road to cover a majority of the distance between possible off-road trails. This on-road segment would stretch between CTH B near Lake Mills to CTH O just south of Waterloo. This road was selected "as is" with no trail facility due to the low traffic volume and bucolic nature of the roadway. The portion north of I-94 is currently a Jefferson County Bike Route.

Off-Road Trails west of CTH O (north of Veith Road to Garman Nature Preserve)

The remainder of this western route requires significant negotiation with a major landowner (McKay Nursery) south of Waterloo. The route as proposed would utilize existing access roads through the nursery property.

6.1.3 Corridor 2: Palmyra to the Glacial Drumlin Trail

Rationale for this corridor:

- Connects Palmyra and the Kettle Moraine Southern Unit to the Glacial Drumlin Trail
- Scored 4th highest in the on-line survey of most desired corridor connections. Most popular was the Waterloo to Lake Mills Corridor, second was a corridor that is not in Jefferson County, and the third corridor was located in the same area as the first (Cambridge to Lake Mills).

Corridor General Description

The corridor begins in Palmyra and travels in a northwestern direction along STH 106. At the corner of STH 106 and CTH CI the corridor splits into two alternative routes. Alternative Route

A heads in a northwesterly direction and traces through the future Cushman Mill Park and along side Cushman Road to connect to the Glacial Drumlin Trail. Alternative Route B takes a more northeastern direction and traces through the large publicly owned Rome Pond Wildlife Area. The final segment to Sullivan and the Glacial Drumlin Trail is along the east side of CTH F (Old STH 135).

Potential trailhead locations include:

- The public park located on the south side of Spring Lake in Palmyra
- Future parking lots at Cushman Mill Park or Scuppernong Valley Park (GHA)
- The existing trailhead located at the corner of Palmyra Road and the Glacial Drumlin Trail in Sullivan

Detailed Corridor Description (south to north)

Segment 1 (Palmyra to the Corner of STH 106 and CTH CI)

The proposed corridor heads north on the east side of STH 106 through the future Glacial Heritage Area (GHA) Rural Landscape Protection Area as a side path. There is about 4000 feet between the Palmyra city limits and the south edge of the proposed Rural Landscape Protection Area, the STH 106 right of way is about 85 feet wide, easements from adjacent landowners will be necessary to build the trail. A farm road exists within the limits of the RLPA on the east side of STH 106 between the farm fields and the highway ditch. This farm road might be an excellent base for the future trail.

Segment 2 Alt A

(Corner of STH 106 and CTH CI to the Glacial Drumlin Trail (GDT) Via Cushman Mill Park)

There are no obvious off-road corridors north of the STH 106 and CTH CI intersection. Land use is a combination of farmland, woodland and large residential lots. There is a mapped environmental corridor north of STH 106 and south of Hanson Road (east of Mehring Road and west of CTH F), trace the trail through private lands with easements to the future Cushman Mill Park (GHA). Continue trail through the future park to Cushman Road. Cross Cushman Road to the west side, trace trail through mapped environmental corridor lands for about ½ mile to DNR lands located west of Rome Road and east of Duck Creek Road. Once on DNR lands, follow the old farm ditch/creek north to private lands just south of the Glacial Drumlin Trail. An easement from the private land owner of about 1000' in length will be necessary to reach the Glacial Drumlin Trail located just north of STH 18. STH 18 carries about 1700 cars per day at this location. A well-marked, at-grade crossing will be needed to safely cross the trail users to the GDT.

Wayfinding signs will be necessary at this location to lead trail users to services in Sullivan and inform users about the distances to other communities and attractions on the trail. The signs would also point Glacial Drumlin Trail users to Palmyra and the Kettle Moraine Southern Unit.

Segment 2 Alt B

(Corner of STH 106 and CTH CI to the Glacial Drumlin Trail Via Rome Pond Wildlife Area)

Again, there is no obvious off-road corridors north of the STH 106 and CTH CI intersection, yet there are mapped environmental corridors to guide the corridor selection. From the corner of STH 106 and CTH CI the corridor should follow the CTH right of way on the north side for about 1.5 miles. Then head north over private lands. There is a large woodland environmental corridor mapped north of CTH CI and south of Rome Oak Hill Road. Trace the trail using easements from private landowners through this segment (a little over 1 mile in length) to Rome

Oak Hill Road. Once north of Rome Oak Hill Road, the corridor is on DNR wildlife lands. Rome Pond Wildlife Area is mostly wetlands. The most high/dry land is located just east of Rome Oak Hill Road and this would be the best location for the trail. The best location to cross Rome Mill Pond is just south of the CTH F bridge as this is the narrowest bit of the pond. A bike/ped bridge located parallel but separate from the highway bridge should be located on the south side due to existing old highway grade that is visible on the air photos (bridge length would be about 270 feet).

The corridor follows CTH F on the south (east) side to Sullivan and the Glacial Drumlin Trail with a trail located in the highway right of way. The right of way varies from 85 feet in width to 130 feet, some easement acquisition may be necessary.

The Glacial Drumlin Trail is on the south side of STH 18 at this point. So, crossing STH 18 will not be necessary to access the trail, however, trail users will need to cross STH 18 to access services and business located in Sullivan. According to DOT traffic counts about 4700 cars use STH 18 at this location each day. Signal timing should be adjusted to account for biking and walking traffic and crosswalks should be well marked with ladder type markings.

Once at the intersection of the new trail and the Glacial Drumlin Trail, wayfinding signs will be necessary as mentioned above.

6.1.4 Conclusions

The building of multi-use paths in these corridors will take years so it is important for trail planners to remain flexible in their vision of the trail. It would be unwise at this point to select an “optimal” trail of the alternatives presented above as we do not have enough information at this time to make a wise selection. Which landowners are willing to provide a public easement through their land? How many acres of the future parks described in the GHA will come to pass and where will these new parks be located, exactly? How will the Rural Landscape Protection Areas function? The answers to these questions and more will have an effect on the final form of the proposed multi-use paths.

The best approach to long term planning and implementation for a project of such scale as this is to remain flexible, put policies in place that will add in implementation, develop relationships with landowners in the corridors of interest, and work with opportunities as they arise.

Design Reference Materials for Multi-Use Paths

AASHTO –Guide for the Development of Bicycle Facilities, 1999

Note: AASHTO is in the process of developing an new guidebook on this topic, it is due out in early 2010, please use the latest version available.

Wisconsin DOT- Wisconsin Bicycle Facility Design Handbook, 2004

Manual on Uniform Traffic Control Devices, 2003

Chapter 9 has many bike related signs

FHWA-Rails with Trails-Lessons Learned, 2002

6.2 GHA Connectivity Assessment

6.2.1 Introduction

Jefferson County Parks staff met with John Pohlman of the Department of Natural Resources in November 2009 to discuss the integration of the pedestrian/bicycle network with the proposed Glacial Heritage Area (GHA) Plan. The discussion was used to confirm there would be strong connections for the GHA trail corridors to link parks-to-parks, parks-to-communities, and communities-to-communities. To facilitate the discussion, a composite map was developed that overlaid the GHA Plan with Jefferson County Bicycle Routes and Jefferson County Recreation Loops.

6.2.2 Glacial Heritage Area Consistency Assessment Map

MAP D-2 (Appendix D) shows a variety of routes, trails, DNR lands, and recreation loops. The intent of this map was to demonstrate the potential connectivity of the current route and recreation loop system and how they integrate with proposed GHA facilities. Additional markers on the map include:

- a. Core Park Areas For Facilities Development: locations within GHA properties where facilities development is likely to occur; this may include a variety of active or passive use facilities.
- b. Future Off-Road Linkages: two corridors are shown – one from Waterloo to Watertown, and another from Watertown to Oconomowoc. The former is subject to a thesis study in coordination with Steve Grabow (UWEX) and the University of Wisconsin. It would link Waterloo to Holzhuetter Farm Park (and potential mountain biking facilities) with Watertown. The second connection would link Watertown to Oconomowoc and is being evaluated outside of this planning effort.
- c. Early Opportunity GHA Park: parks currently undergoing property acquisition and facilities planning.
- d. Early Opportunity Trail Connection Corridor: trail segments identified through survey response as a primary need. See section 6.1 above for a complete description.
- e. Glacial Drumlin State Trail to Cambridge Connector Trail: off-road trail area that was studied by the Village of Cambridge, Jefferson County Parks, Dane County Parks, the Cambridge Community Foundation, and WDNR to link the Glacial Drumlin Trail to CamRock County Park.

6.2.3 Conclusion

There are currently good on-street connections to all proposed GHA facilities. In fact, many proposed GHA facilities are linked to communities and other parks utilizing segments of the Jefferson County Recreation Loops network. However, the off-street network is still developing and remains a priority throughout the GHA. Additional opportunities to expand the trail network should be explored to fully integrate cultural, natural, and historic places within the Jefferson County bicycle and pedestrian network.

6.3 USH 26 Corridor Assessment

6.3.1 Introduction

The *WIS 26 Bike Route Plan* (2005) has its roots in the WIS 26 Corridor Plan. The WIS 26 Corridor Plan was an effort initiated by the Wisconsin Department of Transportation (WisDOT) to help communities anticipate and adapt to the changes that will occur when the highway is expanded and bypasses are constructed. The corridor plan included recommendations in many topic areas including the promotion of bicycling for recreational use and transportation. The

corridor plan also included planning strategies that will help promote bicycling as the transportation network and land uses change.

The goal of the *WIS 26 Bike Route Plan* was to identify a network of bike routes parallel to WIS 26 that facilitate bicycle travel between the communities along the corridor. The limits of the study extend from the city of Janesville in the south to WIS 60 north of the city of Watertown. The outcome of the study was a series of routes that use existing roads, trails, and special linkages to promote bicycling as an alternative form of transportation. Routes were classified according to their ultimate feasibility and implementation timeframe.

6.3.2 Highway 26 Improvements Map

Map D-3 (Appendix D) details three proposed trail and highway alignments as drawn in December 2009. Three inset maps appear on the map to enhance detail in each location. Not shown in greater detail is a trail realignment on the border of Rock and Jefferson counties. Currently, a trailhead is located adjacent to the Glacial River Trail south of Countyline Road. This trailhead will shift slightly to the north as STH 26 is realigned. Essentially, facilities remain as existing, so a detail is not shown.

Descriptions of each inset are provided below.

Inset 1: Fort Atkinson to Jefferson

From Fort Atkinson, there would be a 5 foot paved shoulder added to CTH K/N High Street to Rita Lane. At Rita Lane, there would be an off-street trail constructed that would travel east of STH 26 north to CTH W/Wisconsin Street in Jefferson. A new road would be constructed at the intersection of CTH W at STH 89/CTH Q east to “Old” STH 26.

In consideration of these facilities, there is some debate as to whether extending the trail north of CTH W would provide better north/south access. The current design requires users to travel east into Jefferson before heading north. In discussions with the DOT, it was determined that a trail could be extended north from CTH W/Wisconsin Street to USH 18 within the STH 26 right-of-way with some minor grading. Additional facilities would include one or two short sections that would need either a small stone wall or slope easement from an adjacent property owner and several culvert pipes. However, north of USH 18 there is no pedestrian or bike access on the STH 26 bridge over the Crawfish River because the highway is a freeway where non-motorized uses are not allowed. Also, this work would not be part of the current STH 26 project schedule.

Inset 2: Jefferson to Johnson Creek

From Jefferson, a new road will be constructed between Watertown Road and W Junction Road. The connection to the Glacial Drumlin State Trail will be moved from its current location to just east of the new STH 26 highway, then west to the trail near Jahn Road. An additional off-street trail is proposed west of STH 26 which will provide direct connection from Jefferson to the Glacial Drumlin State Trail for westbound travelers.

A new street is proposed north of the Glacial Drumlin State Trail to Jefferson Road where travel lanes are proposed to be increased by 2 feet. Jefferson Street will lead directly into Johnson Creek terminating at Aztalan Street/CTH B where an existing bicycle lane currently exists.

Inset 3: Johnson Creek to Watertown

Between Johnson Creek and Watertown there will be both on- and off-street bicycle facilities. Starting in Johnson Creek on Old 26 Road/N Watertown St where an existing bike lane exists there will be constructed a 3 foot paved shoulder that connects to a proposed off-street trail west of STH 26. The trail is proposed to run north to High Road near Watertown. This street is proposed to receive 3 foot paved shoulders.

Local bicycle routes in Watertown do not exist near the proposed terminus of the proposed route. If the current facilities are built, the best option for travel into Watertown includes use of the proposed trail to High Road, then traveling east on Ebenezer Road which is currently a Jefferson County Bike Route, to CTH X/S 12th Street into Watertown (also a current bike route).

6.3.4 ConclusionConnections to USH 26

With a few noted exceptions, the planned STH 26 bike route will reasonably accommodate cyclists seeking to travel from the south of Jefferson County via the Glacial River Trail north to Watertown. To promote ridership through Jefferson County in a north/south direction, the entire network should be provided off-street. This would complement the Glacial Drumlin State Trail which travels east/west and provide users a variety of destinations on an uninterrupted and separated facility.

One planned segment that should be further investigated is extension of the proposed trail near Jefferson north to USH 18 then east to CTH N. Issues with this routing are all due to USH 18 and include crossing the Crawfish River, the amount of traffic on this highway, and safe turning across travel lanes from USH 18 to CTH N/ N. Jackson Avenue. Still, the proposed terminus near CTH W is less preferred.

The greater issue with the proposed STH 26 improvements occurs near Watertown where proposed road improvements would drop cyclists into four lanes of traffic on existing STH 26. Use of CTH X/S 12th Street east of the existing STH 26 location would improve connections and comfort for cyclists. Ebenezer Road is a low volume roadway that could connect the proposed trail to CTH X and eliminate the need to widen lanes on existing STH 26.

Role of the Glacial River Trail

The Glacial River Trail runs along STH 26 from Rock County, over the Rock River via a bike/ped bridge the trail, and through the City of Fort Atkinson. The northern limit of the trail currently located at N Main Street/STH 89 near N 4th Street. Extension of trail facilities from the northern limits would provide a continuous off-street multiuse trail from the southern county limits to the City of Jefferson.

Between Fort Atkinson and Jefferson, a trail segment is being proposed between CTH K, near the STH 26 Bypass, north to CTH W near the City of Jefferson. Connecting to this trail will be the deciding factor in how users view the role of the Glacial River Trail. There are two options at present. The first is to continue the Glacial River Trail to the north by developing a multiuse trail along the existing railroad right-of-way from N Main Street to approximately Rita Lane (where it would connect to a proposed STH 26 trail). The second and easiest option, is to improve accommodations on CTH K/N High Street between city limits and Rita Lane.

As mentioned in previous sections, ridership would be greatly enhanced if the entire Glacial River Trail/STH 26 corridor trail could be provided off-street. However, as currently proposed the bicycling network will accommodate cyclists wishing to traverse longitudinally through the county. To enable this, transitions from on-street to off-street connections will need to be safely and intuitively provided.

7 IMPLEMENTATION STRATEGIES

This chapter includes a compilation of implementation strategies, project prioritization, and funding sources to achieve the objectives of this plan.

7.1 Using This Plan

The success of this plan is largely dependent on the actions and support of local people. Implementation of highway improvements, bike facilities, and programs are the responsibility of local individuals, businesses, towns, cities and villages, the County and the State. This section identifies strategies to grow local interest in enhancing walking and bicycling in Jefferson County.

7.1.1 General Actions

Individuals

- a. Wear a helmet when bicycling and respect the rules of the road.
- b. Talk to employers about providing incentives and bicycle parking facilities.
- c. Form, or become active in, a local bicycle focus group in each community. The purpose of these groups is to influence local policies and capital improvement project decisions.
- d. Identify strategies to beautify a walking or bicycling route by working with local parks departments, master gardeners, and others to plant flowers or a garden, or by placing a bench in a strategic resting spot.

Commercial Businesses

- a. Encourage employees to bicycle and walk to work by offering incentives and by providing needed facilities at the workplace such as bicycle parking and improved connections to the site.
- b. Sponsor bicycling promotional activities like "Bike Rodeos" and "Bike to Work Days" to show support and create enthusiasm.
- c. Promote the use of the federal Bicycle Commuter Tax Provision.

Health and Educational Institutions

- a. Offer bicycling and pedestrian education curricula.
- b. Start a Safe Routes to School campaign at the local grade school or school district.
- c. Promote Walk/Bike to School/Work days and weeks.
- d. Work with local health organizations to increase the availability of programs, information, and organizational capacity to hold and market events.

Municipalities

- a. Integrate bicycling and walking into the county comprehensive transportation and land-use plans.
- b. Promote bicycling through special events.
- c. Improve facilities for bicyclists and integrate improvements into the Capital Improvement Plan.
- d. Provide and regularly maintain bicycle route maps and signs.
- e. Act as a "clearinghouse" for bicycle and pedestrian related information.
- f. Annually monitor and evaluate the progress of projects and condition of existing facilities.

- g. Update plans for non-motorized transportation with the same frequency as other transportation plans and continue to explore alternative funding sources.
- h. Develop a bicycle and pedestrian subcommittee to coordinate local bicycle and pedestrian improvements and coordinate with the county on multimodal transportation initiatives. This committee should be part of a transportation committee as opposed to recreation committee to emphasize biking and walking as transportation alternatives, not just recreational pursuits.

Jefferson County

- a. Continue to integrate bicycling into the overall county transportation, recreation and land use plans.
- b. Promote bicycle facilities that will connect communities and regional destinations.
- c. Continue to update mapping and signage to help bicyclists find their way around the county.
- d. Maintain a county Bike/Ped Committee to act as a clearinghouse for bicycle and pedestrian information at the regional level and to monitor and implement the plan and act as resource for community efforts.
- e. Provide bicycle and pedestrian facilities direction and review. Work with local communities to coordinate route signage.
- f. Maintain ongoing community dialogue between local groups, communities, and special interest groups.
- g. Update the Jefferson County Bicycle and Pedestrian Plan every five years. Give the Bike/Ped Committee the responsibility to meet, discuss, and implement changes or amendments to the Plan as necessary.

State

- a. Respond to the needs of local bicyclists and pedestrians by providing appropriate accommodations on state trunk and connecting highways.
- b. Provide technical information to local units of government.
- c. Effectively communicate state highway improvement plans, funding programming deadlines, and other activities that may impact the recommendations or timeframes of this plan.

7.1.2 Amendment Process

This plan is a multi-year, multimodal program of transportation projects developed to create and enhance the bicycling and walking network in Jefferson County. It was developed through the Jefferson County Parks and Recreation Department by a volunteer steering committee.

The Jefferson County Bicycle and Pedestrian Plan should be reviewed in its entirety with a full update every 5 years. Amendments may be appropriate throughout the lifecycle of the plan, particularly if new issues emerge or trends change, due to new requirements and needs, the implementation of improvements, and the completion of more specific studies or plans in the county. Large-scale changes or frequent amendments to meet individual transportation challenges should be avoided or the plan loses focus. Although the plan recommends specific projects for the communities to engage in, changes to the plan to account for every new project being proposed by individual communities should not be considered without a review of the overall plan. This plan is a guideline for the Jefferson County communities to follow; it is not just an accounting of projects to be built or an instrument to obtain funding.

The Amendment process is as follows:

1. A community or group, through its community, will bring a recommendation or proposed amendment to the Bike/Ped Committee for review and comment.
2. The Bike/Ped Committee will bring its recommendations on the proposed amendment to the Jefferson County Parks Committee for review.
3. The Parks Committee will make a recommendation on the proposed amendment to the County Board for its approval.
4. The County Board review will entail an announcement of the proposed amendment.
5. The public comment period on the proposed amendment will last a minimum of thirty (30) days.
6. The public review will be held before the County Board takes its final action on the proposed amendment.
7. Upon approval by the County Board, the amendment will be included in the current version of the Jefferson County Bicycle and Pedestrian Plan.

7.2 Priority Projects and Phasing

Priority projects are presented to detail general implementation strategies and specific projects that should be executed in the near-term to increase the likelihood for implementation and to take advantage of current efforts underway by local and state entities to enhance the transportation and recreation potential of Jefferson County. Primary strategies include updating bicycle route signage, linking trails and facilities and capitalizing on current intergovernmental efforts (e.g. STH 26 and GHA).

7.2.1 General Implementation Strategies

Listed below is a summary of key implementation strategies. It is assumed that Jefferson County will be the primary implementing agency for the proposed improvements to the countywide system. Municipalities will be the lead jurisdiction for city/village projects. Joint cost sharing approaches may be reasonable for projects, such as state highway improvements that occur in incorporated communities, where more than one jurisdiction has authority. Of greater significance is increased cooperation with state agencies for timely integration of Glacial Heritage Area recommendations through the Department of Natural Resources, and for off-road trail development along STH 26 through the Department of Transportation.

General strategies to assist all entities, agencies, and individuals in carrying out this plan are offered below:

- a. Whenever possible, implement projects based upon need-based priority, whereby improvements are first made to critical missing links and the least suitable portions of the roadway system.
- b. Establish a County Bicycle/Pedestrian Fund to annually implement a part of the countywide transportation network and to develop partnership arrangement for implementation of projects which involve multiple jurisdictions. Prioritizing funding should be overseen by a Jefferson County Bike/Ped Committee.
- c. Whenever possible, maximize use of local and county funding to secure matching funds from state, federal and private funding sources. As a companion strategy, seek private donations to secure grant matches. (See Section 7.4 for Funding Programs)
- d. Show public support for multimodal transportation and recreational trails funding at the state and federal level.

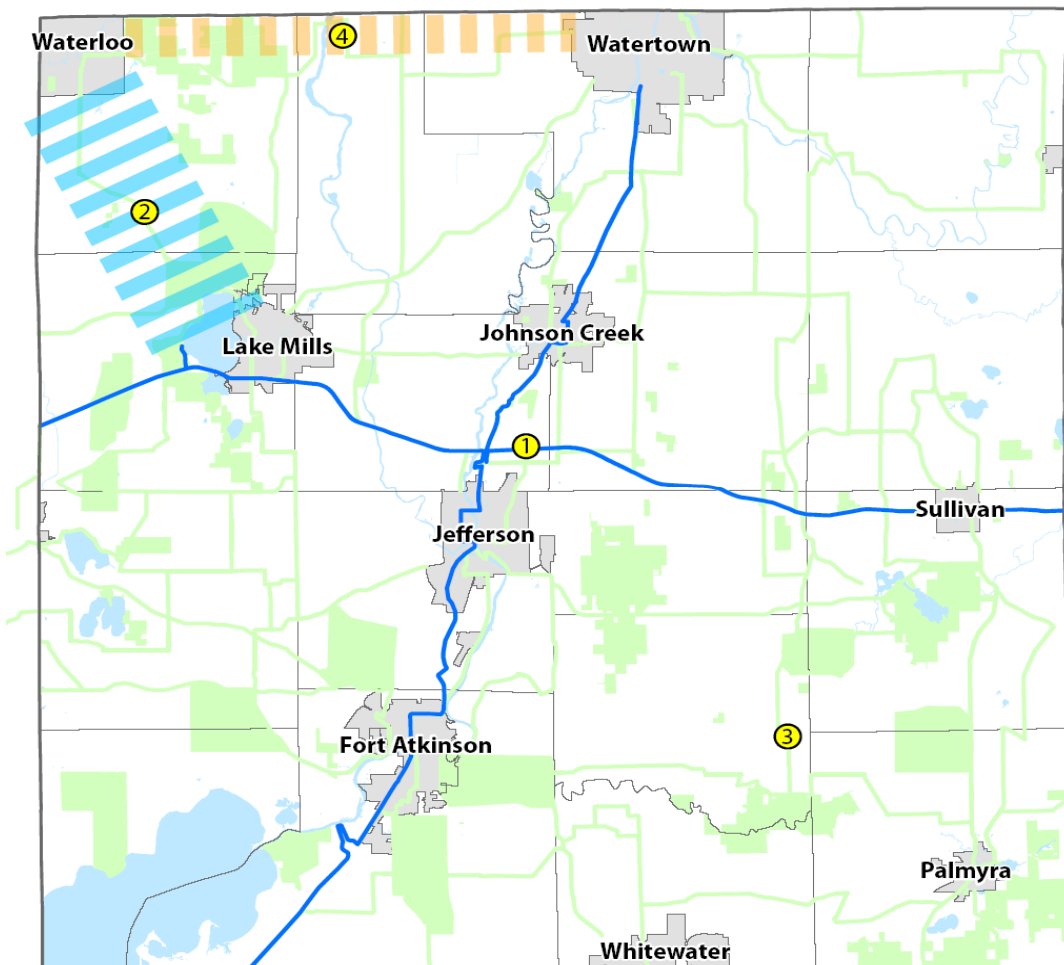
- e. Maximize opportunities to implement bicycle facilities and sidewalks as a routine part of all new development and roadway retrofit projects. This includes support for “Complete Streets” legislation at the state (adopted July 2009) and local levels.
- f. Continue the work of the County Bike/Ped Committee to routinely reprioritize projects and assess levels of need based upon development patterns or emerging destinations (such as GHA parks).
- g. Actively involve Jefferson County residents in the ongoing implementation and operation of new facilities through Friends groups and Adopt-a-Trail programs.
- h. Actively involve local businesses in providing convenient and secure bicycle parking.

7.2.2 Priority Projects

This plan has identified four priority projects. They have been prioritized to take advantage of the momentum of concurrent planning priorities developed by the Wisconsin DNR and DOT, and to further integrate the entire bicycle and pedestrian network.

Legend

- ① Uninterrupted Glacial Drumlin State Trail and Glacial River Trail (STH 26)
- ② Waterloo to Lake Mills Trail
- ③ Connections throughout Glacial Heritage Area
- ④ Waterloo to Watertown Trail



Priority #1: Formalize Routes for Uninterrupted Travel on Glacial Drumlin State Trail (east-to-west) and Glacial River Trail (north-to-south)

Phase 1: Missing Link on Glacial Drumlin State Trail (Junction Road)

Work with DNR (South Central Region) to determine a route north of Junction Road to connect the Glacial Drumlin State Trail. The most likely route is east of Jahn Road on the north side of the Renew Energy property line along the C&NW Railroad Company property then continuing west through private property to CTH Y. When this plan was written, the DNR was working on land appraisals for this approximate route.

Phase 2: Off-Road Trails along STH 26 (Glacial River Trail)

Complete off-road trail segments as part of the STH 26 bypass. These segments provide direct linkages between communities along STH 26 on separated facilities.

Priority 1, Phase 2		
Project	Limits	Facility
WIS 26 Bypass - Proposed off-street trail	Rita Ln (Fort Atkinson) to CTH W (Jefferson)	Proposed off-street trail
WIS 26 Bypass - Proposed off-street trail	Glacial Drumlin Trail (Jefferson) to Junction Rd	Proposed off-street trail
WIS 26 Bypass - Proposed off-street trail	Baneck Ln (Johnson Creek) to High Rd (Watertown)	Proposed off-street trail

Phase 3: On-Street Connections along STH 26 (Glacial River Trail)

The STH 26 bypass includes the addition of several new roads or road realignments adjacent to the highway. These roads will provide important linkages to and from the communities along STH 26, and in many cases, also provide direct access to any proposed off-road facilities. The improvements forecast for completion include widening existing roads, or creating new ones, with wider travel lanes and/or paved shoulders that will better accommodate the operation of bicycles alongside motorized vehicles.

Priority 1, Phase 3		
Project	Limits	Facility
WIS 26 Bypass - Business 26	CTH K (Fort Atkinson) to Rita Ln	Proposed 5' paved shoulder
WIS 26 Bypass - Jefferson Rd	State HWY 26 to Johnson Creek city limits	Proposed 2' lane widening
WIS 26 Bypass - Old HWY 26	River Rd (Johnson Creek) to State HWY 26	Proposed 3' paved shoulder
WIS 26 Bypass - High Rd	South end of High Rd to Jefferson Rd (Watertown)	Proposed 3' paved shoulder
WIS 26 Bypass - Proposed road with 5' paved shoulder	CTH A to CTH Y (Watertown)	Proposed road with 5' paved shoulder
WIS 26 Bypass - Proposed road with 5' paved shoulder	Proposed road to proposed road	Proposed road with 5' paved shoulder
WIS 26 Bypass - Proposed road with 5' paved shoulder	CTH Y to HWY 26	Proposed road with 5' paved shoulder

Priority #2: Waterloo to Lake Mills Trail

The on-street Jefferson County Bike Route between Lake Mills and Waterloo includes travel on CTH O, which has a “Moderately High” level of service rating according to the Bicycle Level of Service analysis performed as part of this plan update. However, the highway includes high-speed traffic which may be a barrier for new or inexperienced cyclists. In an online survey almost 60% of respondents ranked a trail between Waterloo and Lake Mills as either “important” or “most important” for implementation within the GHA as soon as possible.

As part of this plan, several alternative routes were analyzed in Chapter 6. The following progression should be utilized to select and construct a trail linking Waterloo to Lake Mills.

1. Determine the most appropriate alternative route (See Map D-1).
2. Work with the DNR to appraise land and approach landowners.
3. Apply for grants through the DNR to offset costs for land acquisition.
4. Collaborate with interested individuals and businesses throughout the county to celebrate and announce the facility.
5. Alert media when the trail is opened.

Priority #3: Formalize Connections throughout the Glacial Heritage Area (Sign Campaign)

Utilizing the existing Jefferson County Bike Route network, enhance the connections to GHA destinations by signing the Jefferson County Recreation Loops (12 loops total) as official routes. Opportunities for unique signs that differentiate between routes and loops, or that identify the route as a particular component of the GHA would help distinguish the recreational network and allow for uninterrupted movements between destinations without the need for cue sheets. Possible panels for sign assemblies are discussed in Chapter 4.

Phase 1: Update the Jefferson County Bike Routes to include new segments identified on Map C-1 (Appendix C). These signs will use the same panels as the existing route signs.

Phase 2: Work with local stakeholders (Jefferson County Bicycle Club, etc.) and other interested parties (UW-Extension, Trek Bicycles, etc.) to develop a signage plan for the recreation loops. Loops would be numbered 1-12 and would provide wayfinding assistance to visitors and seasoned riders alike in navigating the loop system. These loops provide direct linkages to some existing and proposed GHA facilities.

Phase 3: Coordinate with local traffic authorities to determine the preferred panels to display the recreation loops.

Phase 4: Apply for funding assistance (such as TE/BFPF grants through WisDOT).

Phase 5: Manufacture and distribute recreation loop panels to local traffic authorities for installation.

Priority #4: Waterloo to Watertown Trail

A connecting trail between Waterloo and Watertown was highly rated in an online survey performed as part of this plan. Almost 55% of respondents rated this trail as either “important” or “most important” for implementation within the GHA as soon as possible. This trail would also link to the Holzhueter Property which may be developed to contain mountain bike trails and a cross country running trail system.

When this plan was written, UW-Extension was working with the School of Landscape Architecture at UW-Madison to delineate alternatives for trail alignment and location. It is included in this prioritization because it may be ready to go within the next 2-3 years due to the availability of trail right-of-way, the impending development of Holzhuetter Park, and potential funding through the GHA.

The following progression should be utilized to select and construct a trail linking Waterloo to Watertown.

1. Determine the most appropriate alternative route.
2. Work with the DNR to appraise land and approach landowners.
3. Apply for grants through the DNR to offset costs for land acquisition.
4. Coordinate with Holzhuetter Park master plan designers to enable easy access from the trail to any park facilities.
5. Collaborate with interested individuals and businesses throughout the county to celebrate and announce the facility.
6. Alert media when the trail is opened.

7.3 Costs for Developing and Maintaining Facilities

7.3.1 Facility Development Costs

Costs for specific projects were determined by using general estimates for a variety of facilities types. Cost assumptions are shown below.

Paved Trail Facilities: \$150,000 per mile, including excavation, base course, asphalt, salvaged topsoil, and drainage (assume two pipes per mile).

Gravel Trail Facilities: \$85,000 per mile, including excavation, base course, and salvaged topsoil.

Constructing Paved 4' Shoulders: \$200,000 per mile (rural cross section)

Constructing a Bike Lane: \$320,000 per mile (urban cross section includes curb and gutter)

Striping (Bike Lane): \$2.50 lineal foot (epoxy) or \$1 per lineal foot (paint).

Stencils: words each (\$60 epoxy, \$40 paint), symbols each (\$120 epoxy, \$70 paint), arrows each (\$120 epoxy, \$70 paint).

Signs: \$40 each sign, \$50 each post.

7.3.2 Facility Maintenance Costs

Per-mile maintenance costs can differ according to environmental conditions, like snow removal and economic factors. The following estimated costs were derived from various state and municipal sources and are given on a per mile/per year basis.

Bike Lanes and Wide Curb Lanes: \$1,500 per mile, including signs, striping, stencils and street sweeping (Arizona Highway Dept.)

Paved Paths: \$600 - \$900 per mile, including barriers, spot repairs, vandalism, striping stencils, clean-up and shoulder grading (MinDOT and C. Madison, WI)

Gravel Paths: \$1,200 - \$1,500 per mile, depreciation and spot repairs, signs, litter clean-up and mowing ditches (WDNR)

Shared Roadways: Negligible costs (less than 1% of the routine road costs, including sign repair, vegetation pruning and extra litter clean up)

These per-mile costs are generalized and do not include the maturation costs of reconstruction or the costs of snow removal activities.

Maintenance costs can be offset through cooperative agreements with private agencies. Adopt-a-Bikeway programs and other similar programs can provide reliable routine clean up and repair activities.

Jurisdictional maintenance responsibilities typically focus on system parts such as roadway shoulders, pavement markings, bridge railings, pavement cracks, and traffic signals. Maintenance activities include patching potholes on roadways and bicycle trails, maintaining traffic signals, and repairing or restoring facilities after crashes, natural disasters or vandalism. All levels of government share in these responsibilities and are many are increasingly focusing on long-term preservation of the current transportation network. Preservation activities may include rehabilitating bridges and structures, resurfacing or reconstructing roadways, and replacing sidewalks and bicycle accommodations during roadway reconstruction.

Additional responsibilities for transportation facility maintenance by jurisdiction include:

State of Wisconsin

WisDOT's Long-Range Multimodal Transportation Plan identifies implementing cost-effective maintenance activities on Wisconsin state trunk highways as its primary goal. It will also continue to foster economic growth and provide mobility and transportation choice through the provision of federal and state funding, technical assistance, and data provision.

Specific to bicycle and pedestrian facilities, WisDOT continues to collaborate with local governments to provide sidewalks on new state highway projects. It is also working to provide accommodation for bicycles when redesigning bridges and supports multiuse trails that meet corridor bicycle and pedestrian transportation needs. This will be especially important along the STH 26 corridor where off-road trails are being installed as part of the reconstruction. Maintenance of these facilities, even in the winter, will be vital for sustained use.

Jefferson County

The county's primary responsibility with respect to the on-street bicycle and pedestrian network is to enable safe accommodation on county highways. This is generally provided through installation of wide paved shoulders (minimum 4', 6' or greater preferred along high speed roadways). Installing paved shoulders in strategic areas, especially "urban escape routes" where urban streets connect with rural roads is vital. Maintenance activities should include

keeping reasonable pavement conditions on all highways, and occasional clearing of debris from road shoulders where bicyclists generally operate.

The off-road network in Jefferson County is growing. Maintenance on county trails should be accomplished through coordinated efforts with local and state organizations as well as user groups. Surface conditions are a primary concern, as is maintaining wayfinding signs, reserving appropriate “clear zones” alongside trails, and properly identifying and maintaining trailhead locations.

Municipalities

Local communities assume the greatest burden of care for the local street network. Often, coordination is necessary where county or state highways enter the locality, but maintaining connections inside and outside the community primarily falls on the shoulders of local staff and elected officials. It is vital that bicycle and pedestrian facilities get a place within the existing transportation planning agenda, and that these facilities are maintained for year-round use if mode-shift toward non-motorized transportation is a priority.

It is vital that bicycle and pedestrian facilities are maintained in good condition so that these modes of travel remain viable. Clearing of snow, for example, is very important in winter especially at intersections where road collected to clear the street is often piled. This prevents users, especially those with mobility limitations, from utilizing the pedestrian network during snow events. Additional consideration should be paid to regular street cleaning, especially in gutters and along the road edge, especially on bicycle routes. Many communities that have a regular bicycle commuting population institute Bicycle Road Hazard Identification Programs which allow users to report road conditions hazardous to bicyclists.

7.4 Funding Programs

Jefferson County, its municipalities, and coterminous communities should appropriate annual funds for bicycle and pedestrian improvements just as they do for other roadway projects. In addition, bicycle and pedestrian projects may be eligible for state or federal funding. Pedestrian improvements that benefit public health and safety should be funded through the general fund, supplemented by available state and federal grants, rather than through assessment.

As part of the state and federal initiatives to enhance bicycling and walking as regular transportation modes, several grants and funding sources are available to communities in the county for planning, facility development, and land acquisition. Although some grants may be available for improving on-street facilities, opportunities to fund off-street facilities (such as bicycle trails) are substantial--particularly if the facility is intended to provide both utilitarian and recreational benefits.

Federal transportation enhancement programs, most recently reauthorized as SAFETEA-LU, have helped fund many bicycle and pedestrian transportation activities throughout the United States. Similarly, Wisconsin has approved the funding of many community projects. Local officials in Jefferson County should work with the WisDOT South Central Region to ensure that pedestrians and bicycles are accommodated on state trunk and connecting highway projects, both urban and rural. The Wisconsin DOT has funding to complete these types of improvements.

Off-street trails may have overlapping recreational and transportation value. For these bicycle improvements, the Wisconsin Department of Natural Resources' Stewardship Program may be an appropriate source of funding. In addition, impact fees provide a potential source of funding for multi-use trails both within and connecting to residential subdivisions. Current ordinances permit the use of impact fees by municipalities for transportation improvements as well as for parks and recreational facilities. Multi-use trails serve both a transportation and recreational function and therefore impact fees are an appropriate source of funding.

Alternate funding strategies through private interests should also be considered. Local private interests will benefit from an improved system that offers transportation choices and attracts tourists to the area. Private agencies that share the county's vision for an integrated bicycle system may be willing to invest in development or maintenance of facilities. These private partnerships should be explored to provide better bicycle facilities.

The following programs provide funds for bicycle and pedestrian improvements.

Local Transportation Enhancements (TE)

Program Description: Transportation enhancements (TE) are transportation-related activities that are designed to strengthen the cultural, aesthetic, and environmental aspects of transportation systems. The transportation enhancements program provides for the implementation of a variety of non-traditional projects, with examples ranging from the restoration of historic transportation facilities, to bike and pedestrian facilities, to landscaping and scenic beautification, and to the mitigation of water pollution from highway runoff. Most of the projects awarded in Wisconsin have been for bicycle and pedestrian facilities. Examples of bicycle and pedestrian projects include: multi-use trails, paved shoulders, bike lanes, bicycle route signage, bicycle parking, overpasses/underpasses/bridges, sidewalks, and pedestrian crossings. Local municipalities contribute 20% of the project costs.

Transportation enhancement activities must relate to surface transportation. Federal regulations restrict the use of funds on trails that allow motorized users, except snowmobiles.

Contact: John Duffe, State Coordinator at 608-264-8723 or john.duffee@dot.state.wi.us

Bicycle and Pedestrian Facilities Program (BFPF)

Program description: Bicycle and pedestrian facility projects costing \$200,000 or more and planning projects costing \$50,000 or more are eligible for BFPF funds. To be eligible, the project must be usable when it is completed and not staged so that additional money is needed to make it a useful project. A project sponsor must pay for a project and then seek reimbursement for the project from the state. Federal funds will provide up to 80% of project costs, while the sponsor must provide at least the other 20%. Because of the similarities between the BFPF and the Transportation Enhancements (TE) program objectives and eligibility criteria, applications and funding for both programs are undertaken together.

Contact: John Duffe, State Coordinator at 608-264-8723 or john.duffee@dot.state.wi.us

Surface Transportation Program (STP-U) Urban

Project Description: This program allocates federal funds to complete a variety of improvements to federal-aid-eligible roads and streets in urban areas. Projects must meet federal and state requirements. Communities are eligible for funding on roads functionally classified collector or arterial. The WisDOT requires that pedestrian and on-street bicycle accommodations be part of all STP projects within or in the vicinity of population centers, unless extraordinary circumstances can be demonstrated to WisDOT for not providing these accommodations.

Contact: Michael Erickson at WisDOT Southwest Regional Office at 608-246-5361 or Michael.Erickson@dot.wi.gov

Surface Transportation Program (STP-R) Rural

Project Description: This program allocates federal funds to complete a variety of improvements to federal-aid-eligible roads and streets outside of urban areas, primarily county trunk highways. The program funds roads functionally classified as principal arterial, minor arterial, and major collector. The WisDOT requires that pedestrian and on-street bicycle accommodations be part of STP-Rural projects within or in the vicinity of population centers, unless extraordinary circumstances can be demonstrated to WisDOT for not providing these accommodations. This program may be particularly useful in Jefferson County for providing paved shoulders on county trunk highways connecting urban and rural areas. The 2009-2012 program cycle awarded \$29,375,120.

Contact: Michael Erickson at WisDOT Southwest Regional Office at 608-246-5361 or Michael.Erickson@dot.wi.gov

Robert Wood Johnson Foundation (RWJF)

Project Description: One of the largest foundations in the country, the Robert Wood Johnson Foundation offers grants that address public health issues, such as childhood obesity and asthma. Bicycle and pedestrian facilities qualify for RWJF funding.

Contact: Robert Wood Johnson Foundation <http://www.rwjf.org/applications/index.jsp>

Wisconsin Department of Natural Resources Stewardship Program (Stewardship)

Program Description: Stewardship funds are intended to support the development of “nature-based” recreational facilities. Stewardship grants have been used to implement hiking and biking trails and otherwise facilitate active recreation. Local municipalities or the grant applicant is responsible for 50% of project costs. This program is primarily used for acquisition of park lands.

Contact: Eileen Trainor, Environmental Grant Specialist for the South Central Region, Wisconsin Department of Natural Resources, 608-275-7760 or Eileen.Trainor@Wisconsin.gov

Wisconsin DNR Recreational Trails Program (RTP)

Program Description: Recreational Trails grants provide funding to build off-street trails for both motorized and non-motorized transportation. Local municipalities or the grant applicant is responsible for 50% of project costs. Eligible projects include:

- Maintenance and restoration of existing trails.
- Development and rehabilitation of trailside and trailhead facilities and trail linkages.
- Construction of new trails (with certain restrictions on Federal lands).
- Acquisition of easement or property for trails.

Contact: Eileen Trainor, Environmental Grant Specialist for the South Central Region, Wisconsin Department of Natural Resources, 608-275-7760 or Eileen.Trainor@Wisconsin.gov

Safe Routes to School (SRTS)


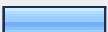
Program Description: Safe Routes to School (SRTS) programs encourage children ages K-8 to walk and bike to school by creating safer walking and biking routes. These programs are funded through the revised federal transportation act - SAFETEA-LU - signed into law on August 10, 2005. This legislation provides funding to state departments of transportation to create and administer SRTS Programs. SRTS Programs improve walking and biking travel options, promote healthier lifestyles in children at an early age and decrease auto-related emissions near schools. SRTS funds can be used for both infrastructure projects and non-infrastructure activities within 2 miles of elementary and middle schools. Safe Routes to School grants fully fund accepted projects (100% funding).


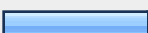
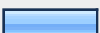
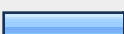




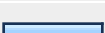

Contact: Renee Callaway, Wisconsin Safe Routes to School Coordinator, Wisconsin Department of Transportation at 608-266-3973 or renee.callaway@dot.state.wi.us


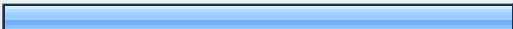


APPENDIX A:

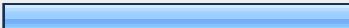
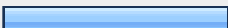


SURVEY RESPONSE SUMMARY







Jefferson County Bikeway Plan Update



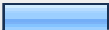
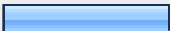
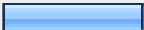
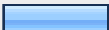
1. Do you currently live in Jefferson County?			
		Response Percent	Response Count
Yes		84.8%	195
No		15.2%	35
answered question			230
skipped question			1

2. Please identify which incorporated community you live closest to.			
		Response Percent	Response Count
Cambridge		5.4%	12
Fort Atkinson		21.7%	48
LaBelle		0.0%	0
Lake Mills		14.0%	31
Jefferson		18.1%	40
Johnson Creek		8.1%	18
Palmyra		2.3%	5
Sullivan		3.6%	8
Waterloo		10.0%	22
Watertown		14.9%	33
Whitewater		1.8%	4
Other (please specify)			9
answered question			221
skipped question			10

3. What is your current employment status?			
		Response Percent	Response Count
Retired		9.2%	20
Employed, work outside of home		78.3%	170
Employed, work at home		5.5%	12
Not currently employed		6.9%	15
Other (please specify)			3
answered question			217
skipped question			14



4. Do you currently work in Jefferson County?			
		Response Percent	Response Count
Yes		53.2%	116
No		34.4%	75
Not Sure		0.5%	1
Does not apply		11.9%	26
answered question			218
skipped question			13







5. How do you currently travel to work? (select all that apply)			
		Response Percent	Response Count
Drive Alone		71.1%	155
Carpool		11.0%	24
Vanpool		0.5%	1
Bicycle		28.9%	63
Walk		8.7%	19
Transit		0.0%	0
Does not apply		15.6%	34
Other (please specify)			1
answered question			218
skipped question			13

6. How far do you currently travel to work (each way)?			
		Response Percent	Response Count
Under 1 mile		13.3%	29
2-4 miles		9.2%	20
5-9 miles		15.6%	34
Between 10 and 20 miles		25.2%	55
More than 20 miles		21.1%	46
Does not apply		15.6%	34
answered question			218
skipped question			13

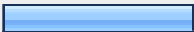



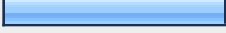
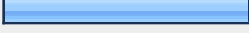
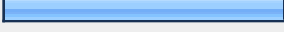
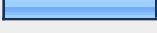
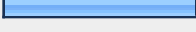
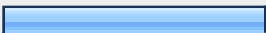


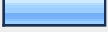



7. Do you currently walk, hike, or bicycle for transportation or recreation in Jefferson County?			
		Response Percent	Response Count
Yes	<div><div></div></div>	92.7%	153
No	<div><div></div></div>	5.5%	9
Not sure	<div><div></div></div>	1.8%	3
		answered question	165
		skipped question	66

8. What sorts of places would you like to travel to by walking or bicycling? (select all that apply)			
		Response Percent	Response Count
Library	<div><div></div></div>	58.6%	92
School	<div><div></div></div>	40.1%	63
Parks	<div><div></div></div>	89.8%	141
Shopping Centers	<div><div></div></div>	62.4%	98
Workplace	<div><div></div></div>	55.4%	87
		Other (please specify)	26
		answered question	157
		skipped question	74

9. Do you currently walk or bicycle to any of the destinations you identified in Question #2 above?			
		Response Percent	Response Count
Yes		77.6%	128
No		20.6%	34
Does not apply		1.8%	3
Please identify any barriers to walking or biking to these places.			63
answered question			165
skipped question			66

10. In general, how far are you willing to walk or bicycle to reach your destination?			
		Response Percent	Response Count
Under 1 mile		4.2%	7
2-4 miles		21.1%	35
5-9 miles		28.9%	48
Between 10-20 miles		27.1%	45
More than 20 miles		15.1%	25
Does not apply		3.6%	6
Comments			7
answered question			166
skipped question			65

11. Which (if any) of the following recreational bicycle loops (or approximate locations) do you ride most often? See Map #1.							
	Most Often	Often	Not very often	Least often	N/A	Rating Average	Response Count
Loop 1 - Waterloo/Lake Mills	29.5% (31)	12.4% (13)	18.1% (19)	8.6% (9)	31.4% (33)	2.92	105
Loop 2 - Watertown/Johnson Creek	8.7% (9)	17.3% (18)	22.1% (23)	17.3% (18)	34.6% (36)	2.26	104
Loop 3 - Rural Highlands	4.0% (4)	18.8% (19)	17.8% (18)	14.9% (15)	44.6% (45)	2.21	101
Loop 4 - Cambridge/Lake Mills	11.8% (12)	14.7% (15)	25.5% (26)	11.8% (12)	36.3% (37)	2.42	102
Loop 5 - Fort Atkinson/Jefferson	24.3% (26)	12.1% (13)	15.9% (17)	9.3% (10)	38.3% (41)	2.83	107
Loop 6 - Park to Park	10.6% (10)	16.0% (15)	16.0% (15)	11.7% (11)	45.7% (43)	2.47	94
Loop 7 - Jefferson/Johnson Creek	11.8% (12)	18.6% (19)	15.7% (16)	11.8% (12)	42.2% (43)	2.53	102
Loop 8 - Sullivan/Palmyra	6.3% (6)	4.2% (4)	14.6% (14)	22.9% (22)	52.1% (50)	1.87	96
Loop 9 - Tour de Fort Northwest	11.9% (12)	8.9% (9)	23.8% (24)	9.9% (10)	45.5% (46)	2.42	101
Loop 10 - Tour de Fort Glacial River Trail	16.2% (17)	11.4% (12)	21.0% (22)	11.4% (12)	40.0% (42)	2.54	105
Loop 11 - Fort Atkinson/Whitewater/Palmyra	12.5% (12)	6.3% (6)	15.6% (15)	17.7% (17)	47.9% (46)	2.26	96
Loop 12 - Glacial Drumlin State Trail	28.3% (34)	25.0% (30)	23.3% (28)	5.8% (7)	17.5% (21)	2.92	120
Is there another area in Jefferson County that you ride more often? (please describe approximate location)							36
	answered question						148
	skipped question						83

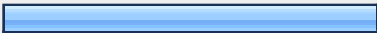

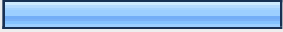
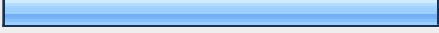
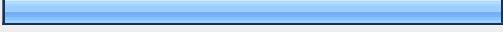

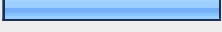
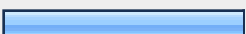


12. Which existing or proposed parks identified on Map #2 would you be MOST interested in accessing via walking, hiking, or bicycling? (select all that apply)			
		Response Percent	Response Count
Cam-Rock Park		28.8%	40
Cushman Mill Park		10.1%	14
Dorothy Carnes Park		35.3%	49
Glacial Drumlin State Trail		60.4%	84
Glacial River Trail		33.8%	47
Jefferson Marsh Wildlife Area		37.4%	52
Kettle Moraine		43.2%	60
Koshkonong Wildlife Area		23.0%	32
Korth Park		29.5%	41
Lake Mills Wildlife Area (Hope Lake Park)		40.3%	56
North Shore Moraine		5.8%	8
Oakland Highlands Park		10.8%	15
Princes Point Wildlife Area		15.1%	21
Rome Pond Wildlife Area		18.0%	25
Scuppernong Valley Park		11.5%	16
Waterloo Wildlife Area (Holzhueter Farm Park)		33.1%	46
Other (please specify)			15
		answered question	139
		skipped question	92

13. Is there a safe way to walk or bicycle to the park you identified in Question #6?			
		Response Percent	Response Count
Yes	<div><div></div></div>	32.6%	46
No	<div><div></div></div>	52.5%	74
Does not apply	<div><div></div></div>	14.9%	21
If yes, please briefly describe your route and destination (eg. "Take Glacial Drumlin Trail from Sullivan to Korth Park")			17
answered question			141
skipped question			90


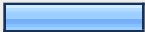

14. If one does not already exist, would an off-road trail system help you get to the park you identified in Question #6?			
		Response Percent	Response Count
Yes	<div><div></div></div>	79.7%	114
No	<div><div></div></div>	6.3%	9
Does not apply	<div><div></div></div>	14.0%	20
Please explain			23
answered question			143
skipped question			88

15. The development of trails in the Glacial Heritage Area (GHA) is currently being evaluated. Due to the number of parks within the GHA, trails cannot be developed to connect all of these facilities right away. So that we can focus our efforts on those trails that are most needed, please rate trail segments for desirability and importance to you for implementation as soon as possible. See Map #2 for numbers corresponding to the selections below (note that numerical order does NOT reflect order of importance.)

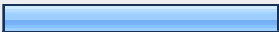


	Most Important	Important	Somewhat Important	Least Important	N/A	Rating Average	Response Count
1. Milton to Glacial River Trail	18.3% (17)	23.7% (22)	21.5% (20)	20.4% (19)	16.1% (15)	2.47	93
2. Whitewater to Fort Atkinson	19.1% (18)	24.5% (23)	24.5% (23)	18.1% (17)	13.8% (13)	2.52	94
3. Fort Atkinson to Cambridge	16.3% (16)	27.6% (27)	28.6% (28)	15.3% (15)	12.2% (12)	2.51	98
4. Cambridge to Glacial Drumlin State Trail	24.5% (24)	35.7% (35)	14.3% (14)	13.3% (13)	12.2% (12)	2.81	98
5. Marshall to Waterloo	30.1% (25)	13.3% (11)	26.5% (22)	16.9% (14)	13.3% (11)	2.65	83
6. Waterloo to Lake Mills	38.6% (39)	20.8% (21)	21.8% (22)	7.9% (8)	10.9% (11)	3.01	101
7. Waterloo to Watertown	24.2% (23)	29.5% (28)	20.0% (19)	15.8% (15)	10.5% (10)	2.69	95
8. Watertown to Oconomowoc	19.0% (19)	26.0% (26)	23.0% (23)	20.0% (20)	12.0% (12)	2.50	100
9. Watertown to Wild Goose State Trail	20.8% (20)	28.1% (27)	24.0% (23)	16.7% (16)	10.4% (10)	2.59	96
10. Kettle Moraine (Palmyra) to Glacial Drumlin State Trail	26.5% (26)	32.7% (32)	20.4% (20)	7.1% (7)	13.3% (13)	2.91	98
Other (please specify)							12
	answered question						144
	skipped question						87

16. What issues affect your decision to walk or bicycle to your destination? (select all that apply)			
		Response Percent	Response Count
Distance		57.6%	80
Convenience of driving		20.9%	29
Time		42.4%	59
Speed of traffic along route		66.9%	93
Amount of traffic along route		77.0%	107
Finding others to walk/bike with		6.5%	9
Sidewalks or pathways		33.1%	46
Safety of intersections and crossings		36.7%	51
Violence or crime		7.2%	10
Weather or climate		42.4%	59
Other (please specify)			15
		answered question	139
		skipped question	92

17. Would your decision to walk or bicycle to your destination change if any of the issues in Question #1 were changed or improved?				
	Yes	No	Not Sure	Response Count
Distance	66.3% (65)	21.4% (21)	12.2% (12)	98
Convenience of driving	34.9% (29)	48.2% (40)	16.9% (14)	83
Time	62.1% (54)	25.3% (22)	12.6% (11)	87
Speed of traffic along route	84.3% (97)	9.6% (11)	6.1% (7)	115
Amount of traffic along route	91.0% (111)	5.7% (7)	3.3% (4)	122
Finding others to walk/bike with	23.9% (17)	54.9% (39)	21.1% (15)	71
Sidewalks or pathways	80.6% (75)	12.9% (12)	6.5% (6)	93
Safety of intersections and crossings	71.1% (64)	21.1% (19)	7.8% (7)	90
Violence or crime	35.7% (25)	47.1% (33)	17.1% (12)	70
Weather or climate	47.0% (39)	36.1% (30)	16.9% (14)	83
	answered question			133
	skipped question			98

18. Do you feel encouraged to walk or bicycle?			
		Response Percent	Response Count
Yes		71.6%	101
No		21.3%	30
Not Sure		7.1%	10
	answered question		141
	skipped question		90

19. If there were programs to help educate and encourage safe walking and bicycling behaviors do you think you would walk or bike more often?

		Response Percent	Response Count
Yes		42.0%	60
No		32.2%	46
Not Sure		25.9%	37
		<i>answered question</i>	143
		<i>skipped question</i>	88

20. Please select which of the following activities would have the most impact for encouraging walking or bicycling as part of regular recreation or transportation trips.							
	Most Impact	Some Impact	Neutral	Little Impact	Least Impact	No Opinion	Response Count
Forums describing health aspects of walking or biking	10.4% (11)	34.9% (37)	27.4% (29)	18.9% (20)	3.8% (4)	4.7% (5)	106
Maps that identify safe places to walk or bike	57.1% (76)	34.6% (46)	5.3% (7)	0.8% (1)	0.8% (1)	1.5% (2)	133
Enforcement of traffic regulations (speeding, stop signs, etc.)	44.0% (51)	37.9% (44)	11.2% (13)	3.4% (4)	1.7% (2)	1.7% (2)	116
Obedying the rules of the road	35.4% (40)	39.8% (45)	16.8% (19)	6.2% (7)	0.0% (0)	1.8% (2)	113
Bike to Work Week activities	26.9% (29)	32.4% (35)	22.2% (24)	10.2% (11)	3.7% (4)	4.6% (5)	108
Walk to School Day activities	23.1% (24)	34.6% (36)	22.1% (23)	7.7% (8)	3.8% (4)	8.7% (9)	104
Bicycle Rodeos	11.4% (12)	29.5% (31)	36.2% (38)	7.6% (8)	5.7% (6)	9.5% (10)	105
Driver education about how to interact with bicyclists and pedestrians	48.0% (59)	32.5% (40)	9.8% (12)	4.1% (5)	2.4% (3)	3.3% (4)	123
Regular plowing of sidewalks and trails (in winter)	36.5% (42)	33.0% (38)	15.7% (18)	5.2% (6)	5.2% (6)	4.3% (5)	115
Route signage on County and/or Community roadways.	41.2% (49)	41.2% (49)	8.4% (10)	5.9% (7)	0.8% (1)	2.5% (3)	119
	answered question						136
	skipped question						95

21. Statewide, Wisconsin spends about 1.4% of transportation dollars on bicycle infrastructure while 9% of all trips are made by bicycle. Please rate your opinion on the following statements.							
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	No Opinion	Response Count
Jefferson County should allocate additional monies for the development of bicycle facilities	60.6% (83)	27.0% (37)	8.8% (12)	0.7% (1)	2.2% (3)	0.7% (1)	137
Jefferson County should focus spending on developing off-road trails	42.3% (58)	35.0% (48)	19.0% (26)	0.7% (1)	2.2% (3)	0.7% (1)	137
Jefferson County should focus spending on developing safer on-street bicycle facilities (paved shoulders, etc.)	56.1% (78)	35.3% (49)	5.8% (8)	0.7% (1)	1.4% (2)	0.7% (1)	139
Wisconsin should allocate a greater share of the transportation budget on bicycle and pedestrian projects	61.6% (85)	25.4% (35)	10.9% (15)	0.0% (0)	1.4% (2)	0.7% (1)	138
Developing additional walking and bicycling facilities would increase the number of walkers and bicyclists	56.1% (78)	33.1% (46)	5.8% (8)	2.2% (3)	1.4% (2)	1.4% (2)	139
Developing additional walking and bicycling facilities would reduce the number of automobile drivers	36.8% (50)	27.9% (38)	21.3% (29)	11.0% (15)	1.5% (2)	1.5% (2)	136
Increasing the number of walkers and bicyclists would have positive environmental impacts	65.7% (90)	27.7% (38)	5.1% (7)	0.0% (0)	0.0% (0)	1.5% (2)	137
Increasing the number of walkers and bicyclists would have positive health impacts	79.0% (109)	18.1% (25)	1.4% (2)	0.0% (0)	0.0% (0)	1.4% (2)	138
	answered question						139
	skipped question						92

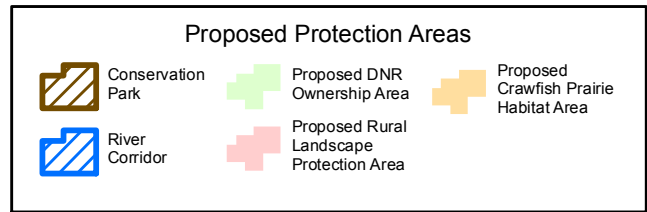
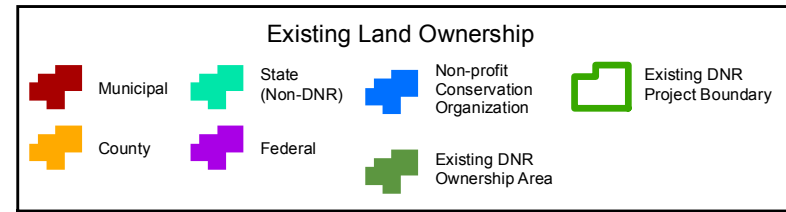
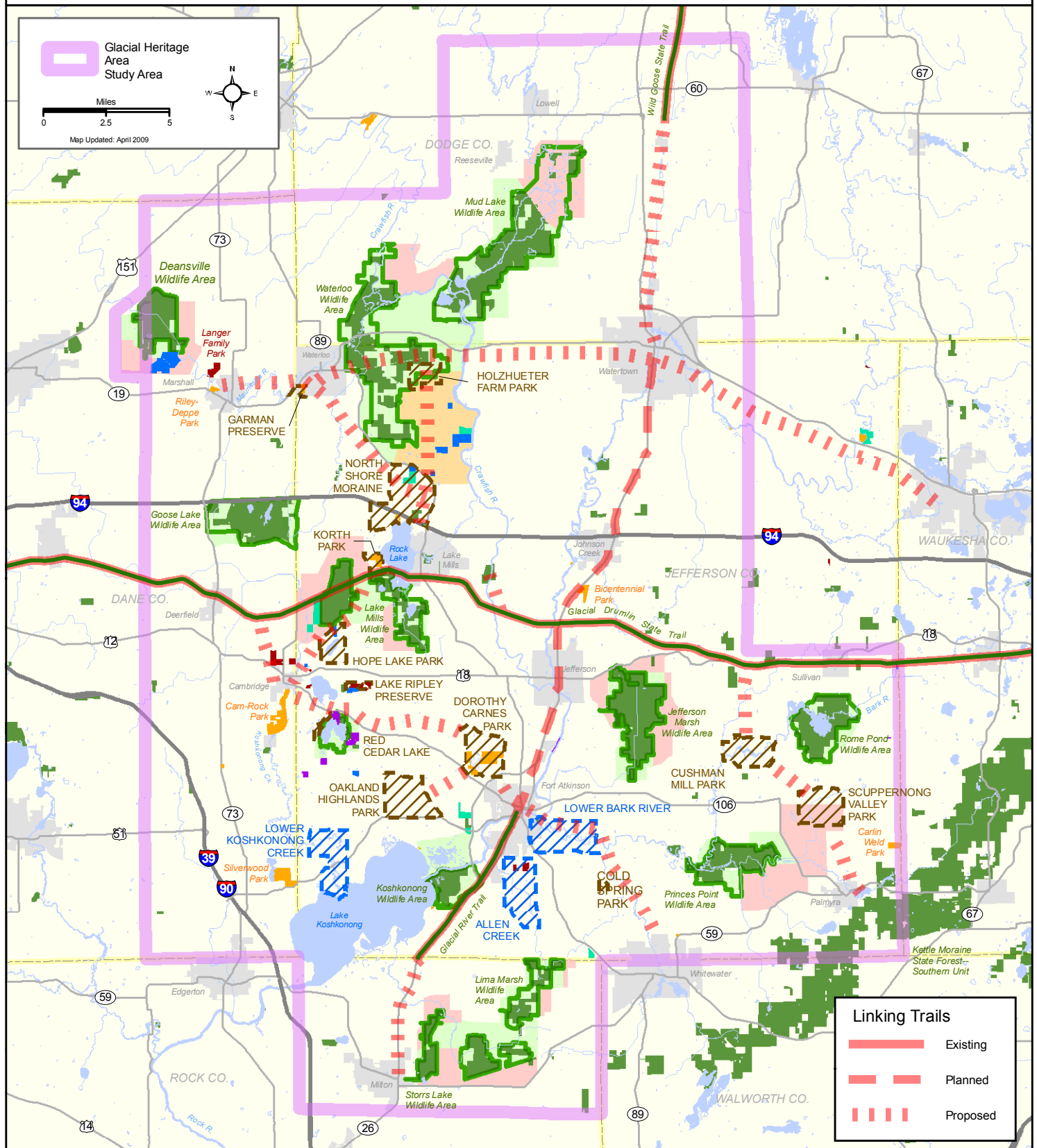
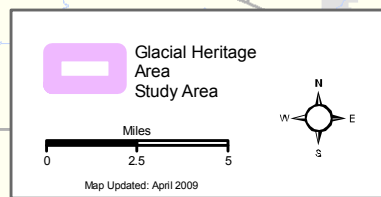
APPENDIX B:

**EXISTING CONDITIONS MAPS
AND
PUBLIC PARTICIPATION RESULTS**

GLACIAL HERITAGE AREA

Proposed Plan

WISCONSIN DEPARTMENT
OF NATURAL RESOURCES
Bureau of Land and Facilities



APPENDIX C:

COUNTY AND LOCAL BIKE ROUTE MAPS

APPENDIX D:

REGIONAL TRAIL MAPS

