

Camp Ripley/Veterans State Trail Master Plan

April 2013



The Minnesota Department of Natural Resources, Parks and Trails Division would like to thank all who participated in this master planning process. Many individuals and groups in trail communities have been working for many years to help establish this trail. Members of the Camp Ripley/Veterans State Trail Committee and the Project Steering Committee (see below) played a leading role in these efforts and continues to do so. Many DNR staff, city, county, state and federal officials, trail association members and local citizens contributed their time and energy to the planning process as well.

Project Team

DNR Parks and Trails Division:

Laurie Young, Planning Supervisor

Suzanne Rhee, AICP, Principal Planner

Jenny Wood, Conservation Corps of Minnesota Planner

Bolton & Menk, Inc., Project Consultants:

Angie Bersaw, Transportation Planner

Phil Martin, Project Manager

Chris Chromy, Transportation Services Manager

Technical Assistance:

Randy Thoreson, National Park Service, Rivers, Trails and Conservation Assistance Program

April 2013, Minnesota Department of Natural Resources

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Office of the Commissioner

651-259-5555



Department of Natural Resources Approval of Camp Ripley / Veterans State Trail Master Plan

Minnesota Statutes, Section 86A.09, requires that a master plan be prepared for units of Minnesota's outdoor recreation system, including state trails. This master plan addresses the proposed Camp Ripley / Veterans State Trail, envisioned as a multi-use system, accommodating a variety of motorized and non-motorized uses, linking the Soo Line Trail south of Little Falls to Crow Wing State Park and the Paul Bunyan State Trail. The trail was authorized in 2009 in *Minnesota Statutes*, Section 85.015, Subdivision 28.

The Minnesota Department of Natural Resources interdisciplinary team developed the Master Plan, with the assistance of representatives of local units of government, trail groups, and the National Park Service Rivers, Trails and Conservation Assistance Program. The plan received extensive public input and review, including three public open houses.

The Camp Ripley / Veterans State Trail has been reviewed by the Division of Parks and Trails and by the Northeast, Northwest, and Central Region Management Teams.

I have reviewed this master plan and determined that it complies with *Minnesota Statutes* 86A.09 and find it provides for the administration of the planned trail in a manner that is consistent with the purpose for which the trail was authorized.

Erika Rd Rivers

Erika Rivers

Assistant Commissioner

4/19/13

Date



Camp Ripley/Veterans State Trail Committee and Project Steering Committee

REPRESENTATIVE	AGENCY	TITLE
Rob Hall	Crow Wing County	Assistant County Engineer
Steve Backowski	Morrison County	County Engineer
Dave Enblom	Cass County	County Engineer
Steve Voss	MnDOT District 3	Planning Director
Mary Safgren	MnDOT District 3	Senior Planner
Maj. Keith Ferdon	Camp Ripley	Training Coordinator
Scott Schroeder	MnDNR Parks and Trails	Natural Resource Supervisor
Jake Huebsch	Region 5 Development Commission	Transportation Planner
Randy Thoreson	National Park Service	Outdoor Recreation Planner
Bob Reinitz	CRVST Trail Committee	Committee Chair
Laurie Young	MnDNR Parks and Trails	Planning Supervisor
Jerry Lochner	City of Little Falls	Public Works Director
Angie Bersaw	Bolton & Menk, Inc.	Transportation Planner
Phil Martin	Bolton & Menk, Inc.	Project Manager
Chris Chromy	Bolton & Menk, Inc.	Transportation Services Manager

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Executive Summary

Trail Alignment and Development

The Camp Ripley/Veterans State Trail is a legislatively authorized state trail which will connect the Paul Bunyan State Trail in the Crow Wing State Park and the Soo Line Regional Trail near Little Falls, effectively linking the Central Lakes, Lake Wobegon, Soo Line, Paul Bunyan, Heartland and Mi-Gi-Zi trails into one continuous recreational route. These links also provide an opportunity to connect local trail systems in Central Minnesota as well as the communities of Baxter, Brainerd, Pillager, Randall, Little Falls and Fort Ripley.

For purposes of this plan, the trail has been divided into six primary planning segments. The segments are Crow Wing State Park to the City of Pillager, the west side of Camp Ripley from Pillager to Randall, the south side of Camp Ripley from Randall to MN 371 and south to Little Falls, MN 371 to the Crow Wing State Park, the Little Falls Area, and from Little Falls to the Soo Line Regional Trail. Since the alignment has not been determined, criteria for location of the trail are provided, along with alternative trail alignment options being considered for each planning segment. Trail alignment options were developed through an iterative process with the Project Steering Committee and vetted through a public and local agency involvement process.

Recommended/Allowable Trail Uses

The Camp Ripley/Veterans State Trail is proposed to be a multi-use trail accommodating both motorized and non-motorized trail users. However, the limitations of width, land use restrictions, and sensitive resources dictate that not all uses may be accommodated at all times on the entire length of the trail. In many segments, the alignment options have been identified as multi-use at this stage. Further study will be needed to determine how motorized and non-motorized uses can be accommodated. In other segments, some alignment options have been identified as "motorized only." These options were identified in areas where there are known constraints to abutting motorized and non-motorized uses.

The trail will accommodate the range of uses found on most state trails, including bicycling, hiking and walking, dog walking, running/jogging, in-line skating/skate skiing, equestrian uses, cross-country skiing, snowmobiling, and environmental education/interpretation. In addition, all-terrain vehicles (ATVs) will be accommodated in most segments, as mentioned above. Certain segments of the trail may also be able to provide public access to waterways, for such uses as fishing and canoe launching, where appropriate.

Additional alternative trail alignments will be pursued as necessary to accommodate proposed uses. Trail development will be accessible to people with disabilities wherever possible.

Trail Management

Trail cross-section examples were developed to illustrate a multi-use paved trail, gravel surfaced ATV trail and a natural surface equestrian track. Buffer areas

between side-by-side multi-use trail alignments will likely be needed to ensure safety and a pleasant experience for all users.

The plan contains recommendations for maintenance, enforcement, and interpretation of natural and cultural resources. Trail maintenance is critical to provide and sustain the quality experience trail users expect and appreciate. The plan recommends that an adequate level of enforcement be provided via a multifaceted approach, to help maintain a safe and secure trail environment. It is also a goal to encourage trail users to understand and obey trail rules, respect other trail users and respect adjoining properties.

Natural and Cultural Resources

The ecological value of the trail corridor will be enhanced wherever possible through intensive resource management. The vegetation within the trail right-of-way will be managed to provide a healthy diversity of native woodland, wetland, and prairie communities for wildlife habitat and for the enjoyment of trail users and adjoining landowners. Native flowers, grasses, trees and shrubs that are consistent with the natural plant communities of the area will be planted and managed. Areas disturbed during construction will be seeded with native plants. Cultural resources will be preserved and managed for interpretive purposes. Some native plant community management may include cooperative efforts with adjacent land owners. Trail users will have opportunities to experience the history of the region through existing historical and proposed interpretive sites.

Public Involvement

Public involvement in the planning process has been extensive, with three well-attended public open houses, monthly meetings of the Project Steering Committee, and additional presentations to city and county boards and agencies and to recreation organizations. Public comments are summarized in Appendix B.

Implementation

The CRVST study area covers a very large area and therefore, it is unlikely that funding for the entire trail will become available all at one time. Funding will likely come from a variety of sources at different times throughout the trail development process. To address this, trail segments have been designed to be implementable in stages, with defined end-point for each segment. Planning-level cost-estimates have also been developed to give local governments and trail supporters a tool for prioritizing trail development.

1. Planning Process, Vision and Goals

Study Process Overview

Through the grass roots effort of the Little Falls Visitors and Convention Bureau, the Camp Ripley/Veterans State Trail (CRVST) received its official state trail designation in 2009. The CRVST is envisioned to be a true multi-use trail, providing direct motorized and non-motorized recreational use linkage from the Soo Line Trail south of Little Falls to Crow Wing State Park and numerous other recreational use trails, such as the Paul Bunyan State Trail and the Mississippi River Trail.

In 2011, local trail advocates joined together with the counties of Cass, Crow Wing, and Morrison, surrounding communities and townships, Region 5 Development Commission (RDC), the Minnesota Department of Transportation (MnDOT), the Minnesota Department of Natural Resources (DNR), and the National Park Service to initiate a trail corridor study. Counties, cities and the RDC contributed to the hiring of Bolton & Menk, Inc., as consultants for the study. The study's primary purpose was to identify trail alignment options, planning cost estimates and a trail implementation plan.

Soon after the initiation of the corridor study, DNR involvement was sought in order to coordinate the corridor study process with DNR's master plan process, as required for state trails. DNR representatives became active participants in the CRVST corridor study, leading to a combination corridor study/master plan development process. Consultants and DNR staff collaborated on meeting materials, open houses, and identification of potential trail alignments. This plan, therefore, incorporates most of the material developed for the corridor study, along with additional information on trail management, trail communities, and natural and cultural resources.

The corridor study/ master planning process included the following major tasks:

- Development of an agency and public involvement process that encouraged meaningful participation opportunities for stakeholder involvement, education and discussion.
- Technical analyses and research to inventory existing trail facilities and user needs and expectations.
- Development of a trail vision and goals and objectives to lead the identification and evaluation of trail alignment alternatives.
- Identification and evaluation of general trail alignment locations for both motorized and non-motorized trail uses.
- Development of study recommendations and next steps to implement the recommended trail plan.

The Camp Ripley/Veterans State Trail Corridor Study began in August 2011 and was complete by April 2012. The master plan process began concurrent with the corridor study; the draft master plan was released for public review in June 2012. All comments received have been carefully considered in revisions to the plan.

Why Plan for State Trails?

Master planning for state trails is conducted in order to satisfy the requirement of Minnesota Statutes, Section 86A.09, which requires that a master plan be prepared for state trails. The planning process is intended to:

- Provide a unifying vision for trail advocates who are working to secure a trail alignment and funds for development and maintenance of the trail.
- Guide the development, management, maintenance and operation of the trail so that quality recreational, transportation and healthful exercise opportunities are provided.
- Provide a forum for open public discussion concerning trail use and trail development options, trail maintenance and management issues, and trail operations and enforcement needs.
- Support partnerships and processes that will help execute the plan and contribute to providing quality trail opportunities.
- Assess the projected impacts of trail development on natural, cultural and historic resources in the area as well as the impacts on local communities.

The State and Regional Context:

The Parks and Trails Legacy Plan

The trail master plan is being developed within the context of a major statewide planning effort: the *Parks and Trails Legacy Plan; A 25-Year Long-Range Plan for Minnesota*, completed in early 2011. The plan was mandated by the Minnesota Legislature to help guide how funds from the Clean Water Land and Legacy Act (the "Legacy Amendment") should be spent for parks and trails of regional significance. The Legacy Plan process has helped to identify those parks and trails in Central Minnesota that meet "state and regional significance" criteria, and has provided a method for identifying and addressing the recreational needs and preferences of each region.

The Legacy Plan includes recommendations for DNR to partner with:

- Transportation interests such as MnDOT and regional and local transportation authorities to support access to parks and trails as well as expand opportunities to develop new trails, enhance trail use, and increase access to transit
- Tourism, chambers of commerce, and other local tourism providers, who play a key role in providing information about park and trail opportunities
- Grant-in-aid groups and local communities that are actively promoting outdoor recreation opportunities.

Other relevant recommendations include:

- Development of parks and trails that can accommodate varying forms of transportation, including walking, biking, and ATV riding.
- Placing a priority on park and trail development in densely settled and rapidly growing parts of the state.

Agency Coordination and Public Involvement Process

Agency coordination and public involvement were key components to the successful development of the corridor study/master plan. All project partners remained involved throughout the year-long process. Figure 1 illustrates the public and agency involvement process used for the corridor study. The master plan process builds on the same basic framework, but gives the DNR primary responsibility for completing and approving the master plan.

Figure 1: Public and Agency Involvement, Trail Corridor Study



* Includes Cities of Little Falls, Randall, Pillager, Baxter & Brainerd

A Project Steering Committee (PSC) was organized consisting of representatives from Crow Wing, Morrison, and Cass Counties, the City of Little Falls, the DNR, Minnesota Department of Transportation (MnDOT), Camp Ripley, the National Park Service, Region 5 Development Commission, and the CRVST Trail Committee. The responsibilities of the PSC included:

- Guiding the overall study direction
- Discussing study progress
- Reviewing and providing input on technical analysis
- Reviewing and discussing public input
- Reviewing and considering study recommendations

Public Open Houses. Three public open houses were held at critical study milestones. The purpose of the public open houses was to provide opportunities for public input at key points in the study. The first public open house was held on November 15, 2011 at the Morrison County Courthouse in Little Falls. The purpose of the open house was to introduce the study to the public and to receive input on issues and concerns within the study area. A Citizen Survey was also distributed at this meeting to gather the public's input on the draft trail vision and goals,

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identification of trail uses and to provide an opportunity to suggest potential trail alignments.

A second public open house was held on March 22, 2012 at City Hall in Baxter. The purpose of this open house was to solicit public input on potential trail alignment options. A presentation was given describing the trail alignment development process and reviewing alignment options for each segment of the study area. Attendees were given a comment form to provide input on each of the alignment options and to allow an opportunity to suggest additional trail alignments if desired.

The third public open house was held on June 7, 2012 at the Morrison County Courthouse in Little Falls. The draft plan was available for review and planning staff presented an overview of the master plan process and typical steps in trail development.

Field Survey. A survey of the entire legislatively authorized Camp Ripley/Veterans State Trail study area was conducted on September 21, 2011 by PSC members. Seventeen points of interest were noted within the trail study area and 11 of these sites were visited by the PSC. Key features at each of these points of interest were noted and PSC members identified potential issues, constraints and opportunities for trail connections within these areas. The field survey provided an opportunity for the PSC to understand the study area and potential destination/connections important for consideration in the development of CRVST trail alignments.

Local Community Meetings. In January and February 2012, consultant staff held individual meetings with representatives from the Cities of Little Falls, Randall, Pillager, Baxter, Brainerd and Cass County. Community representatives attending these meetings included a range of city/county staff, elected officials, business owners, and interested citizens. The purpose of these meetings was to get local input on the desired location of the Camp Ripley/Veterans State Trail connection to or through their community, to discuss potential local trail connections to the state trail, and to discuss local attractions for state trail connection within their communities. These meetings also included a discussion of motorized (ATV and snowmobile) trail use and/or any limitations through each community as well as a discussion of their thoughts on the demand for equestrian trail use. Information from these meetings has been integrated into the community profiles in Section 3.

Newspaper Articles. Prior to each public open house, a press release and news article were printed in the *St. Cloud Times*, *Brainerd Dispatch* and *Morrison County Record*. The purpose of the news articles was to provide notice of the upcoming public open house meetings and to provide general study information and status to the general public. The news articles were especially useful given the large study area, which precluded the use of individual mailings.

Camp Ripley/Veterans State Trail Website. The CRVST Committee had developed a website prior to the initiation of the Corridor Study. Therefore, a "Corridor Study" page was added to the [CRVST website](http://www.crvtrail.org) (www.crvtrail.org) in order to provide study information, progress and next steps, as well as to advertise public involvement opportunities for the corridor study. This provided the opportunity for the public to receive updates on study progress and meeting dates.

Trail Authorization

The Camp Ripley/Veterans State Trail Corridor Study was designated by the Minnesota Legislature in MN Statute 85.015, Subd. 28 in 2009 as follows:

This trail shall originate at Crow Wing State Park in Crow Wing County at the southern end of the Paul Bunyan Trail and shall extend from Crow Wing State Park westerly to the City of Pillager, then southerly along the west side of Camp Ripley, then easterly along the south side of Camp Ripley across to the east side of the Mississippi River, and then northerly through Fort Ripley to Crow Wing State Park. A second segment of the trail shall be established that shall extend in a southerly direction and in close proximity to the Mississippi River from the southeasterly portion of the first segment of the trail to the City of Little Falls, and then terminate at the Soo Line Trail in Morrison County.

The study area for the CRVST corridor study and master plan followed the legislative authorization and is shown in Figure 2.

Outdoor Recreation Act

The Camp Ripley/Veterans State Trail is one of the legislatively authorized state trails in the Minnesota State Trail System (see Figure 3). State trails are one unit of the state's outdoor recreation system established by the Legislature. In 1975, the Minnesota Legislature enacted the Outdoor Recreation Act (ORA) (Minnesota Statues, Chapter 86A.05, Subdivision 4 and Chapter 85.015). This act established an outdoor recreation system comprised of eleven components or "units" classifying all state-managed recreation lands. The ORA requires that the managing agency prepare a master plan for the establishment and development of each unit. This plan fulfills this mandate. The Camp Ripley/Veterans State Trail meets the following criteria established for state trails in the ORA:

- a. *A state trail shall be established to provide a recreational travel route which connects units of the outdoor recreational system or the national trail system, provides access to or passage through other areas which have significant scenic, historic, scientific, or recreational qualities or reestablishes or permits travel along an historically prominent travel route or which provides commuter transportation.*

The Camp Ripley/Veterans State Trail will link state and county parks, historic downtowns, a multitude of state and regional trails, and numerous natural areas. It will pass through areas with significant scenic and historic qualities, and will closely follow the historic travel route of the Mississippi River and subsequent road and rail corridors.

- b. *No unit shall be authorized as a state trail unless its proposed location substantially satisfies the following criteria:*
 1. *permits travel in an appropriate manner along a route which provides at least one of the following recreational opportunities:*
 - (i). *travel along a route which connects areas or points of natural, scientific, cultural, and historic interest;*

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There is a rich diversity of natural, scientific, cultural and historical resources along the Camp Ripley/Veterans State Trail corridor, as illustrated by the sampling below:

(ii) travel through an area which possesses outstanding scenic beauty;

The trail will be situated in and near the Mississippi River Valley, crossing numerous landscapes and ecological regions and offering striking contrasts between the wooded rolling hills west of the Mississippi and the broad plains to the east.



(iii) travel over a route designed to enhance and utilize the unique qualities of a particular manner of travel in harmony with the natural environment;

The trail will afford bikers, hikers, and wildlife enthusiasts a way to safely enjoy the scenery and cultural and natural amenities by separating slower-paced trail users from faster-paced highway users. ATV riders and other modes will be buffered from each other with vegetation, grade changes or other techniques.

(iv) travel along a route which is historically significant as a route of migration, commerce, or communication;

The proposed trail corridor traverses an area shaped by successive eras of settlement and transportation, from riverboat, horse and oxcart to the era of the railroads. The Mississippi River was the major corridor of transport for native peoples, fur traders, early explorers and settlers. The historic Red River oxcart trails between the Selkirk settlements near present-day Winnipeg and Saint Paul crossed the corridor, as well as the military road that connected the original Fort Ripley with Point Douglas at the confluence of the Mississippi and Saint Croix rivers.



While the trail search corridor generally does not follow former railroad routes, it crosses many such routes and links small communities created or shaped by the railroads in the late 1800s.

(v) travel between units of the state outdoor recreation system or the national trail system; and

The Camp Ripley/Veterans State Trail will link Crow Wing and Charles A. Lindbergh state parks. It will connect the Paul Bunyan State Trail in Crow Wing State Park and the Soo Line Regional Trail near Little Falls, effectively linking the Central Lakes, Lake Wobegon, Soo Line, Paul Bunyan, Heartland and Mi-Gi-Zi trails into one continuous recreational route. It will provide a scenic route paralleling and providing access to the Mississippi River, a designated State Water Trail.

2. *Utilizes, to the greatest extent possible consistent with the purposes of this subdivision, public lands, rights-of-way, and the like;*

Public land will be used when trail development is compatible with management objectives of the administering agency. A portion of the trail is expected to follow the edge of the Camp Ripley Military Reservation. State, county, and township road rights-of-way may also be used.

3. *Provides maximum potential for the appreciation, conservation, and enjoyment of significant scenic, historical, natural, or cultural qualities of the areas through which the trail may pass; and*

Overlooks and interpretive facilities are proposed to increase trail users' appreciation and understanding of the natural and cultural resources of the area. Plant community restoration projects, wildlife habitat improvement projects, and development of environmental education information are all projects that could benefit trail users.

The trail corridor can be a corridor for both habitat protection and recreation, across landscapes developed for agricultural, military training, commercial, and residential use. The ecological value of the corridor could be enhanced by working to restore healthy native plant communities.

4. *Takes into consideration predicted public demand and future uses.*

The master plan evaluates and uses current research on existing trail use, demand for trail opportunities, demographic data and recreational trends. Current demographic data is taken into account, as well as information gathered at public workshops and through other avenues of public participation.

Guiding Principles for Sustainable Trails

Guiding principles for ecologically sustainable trails, developed by DNR, provide the underlying rationale for actions related to protecting, restoring, and managing natural environments associated with trail development. There are seven core principles:

- Avoid sensitive ecological areas and critical habitats.
- Develop trails in areas already influenced by human activity.
- Provide buffers to protect sensitive ecological and hydrologic systems.
- Use natural infiltration and best practices for stormwater management.
- Provide ongoing stewardship of the trails and adjoining natural systems.
- Ensure that trails remain sustainable.
- Formally decommission and restore unsustainable trail corridors.¹

Applications of these principles will minimize the impact of trails on natural resources and sensitive ecological systems. Importantly, the strict application of these guiding principles has to be balanced against the need to locate trails where they will be of high recreational value to the targeted users, who often want to be close to nature, enjoy beautiful scenes, and observe wildlife. This is an important consideration and underscores the need for resource managers, trail designers, and other interested individuals to work together to determine which values are the most important for any given trail alignment.

¹ MN DNR, *Trail Planning, Design and Development Guidelines*, 2007.

Vision and Goals for the Camp Ripley/Veterans State Trail

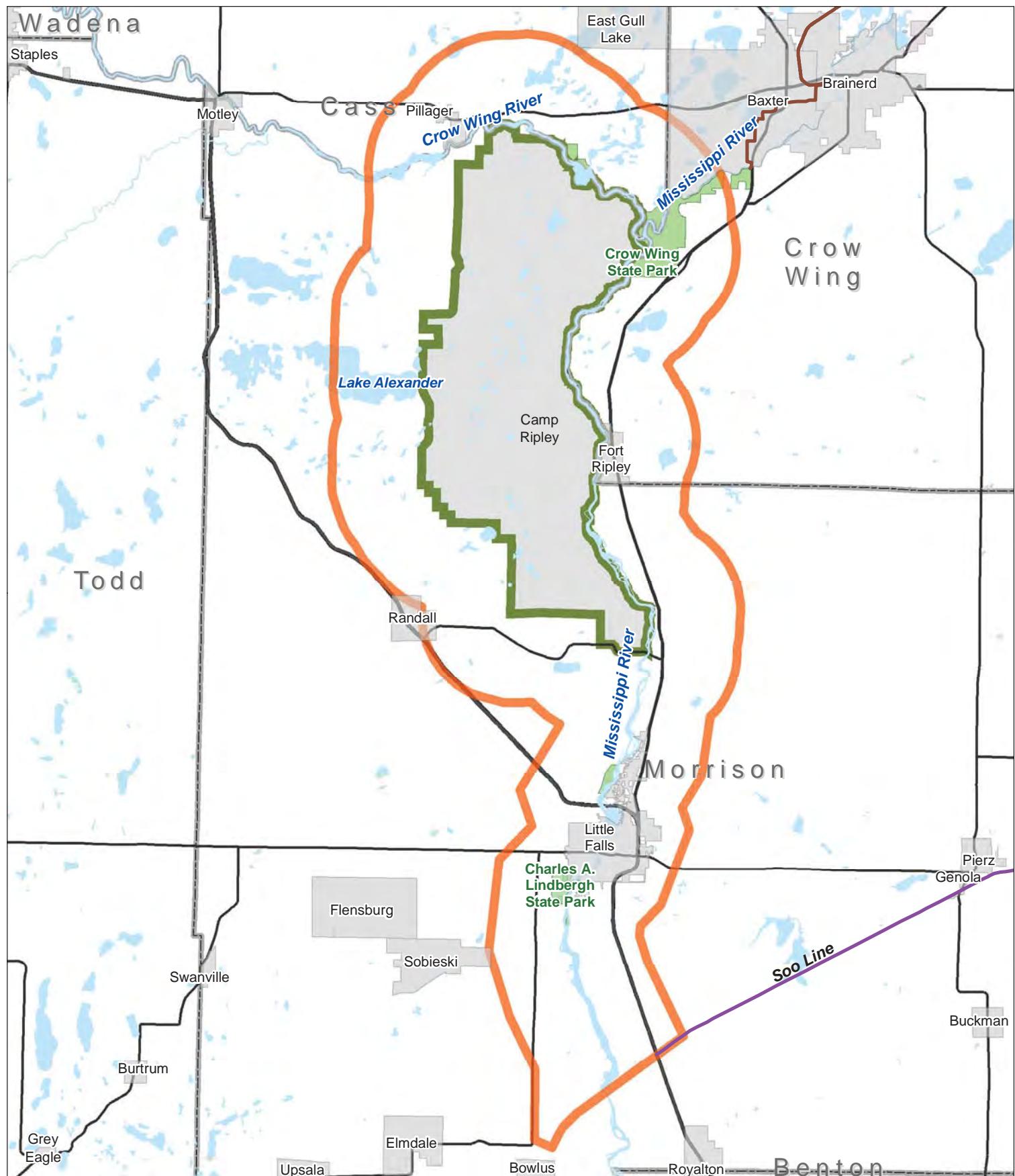
Vision

The CRVST will be a multi-use trail that will link the Paul Bunyan State Trail to the Soo Line Regional Trail and will serve as a section of the Mississippi River Trail. Trail users will experience a diversity of landscapes including pine moraines, prairies, hardwood forests and wetlands. The trail will connect users to the region's natural, historic, cultural and scenic resources thereby creating an interest and passion for their conservation and protection. The trail will connect and revitalize central Minnesota communities near and surrounding Camp Ripley, and along the Crow Wing and Mississippi Rivers, by promoting economic development within the area, improving quality of life, and promoting healthy living for residents.

Goals

The Camp Ripley/Veterans State Trail:

1. Will serve many different types of users throughout all seasons of the year;
2. Will promote economic growth in the area by attracting visitors, attracting and retaining businesses, increasing tourism and linking tourist attractions;
3. Will provide a fun, safe, recreational resource for residents of all ages and interest, thereby benefiting their health and improving their quality of life;
4. Will serve as an alternate means of transportation in the region, connecting rural areas to town centers, commercial districts, parks, and schools, and reducing vehicle trips, thereby improving the environment;
5. Will connect to existing and future trail networks, complete a missing link in the regional/state trail network of this area, provide a new link between cities and townships, and connect local, county and state parks, trails and conservation areas;
6. Will showcase the unique cultural themes of the area, including but not limited to oxcart trails, early Crow Wing town settlements, Fort Ripley ruins, honor/remembrance of veterans, Camp Ripley, Charles A. Lindbergh, etc.;
7. Will increase the awareness of the unique natural, historic and cultural resources along and within proximity of the Crow Wing and Mississippi Rivers; and,
8. Will preserve and protect these natural and environmental resources.



Camp Ripley/Veterans State Trail

Figure 2: Study Corridor Overview



0 1 2 3 4 5 Miles



STATE PARKS AND TRAILS



Figure 3:
Minnesota State Trails

Developed and Undeveloped,
Authorized in Minnesota Statutes 85.015
With Major Regional Trails



2. Recommended Trail Uses

The CRVST is proposed to be a multi-use, multi-seasonal trail. However, the limitations of width dictate that not all uses can be accommodated at all times on the entire length of the trail. For example, dual treadways would be necessary to accommodate both biking or in-line skating and equestrian uses or ATV uses. Landowner agreements, land acquisitions, and trail width are examples of factors or limitations that will dictate whether a dual treadway is possible or not, and what uses may be accommodated.

The following are the recommended trail uses: bicycling, hiking and walking, dog walking, running/jogging, in-line skating/skate skiing, equestrian uses, cross-country skiing, snowmobiling, ATV and environmental education/interpretation. Hunting will be allowed in accordance with Minnesota Rules, except where discharge of firearms is regulated by community ordinances. Trail development will take accessibility into consideration wherever practical. Certain segments of the trail may provide adequate access to rivers or streams for fishing and/or canoe launching.

Bicycling. Bicycling is the number one activity by numbers of summer users on state trails. The length of the trail, the variety of landscapes, and the connections to tourist attractions make this trail appropriate for recreational and touring cyclists of all ages and abilities. The trail will add approximately 70 to 80 miles to the state inventory of about 600 miles of paved state trails. Bicycling is recommended as a use along the entire length of the trail.

Hiking and Walking. On state trails, hiking or walking is second only to bicycling as popular low-impact cardiovascular fitness activities on state trails. Grades are likely to be moderate throughout the majority of the trail route, making it suitable for most people to walk and hike. Hiking and walking are recommended as uses on the entire length of the trail. (The use of electric wheelchairs, electric mobility scooters and similar devices is considered equivalent to walking.)

Running and Jogging. Many people use the state trails for running and jogging. In addition to individuals who regularly use the trails for exercise, local school track and cross-country teams will be able to use this scenic trail for training purposes. Running and jogging are recommended uses along the entire length of the trail.

In-Line Skating / Skate Skiing. In-line skating levels of use have declined, but it remains a popular sport. This activity requires a paved trail with a smooth, wide surface, and is a recommended use on paved segments of the trail.

Dog Walking. Dog walking is allowed along the entire length of the trail so long as dogs are leashed and owners properly dispose of pet wastes. State trail rules require all pets to be attended and restrained by a leash of not more than six feet in length.

Horseback Riding. Equestrian uses may be accommodated on some sections, where practical and desired, by developing a separate, natural surface treadway, or on a natural surface shoulder of a paved treadway.

ATV Riding. This trail will be somewhat unique among Minnesota State Trails in that it will accommodate both non-motorized and motorized summer use. It is anticipated that Class I and II ATV use would be allowed on segments of the trail corridor that can accommodate such use, either adjacent to or separate from non-motorized uses. Snowmobiles may share the use of the ATV alignments in some areas.



CAMP RIPLEY/VETERANS STATE TRAIL

Snowmobiling. Snowmobiling will be accommodated wherever feasible and desired, which may include using a separate treadway from the paved treadway. Although, snowmobilers are interested in connecting to the same communities as the summer trail users, the actual alignments for the two treadways will not necessarily be parallel or in the same corridor. Snowmobilers are most interested in securing a permanent alignment, whether seasonal or year-round, that provides a safe, high quality riding experience.



Cross-Country Skiing and Snowshoeing. Cross-country skiing may be able to be accommodated in some sections, where practical and desired, however, it is not likely to be a high-use activity. Cross country skiers typically enjoy loop trails, rather than long, linear trails. Trail grooming may also be an issue with the lack of consistent, sufficient snow cover during the winter months.



Hunting. State trails allow hunting within the trail right-of-way during the legal hunting season, except where restricted by local ordinance. The current rule states: "No firearm or bow and arrow shall be discharged within the trail at any time, except for the purpose of lawful hunting during the period from September 15 to March 30 only. No rifle, shotgun with slug, or bow and arrow shall be discharged upon, over, or across the trail treadway at any time" (MN Rules 6100.3600).

Communities may restrict firearms or bow and arrow discharge, or trapping, by ordinance. These ordinances take precedence over state trail rules.

Environmental Education/Interpretation. Use of the state trail for environmental education, both for individual trail users and formal groups, is encouraged. Schools or organizations that wish to use a trail can work with DNR staff on specific projects. Interpretive displays on the environment and history of the trail can enhance the trail users' experience. Nature photography is another popular activity.

Accessibility. The trail will be accessible to people with disabilities wherever possible. Grades in excess of 5% may be unavoidable in some locations where the trail must match a parallel transportation corridor or where one of the exceptions in the Federal accessibility guidelines is met.

Fishing Access. Fishing is a popular activity along the Mississippi and Crow Wing Rivers. Depending upon the location and conditions of the trail corridor right-of-way, this activity may be accommodated from the trail where practical.

3. Trail Alignments and Connections

Overview of the Trail Alignment Study Area

The CRVST is a legislatively authorized state trail which, when complete, will provide a connection between the Paul Bunyan State Trail in Crow Wing State Park and the Soo Line Trail, effectively linking the Central Lakes, Lake Wobegon, Soo Line, Paul Bunyan, Heartland, Cuyuna Lakes, and Mi-Gi-Zi Trails into one continuous recreational route. The trail will provide access to Charles A. Lindbergh State Park, Crow Wing State Park, the Crow Wing and Mississippi Rivers and many other natural and historic sites. It will connect the communities of Randall, Pillager, Baxter, Fort Ripley, and Little Falls. It will put Little Falls at the hub of an interconnected trail system of an estimated 400 miles.

In addition, the Camp Ripley/Veterans State Trail will be a part of the **Mississippi River Trail (MRT)** which includes over 3,000 miles of on-road pedestrian and bicycle pathways from the Mississippi River headwaters in Itasca, Minnesota to the Gulf of Mexico. Portions of the northern segment of the MRT are located within the CRVST study area. The Paul Bunyan State Trail is also part of the MRT route. The current MRT planning effort is being led by MnDOT. The route designations at this point are not fixed, and segments of the CRVST may become the MRT route in the future.

Portions of the CRVST study area also encompass the **Great River Road**, which offers 575 miles of historic and scenic touring for motorized vehicle use through the heart of Minnesota. The byway meanders along the Mississippi River in the Little Falls area on CSAH 52.

Camp Ripley has a dominant presence within the CRVST study area. Relevant to trail planning activities near the Camp is the Army Compatible Use Buffer (ACUB) program, a federal program with influence on land ownership and land use surrounding the Camp. The ACUB was authorized by the fiscal year 2003 Department of Defense Authorization Act. The Act authorizes a military installation to enter into an agreement with a state, local government, or private conservation organization to limit encroachment on lands neighboring the installation. The Minnesota National Guard's ACUB program for Camp Ripley is known locally as "*Central Minnesota Prairie to Pines Partnership...preserving our heritage.*" The ACUB encompasses a three-mile buffer around Camp Ripley's boundaries, coterminous with the trail corridor study area. Since 2004, the National Guard, Minnesota Board of Water and Soil Resources (BWSR), and the DNR have collaborated to protect over 12,000 acres of privately-owned land through easements and purchases, as well as about 16,500 acres dedicated for ACUB purposes by Morrison County and The Nature Conservancy.

It should be noted that DNR easements on private land are intended to maximize habitat protection and thus prohibit trail use, while easements held by BWSR could potentially allow trails, if landowners are interested in this option. Most easements within the trail study corridor are held by BWSR, and most future easements will be as well.



Planning Segments

For the purposes of this plan, the CRVST corridor has been divided into six primary planning segments, some with sub-segments, for ease of describing and discussing the resources and features along the trail corridor. Due to the large area this future trail covers, it is likely funding for the construction of the trail will be phased. Therefore, segments and sub-segments were developed in a manner that will facilitate the implementation of the trail in phases as funding becomes available. No alignments have been secured at the time of writing this plan.

The planning segments areas are illustrated in Figure 4 and identified as:

Segment 1: Crow Wing State Park to the City of Pillager

Segment 2: West Side of Camp Ripley from Pillager to Randall

Segment 3: South Side of Camp Ripley from Randall to Minnesota State Highway 371 (MN 371)

Segment 4: MN 371 to Crow Wing State Park

Segment 5: City of Little Falls Area

Segment 6: City of Little Falls to the Soo Line Regional Trail

This section of the plan includes:

- A description of landscape highlights for each trail segment listed above, segment criteria for the location of the trail corridor, and identification of trail alignment options;
- A map for each trail segment illustrating the search corridor and key features identified;
- A description and map of each community that may connect with the trail;
- Descriptions of county and state parks and trails or other recreational resources the trail will connect; and
- Discussion of next steps required for each segment based on the necessary implementation stages.

Cass County Trail Study

At the same time as the CRVST corridor study, Cass County initiated a study of a potential future regional multi-use trail connection between the City of Pillager and Baxter. Realizing the CRVST study area included the consideration of a state trail connection between Pillager and the Crow Wing State Park, and recognizing the City of East Gull Lake trail improvements and planning, Cass County felt the time was opportune to also consider this regional trail connection. Although there may be some overlap in potential trail alignment options between the CRVST Study and Cass County's Trail Study, the Cass County Trail is meant to fulfill a local and/or regional gap in the trail system between these communities, outside of the state trail function, and provide connections for trail planning initiatives of communities in the Gull Lake Micropolitan Area.

Segment 1: Crow Wing State Park to the City of Pillager

Description of Trail Environment

The northern segment of the CRVST will stretch from Crow Wing State Park to the City of Pillager with connections to the Paul Bunyan Trail, a potential Cass County State Aid Highway (CSAH) 18 trail with links to the Gull Lake trail system, and the communities of Baxter, Brainerd and Pillager. Key features of the landscape in this segment include the Paul Bunyan Trail, Crow Wing State Park, Mississippi, Crow Wing and Gull Rivers, Fisherman's Bridge/Sylvan Dam, Pillsbury State Forest, a potential trailhead location in the City of Pillager, and existing trails, parks and other destinations within the communities of Baxter, Brainerd and Pillager.

The existing trailhead in Baxter for the Paul Bunyan State Trail is a major trail access/parking lot and rest area located on Excelsior Road. With a population of approximately 5,500, Baxter ranks as the trail region's third largest city. As Brainerd's western neighbor, Baxter is a major partner in a rapidly growing urban complex. While its residential areas are primarily suburban in character, the city contains a number of attractive lakes and many acres of natural landscape. The Mississippi River forms its southern boundary.

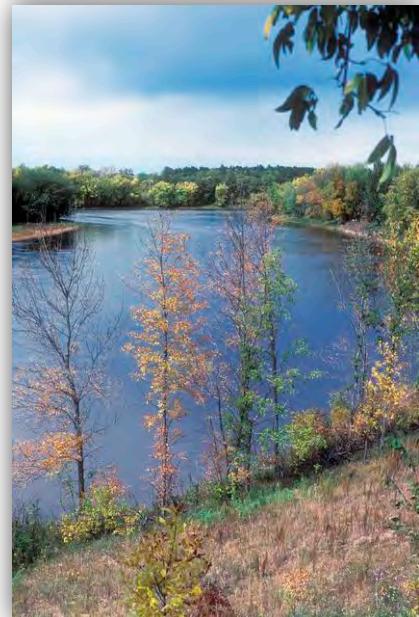
The Paul Bunyan State Trail in Baxter is currently in the planning stages for extension through Crow Wing State Park. The proposed alignment of this extension is shown in Figure 5. The state park is an important resource in this area, with hiking trails, camping, boat launch, interpretive displays, historic sites and scenic lookouts over the confluence of the Mississippi and Crow Wing Rivers. Motorized uses of trails within the park boundaries are prohibited. The portion of Crow Wing State Park south of the Mississippi River can be accessed from MN 371. The portion of the state park north of the river is accessible from Oak Road and Hazel Lake Road.

The landscape west of Baxter extending from the Camp Ripley border to the southern edge of Pillsbury State Forest is largely comprised of lakes, rivers, and wetlands, and some suburban development. This lakes area is especially scenic, with hilly terrain providing scenic views of the lakes and wooded areas. A large portion of the land surrounding the Gull River and portions of the Crow Wing River in this area is owned by Minnesota Power, a division of ALLETE, Inc., for hydroelectric operations. Fisherman's Bridge and Sylvan Dam are located off of CSAH 36 on the Gull River. Fisherman's Bridge offers access to fishing and a boat launch.

DNR's Brainerd Area Wildlife office has been working with Minnesota Power for several years on the concept of creating a Wildlife Management Area along the Gull River through either fee title acquisition or a cooperative lease agreement. The Chippewa Agency site near the confluence of the Crow Wing and Gull rivers has been recommended as a future addition to Crow Wing State Park (see discussion under Cultural Resources).

West of the Gull River, the landscape is characteristic of a more rural setting, including agriculture, woodlands, and rural residential development. Many of the residential subdivisions in this area are platted up to the edge of the Crow Wing River, making trail development in this area challenging.

The Pillsbury State Forest is another important feature in this area, located north of MN 210 and approximately halfway between the Gull River and the City of Pillager. Pillsbury State Forest offers recreational facilities including the Walter E. Stark Assembly Area



Crow Wing State Park

and Horse Campground, with 27 miles of equestrian and nature trails, Shafer Lake, Green Bass Lake, and Rock Lake Campground. The trail system within the state forest is especially popular with equestrians and mountain bikers during the summer and cross-country skiers in the winter.

Criteria for Trail Alignment

- Connect with Paul Bunyan State Trail
- Utilize existing trail on northbound lane of MN 371
- Utilize opportunities on Minnesota Power land
- Connect to city-owned land in Pillager (future trailhead location)
- Utilize the existing CSAH 1 river crossing bridge through Pillager if possible
- Maximize views along the Mississippi and Crow Wing rivers where possible
- Utilize publicly owned land where possible
- Provide for both motorized and non-motorized uses
- Work with willing landowners to acquire right-of-way that showcases features of the landscape
- Minimize wetland impacts
- Avoid acquisition of high quality agricultural lands
- Avoid negative impacts on rare, endangered, or threatened species, and avoid fragmentation or disturbance of significant native plant communities

Trail Alignment Options

In order to facilitate implementation of this segment in phases, Segment 1 was split into two sub-segments. The first sub-segment, Segment 1A, runs from the Crow Wing State Park/Paul Bunyan State Trail to approximately CSAH 36 as illustrated in Figure 5. This sub-segment area was defined because it provides logical termini: Paul Bunyan State Trail to proposed CSAH 18 trail (near CSAH 36).

Key factors driving trail alignment options in this sub-segment include the location of the Mississippi River, the Paul Bunyan State Trail and extension to Crow Wing State Park, the large area of land owned by Minnesota Power surrounding the Gull River and along portions of the Crow Wing River, the Great River Energy powerline land, and the existing and proposed trail systems in this area. Several trail alignment options exist for Segment 1A as identified below. All alignment options illustrated in this sub-segment are identified as multi-use at this point. Further study is needed to determine how each use (motorized and non-motorized) can be accommodated. Discussions with Baxter city staff indicated that motorized trail users are currently allowed within county and state road rights of way through the community or users are allowed on city streets if traveling to a nearby trail.

Multi-use Trail (Segment 1A)

- Two options exist for connecting the CRVST to the Paul Bunyan Trail. The first is a connection to the existing Paul Bunyan State Trail in Baxter. The second is a connection across the Mississippi River within the Crow Wing State Park to connect to the proposed Paul Bunyan Trail extension within the state park boundaries.
- From the existing Paul Bunyan State Trail in Baxter, follow CSAH 48 to MN 210 to CSAH 36.
- From the existing Paul Bunyan State Trail in Baxter, follow County Road (CR) 170 to CSAH 36 (on the east side of the Gull River). At this point the trail could go north along CSAH 36 to MN 210 or if an agreement was reached with

Minnesota Power, could travel through their land surrounding the Gull River to connect to CSAH 36 (on the west side of the Gull River).

- From the existing Paul Bunyan State Trail in Baxter, follow the Great River Energy easement corridor (south of CR 170) westerly to Minnesota Power land adjacent to the Mississippi River (south of CSAH 36). From this point, connect to CSAH 36 and to MN 210.
- From the Paul Bunyan State Trail extension through Crow Wing State Park, bridge the Mississippi River and connect to either Hardy Lake Road or Oak Road and travel north to CSAH 36 and to MN 210.

The second sub-segment, Segment 1B, runs from the junction of CSAH 36/MN 210 through the City of Pillager (see Figure 6). This sub-segment was defined because it provides logical termini (from the proposed CSAH 18 trail into the City of Pillager) to allow for phased construction.

Key factors driving trail alignment options in this area include several rural residential subdivisions adjacent to the Crow Wing River, the narrowing of land between MN 210, the BNSF railroad and the Crow Wing River, and the presence of Camp Ripley south of the river. Due to proximity of military training operations along the north side of the Camp, there are no opportunities for the CRVST on Camp Ripley land in this area.

Because of these constraints, there are few trail alignment options in this area. Trail alignment options described below are identified as multi-use at this point. Further study is needed to determine how each use (motorized and non-motorized) can be accommodated. Discussions with staff at the City of Pillager indicated the city does not currently have any restrictions on motorized trail uses through the community.

Multi-use Trail (Segment 1B)

- Follow MN 210 to CSAH 1 in the City of Pillager, with a connection to the land owned by the City of Pillager (east of the city, south of the railroad tracks) which may be used as a future trailhead.
- Use CSAH 1 through the City of Pillager, utilizing the CSAH 1 Bridge over the Crow Wing River. Discussions with county staff indicate the existing CSAH 1 Bridge is not wide enough to accommodate trail users. However, the bridge is scheduled to be re-decked in the next few years and depending upon the underlying structure, may be able to be widened to accommodate the trail, without a complete reconstruction of the bridge.
- Follow the existing grant-in-aid snowmobile route through the city which runs from MN 210, south along CSAH 1, east on Cedar Avenue, south on 2nd Street, east on CR 201, south on Servo Trail and west on Maple Avenue to connect back with CSAH 1.

Trail access

Crow Wing State Park offers parking and restroom facilities that could be used as a CRVST trailhead location for non-motorized trail uses. In addition, the southernmost trailhead of the Paul Bunyan State Trail is located on Excelsior Road in Baxter, northeast of the Camp Ripley/Veteran's State Trail study area. (As the Paul Bunyan State Trail is extended into Crow Wing State Park, it is expected to include an additional trailhead.)

As trail development and planning continues, potential additional locations for parking, restrooms and scenic views of the Crow Wing River, Mississippi River and Gull River

should be explored. River view areas could serve as both rest areas and interpretive sites, depending on the location.

The City of Pillager owns land on the northeast side of town near the cemetery and has expressed interest in using this area for a future CRVST trailhead location. The land overlooks the Crow Wing River and is large enough to accommodate parking and restroom facilities as needed.

Pillager Dam is located southwest of the city along the Crow Wing River. The dam offers fishing, camping and a public water access.

Communities and Connections

City of Brainerd

The City of Brainerd is the county seat and largest city in Crow Wing County. More than 400 lakes are located within 20 miles of the city. The Mississippi River runs through the city in a northeast – southwest direction. The lakes and the river make the Brainerd area a popular vacation destination for water-based recreation such as fishing and boating. State highways 371B, 210, 18 and 25 all converge within the community.

History

Much of central Minnesota was originally the territory of the Ojibwe. A group of explorers led by Zebulon Pike were the first Euro-Americans to visit the region on December 25, 1805 while searching for the headwaters of the Mississippi River. Fur and logging brought settlers to the area in the mid-1800s. Brainerd was founded in 1870 when a Northern Pacific Railroad survey determined that its Mississippi River crossing should be located there. The township was named by John Gregory Smith, president of Northern Pacific Railroad, in 1870 for his wife, Anne Eliza Brainerd Smith, and father-in-law, Lawrence Brainerd. Brainerd was organized as a city on March 6, 1873. The state legislature revoked Brainerd's charter for six years on January 11, 1876 as a result of the election of local handyman Thomas Lanihan as mayor instead of Judge C.B. Sleeper. Brainerd functioned as a township during those six years.

Brainerd expanded along with the railroads during the 1880s. The first paper mill was built in 1903 by the Northwest Paper Company. As it grew, Brainerd became a prominent center for railroad shipping and wood products. During the 1920s, roughly ninety percent of Brainerd's residents depended on the railroad. Labor unrest and relocation of railroad maintenance shops led to a decline in railroad employment.

Brainerd Today

The city's population at the 2010 Census was 13,590. The population has been steadily increasing over the last few decades, and doubles during the summer tourist season. The primary employers in Brainerd are Brainerd Public Schools and the paper and service industries. The city is also home to a major hospital, Central Lakes College and a regional airport.

In 2010, the median age in Brainerd was 32.2, lower than the surrounding communities and Minnesota as a whole (37.4).

Brainerd has a vibrant downtown area located just east of the river near the main railroad line. Brainerd is a Minnesota Main Street Community, part of a statewide program led by the Preservation Alliance of Minnesota that works to revitalize historic downtowns. The Brainerd Public Library and Brainerd History Group partnered to create a History Walk, a historic walking tour of downtown with 35 locations over 1.4



Brainerd Depot, c. 1952. Minnesota Historical Society



Parade in downtown Brainerd, c. 1958. Minnesota Historical Society

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miles. Guidebooks are available at the public library or online and audio tours are available for mobile devices.

Brainerd's Parks and Trails

Brainerd is home to 14 city parks with various amenities. As of 2004, roughly 303 acres or 6 percent of the city's land, were used for park and recreational uses, including trails. This translates to approximately 23 acres of parkland per 1,000 residents. Lum Park has an RV campground with 18 sites. The Parks and Recreation Department operates other facilities such as athletic fields, fairgrounds and a civic center. There are also opportunities for both youth and adult organized sports. The City's comprehensive plan states that trail and park linkages should be considered whenever development and/or projects are discussed.

The Cuyuna Lakes State Trail is planned to extend for about 35 miles from Aitkin through Brainerd, connecting to the Paul Bunyan State Trail at the existing trailhead at the Northland Arboretum, with several options for routes through both cities (see [plan online](http://files.dnr.state.mn.us/input/mgmtplans/trails/cuyunalakes/cuyuna_plan.pdf), files.dnr.state.mn.us/input/mgmtplans/trails/cuyunalakes/cuyuna_plan.pdf).

In 2011 Brainerd was awarded a Federal Recreation Trail Grant and a DNR Regional Trail Grant to construct a 2.59 mile, 10-foot wide multi use bituminous trail that will connect to both the Cuyuna Lakes State Trail and the Paul Bunyan State Trail. The land acquisition and trail construction are part of a system of Mississippi Riverfront improvements and are intended to help establish Brainerd as a trail hub city in North Central Minnesota.

The Northland Arboretum

The Northland Arboretum encompasses over 500 acres that straddle the boundary of Brainerd and Baxter. This member-supported, non-profit organization was founded with the closure of the Brainerd Landfill in 1972. Left untouched, the 40-acre landfill site now supports a grassland. The arboretum owns a Norway Pine plantation to the north and leases land from Crow Wing County behind the Westgate Mall. The Nature Conservancy owns nearly 200 acres within the arboretum boundaries, one of Minnesota's primary examples of Jack Pine savanna.

Areas of interest at the Northland Arboretum include a visitor center, several demonstration gardens, the Monet Bridge and Pond, a DNR Landscaping for Wildlife project, a Secret Garden, and many flower beds maintained by volunteers. An orienteering course is available for amateurs and experts. The arboretum also provides 20 kilometers of hiking and cross-country ski trails.

City of Baxter

The City of Baxter is adjacent to Brainerd on the west and borders the west bank of the Mississippi River for about ten miles. The City is approximately 20.3 square miles in area with a little over one-fifth made up of water or wetlands. Baxter sits at the crossroads of two major highways, Trunk Highways 371 and 210. The traffic volumes and scale of commercial development along these corridors have made Baxter a kind of "downtown" of the lakes region.

History

Baxter developed gradually within the orbit of the larger city of Brainerd, which developed around the Northern Pacific Railroad's Mississippi River crossing. During the 1920s, the railroad operated a tie-treating plant in the area. The City of Baxter was

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incorporated in 1939 and named for Luther Loren Baxter, an attorney for the railroad who also served in the Minnesota Legislature and as a colonel in the Civil War.

Baxter Today

In 1960, Baxter had approximately 1,000 residents. Growth has been steady over time and the City's 2010 population was 7,610. The median age in 2010 was 38.7, which is younger than the median age of Crow Wing County (42.4). Baxter also had a higher number of younger families and a higher household income than the neighboring cities and townships. Tourism and service industries are the major employment sectors in Baxter.

The completion of the Highway 371 bypass in 2002 has brought about the emergence of Baxter as the retail and commercial leader of the Brainerd Lakes region. Nearly all of the retail commercial development in the City is adjacent to Highway 371. Residential development is concentrated to the northwest of Highways 210 and 371 and along the Mississippi River in the southern portion of the City.

Parks and Trails

Baxter is home to five parks, which offer many opportunities for various types of recreation, including picnicking, ball fields, ice rinks, swimming, fishing, playgrounds and tennis courts.

The southern trailhead of the Paul Bunyan State Trail is located in Baxter near the Northland Arboretum, just north of Excelsior Road (see description above under Brainerd). This location has parking, a rest area and restrooms. An extension of the trail has been completed through the city, with a connection to Crow Wing State Park planned for completion in 2012. The City of Baxter's 2007 Comprehensive Plan Update identifies a series of recommendations for Public Land & Open Space Policy and Outdoor Recreation Policy. These recommendations include the following:

- Keep as much public land as possible under public ownership for recreational uses, both passive and active, and green space protection.
- Connect existing public lands with greenways and trails for environmental and recreational purposes.
- Continue to work with neighboring cities, townships, counties, and other relevant agencies to develop a coordinated and connected local, regional, and park/trail system.
- Develop and maintain a coordinated trail, parks, and public land system for passive and active users between residential and business development for recreational and transportation purposes while minimizing user conflicts. This may also connect to external recreational opportunities.

City of Pillager

Pillager is located in Cass County along the banks of the Crow Wing River just east of Lake Placid. Highway 210 and County Highway 1 are the only main routes in Pillager. The city is 0.7 square miles in area.

History

Pillager was settled in 1886 as a station of the Northern Pacific Railroad, a general store, a hotel and a blacksmith. It incorporated as a village on September 4, 1900. The town gets its name from the term Pillagers, which was applied to the Ojibwe of the area at the time.

Pillager Today

Pillager's 2010 population was 469. The largest employers in Pillager include Manion Lumber & Truss, a wholesale manufacturer of wood and floor trusses, and Pillager Public Schools. Pillager is home to multiple restaurants, cafes and specialty shops. The city's proximity to Pillsbury State Forest makes it a center for wood products and for outdoor recreation.

Initial Evaluation of Trail Alignment Options

The CRVST should connect to other local trails within Baxter, Crow Wing State Park, and Pillager to enhance recreational opportunities and experiences. As identified in the legislative authorization, the proposed multi-use CRVST should begin with a connection to the Paul Bunyan State Trail. A connection to the potential Cass County CSAH 18 trail would also add value by connecting the CRVST to the East Gull Lake trail system and beyond to other Gull Lake Micropolitan communities.

Whether through a connection to the Paul Bunyan State Trail in Baxter or a direct connection within Crow Wing State Park via connection to the Paul Bunyan trail extension in the state park, the CRVST will be connected to the Crow Wing State Park.

Segment 1A

Several trail alignment options have been identified for Segment 1A (between Crow Wing State Park and CSAH 36). The following several outstanding issues need to be studied further in order to select a preferred alternative(s) for this sub-segment:

1. Feasibility of a bridge over the Mississippi River in the Crow Wing State Park.
2. Specific alignment through Minnesota Power land surrounding the Gull River and along portions of the Crow Wing River.
3. Feasibility of using the Great River Energy easement corridor (south of CR 170) for the CRVST trail (i.e., what type of easement is this? Can it be used for a use other than utilities?) This alignment would need to avoid the DNR easement areas noted on Figure 5. Trail development in DNR easement areas is not allowed.

Based on the complexity of some of these outstanding issues, it is likely a feasibility study/more detailed alternatives analysis will need to be conducted for this segment as additional information is gathered and construction of this segment becomes more imminent.

This segment includes approximately 12 miles of multi-use paved trail, ATV trail and equestrian trail. It also includes 1-2 bridges for trail users depending upon the trail alignment selected. As indicated on Figure 5, there are several existing bridges within this segment area. The MN 371 bridge over the Mississippi River has existing accommodations for a trail; however, several other existing bridges are not able to accommodate the proposed state trail. In addition, some potential trail alignment options would require the construction of a new bridge over the Mississippi River in Crow Wing State Park, as noted on Figure 5.

Segment 1B

As noted in the trail alignments discussion above, there are fewer alignment options for the CRVST in Segment 1B. Therefore, a detailed alternatives analysis for this segment would not likely be required. The main issue that will need to be discussed by trail advocates before moving to preliminary design would be how the trail connects

through the City of Pillager to cross the Crow Wing River. Further investigation is needed to determine if the trail can be accommodated on a widened CSAH 1 deck (without requiring reconstruction of the entire bridge) or whether a new bridge for the trail would be required and if so, where that bridge would be located.

Segment 2: West Side of Camp Ripley from Pillager to Randall

Description of Trail Environment

South of Pillager, the CRVST is planned to continue south along the west side of Camp Ripley. This section of the trail study corridor spans the entire west side of Camp Ripley from just south of Pillager and the Crow Wing River through the City of Randall. The landscape heading south from Pillager to Lake Alexander is largely comprised of agricultural land, wooded areas and some lakes and wetlands. Some areas within this section include steep terrain and rolling hills. The landscape south of Lake Alexander changes significantly, including a Nature Conservancy preserve, several wetlands and wetland complexes, and some suburban development. The areas surrounding Enchanted Lakes is platted for rural residential development. However, only a few of these lots have been developed.

Due to the proximity and spacing of wetland areas south of Lake Alexander, trail development deviating substantially from the CSAH 1 right-of-way in this area would be difficult. Trail alignments should avoid major wetland areas that would be challenging, or even unsuitable for trail development.

Key features of the landscape in this area include:

- **Camp Ripley** – Camp Ripley is a 53,000 acre training facility for military, federal, state, local and civilian communities. Camp Ripley land is comprised of facilities, ranges and natural resources. Portions of the Camp are open to the public. Representatives from Camp Ripley have been an integral part of the CRVST study committee. This coordination has resulted in the identification of several areas along the west side of Camp, where Camp Ripley is willing to consider trail alignment options on existing Camp Ripley land. Training operations and military service roads in these areas would not be disturbed by the acquisition of land for a multi-use trail. Camp Ripley representatives suggested moving the Camp's boundary fence to the east, along portions of the west side, to allow for the acquisition of property for the proposed trail. These areas are illustrated on Figure 9.

Camp Ripley also owns several areas shown on Figures 9-11 designated as Camp Ripley Off-post Land. Camp personnel indicated they would also consider the use of portions of these off-post lands for the CRVST.

- **Parks and Trails Council of Minnesota Land** – The Parks & Trails Council of Minnesota exists to acquire, protect and enhance critical lands for the public's use and benefit. The Council has been instrumental in adding more than 10,000 acres of land to key areas within the state's vast network of parks and trails. The Council has acquired several parcels in this area that have been transferred to state agencies, including DNR.
- **Lake Alexander** – Two boat landings on the lake are located on the west shore off CSAH 3 and on the east shore of CR 204. Restaurants include The Castaway

Bar and Grill located along CSAH 3 approximately 3 miles east of CSAH 1 and The Landing located on Copper Road just east of CSAH 1.

- **Nature Conservancy Preserve** – On the south edge of Lake Alexander, The Nature Conservancy's Lake Alexander Preserve is centered on an 180,000-acre mosaic of mixed oak forest, wetlands, ponds and stands of red and white pine. The unfragmented nature of the site provides important habitat to songbirds and other wildlife that are dependent on the forest's interior. The preserve is open to the public. Visitors can experience beautiful scenery while hiking and wildlife watching.
- **Three Finger and Round Lakes** – Located northeast of Randall, these lakes provide access to fishing and include a public water access on the west side of Round Lake.

Criteria for Trail Alignment

- Utilize Camp Ripley land where possible
- Utilize publicly owned land where possible
- Provide for both motorized and non-motorized uses
- Work with willing landowners to acquire right-of-way that showcases features of the landscape
- Minimize wetland impacts
- Avoid negative impacts on rare, endangered, or threatened species, and avoid fragmentation or disturbance of significant native plant communities

Trail Alignment Options

This segment was split into three sub-segments. Segment 2A runs south of the City of Pillager to Lake Alexander as shown in Figure 9. Due to the ability to utilize portions of Camp Ripley and off-post lands in this segment for trail use, only one trail alignment option has been identified. The alignment option described below is identified as multi-use at this point. Further study is needed to determine how each use (motorized and non-motorized) can be accommodated.

Motorized Trail (Segment 2A)

Following CSAH 1 south of Pillager onto land currently within the Camp Ripley boundary to approximately 350th Street and then crossing over to the west side of CSAH 1 to the Camp Ripley off-post land, then continue south through the off-post land to just east of 80th Avenue to the east side of CSAH 1 onto Camp Ripley land and continue south to a location approximately parallel to Lake Alexander.

Segment 2B runs from Lake Alexander to the northern city limits of Randall as shown in Figure 10. Several constraints within this area limit trail alignment options. These constraints include: inability to use Camp Ripley for trail development due to the proximity of military training operations/service roads in this area, and the proximity and location of wetland and lakes. The following alignment option is identified as multi-use at this point. Further study is needed to determine how each use (motorized and non-motorized) can be accommodated.

Multi-use Trail (Segment 2B)

Following CSAH 1 from Lake Alexander to the City of Randall. An opportunity to deviate from the CSAH 1 roadway alignment may exist near the Enchanted Lakes development. Because little development has occurred in this subdivision, particularly in areas along

CSAH 1, there may be an opportunity for trail acquisition on the west side of CSAH 1 in this area.

Segment 2C encompasses the City of Randall and is shown in Figure 11. Again, due to the proximity and location of wetlands, lakes and developed areas within the city, few trail alignment options have been identified. The alignments that have been identified were developed with the understanding of the need for trail facilities and economic development potential for the city. The following alignment options have been identified as multi-use at this point. Further study is needed to determine how each use (motorized and non-motorized) can be accommodated. Discussions with City of Randall staff indicate they are willing to consider motorized use within city limits.

Multi-use Trail (Segment 2C)

- Following CSAH 1 southerly into the City of Randall to connect with CSAH 104 and then heading easterly to MN State Highway 115 (MN 115).
- Following CSAH 1 southerly into the City of Randall, west on 1st Street, south on Superior Avenue through downtown Randall to MN 115, and then follow MN 115 easterly to the eastern city limits.

Trail Access

The distance of the trail study area between Pillager and Randall (Segments 2A and 2B) is approximately 17 miles. This is a long distance for trail users to travel with limited or non-existent opportunities for rest, water, restrooms, etc. There is a restaurant off of CSAH 1 near Lake Alexander, along with a public water access to Lake Alexander west of CSAH 1 on CR 204. However, limited parking facilities exist at both of these locations.

Future trail development efforts should investigate other opportunities for trail access areas between Pillager and Randall. Potential locations for trail access, parking and restrooms should be explored on Camp Ripley off-post lands directly adjacent to CSAH 1 on the west side and at the Minnesota Nature Conservancy Lands west of CSAH 1.

Once in Randall, the city has several shops and restaurants for trail users (see discussion below).

Communities and Connections

City of Randall

The City of Randall is located in Morrison County along the Little Elk River about five miles from where it meets the Mississippi River. Randall, known as the “Gateway to Northern Minnesota,” is surrounded by many small lakes, providing numerous opportunities for year-round recreation. Highway 10 and State Highway 115 provide the main routes to the community. The city is 2.1 square miles in area. At the 2010 Census, Randall had a population of 650.

The city's main park is Bingo Park, on both sides of the Little Elk River, with a paved walking trail, playground, volleyball courts, picnic shelter and the city's community center. Other amenities and services include several cafes and bars, a supermarket, a well-known shoe store, antique shops and other retail. The community has a number of celebrations throughout the year.

History

Randall was established in the 1890s as a railroad community, named for railroad official John H. Randall. The first Europeans to settle in the area were from Northern Europe. A main line of the Burlington Northern Santa Fe Railroad bisects the town.

Potential Trail Alignments

City trail advocates have identified potential trail locations and concepts. Crossing the active railroad line poses a challenge for trail development. Snowmobiles and off-highway vehicles currently come through the city, and would be expected to use a state trail.

Initial Evaluation of Trail Alignment Options

The willingness of Camp Ripley to consider acquisition of portions of their property for the trail along the west side boundary and on off-post lands significantly reduces the need to study additional trail alignment options in this area. In addition, the constraints of the landscape, particularly in Segment 2B and 2C, do not provide many opportunities to deviate from existing roadway corridors for the trail. Therefore, additional detailed alternatives analyses for Segment 2 are not likely to be required. The main issue for local trail advocates to agree on is where to safely cross CSAH 1 to utilize Camp Ripley lands and off-post lands. In addition, design of the final trail alignment will need to avoid the DNR easement noted on Figure 10, on the east side of CSAH 1 just north of Randall. Trail development within DNR easement landholdings is not allowed.

The City of Randall hosted the Minnesota Design Team in the spring of 2012. One of the topics of discussion/study was CRVST alignments through their community. The Design Team's work includes substantial public involvement. Findings and recommendations from this visit regarding the state trail should be considered and incorporated as trail development for Segment 2C becomes more imminent.

Segment 3: South Side of Camp Ripley from Randall to MN 371 and MN 371 to Little Falls

Description of Trail Environment

The CRVST Study corridor east of Randall continues along the south side of Camp Ripley to MN 371. The landscape within this segment is a mixture of agricultural land, wooded areas, wetlands and lakes. Development in this area is limited to rural residential homesteads with the majority of residential developments located in Randall and along the Mississippi River. Key features of note within this segment area include:

- **Neitermeier Wildlife Management Area** – Located just northeast of Randall, this Wildlife Management Area (WMA) consists of grass fields, wetland with cattails, lowland grass and brush. Management of this unit focuses on maintaining and improving the habitat for a diversity of native plants and wildlife. Recreational opportunities exist throughout the year, including hunting, trapping, hiking, cross-country skiing, snow shoeing, and wildlife watching/photography.

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- **Green Prairie Fish Lake** – A public beach and boat access is located on the southwest shore of the lake off CR 212. The P&LS Lakeside Resort is located along Forest Road on the west side of the lake.
- **Otter Point Wildlife Management Area** – Located northeast of Little Falls, this WMA is a floodplain timber island in the Mississippi River. Management of this unit focuses on maintaining and improving the habitat for a diversity of native plants and wildlife. Recreational opportunities exist throughout the year, including hunting, trapping, hiking, cross-country skiing, snow shoeing, and wildlife watching/photography.
- **Camp Ripley Main Gate/Veterans Cemetery/Military Museum** – The Camp Ripley Entrance Walls are located on the northern and southern sides of MN 115 and on the western side of MN 371 at the junction of MN 115 and MN 371. The site, like other camp resources, is considered eligible for the National Register of Historic Places. It consists of a series of long, elaborate, stone walls that mark the entrance to the Camp Ripley Military Reservation and define the southeastern corner of the Camp's cantonment area.

This newest Minnesota State Veterans cemetery, opened in 1994, is scenic and extremely well maintained. A memorial walk features memorials by service organizations and specific memorials such as Vietnam, Korea, and Purple Heart etc.

The Military Museum aims to enhance public understanding of how armed conflicts and military institutions have shaped our state and national experience. The museum also functions as a major repository in Minnesota for historical artifacts and records. Indoor and outdoor exhibits depict the stories and contributions of Minnesotans who served in all branches of service or on the home front, in time of peace and war, from the early frontier years to the present.

- **Belle Prairie County Park** – Northeast of Little Falls on CSAH 76 on the Mississippi River. Amenities include hiking trails, boat landing and parking, picnic shelter, playground, restrooms, scenic overlooks, and picnic areas with fire pits or grills.
- **Mississippi River Water Trail** – The Mississippi River is part of the Mississippi Headwaters Water Trail throughout the entire CRVST study area. State Water Trails are mapped by the DNR for canoeing, kayaking, boating and camping, with information on safety, river levels, access points, outfitters, and other resources for trip planning (see [online](#), mndnr.gov/watertrails).
- **MN 115** – The MN 115 Bridge over the Mississippi River near the Camp Ripley entrance is considered eligible for the National Register of Places. The bridge currently accommodates both vehicle and rail traffic. Due to its historic nature, it is unlikely the bridge can be expanded to accommodate a multi-use trail. Therefore, a separate bridge over the Mississippi River near this location would be required to accommodate the CRVST.

Criteria for Trail Alignment

- Tie in the veteran's theme and access to Camp Ripley's public attractions
- Utilize the MN 115 corridor



- Utilize publicly owned land where possible
- Provide for both motorized and non-motorized uses
- Work with willing landowners to acquire right-of-way that showcases features of the landscape
- Minimize wetland impacts
- Avoid negative impacts on rare, endangered, or threatened species, and avoid fragmentation or disturbance of significant native plant communities

Trail Alignment Options

Segment 3 was split into two sub-segments to facilitate the implementation of this segment in phases if needed. Segment 3A runs from the eastern border of the City of Randall to MN 371 as shown in Figure 10. The major factors influencing alignment options in this sub-segment relate to the presence and proximity of wetlands which are scattered throughout the area. Because of the landscape constraints, trail alignment options were selected near existing roadway corridors and/or utility corridors. The following alignment options are identified as multi-use at this point. Further study is needed to determine how each use (motorized and non-motorized) can be accommodated.

Multi-use Trail (Segment 3A)

- East of Randall along MN 115 traveling east to the Camp Ripley main gate, crossing the Mississippi River on a new bridge to connect with MN 371.
- A similar alignment option to that listed above would be to use MN 115 out of Randall to CR 212, then travel south around Green Prairie Fish Lake to CR 213 north back up to MN 115. This option would provide direct access to the public water access and picnic area at Green Prairie Fish Lake.

Multi-use Trail (Segment 3B)

Segment 3B runs from MN 371 near the Camp Ripley entrance to just south of US Highway 10 (US 10) in Little Falls as shown in Figure 14. Both multi-use and motorized-only trail alignment options were developed for this sub-segment.

- Following CSAH 13 from MN 115 southerly towards Little Falls, crossing US 10 and connecting to CSAH 52 to continue to the south.
- Following CR 213 from MN 115 southerly towards Little Falls and connecting to CSAH 13 just north of US 10, then continuing south on CSAH 13 and CSAH 52.
- From MN 115 on the east side of the Mississippi River, following CSAH 76 to CR 260 southerly towards Little Falls to Riverwood Drive to connect back to CSAH 76.
- From MN 115 on the east side of the Mississippi River, following CSAH 76 southerly towards Little Falls.

Motorized-Only Trail (Segment 3B)

- Following the east side of MN 371 from MN 115 to the Little Falls Industrial Park.
- From MN 115/CSAH 47 on the east side of the Mississippi River to 165th Avenue, south on 165th Avenue to 193rd Street and then south on MN 371 into the Little Falls Industrial Park.

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- From CSAH 46 near its junction with CR 261, travel west to connect with MN 371 and travel south on the east side of MN 371 into the Little Falls Industrial Park.
- Follow CSAH 46 to the east to CR 261, south on CR 261.
- From CSAH 46 to the east to CR 263, south on CR 263, west on CSAH 43 to CR 261 and south to the Little Falls Industrial Park.

Trail Access

Green Prairie Fish Lake is located south of MN 115 and offers a public boat access and swimming beach, picnic shelter and parking areas.

Camp Ripley offers several historic and cultural resources open to the public including the historic stone walls surrounding the main gate, the Veteran's Cemetery and the Military Museum. (See descriptions above under Description of Trail Environment). Access to these resources from the trail will be important in order to tie in the Veterans theme of the CRVST.

An additional trail access area in this segment is located at the Belle Prairie County Park. This county park offers parking, restroom facilities, picnic shelters, playground equipment, disc golf, hiking trails, and a public water access.

Along the west side of the Mississippi River, north of Little Falls is a cluster of historic and archaeological resources on state land (identified as Little Elk Historic Fort) which may offer an opportunity for an interpretive site, if a trail alignment is selected along this side of the river.

Additional rest areas consisting of a bench or pull-off areas of the trail may be located along this segment, as the right-of-way allows and as practical.



Initial Evaluation of Trail Alignment Options

Segment 3A

Several trail alignment options have been identified for Segment 3A (between Randall and MN 371). The following several outstanding issues need to be studied further in order to select a preferred alternative(s) for this sub-segment:

1. Ability to use the MN 115 road right-of-way due to the road's potential status as a historic military road
2. Feasibility of a new bridge over the Mississippi River near the MN 115 Bridge
3. Which side of the Mississippi River should the trail follow into Little Falls?

Based on the complexity of some of these outstanding issues, it is likely a feasibility study/more detailed alternatives analysis will need to be conducted for this segment as additional information is gathered and construction of this segment becomes more imminent.

Segment 3B

Similar to Segment 3A, there are several trail alignment options for Segment 3B. A key issue that will need to be studied further is which side of the Mississippi River the trail should follow into Little Falls. Another important issue is whether or not the motorized and non-motorized uses should be explored on the same general alignment or on a separate alignments (or sides of the river) in this segment.

It is likely an additional alternatives analysis will need to be explored for Segment 3B in order to identify a preferred alternative(s). However, the main issue that needs additional consideration is which side of the river the trail should be located. This can most likely be resolved easily through additional discussions with the public and trail stakeholders.

Segment 4: MN 371 (from MN 115) to Crow Wing State Park

Description of Trail Environment

The landscape between Camp Ripley and MN 371 from the Camp's main gate to Crow Wing State Park is comprised of smaller platted lots, some rural residential subdivisions and wooded areas adjacent to the Mississippi River. Farther east of the river (towards MN 371), the landscape is made up of larger tracts of agricultural land and residential homesteads. Features of note within this segment include:

- City of Fort Ripley – Fort Ripley is a small community located near the confluence of the Mississippi and Nokasippi Rivers. The population of Fort Ripley was 69 in 2010; the community includes a small number of residential homes and businesses.
- Fort Ripley Ruins/Nokasippi River Historical Monument - The establishment of Fort Ripley in 1848 represents the U.S. government's effort to establish control on the northern frontier. Construction began on the west bank of the Mississippi River across from this point a year before Minnesota became a territory. The government intended it to be a buffer between lands of the Dakota and the Ojibwe. A fire destroyed most of the buildings in 1877, and Fort Ripley was abandoned in 1880. The masonry ruins of a powder magazine are the only visible remains although a rich archaeological site still exists.
- Ripley Esker Scientific and Natural Area - This site contains an excellent example of an esker, which is a glacial deposit that forms a meandering, steep-sided ridge of stream sand and gravel. The esker protected at this site is approximately 0.75 mile long and is part of a 6.75 mile long esker system. Plant communities range from oak savanna remnant on the south side, to a diverse deciduous woodland on the north. A geological marker is found on the site next to the entrance. To best view this glacial formation, visit in early spring or late fall when the trees have no leaves and the prairie grasses have cured.
- Little Nokasippi Wildlife Management Area - This 345-acre WMA This WMA was established in 2006 as part of a cooperative effort by the DNR, The Nature Conservancy and Camp Ripley's Army Compatible Use Buffer (ACUB) project. It consists of rolling hardwood (oak) forests and significant river frontage on the Nokasippi and Little Nokasippi Rivers. Hunting opportunities include deer, bear, small game, forest game birds, waterfowl, and turkeys. Wildlife viewing

opportunities include wetland and forest wildlife. The WMA's area is being expanded through acquisition of additional ACUB easements.

A key constraint driving trail alignment options in this segment is the proximity of the Mississippi River to MN 371 and the lack of public land between the two. There are several township roads that serve areas adjacent to the river. Trail alignments were suggested along these roadways as a means to provide an alternative option away from MN 371 in this area and to try to provide views of the river. Both multi-use and motorized-only alignments were suggested for this segment.

Criteria for Trail Alignment

- Connect to Fort Ripley and the Fort Ripley ATV trails
- Provide for both motorized and non-motorized uses
- Utilize publicly owned land where possible
- Utilize MN 371 Bridge over Nokasippi River
- Maximize views along the Mississippi River where possible
- Work with willing landowners to acquire right-of-way that showcases features of the landscape
- Minimize wetland impacts
- Avoid negative impacts on rare, endangered, or threatened species, and avoid fragmentation or disturbance of significant native plant communities

Trail Alignment Options

This segment was split into two sub-segments. Segment 4A runs between MN 371/MN 115 and Fort Ripley (see Figure 15). Segment 4B runs from Fort Ripley to the Crow Wing State Park (see Figure 16). These are logical termini so that each segment could be built independent of one another if funding is acquired in phases.

Multi-use Trail (Segment 4A)

- Continuing north from the intersection of MN 371/MN 115 along the west side of MN 371 to Fort Ripley
- Follow the west side of MN 371 to 253rd Street, continue west on 253rd Street, north on 139th Avenue, and east on White Pine Road back to MN 371 and into Fort Ripley

Motorized-Only Trail (Segment 4A)

- Continuing north from the intersection of MN 371/MN 115 along the east side of MN 371 to Fort Ripley and the Fort Ripley ATV Trails

Multi-use Trail (Segment 4B)

- Follow the west side of MN 371 out of Fort Ripley to the CSAH 27 entrance to the Crow Wing State Park
- Follow the west side of MN 371 out of Fort Ripley, turn west along Mississippi Shores Road and progressing north following a series of township roads, including Bedow Road, Staghorn Drive, Lawson Road, Matte Road, Killian Road, Town Hall Road, Lennox Road, DeRosier Road back to the west side of MN 371. Continue following MN 371 on the west side to the CSAH 27 entrance to Crow Wing State Park.

Motorized-Only Trail (Segment 4B)

- From Fort Ripley, continue on the east side of MN 371 (following the existing ATV trail) to the ATV crossing under the MN 371 Mississippi River bridge and the connection to Crow Wing State Park. (The regional ATV trail continues along MN 371B into Brainerd.) At this point Segment 4 meets Segment 1A. While ATV use is not allowed within state parks, ATV connections to the potential alignments shown in Segment 1A can be made along MN 371.

Trail Access

The Nokasippi River Historical Monument is located just north of the City of Fort Ripley. This area includes a gravel parking lot, public water access and historic marker identifying the Fort Ripley ruins.

Motorized trail users will have access to the existing Fort Ripley ATV trails, located just east of MN 371.

Rest areas consisting of a bench or pull-off area may be located along this segment, as the right-of-way allows and as practical.

Communities and Connections

City of Fort Ripley

Fort Ripley is located near the confluence of the Mississippi and Nokasippi rivers. The city is named for the fort that formerly stood on the opposite (west) bank of the Mississippi, from 1848 to 1877. The fort was named in honor of General Eleazar W. Ripley. The city was incorporated in 1927. Its population was 69 at the 2010 census, a slight decline from the 2000 population of 74. The city is 1.33 square miles in area. Its small business district includes a service station and a tavern.

Initial Evaluation of Trail Alignment Options

Relative to other segments of the CRVST study area, Segment 4 has fewer trail alignment options. This is mainly due to the constraints identified in the trail environment section above. Only one motorized trail alignment option has been identified which follows MN 371 on the east side. This alignment matches in with the existing ATV trail located in this area. The multi-use trail alignments only vary on their ability to secure township road right-of-way to facilitate views of the Mississippi River. Further investigation will be needed to see if trail development in these areas would be feasible or if the trail alignment should be located near MN 371. The MN 371 corridor does not provide the most scenic trail environment but due to the constraints in this segment, it may be the only viable alternative for the CRVST.

Segment 5: Little Falls Area

Description of Trail Environment

The study corridor for this section of the CRVST runs from approximately US 10 on the north side of Little Falls, to just south of the Charles Lindbergh State Park, effectively covering most of the City of Little Falls. Located on the banks of the Mississippi River, Little Falls is one of the oldest cities in Minnesota, with an estimated population of 8,500. This is an urban area with many varied historical sites and attractions, as well as many scenic and recreational opportunities. The communities and connections section below describes the many points of interest within the City of Little Falls. In addition, other key features of the landscape within Segment 5 of the CRVST study area include:

- Popple Lake Wildlife Management Area - This WMA is a wetland area with cattails, low land grass and brush, with some oak woods along its edges. Recreational opportunities exist throughout the year, including hunting, trapping, hiking, cross-country skiing, snow shoeing, and wildlife watching/photography.
- Charles A. Lindbergh State Park – Located on the Mississippi River this 570-acre park was established in 1931 in memory of Charles A. Lindbergh, Sr., congressman and father of the famous aviator. Lindbergh State Park offers visitors a wooded campground, hiking and skiing trails, and a quaint picnic area. The picnic area includes a historic Work Projects Administration (WPA) picnic shelter and a stone water tower. The Lindbergh house contains many of the family's mementos. The Lindbergh Visitor Center is near the home and showcases the lives and careers of three generations of Lindberghs in Minnesota.
- Charles A. Weyerhaeuser Memorial Museum – Situated on the bank overlooking the Mississippi River, the Charles A. Weyerhaeuser Memorial Museum offers a stunning view of its surroundings. It also interprets the history of Morrison County, Minnesota. Named for lumberman Charles A. Weyerhaeuser, who played a prominent part in the area's history, the museum property is home to natural prairie gardens, a Victorian-style fountain, and a gazebo overlooking the river.

Criteria for Trail Alignment

- Utilize existing river crossings where possible (i.e., MN State Highway 27 (MN 27))
- Provide for both motorized and non-motorized uses
- Utilize publicly owned land where possible
- Maximize views along the Mississippi River where possible
- Work with willing landowners to acquire right-of-way that showcases features of the landscape
- Minimize wetland impacts
- Avoid negative impacts on rare, endangered, or threatened species, and avoid fragmentation or disturbance of significant native plant communities

Trail Alignment Options

Since implementation of the portion of the CRVST through Little Falls may occur as one phase, this segment was not split up into sub-segments. Figure 18 illustrates Segment 5. The following discussion outlines trail alignment options for the entire length of Segment 5. Existing on-street bike lanes through the City may serve as connecting links for the State Trail, but would not be designed or managed as state trail segments.

Multi-use Trail

- Following CSAH 13 south, crossing US 10, continue south along CSAH 52 through Little Falls to Charles A. Lindbergh State Park.
- Following CSAH 13 south, crossing US 10, continuing south along CSAH 52, then turn west onto an existing utility corridor south of the intersection of CSAH 52/9th Avenue NW. Continue southwesterly along the utility corridor, then turn south on 13th Street SW, west on MN 27, south on 15th Street SW, west on Falcon Road and south on Fountain Road/125th Avenue which borders the west side of Charles A. Lindbergh State Park, then connect through the state park to the Great River Road (CR 224) on the south side of the park.
- On the east side of the Mississippi River, from US 10, follow CSAH 76 south to either CR 258 or to 140th Avenue (via CR 258 to 11th Avenue to 140th Avenue).
- The MN 27 Bridge across the Mississippi River could function as a crossing point for any of the above trail alignment options to be combined.

Motorized-Only Trail

- From the east side of MN 371, east on the northern boundary of the city's industrial park, south through the industrial park on 18th Street, to 4th Street, then west on 4th Street to its connection with US 10, south on US 10 to the Soo Line Regional Trail. (Deep ditches on the east side of US 10 may create challenges in this area.)
- From CSAH 76 travel south on 4th Street to US 10 or to a connection across the MN 27 bridge.
- From CSAH 43 south, east on 153rd Street, south on 180th Avenue, west on CR 256 to either travel north on 133rd Street, west on 4th Street to US 10 or travel south from CR 256 to 160th Avenue then west on CSAH 35 to US 10.

Communities and Connections

City of Little Falls

The City of Little Falls is located at the confluence of the Mississippi River, US Highway 10, and State Trunk Highways 27 and 371. The city is the county seat of Morrison County, and is 6.3 square miles in area.

History

Established in 1848, Little Falls is one of the oldest cities in Minnesota. The “little falls” that gives the city its name attracted the attention of traders, explorers and entrepreneurs. The Little Falls Mills and Land Company was formed in 1849 and built the first in a series of dams to tap the river’s power. The electricity produced by the dam drew many industries to Little Falls. The Pine Tree Lumber Company, operated by Charles Weyerhaeuser and R.D. Musser, and Hennepin Paper Company received logs driven down river from the northern “pineries.” The village was officially incorporated in 1879. The Little Falls Dam continues to serve as a hydroelectric station, generating power for the surrounding areas.

Little Falls Today

Little Falls’ population at the 2010 Census was 8,343. The city has grown steadily over the last few decades. Major employers in Little Falls include Camp Ripley, United Family Health Care, the Little Falls School District and boat building companies Crestliner and Larson Boats.

The median age of Little Falls in 2010 was 41.9, slightly higher than the median age of Morrison County (40.6) and Minnesota as a whole (37.4).

Little Falls is well known as the boyhood home of Charles A. Lindbergh, Jr., the first person to fly solo and non-stop across the Atlantic Ocean. Lindbergh spent summers in a house on the west bank of the Mississippi south of town. In 1931 the Lindbergh family gave the summer house and surrounding 110 acres to the State of Minnesota in recognition of Charles A. Lindbergh, Sr., Republican congressman and father of the famous aviator. The 1906 home still contains the original furniture and family possessions and has a full-scale replica of the Spirit of St. Louis cockpit. The house and 17 acres of adjacent land are managed by the Minnesota Historical Society. Charles A. Lindbergh State Park, now 570 acres in size, is located just south of the Lindbergh home. The State Park provides parking areas, hiking trails, camping and a visitor’s center.

Also situated on the west bank of the Mississippi River is the Charles A. Weyerhaeuser Memorial Museum operated by the Morrison County Historical Society, with exhibits, archives and other resources. Named for lumberman Charles A. Weyerhaeuser, who played a prominent part in the area’s history, the museum property is home to natural prairie gardens, a Victorian-style fountain, and a gazebo overlooking the river.

The Linden Hill Historical Event Center consists of the two neighboring homes of lumbermen Charles A. Weyerhaeuser and Richard “Drew” Musser, built in 1898, near Maple Island Park. The site offers guided home tours, conferences, retreats, and other programs.

The Minnesota Fishing Museum (MFM) is a non-profit organization dedicated to preserving the heritage and history of freshwater fishing in Minnesota. The MFM features over 8,000 artifacts in two large display rooms, the O’FISH-L Gift Shop plus



Downtown Little Falls, c. 1925 and 1930.
Minnesota Historical Society.

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tourism and DNR information. The MFM and the DNR partner in the MinnAqua education programs.

The Pine Grove Zoo is home to a variety of exotic, native and domestic animals. Located in one of the last standing white pine groves in Minnesota, the zoo contains many walking trails, a petting stable and picnic and playground areas.

Little Falls also has numerous parks and public space available for picnics, trails, ball fields, playgrounds and gardens. Maple Island Park, situated along the riverfront, is a popular gathering place, with expansive views of the river and the dam. Downtown Little Falls offers a vibrant business district with numerous restaurants and shops. Several large murals depict the logging era and Main Street in the early 1900s. A historic walking/driving tour provides an overview of the city's many historic sites and buildings.

Trail Connections and Trailheads in Little Falls

Little Falls has been a strong supporter of trail development and of bicycle tourism. The city is a partner in the Mississippi River Trail effort. A system of on-street bicycle lanes connects parks, schools and the downtown. Existing city policy in Little Falls does not favor motorized trail use through town. However, city leaders feel this interest may be changing to consider allowing motorized (ATVs and snowmobile) traffic in town.

The City desires to bring CRVST users into their community for access to restaurants, lodging, shopping, parks, and other amenities such as historic and cultural resources. A trailhead location should be identified as a central meeting place for trail users and with adequate parking to serve both motorized and non-motorized trail users. The Maple Island Park could be used as a trailhead location due to its proximity to downtown, available parking facilities and access to the City's visitor center with maps and community information.

The Little Falls Park Board and community trail supporters have expressed strong interest in bringing both non-motorized and motorized trails along the east side of the Mississippi River to and through the city's downtown. The TH 27 (Broadway) bridge was identified as a potential crossing spot for bicycle and other non-motorized trail uses, which would continue south on Lindbergh Drive (Morrison County 52) toward the Soo Line Trail. ATV and snowmobile use could be directed to the south and east along an alignment that would cross US 10 and head toward the airport property and ultimately to the ATV/snowmobile portion of the Soo Line Trail. Potential trail alignments are shown in Figure 18.

The MN 27 Bridge has been identified as an obstacle for trail traffic crossing the river. Improvements to the MN 27 Bridge are programmed in MnDOT's 10-year Plan. Close coordination with MnDOT on future bridge improvement plans and schedule will be necessary to coordinate the additional width necessary to accommodate trail uses on this bridge.

City trail supporters also support a new bridge crossing the Mississippi River (south of the historic MN Hwy 115 bridge at Camp Ripley) to allow trail users to enter Little Falls on the east side of the Mississippi River and access the community in the preferred downtown alignment.

The Charles A. Lindbergh State Park and Charles A. Weyerhauser Museum are additional amenities located in Little Falls, as discussed above.



Maple Island Park, Little Falls

Initial Evaluation of Trail Alignment Options

Based on discussions with City of Little Falls staff and trail supporters (see above), several options exist for motorized and non-motorized trail alignments through this segment. Therefore, it is likely a feasibility study/more detailed alternatives analysis will need to be conducted as additional information is gathered and construction of this segment becomes more imminent.

Segment 6: Little Falls to the Soo Line Regional Trail

Description of Trail Environment

Segment 6 extends from just south of Charles A. Lindbergh State Park to the Soo Line Regional Trail, northwest of the City of Royalton. The majority of the landscape in this area is agricultural land and wetlands, rivers and lakes, with the exception of several smaller platted residential lots bordering the Mississippi River. Key features located in this segment include:

- **Crane Meadows National Wildlife Reserve** – Crane Meadows National Wildlife Refuge, approximately three miles east of MN 371 was established in 1992 to preserve a large, natural wetland complex. The refuge is located in central Minnesota and serves as an important stop for many species of migrating birds. Located within a large watershed that includes Rice, Skunk and Mud Lakes, Platte and Skunk Rivers, Rice and Buckman Creeks, and sedge meadow wetlands, it harbors one of the largest nesting populations of greater sandhill cranes in Minnesota. Recreational activities include hiking and wildlife viewing.
- **Blanchard Dam** – The Dam is located on the Mississippi River near the City of Royalton. Blanchard is a hydroelectric station owned and operated by Minnesota Power. The dam sits slightly upriver from the former Soo Line rail bridge over the Mississippi. The bridge now carries the Soo Line Recreational Trail.
- **Soo Line ATV Trail and Recreational Trail** – The Soo Line South ATV Trail runs for 114 miles between Superior, Wisconsin and US 10 near Royalton. It includes a 12-mile paved segment between the cities of Isle and Onamia, just south of Lake Mille Lacs, with an adjoining ATV trail. The trail connects two of Minnesota's most beautiful state parks, Father Hennepin State Park on the east of Lake Mille Lacs and Mille Lacs Kathio State Park on the west. The Soo Line South ATV Trail connects with the 148-mile Soo Line North ATV Trail southwest of Moose Lake (see [online](#), www.dnr.state.mn.us/ohv/trail_detail.html?id=44).

The trail segment west of the US 10 trailhead, is known as the Soo Line Recreational Trail. This trail is paved and is open only to non-motorized use. It crosses the Mississippi at the Blanchard Dam and extends for about 10 miles through the city of Bowlus to meet the Lake Wobegon Trail just north of Holdingford.

Criteria for Trail Alignment

- Connect to Soo Line Recreational and ATV Trails
- Utilize existing river crossings where possible (e.g., Soo Line Trail bridge near Blanchard Dam and CSAH 26)
- Maximize views along the Mississippi River where possible



Soo Line Trailhead at US 10

- Provide for both motorized and non-motorized uses
- Utilize publicly owned land where possible
- Work with willing landowners to acquire right-of-way that showcases features of the landscape
- Minimize wetland impacts
- Avoid negative impacts on rare, endangered, or threatened species, and avoid fragmentation or disturbance of significant native plant communities

Trail Alignment Options

In order to connect to other trails, or trail access locations, it is likely Segment 6 will need to be built in one phase. Therefore, this segment was not split up into sub-segments. Figure 20 illustrates Segment 6. The following discussion outlines trail alignment options for the entire length of Segment 6.

Multi-Use Trail

- Following CSAH 52 and CR 224 (Great River Road) south to the Soo Line Trail.
- Following CR 258 south to the Soo Line Trail.
- Following 140th Avenue south, turn west on 103rd Street to connect with CR 258 south to the Soo Line Trail.
- Follow 140th Avenue south, turn east on 103rd Street, south on 150th Ave, west on CR 231 to CR 258 and continue south to the Soo Line Trail.

Motorized-Only Trail

- Follow US 10 south from Little Falls to the Soo Line Trail on the east side of US 10.
- Follow CSAH 35 easterly from US 10, turn south on 170th Avenue and west on CSAH 34 to the Soo Line ATV Trail.

Trail Access

Two trail access areas exist within Segment 6. The first is the Blanchard Dam and Soo Line Trail Bridge over the Mississippi River. Access to view the river, dam and connect to the Soo Line Trail (for non-motorized trail users) is located off CR 224. A small gravel parking lot is available. However, through the development of the CRVST it may be desirable to increase the parking lot area in this location and add restroom facilities so that this area could function as an access point to the CRVST and to the Soo Line Regional Trail.

The second trail access area in this segment is located along the east side of US 10, just south of the Soo Line Trail bridge over US 10. This area serves as the Soo Line Regional Trailhead. It includes a large paved parking area with a portion of the parking area tailored to accommodate vehicles with trailers for motorized trail uses. The trailhead also includes trail maps and restroom facilities.

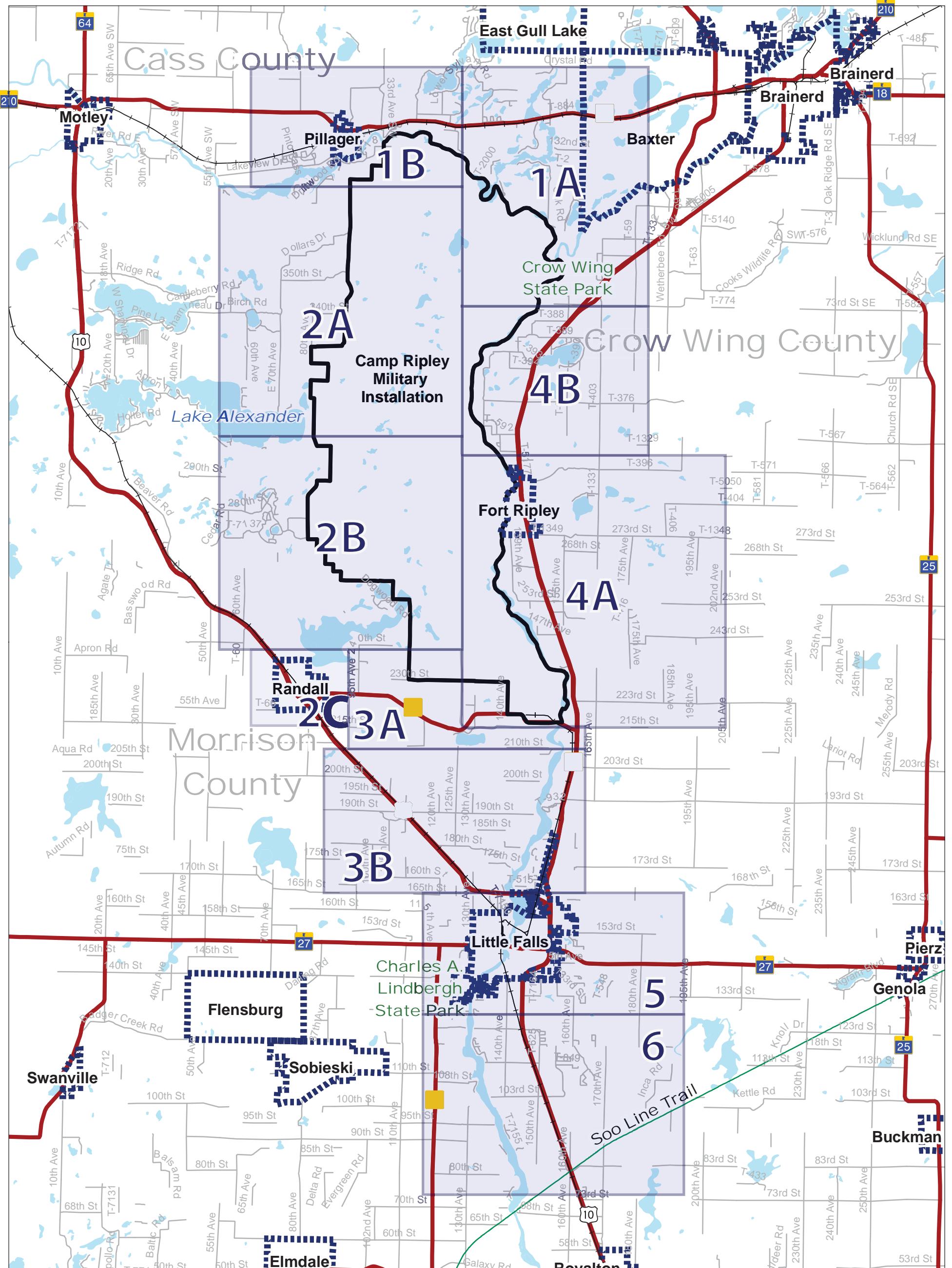
Utilizing these existing trailhead locations as much as practical is the most feasible option for CRVST trail access in this area.

Initial Evaluation of Trail Alignment Options

Several trail alignment options have been identified for Segment 6. The following outstanding issues need to be studied further in order to select a preferred alternative(s) for this segment:

1. Which side of the Mississippi River should the non-motorized trail be located on?
2. Is there potential for the Soo Line Trail west of US 10 to carry both motorized and non-motorized trail uses in the future?
3. Is there adequate right-of-way along US 10 for motorized trail use within this area?

It is likely a feasibility study/more detailed alternatives analysis will need to be conducted for this segment as additional information is gathered and construction of this segment becomes more imminent. However, the complexity of these issues are low and it is anticipated that with little additional effort and coordination, the issues could be resolved.



Overview Map with Planning Segments

Camp Ripley/Veterans State Trail Corridor Study

Figure 4

January, 2012

A scale bar for a map showing distances in miles. The bar is 7.5 units long, with tick marks at 0, 2.5, 5, and 7.5. A north arrow is at the 0 end.

Legend

- State Highways
- Railroad
- Camp Ripley Boundary
- Municipal Boundary

Source: MnDNR, Mn\DOT, MPCA

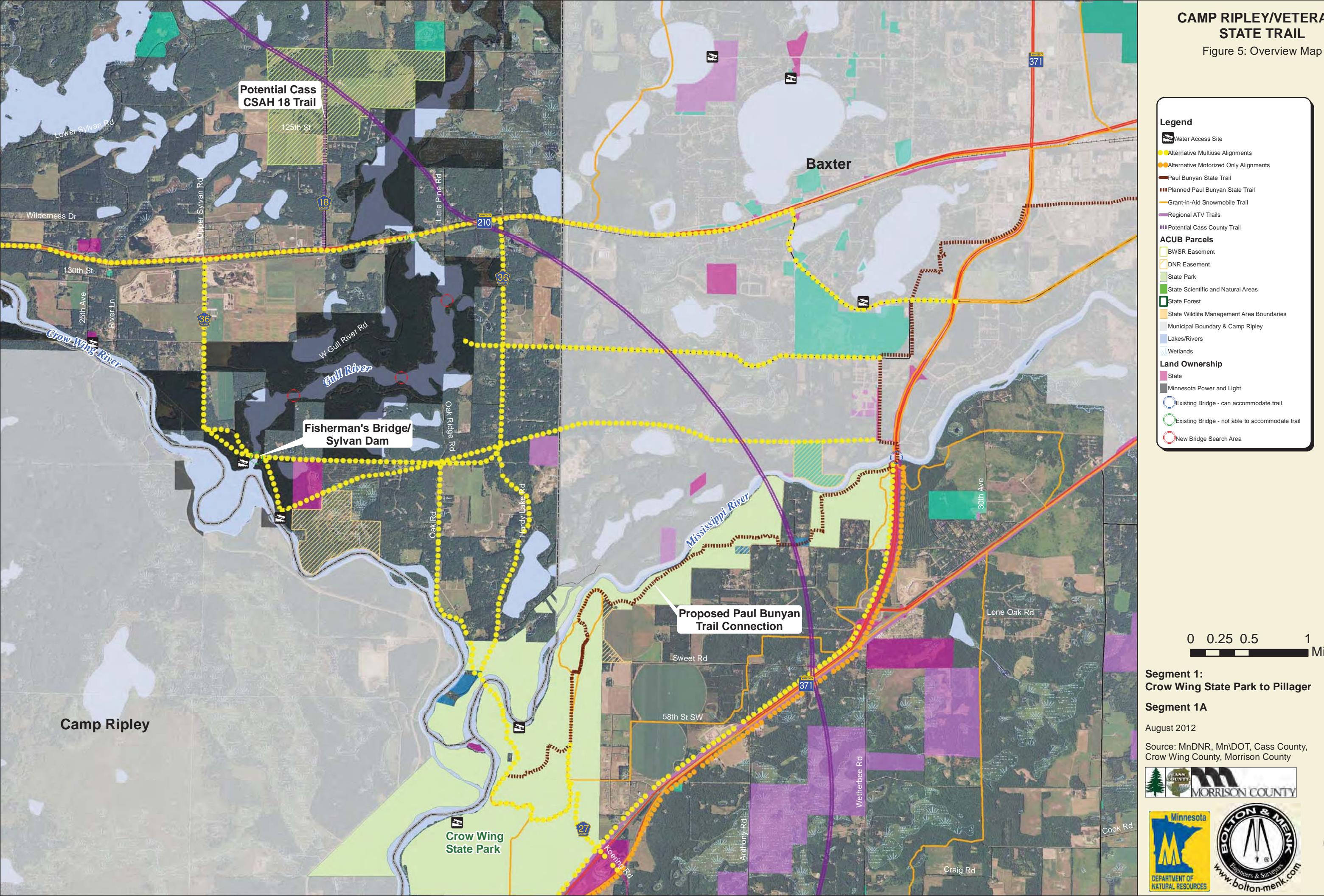


MORRISON COUNTY



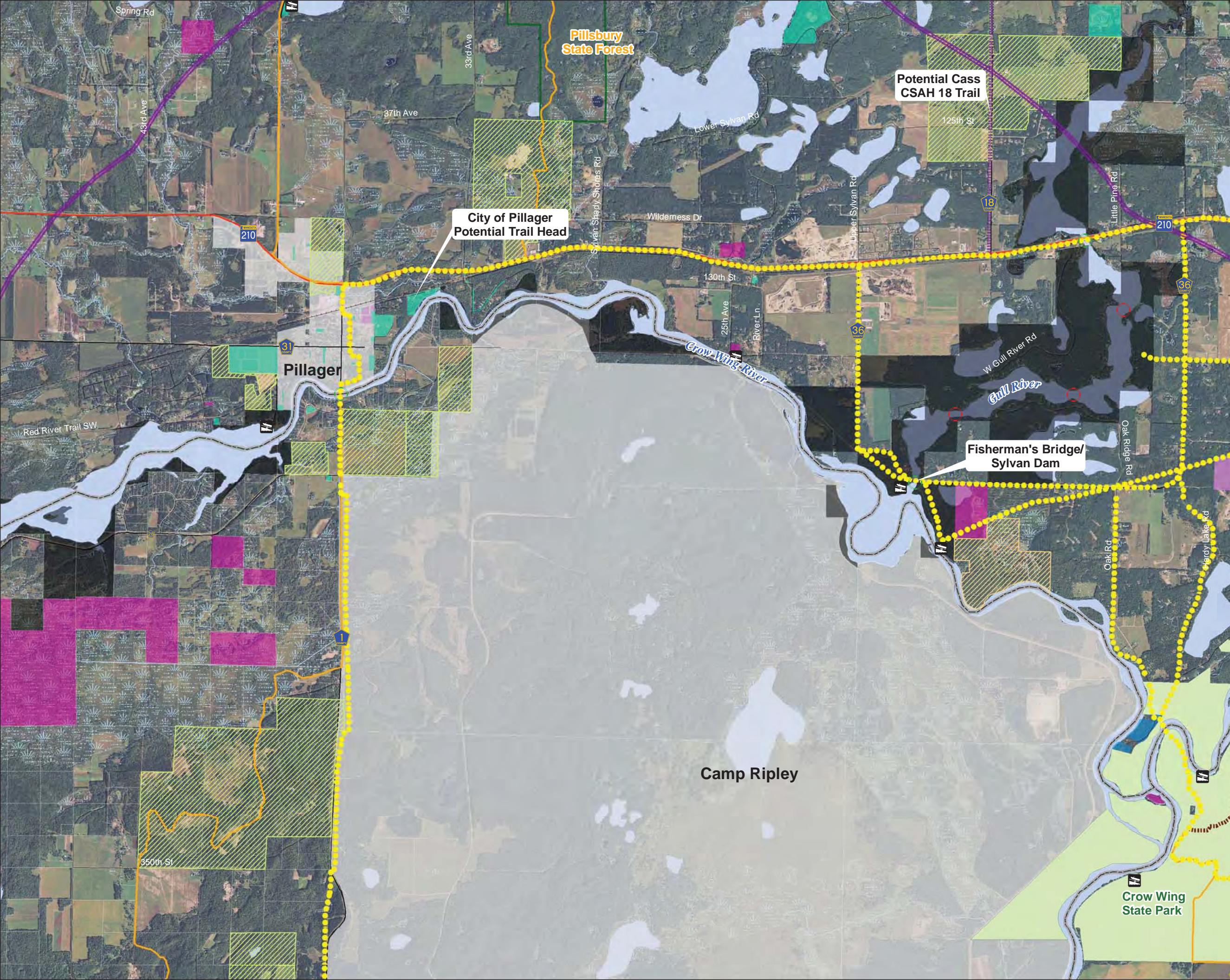
CAMP RIPLEY/VETERANS STATE TRAIL

Figure 5: Overview Map



CAMP RIPLEY/VETERANS STATE TRAIL

Figure 6: Overview Map



Legend

- Water Access Site
- Alternative Multiuse Alignments
- Alternative Motorized Only Alignments
- Paul Bunyan State Trail
- Planned Paul Bunyan State Trail
- Grant-in-Aid Snowmobile Trail
- Regional ATV Trails
- Potential Cass County Trail
- ACUB Parcels**
 - BWSR Easement
 - DNR Easement
 - State Park
 - State Scientific and Natural Areas
 - State Forest
 - State Wildlife Management Area Boundaries
 - Municipal Boundary & Camp Ripley
 - Lakes/Rivers
 - Wetlands
- Land Ownership**
 - Local
 - State
 - Minnesota Power and Light
 - Existing Bridge - can accommodate trail
 - Existing Bridge - not able to accommodate trail
 - New Bridge Search Area

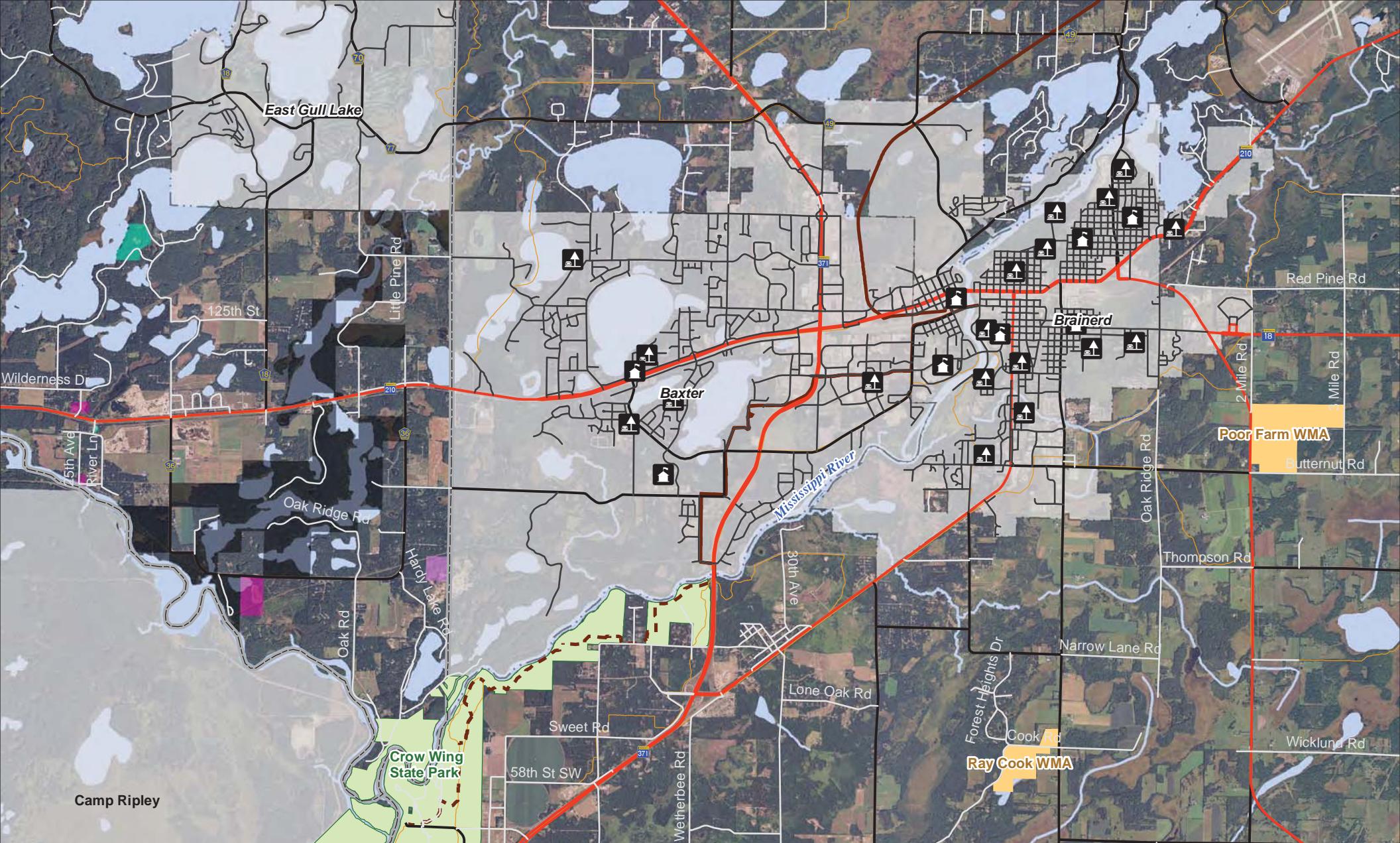
Segment 1:
Crow Wing State Park to Pillager

Segment 1B

August 2012

Source: MnDNR, MnDOT, Cass County, Crow Wing County, Morrison County





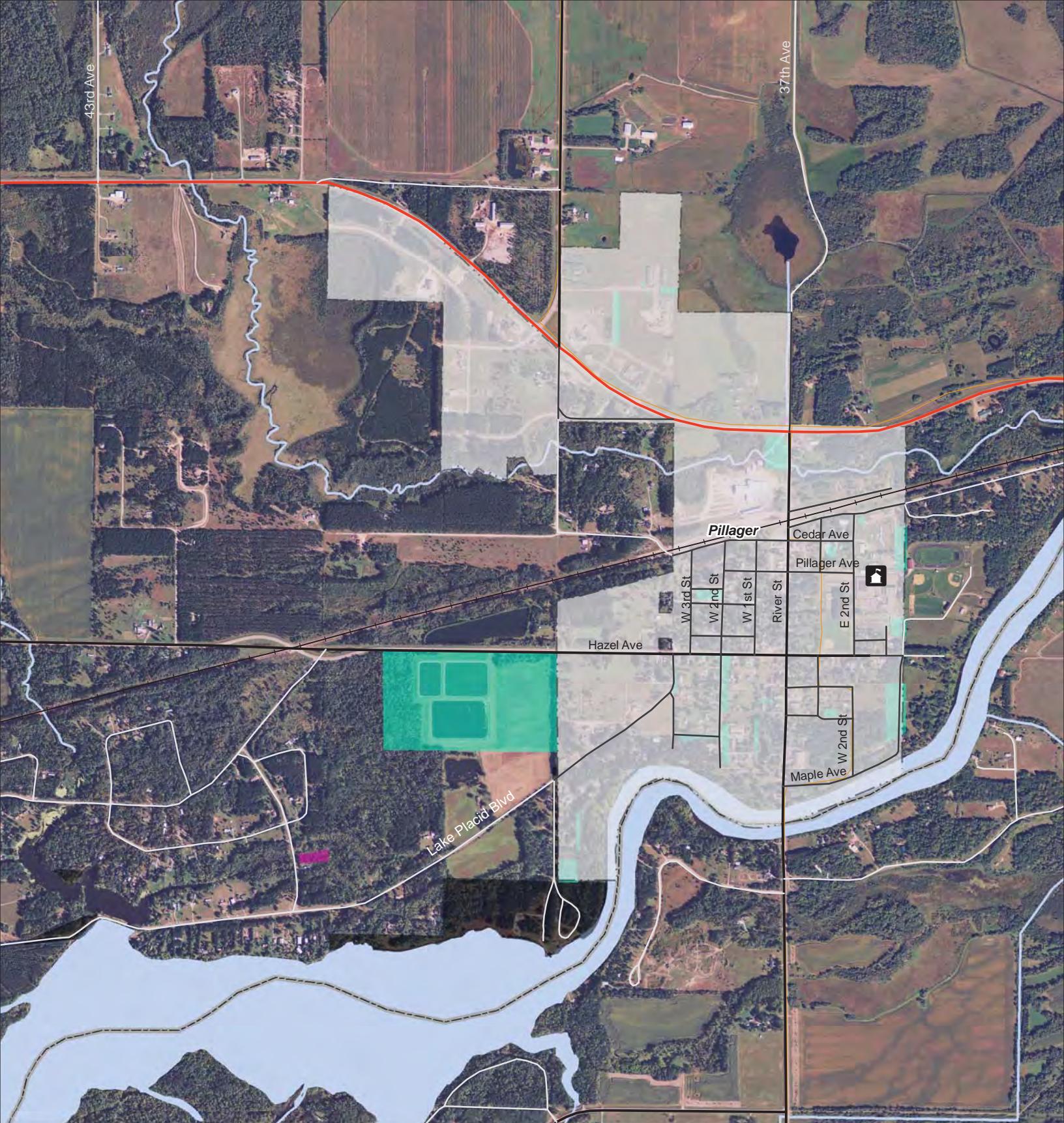
Camp Ripley/Veterans State Trail

Figure 7: Baxter/Brainerd Area

August 2012

0 1 2 Miles





Camp Ripley/Veterans State Trail

Figure 8: Pillager

August 2012

0 0.25 0.5 Miles



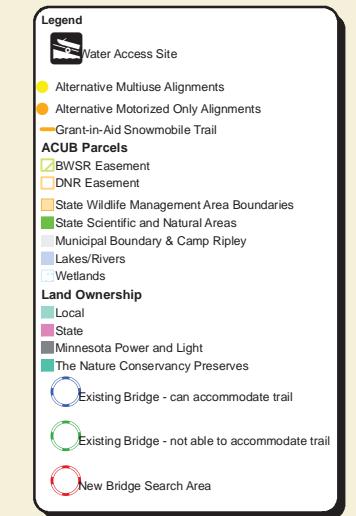
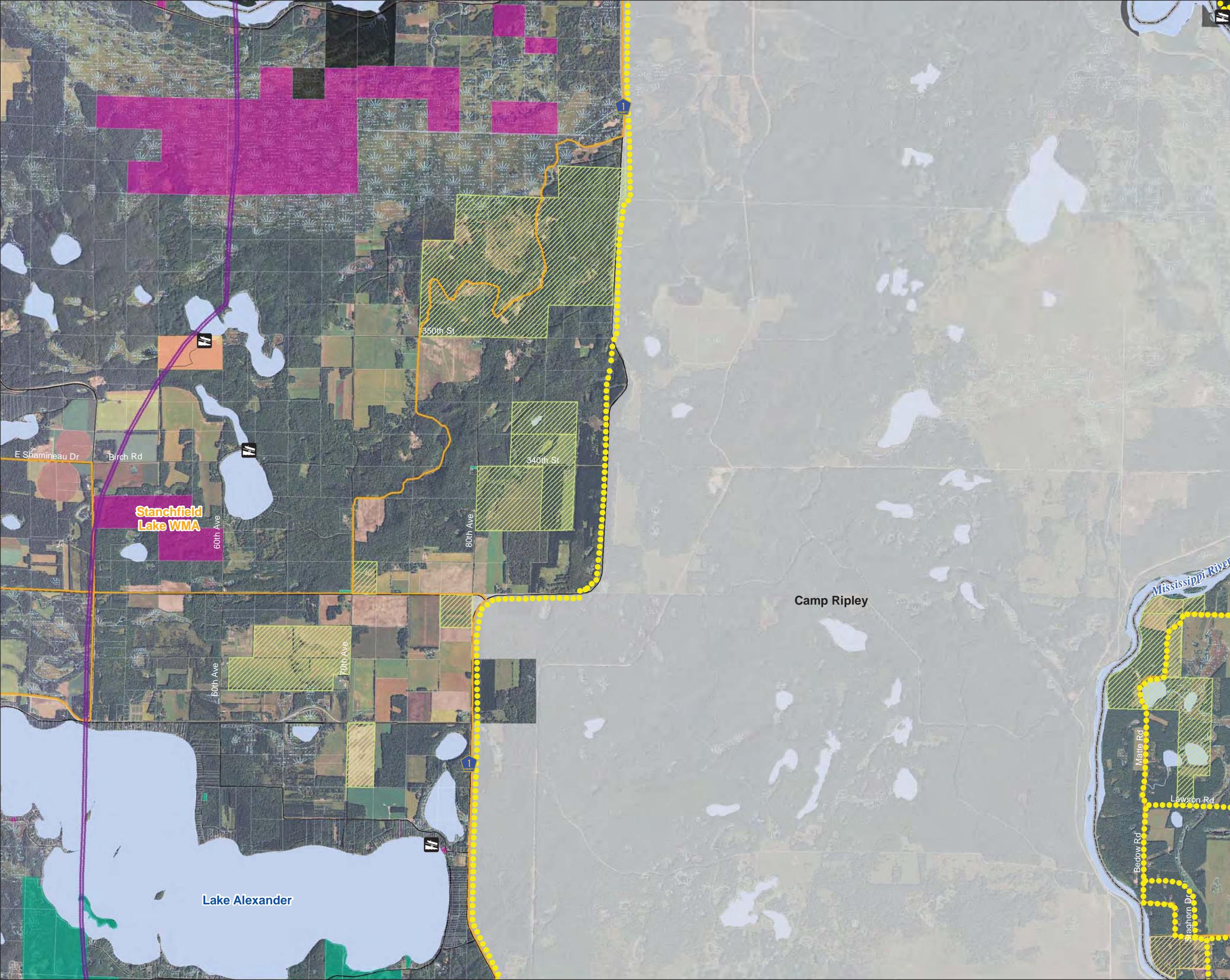
Legend

- Schools
- Minnesota Snowmobile Trails
- State Wildlife Management Area Boundaries
- City Boundaries
- Lakes/Rivers
- Land Ownership
- Local
- Minnesota Power and Light
- State



CAMP RIPLEY/VETERANS STATE TRAIL

Figure 9: Overview Map



**Segment 2:
West Side of Camp Ripley**
Segment 2A

August 2012
Source: MnDNR, MnDOT, Cass County, Crow Wing County, Morrison County

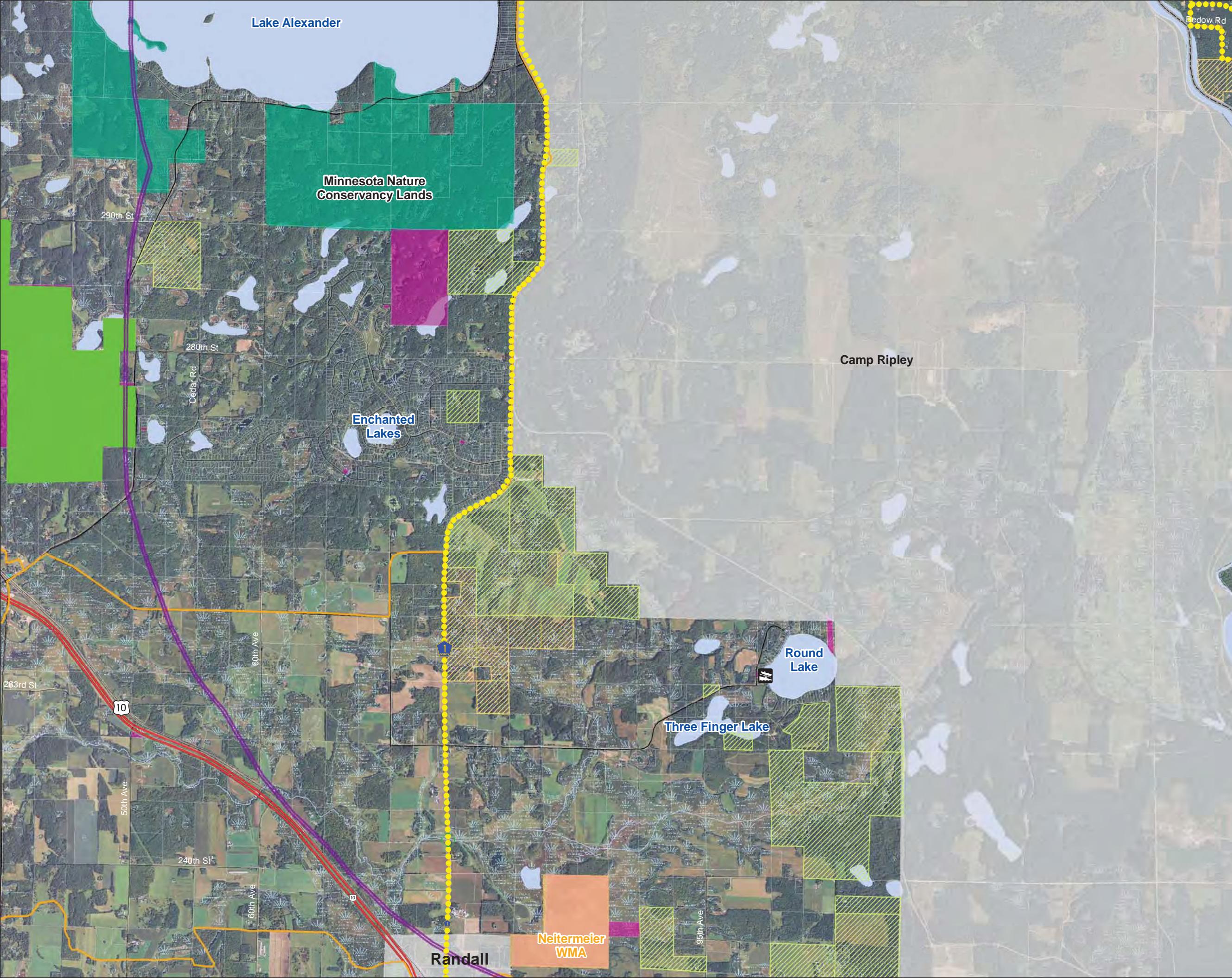


Lake Alexander



CAMP RIPLEY/VETERANS STATE TRAIL

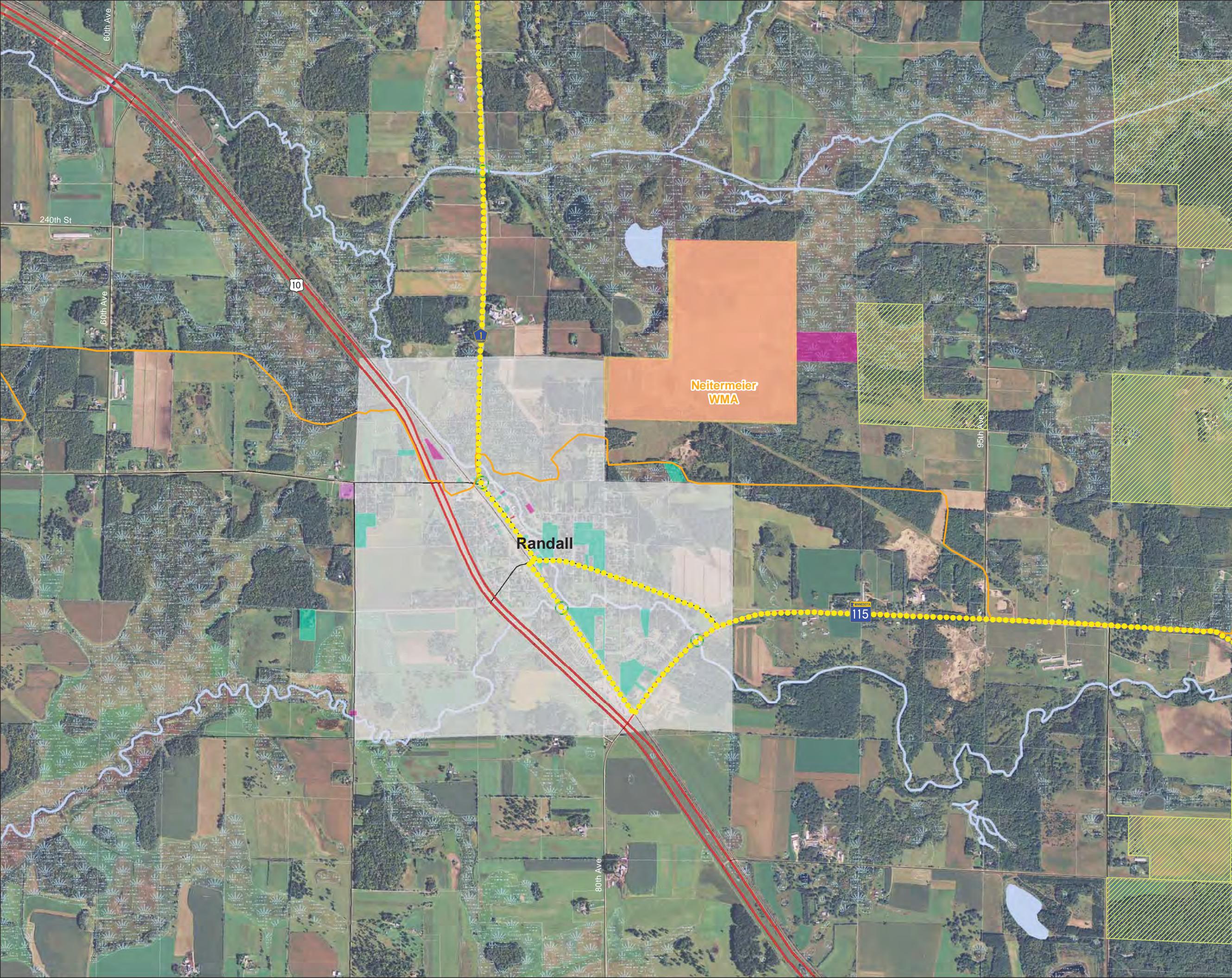
Figure 10: Overview Map



Segment 2:
West Side of Camp Ripley
Segment 2B
August 2012
Source: MnDNR, MnDOT, Cass County, Crow Wing County, Morrison County



CAMP RIPLEY/VETERANS STATE TRAIL
Figure 11: Overview Map



Legend	
Yellow Dotted Line	Alternative Multiuse Alignments
Orange Dotted Line	Alternative Motorized Only Alignments
Red Double Line	Grant-in-Aid Snowmobile Trail
Purple Line	Regional ATV Trails
Yellow Hatched Area	BWSR Easement
Orange Area	State Wildlife Management Area Boundaries
Grey Line	Municipal Boundary & Camp Ripley
Blue Line	Lakes/Rivers
Light Blue Area	Wetlands
Land Ownership	
Teal	Local
Light Purple	County
Pink	State
Red	Federal
Blue Circle	Existing Bridge - can accommodate trail
Green Circle	Existing Bridge - not able to accommodate trail
Red Circle	New Bridge Search Area

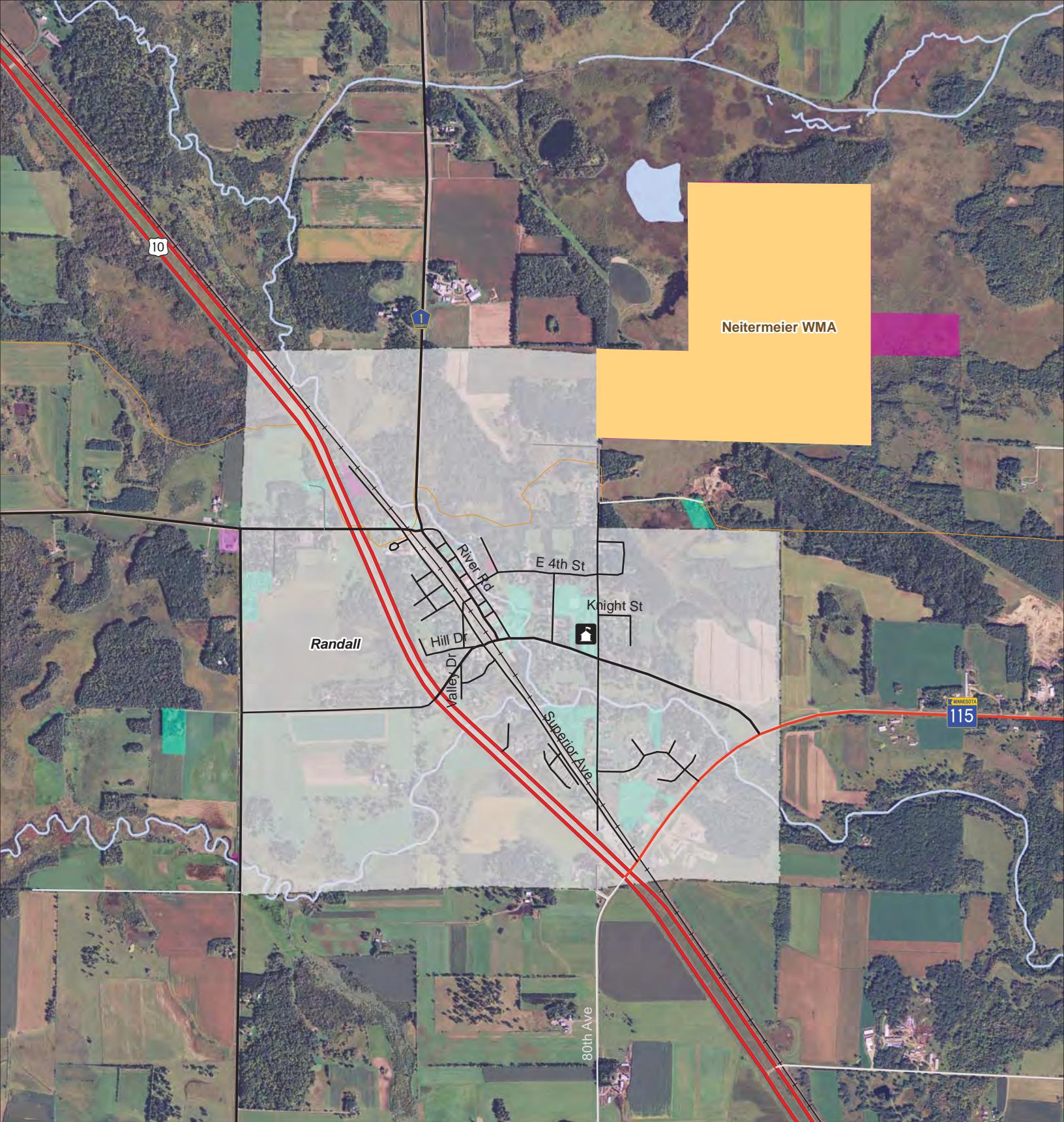
0 0.25 0.5 Miles

**Segment 2:
West Side of Camp Ripley
Segment 2C**

August 2012

Source: MnDNR, MnDOT, Cass County, Crow Wing County, Morrison County

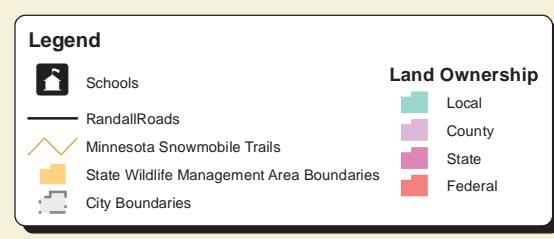




Camp Ripley/Veterans State Trail

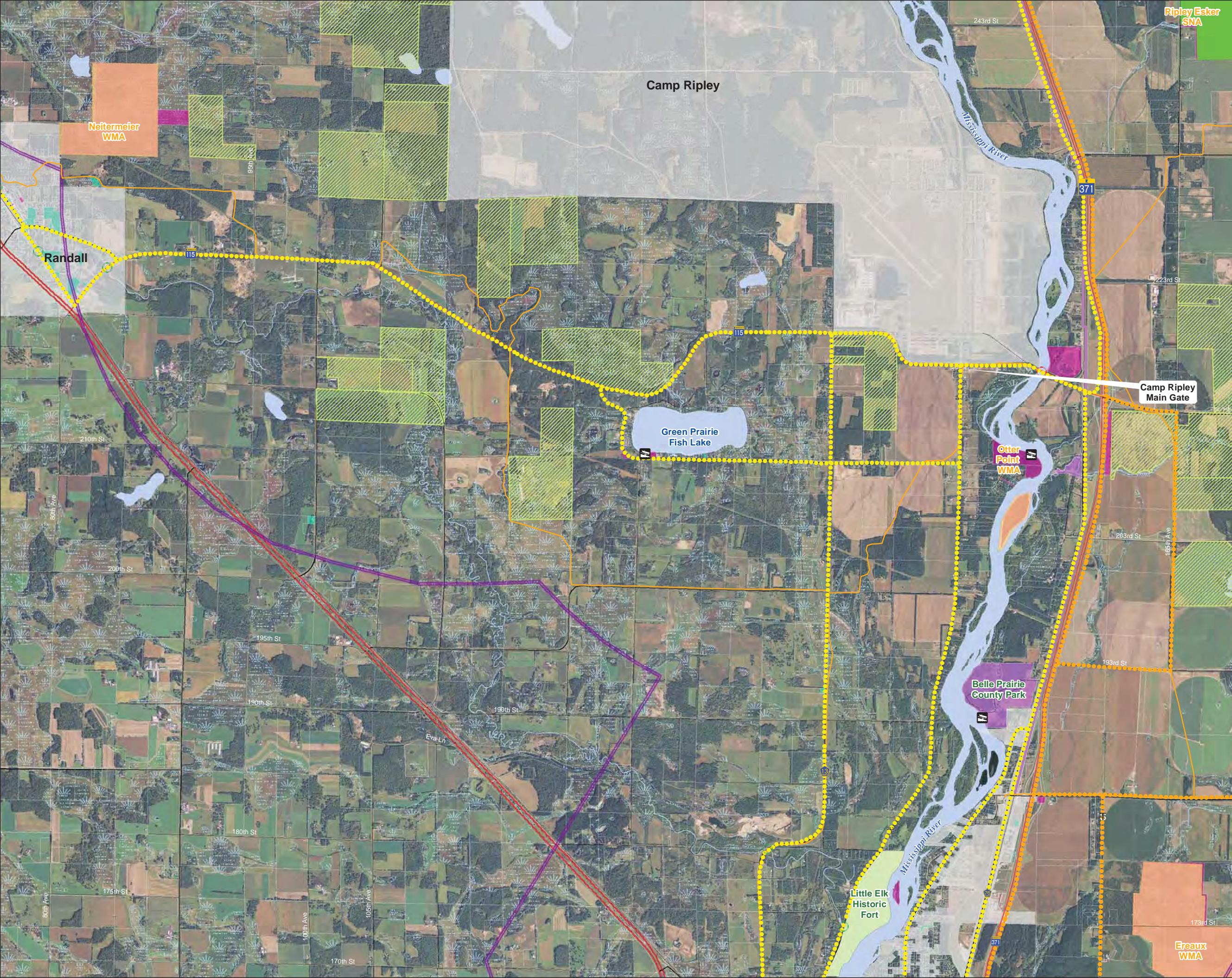
Figure 12: Randall

August 2012



CAMP RIPLEY/VETERANS STATE TRAIL

Figure 13: Overview Map



Legend

- Water Access Site
- Alternative Multiuse Alignments
- Alternative Motorized Only Alignments
- Grant-in-Aid Snowmobile Trail
- Regional ATV Trails
-  BWSR Easement
-  State Park
-  State Wildlife Management Area Boundaries
-  Municipal Boundary & Camp Ripley
-  Lakes/Rivers
-  Wetlands
- ## Land Ownership

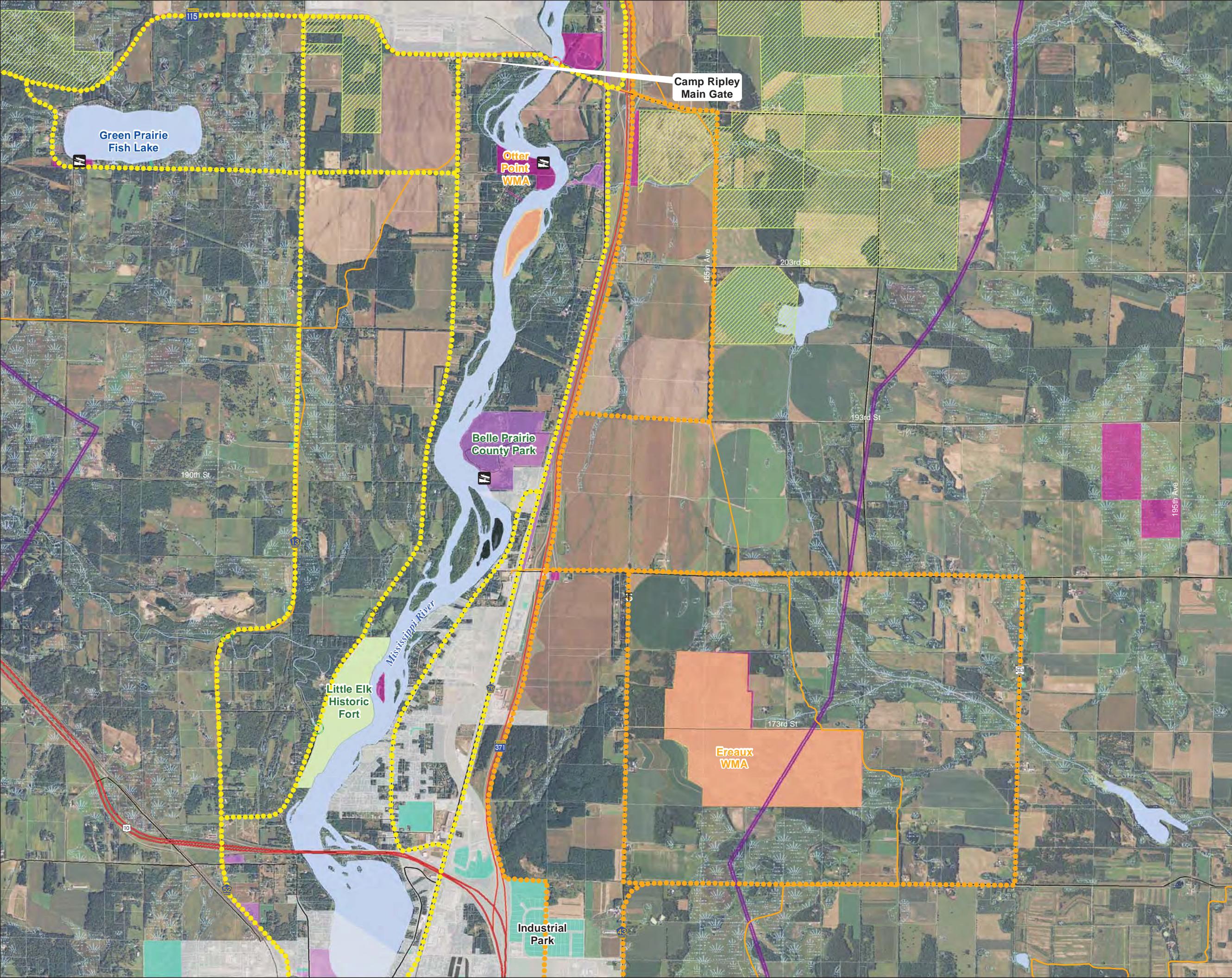
 -  Local
 -  County
 -  State
 -  Federal
 -  Minnesota Power and Light
-  Existing Bridge - can accommodate trail
-  Existing Bridge - not able to accommodate trail
-  New Bridge Search Area

Source: MnDNR, MnDOT, Cass County, Wilkin County, McLeod County



CAMP RIPLEY/VETERANS STATE TRAIL

Figure 14: Overview Map



Legend

- Water Access Site
- Alternative Multiuse Alignments
- Alternative Motorized Only Alignments
- Grant-in-Aid Snowmobile Trail
- Regional ATV Trails
- BWSR Easement
- State Park
- State Wildlife Management Area Boundaries
- Municipal Boundary & Camp Ripley
- Lakes/Rivers
- Wetlands

Land Ownership

- Local
- County
- State
- Minnesota Power and Light
- Existing Bridge - can accommodate trail
- Existing Bridge - not able to accommodate trail
- New Bridge Search Area

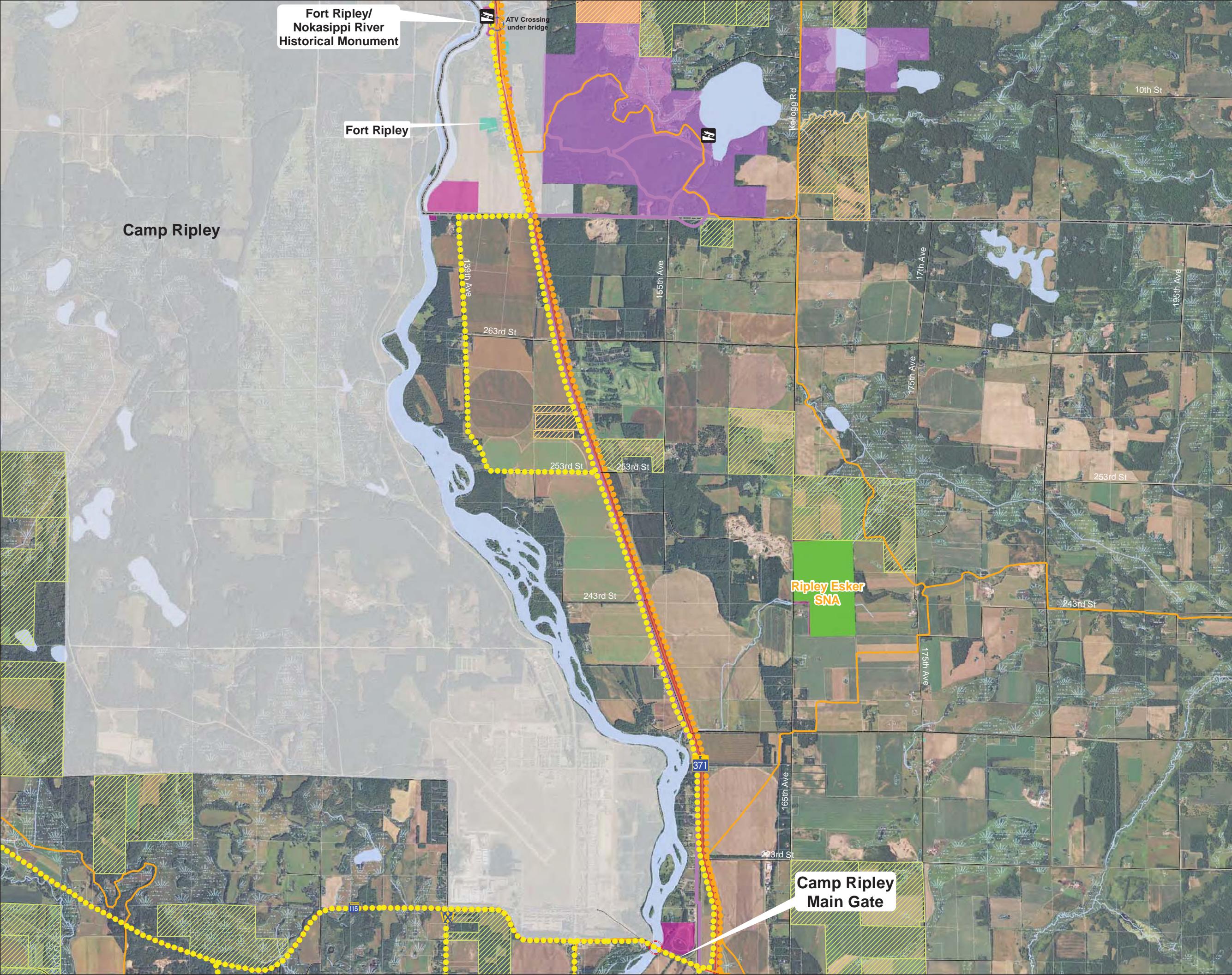
0 0.25 0.5 1 Miles

Segment 3: South Side of
Camp Ripley to Hwy 371
Segment 3B

August 2012

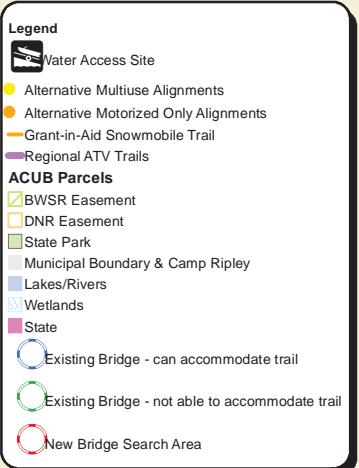
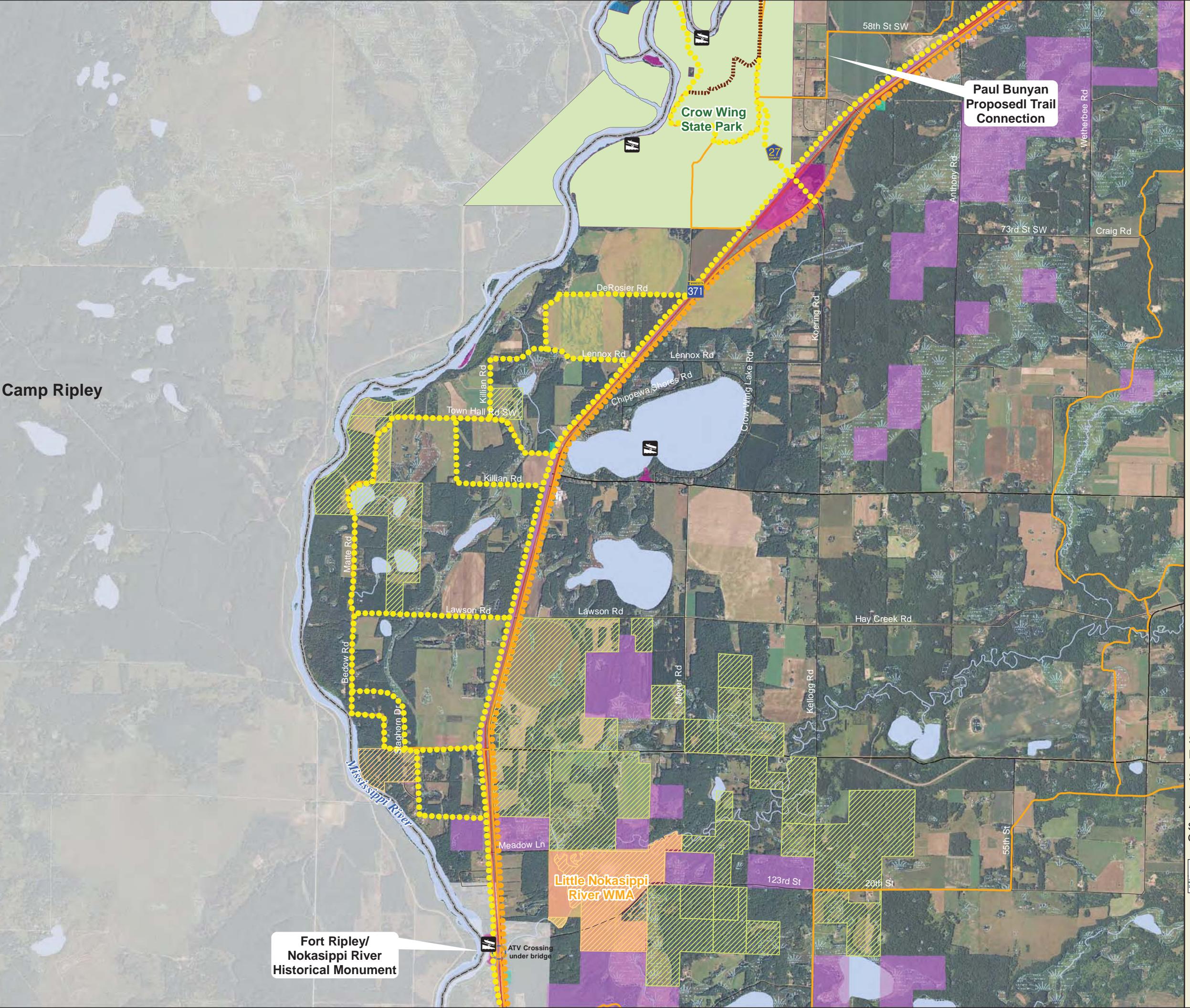
Source: MnDNR, MnDOT, Cass County,
Crow Wing County, Morrison County





CAMP RIPLEY/VETERANS STATE TRAIL

Figure 16: Overview Map



0 0.375 0.75 1.5
Miles

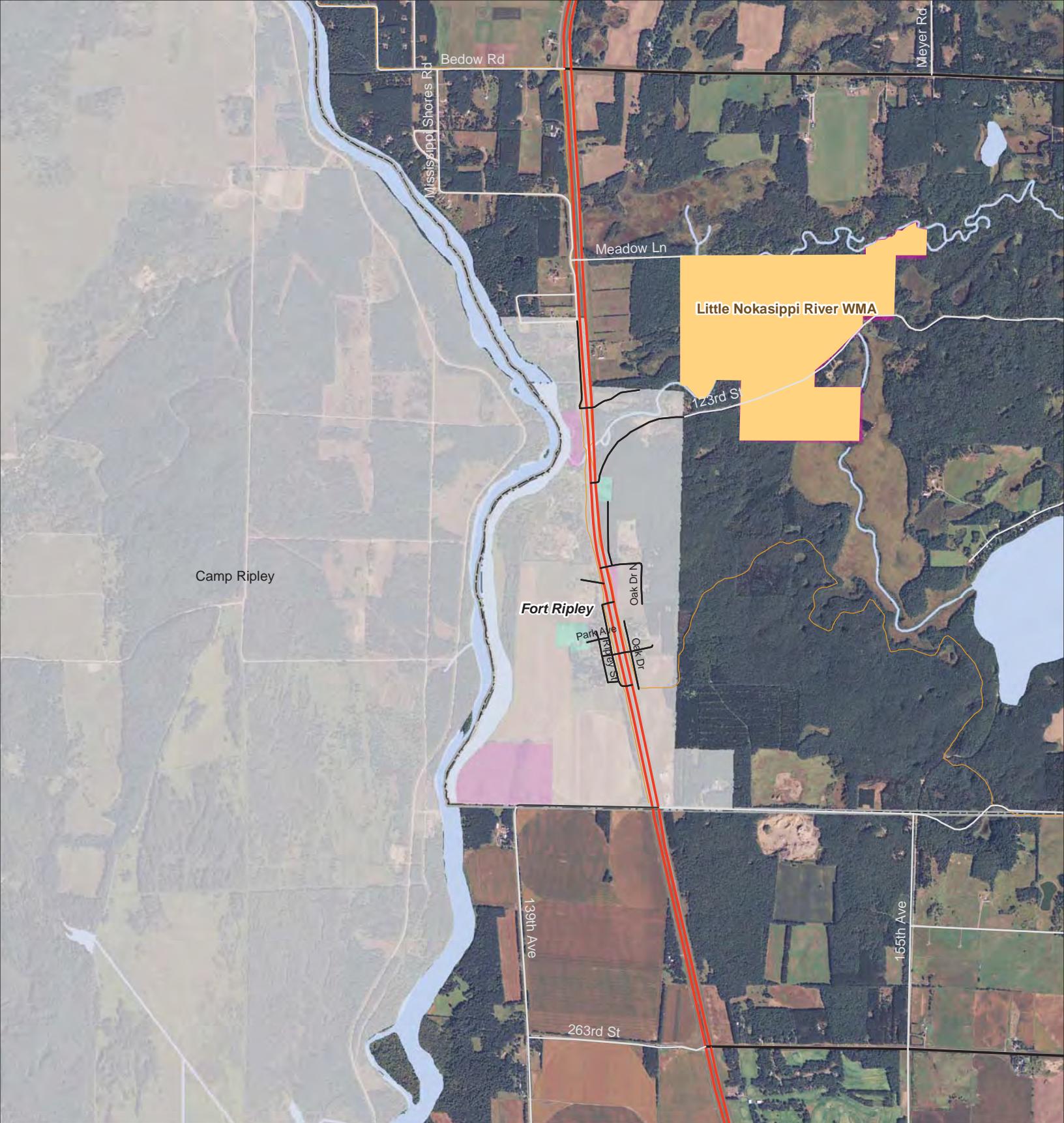
Segment 4:
Hwy 371 to Crow Wing State Park

Segment 4B

August 2012

Source: MnDNR, MnDOT, Cass County, Crow Wing County, Morrison County





Camp Ripley/Veterans State Trail

Figure 17: Fort Ripley

August 2012

Legend

- Minnesotan Snowmobile Trails
- State Wildlife Management Area Boundaries
- City Boundary & Camp Ripley
- Lakes/Rivers

Land Ownership

- Local
- State



MORRISON COUNTY

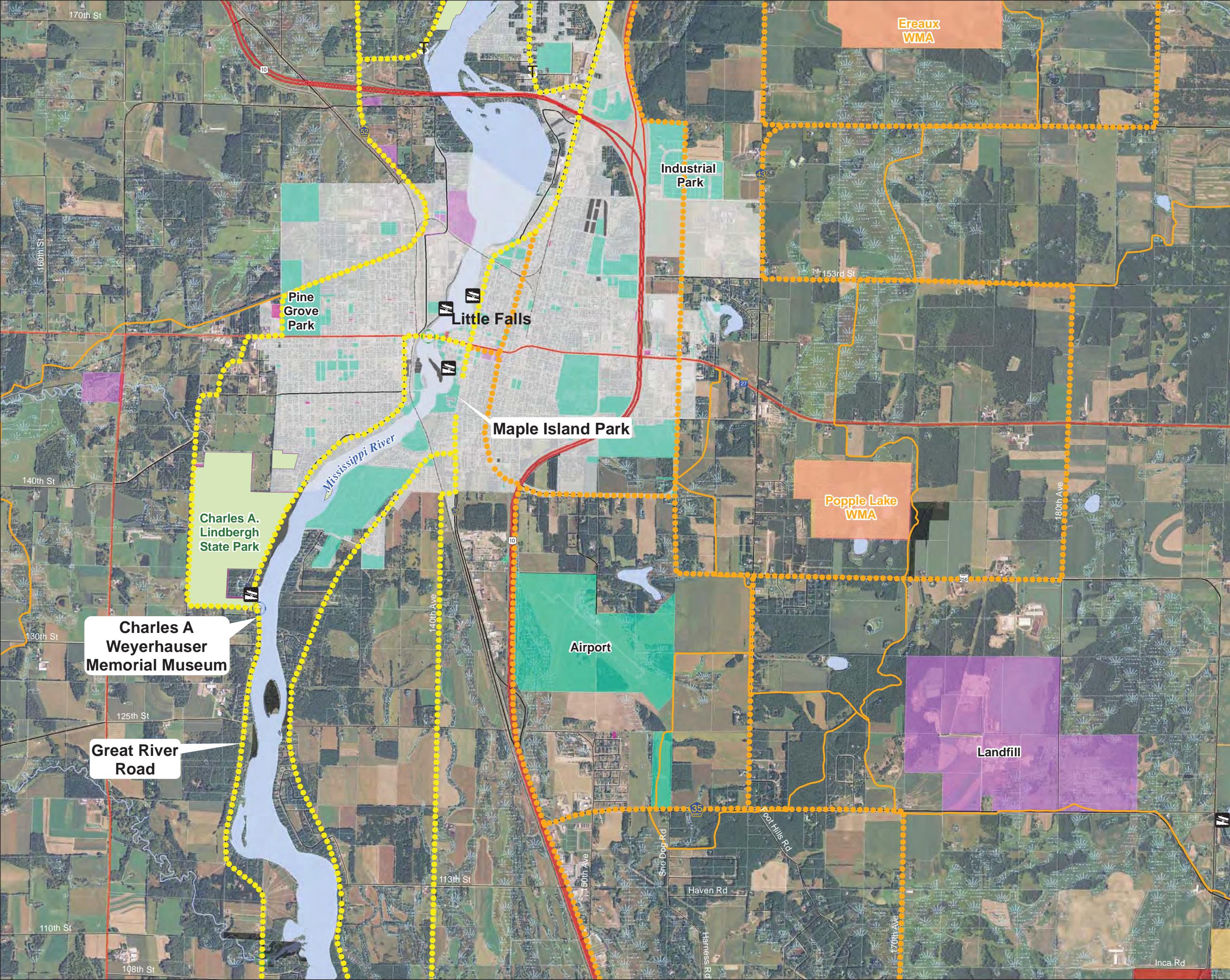


www.bolton-menk.com



CAMP RIPLEY/VETERANS STATE TRAIL

Figure 18: Overview Map



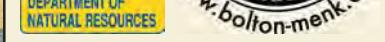
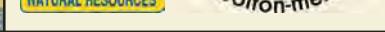
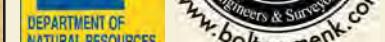
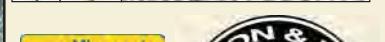
0 0.25 0.5 1 Miles

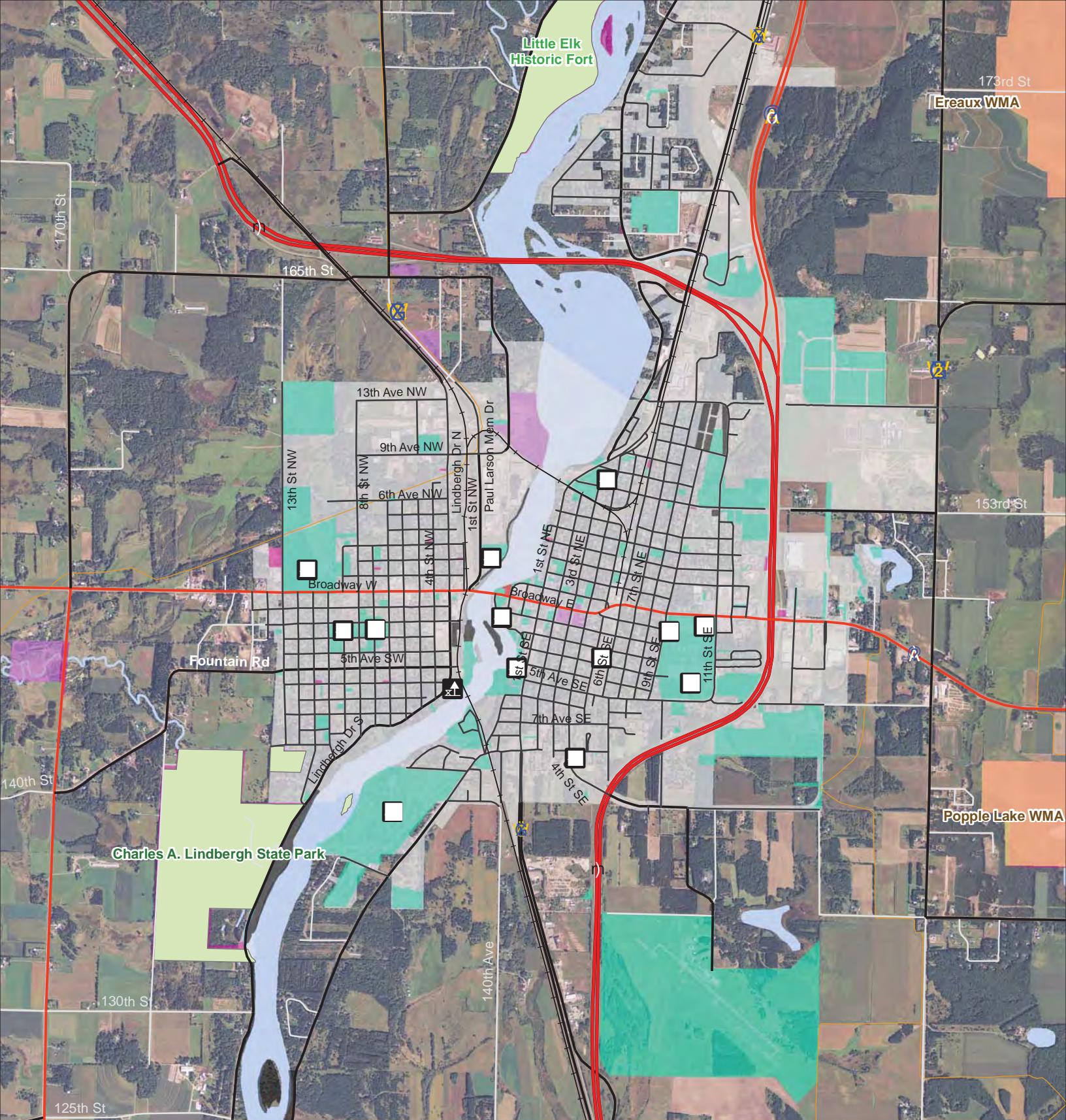
Segment 5:
Little Falls Area

Segment 5

August 2012

Source: MnDNR, MnDOT, Cass County, Crow Wing County, Morrison County





Camp Ripley/Veterans State Trail

Figure 19: Little Falls

August 2012

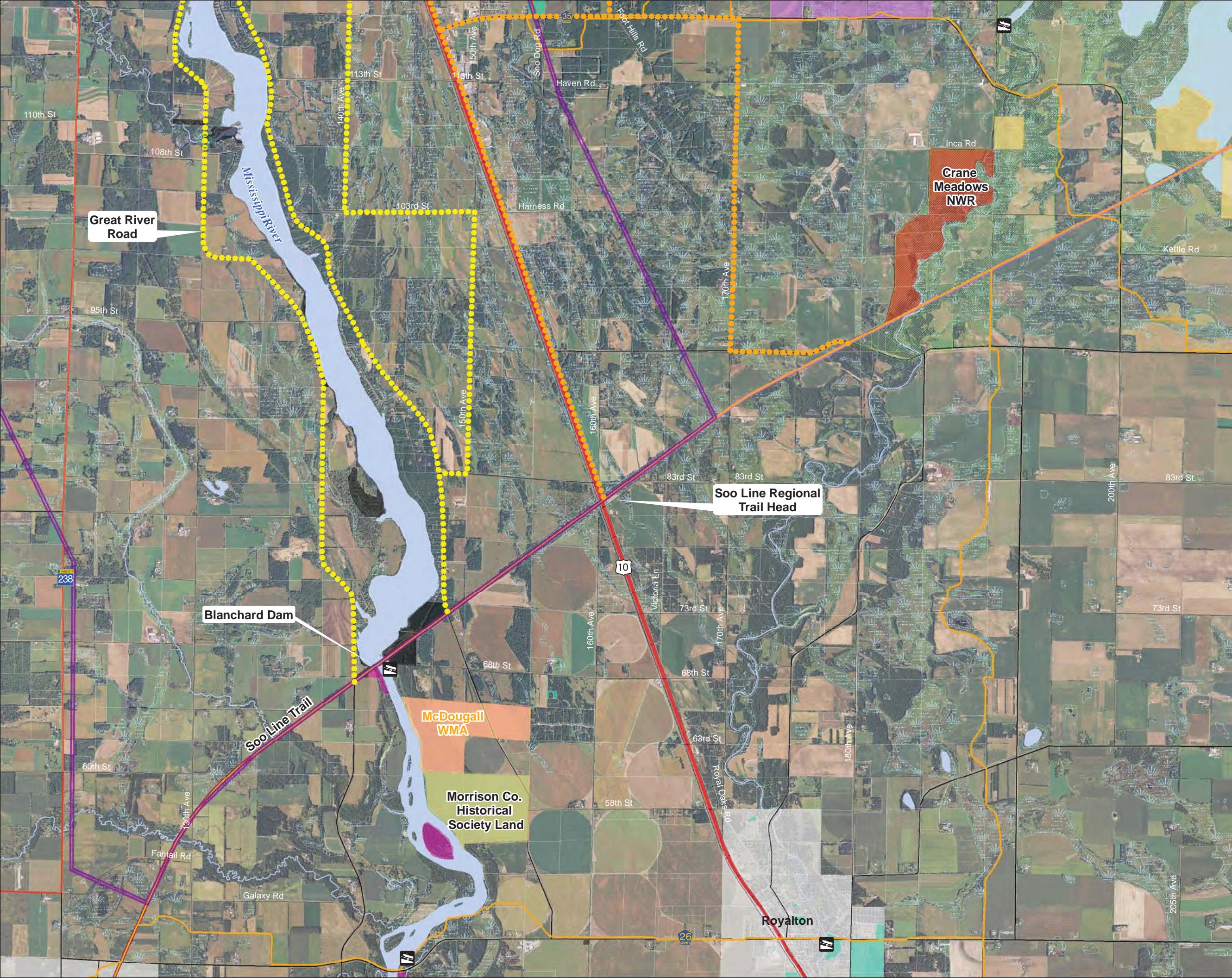
1

Miles



CAMP RIPLEY/VETERANS STATE TRAIL

Figure 20: Overview Map



Legend

- Water Access Site
- Alternative Multiuse Alignments
- Alternative Motorized Only Alignments
- Grant-in-Aid Snowmobile Trail
- Regional Paved Trails
- Regional ATV Trails
- ACUB Parcels
- State Wildlife Management Area Boundaries
- National Wildlife Refuges
- Municipal Boundary & Camp Ripley
- Lakes/Rivers
- Wetlands
- Land Ownership
- Local
- County
- State
- Federal
- Minnesota Power and Light
- Existing Bridge - can accommodate trail
- Existing Bridge - not able to accommodate trail
- New Bridge Search Area

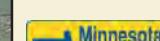
0 0.375 0.75 1.5 Miles

Segment 6: Little Falls to Soo Line Trail

Segment 6

August 2012

Source: MnDNR, MnDOT, Cass County, Crow Wing County, Morrison County



4. Trail Management

Trail Cross-Section Examples

The Camp Ripley/Veterans State Trail is planned to be a multi-use trail accommodating both motorized and non-motorized uses. Figure 21 illustrates trail cross-section examples for a multi-use paved trail, a gravel surface ATV trail and a natural surface equestrian trail. It is anticipated that if side-by-side multi-use alignments are pursued, some buffer area will be required to separate uses and ensure safety and a pleasant experience for all users. Additional detail on the cross-section for the CRVST multi-use trail will be developed as trail development evolves through preliminary engineering/design and construction. Figure 21 is intended for illustrative purposes only at this stage; actual alignments and cross-sections will depend on site conditions.

Projected Trail Use

The Camp Ripley/Veterans State Trail will provide an important link in Minnesota's trail system between the Paul Bunyan State Trail to the north, Little Falls and the Soo Line Regional Trail to the south.

It is anticipated that the number of trail users and patterns will be similar to what is occurring on other state trails, and specifically on the existing Paul Bunyan State Trail. Summer use on the Paul Bunyan State Trail, a 64-mile trail extending from Baxter to the Heartland State Trail, was over 80,000 "user hours" during the summer season in 2007. (A "user hour" is described as a trail user spending one hour on the trail.)

State park attendance figures at nearby parks also indicate the numbers of recreational users in the area.

State Park Annual Attendance

Crow Wing State Park: 2010 – 46,776; 2011 – 30,564

Charles A. Lindbergh State Park: 2010 – 48,213; 2011 – 39,209

Trail use will vary by segment and proximity to communities and area attractions.

Trail Maintenance

Adequate maintenance of state trails is critical to provide and sustain the experience trail users appreciate. Maintenance activities are numerous and diverse, as the following list illustrates:

- Monitoring trail conditions, which includes scheduling and documentation of inspections; monitoring the condition of railings, bridges, trail surfaces, and signage; hazard tree inspection; and removal of debris such as downed trees
- Scheduling of maintenance tasks
- Mowing of vegetation: shoulders, rest areas, and parking lots
- Winter grooming and plowing
- Tree and shrub pruning
- Trash removal
- Trail repair – fixing washouts and controlling erosion are examples
- Maintaining bridge decking and railings

- Trail drainage control
- Trail surface maintenance
- Repair of animal damage to trail or facilities
- Checking and repairing fence lines and gates
- Mowing and brushing farm crossings
- Cleaning out ditches and culverts, replacing failing culverts
- Controlling invasive species
- Maintaining equipment
- Painting posts and picnic tables
- Graffiti control and vandalism repair, especially to signs
- Maintaining boundary signs, and working to resolve encroachment issues
- Coordination of volunteer efforts
- Training and supervision of employees, Conservation Corps Minnesota, or Sentence to Service crews
- Sweeping asphalt surfaces

In areas with sensitive natural resources, and at any water accesses along the corridor, the Parks and Trails Division would follow the guidelines established under Operational Order #113, "Invasive Species," in consultation with the Division of Ecological and Water Resources. The guidelines prescribe methods for avoiding the introduction or spread of invasive species, and managing and treating infestations of such species.

Maintenance Recommendations

Recommendation 1: Additional maintenance funds will be required to maintain the trail after it is developed.

Recommendation 2: The trail should be seal coated approximately six years after initial development. Research shows that this will prolong the life of the trail.

Recommendation 3: Consideration should be given to mowing remnant and restored prairie once in the fall to retain robust prairie species and reduce the risk of introducing invasive species. Resource management staff will provide additional direction regarding maintenance within Crow Wing State Park.

Recommendation 4: Prescribed burning on prairie areas should be a priority maintenance practice. Portions of the trail may need to be closed during a prescribed burn event.



Information and Education

Trail User Orientation

Trail users must have good information about the trail system so they can make choices about destinations appropriate for their time frame, skill level, need for services such as food and lodging, links to regional or local trails, and the type of scenery and other recreational opportunities available along the route. This type of information should be displayed on information boards at parking areas, in communities and at trail junctions. It should be available on maps, and on the DNR Website. It should include distances between communities, options for other trail connections and locations of services. If any significant deviation from the typical trail design occurs – e.g., when a trail enters a community – it should be noted on signs or informational kiosks to assist trail users in understanding what the trail experiences will be.



Typical trail signage and interpretive displays

Identification of Services

Trail users benefit from knowing where they can obtain services (medical assistance, telephones, gasoline, food, lodging, restrooms, campgrounds, repair facilities, or other retail) and local businesses benefit from an increase in customers. A listing of the services available in each community developed, maintained and updated by the community could be displayed on information boards at parking areas in each community.

Trail Courtesy and Safety Information

Trail courtesy and safety information aimed at educating trail users about appropriate behavior, promoting safe trail use, and protecting the quality of the trail environment should be developed and posted at trailheads and other key locations.

Volunteer trail ambassadors could be used to distribute information on appropriate trail behavior and etiquette relative to specific problems such as unleashed dogs, passing of other users, and the need to clean equipment to prevent the spread of invasive species.

Interpretation of Natural and Cultural Resources

There are many natural and cultural resources of significance and interest along the trail. These include varied topography, native vegetation, wildlife habitat, wetlands, rivers and lakes. In addition, there are many places that tell the history of the region. Providing information about these resources can add enjoyment to the trail experience.

One or more interpretive themes are identified for state trails during the planning process. The interpretive theme helps tie together spatially separated interpretive sites and provides continuity in the messages presented.

Each state park has interpretive themes, programs, and signs for interpreting its cultural and natural resource setting covering the themes identified for the state trail as well as others. Coordination between park and trail interpretation and programming will benefit park visitors and trail users. The interpretive themes used for the state parks in the region indicate some potential directions for trail interpretation. Themes highlighted at Crow Wing State Park include:

- The park's geographic position in the transition area between the woodlands and prairies of Minnesota
- The park's location at the confluence of the Mississippi and Crow Wing Rivers
- The history of European exploration and settlement of the area including the Red River Oxcart Trail, the Crow Wing townsite, and the Clement Beaulieu House.

Themes highlighted at Charles A. Lindbergh State Park include:

- The international historical significance of Charles A. Lindbergh, Jr., the first person to fly solo and non-stop across the Atlantic Ocean
- Human impacts on vegetation
- Explanations of various animal species populations in the park including beaver, migrating birds, black squirrels, deer, and lack of predator sightings

Both parks also highlight the Mississippi River, the glacial processes that formed the landscapes and different resource management techniques such as the use of fire. Other interpretive elements include geology, plant communities and plant species

found in and adjacent to the corridor, and wildlife species likely to be observed by trail users.

Interpretive signs will be developed in consultation with other DNR divisions and the Minnesota Historical Society (MHS). Some initial ideas are listed above. Additional sites will be interpreted over time.

Information and Education Recommendations

Recommendation 1: *Develop a kiosk and trail logo design that reflects the interpretive theme for the trail that can be used in communities and at rest areas along the trail. Use of native stone should be used in the design of kiosks and/or sites as they are located.*

Recommendation 2: *Community services information, trail orientation, trail rules and trail courtesy information should be developed and installed on a kiosk at the same time the trail is developed.*

Recommendation 3: *Parks and Trails staff should cooperate with schools to use the trail for environmental education purposes.*

Recommendation 4: *Interpret the natural and cultural features along the trail. Include information on the fishing opportunities of the trail. The Division of Fisheries local offices and MinnAqua staff should be consulted as resources.*

Enforcement

Minnesota State Trails are very safe and generate very few complaints. However, adequate enforcement is a vital aspect of maintaining a safe and secure trail environment. User conflicts, unauthorized use of the trail, and trail users leaving the treadway designated for their use are often among the concerns identified during the planning process, and are all likely areas for enforcement.

Enforcement of state trails rules and regulations, information and education, trail design, trail maintenance, and the mix of trail uses are all factors that contribute to the maintenance of a safe, secure trail environment. The DNR has the primary responsibility for law enforcement on DNR-owned and operated recreation areas. Enforcement assistance is also sought from local police departments and county sheriffs as necessary.

The DNR's goal is to deal with issues as they arise and provide an adequate level of enforcement to maintain a safe and secure trail environment, to encourage trail users to understand and obey trail rules and respect other trail users and adjoining properties.

Recommendations for Enforcement

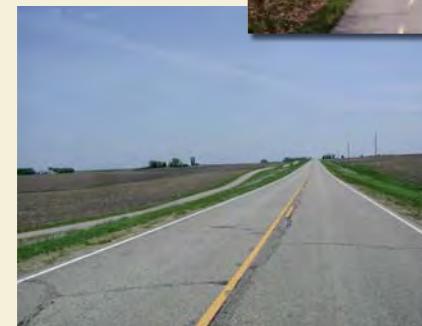
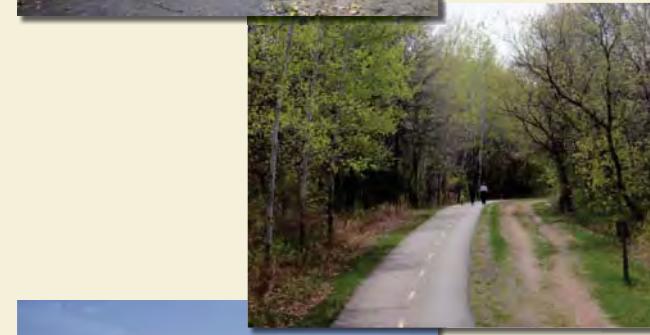
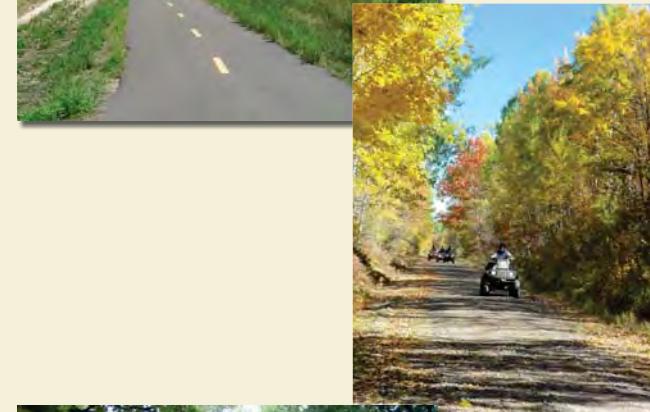
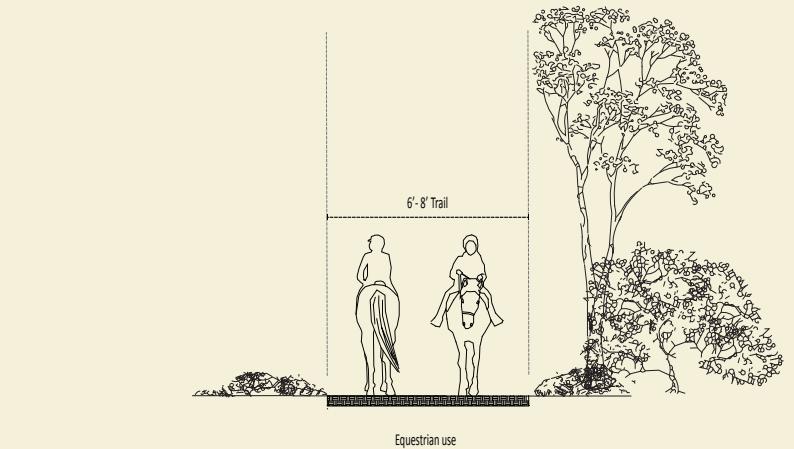
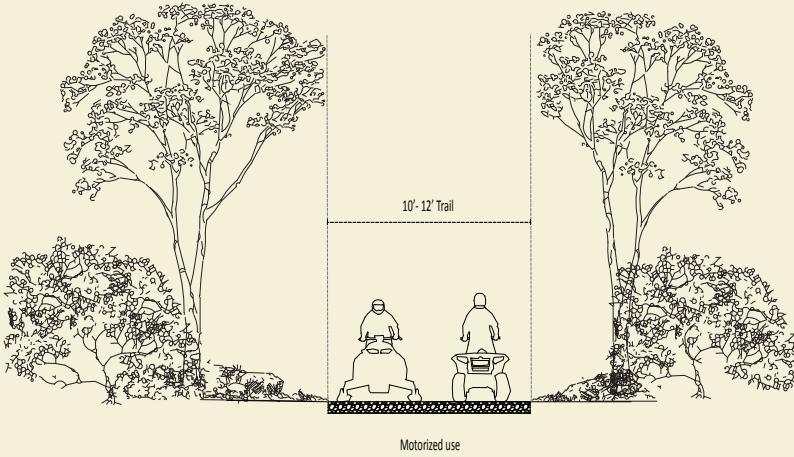
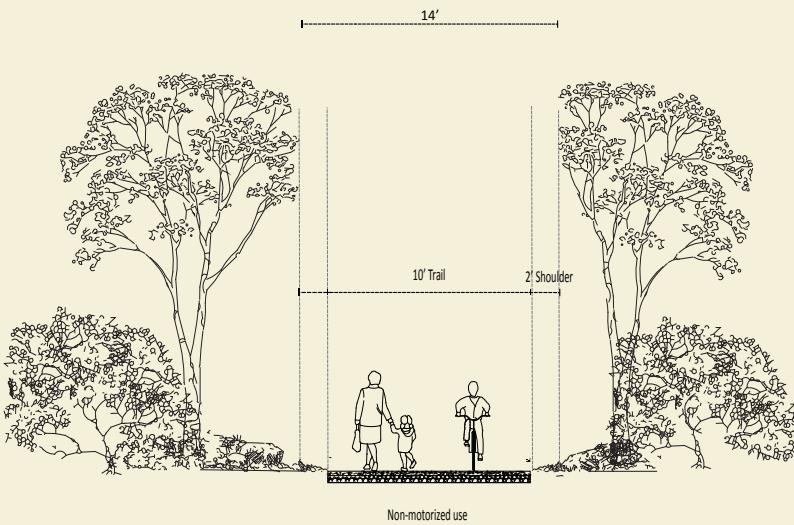
Recommendation 1: *Provide an adequate level of enforcement via a multifaceted approach, to help maintain a safe and secure trail environment, and to encourage trail users to understand and obey trail rules, and respect other trail users and adjoining properties.*

Recommendation 2: *Develop on-site information that targets important trail courtesies and rules necessary for a safe and enjoyable experience, specific to uses of a particular segment and problems and conflicts occurring there.*

Recommendation 3: *Increase visibility of Parks and Trails staff during peak use times for an enforcement effect.*

Recommendation 4: *Investigate the feasibility of a state trail ambassadors program to communicate with trail users regarding trail safety and etiquette.*

Recommendation 5: *Parks and Trails will include the cost of enforcement when providing information about the cost of the trail when communicating with legislators, trail advocates, and local government officials.*



Camp Ripley/Veterans State Trail CORRIDOR STUDY

Figure 21
Trail Cross-Section Examples

5. Natural Resources

Ecological Classification System

Minnesota lies at the center of North America where the prairie, boreal forest, and eastern deciduous forest meet. There are four major ecological provinces in Minnesota: the Eastern Broadleaf Forest, the Laurentian Mixed Forest, the Prairie Parkland and the Tallgrass Aspen Parklands. These ecological provinces are divided into subsections – distinct landscapes of Minnesota, defined by vegetation, geology and other resource criteria.

The trail search area is unique because it straddles the boundary between the Eastern Broadleaf Forest and Laurentian Mixed Forest ecological provinces, and encompasses four subsections of the Ecological Classification System (ECS): the Hardwood Hills to the south and west, the Pine Moraines and Outwash Plains to the north, the Anoka Sand Plain on either side of the Mississippi River, and the Mille Lacs Uplands to the east. Essentially, the landscape changes from north to south, as conifers give way to deciduous woodlands, and also from west to east, as wooded hills transition into broad level plains bordered by glacial eskers. These diverse landscapes will be a defining feature of this trail. Trail users will experience a great diversity of topography, plant communities and land uses.

A description of the subsections is important for trail planning purposes because it provides the context for the trail alignment, trail development, resource management and interpretation recommendations. The following descriptions are drawn from the [DNR website](http://mndnr.gov/ecs), mndnr.gov/ecs.

Pine Moraines and Outwash Plains Subsection

The northwestern part of Crow Wing County and much of Cass County is located within this subsection. The northernmost part of the trail corridor passes through this subsection, which also includes the west side of Camp Ripley.

This subsection, part of the Laurentian Mixed Forest Province, is named for its mix of end moraines and outwash and till plains and is a resource-rich heavily forested area. The subsection contains sections of the Mississippi River, along with hundreds of lakes. Kettle lakes and wetlands are common on the outwash plains, and aspen, birch and pine forest were the most common on end moraines.

Forest management and tourism are the predominant land uses in this subsection today. The bait industry is also well represented. Motorized recreation is popular in many of the state forests in this area. Agriculture is common in the western part of this subsection.

Landform. This subsection consists primarily of large outwash plains, narrow outwash channels, and relatively large end moraines formed from portions of several glacial lobes. Most of the glacial drift was sandy, but there is loamy drift to the north.

Hydrology. Kettle lakes are common on pitted outwash plains and within stagnation moraines. There are hundreds of lakes within the subsection that have a surface area greater than 160 acres. The headwaters of the Mississippi River (Itasca Lake in Itasca State Park)- is in this subsection. Other large rivers flowing through the outwash plains of the subsection include the Pine and Crow Wing rivers.



Bedrock Geology. Thick glacial drifts cover bedrock over most of the subsection at depths ranging from 200 to over 600 feet, with the greatest depths in the southwestern portion. A diversity of Precambrian rock underlies the glacial drift. There are also iron formations at the southeastern edge of the subsection, along with argillite, siltstone, quartzite and greywacke. Cretaceous marine shale, sandstone, and variegated shale are localized in the southwest of this subsection.

Climate. Total annual precipitation ranges from 23 inches in the northwest to 27 inches in the east, with about 40% occurring during the growing season. Only 12-16% of the annual precipitation falls during the winter months. Growing season length varies from 111 to 131 days.

Natural disturbance. Fire occurred on a 10 to 40 year rotation within much of the subsection, accounting for the dominance by upland conifers and quaking aspen-birch forests.

Conservation concerns. The number of year-round residents in this area is increasing as they convert small lake cabins into larger year-round homes. Near-shore habitat is being lost at a rapid pace, which negatively affects fish and wildlife.

Hardwood Hills Subsection

The Hardwood Hills Subsection, part of the Eastern Broadleaf Forest Province, runs through the heart of the Mississippi River flyway and central Minnesota. The Continental divide splits this subsection; rivers to the north flow to Hudson Bay, and rivers to the south, to the Mississippi. The subsection contains numerous large and small lakes, including prairie potholes, and kettle lakes and wetlands. Before settlement by people of European descent, vegetation included maple-basswood forests interspersed with oak savanna tallgrass prairie, and oak forest.

Western Morrison County falls into this subsection, including the southwest corner of Camp Ripley and much of the western side of the Mississippi River from Camp Ripley south.

Currently, much of this subsection is farmed. While many wetlands have been drained, many potholes remain and provide habitat for waterfowl and shorebirds. Important areas of forest and prairie exist throughout the subsection, but they are small and fragmented. About 15 percent of the subsection is forested. Other significant land uses are tourism and outdoor recreation, especially around lakes.

Landform. Ice stagnation moraines, end moraines, ground moraines, and outwash plains are major landforms present in this subsection. Kettle lakes are numerous, both on moraines and outwash deposits. Parent material is primarily calcareous glacial till deposited by the last major glaciations (Wisconsin age) and outwash sediments.

Hydrology. The Alexandria Moraine forms a high ridge that is the headwaters region of many rivers and streams flowing east and west. The drainage network is young and undeveloped throughout this subsection. Major rivers include the Chippewa, the Long Prairie, the Sauk, and the Crow Wing rivers. The Mississippi River forms a portion of the east boundary. The majority of the many lakes in this subsection are found on end moraines and pitted outwash plains.

Bedrock Geology. There are 100 to 500 feet of glacial drift covering most of the bedrock in this subsection, with the thickest drift in the northwestern half. Middle Precambrian granitic bedrock is locally exposed in the southeast, along the Crow River.



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Bedrock underlying the subsection is diverse. Cretaceous shale, sandstone, and clay and Lower Precambrian granite, meta-sedimentary and metagneous gneiss, schist and migmatite underlie the southern half. To the north are metasedimentary rocks, iron formation, enschist, and metavolcanic rocks.

Climate. Total annual precipitation ranges from 24 inches in the west to 27 inches in the east. Growing season precipitation ranges from 10.5 to 11.5 inches. The growing season ranges from approximately 122 days in the north to 140 days in the south.

Natural disturbance. Fire was important in oak savanna development, while windthrow was common in the sugar maple-basswood forests. Tornados and other high wind events also created natural disturbances.

Conservation concerns. Increased lakeshore and urban development and wetland loss, fire suppression, and increasing fragmentation of forest and prairie habitat are concerns in this subsection.

Mille Lacs Uplands Subsection

The Mille Lacs Uplands begin at the eastern edge of the trail search corridor and extend eastward to the St. Croix River. The subsection is named after Lake Mille Lacs, well known for its high-quality walleye fishing. Several major rivers run through the area, including the Kettle, Snake, Rum, Ripple, and St. Croix, the latter forming part of the eastern boundary. The subsection contains extensive wetlands and 100 lakes greater than 160 acres in size. Gently rolling hills are the dominant landform. Glaciation has had a major influence on the landscape, and the resulting moraines provide excellent salamander and other wildlife habitat today.

Before settlement by people of European descent, maple-basswood forests were prevalent in the south, and the north was a mix of conifer and hardwood forests. Because of its proximity to the Twin Cities and its vast network of roads, this subsection is under increasing pressure from human activities. Agriculture is concentrated in the western and southern portions, and forestry and recreation are more common in the central and eastern portions.

Landform. This subsection consists primarily of Superior lobe ground moraine, and includes the Brainerd-Pierz and Automba Drumlin fields. The depressions between drumlin ridges contain peatlands with shallow organic material. There are also small areas of Des Moines lobe ground moraine in the southeastern portion of the subsection. A large end moraine in the center of the subsection forms the dam that created Mille Lacs Lake. In the northeast, there is another series of end moraines, which marked later advances and retreats of the Superior Lobe.

Bedrock geology. Glacial drift ranges from 100 to 300 feet in depth over bedrock. Bedrock is locally exposed throughout the northern portion of the subsection, where depths are typically 100 feet or less. Bedrock consists of Middle to Late Archean and Early Proterzoic gneiss, amphibolites, undifferentiated granite and metamorphosed mafic. At the southeastern edge of the subsection are Cretaceous marine shale, sandstone, and variegated shale.

Hydrology. Major rivers running through this subsection include the St. Croix, which forms part of the eastern boundary and the Kettle, Snake, Rum, and Ripple rivers. The drainage network is young and undeveloped, with extensive areas of wetlands present. There are 100 lakes greater than 160 acres in size, most of which occur on end moraines.



Presettlement vegetation. The original vegetation consisted of a mosaic of forest types. Along the southern boundary, maple-basswood forests were prevalent. The rest of the subsection was a vast mix of conifer, hardwood and mixed conifer-hardwood forests. Peatland areas were inhabited by sedge-fen, black spruce-sphagnum, or white cedar-black ash communities.

Present vegetation and land use. Agriculture is concentrated in the western and southern portions of this subsection. Forestry and recreation are the most important land uses in the central and eastern part.

Natural disturbance. Both fire and windthrow were important in determining the vegetation of the subsection. Because dense basal till is present at depths of 20 to 40 inches throughout most of the subsection, rooting depths for trees are shallow and windthrow is common.

Conservation concerns. Fire suppression, wetland loss, and increasing fragmentation of forest habitat due to shoreland and recreational development are concerns in this subsection.

Anoka Sand Plain Subsection

The Mississippi River valley forms the western boundary of the Anoka Sand Plain Subsection. This subsection is located on both sides of the Mississippi throughout the entire trail search corridor. A broad, flat, sandy lake plain dominates the majority of this area and forms its eastern and northern boundaries. Historically, the predominant vegetation was oak savanna and upland prairies surrounded by varied wetland complexes. This subsection stretches across the northern Twin Cities metropolitan area, including St. Cloud to the west and North Branch to the east, and has the second fastest-growing population in the state. Urban development and agriculture (primarily sod and vegetable crops), which occurs in about one-third of the subsection, has resulted in the loss of prairie and savanna and drainage of peatlands.



Landform. The major landform is a broad sandy lake plain, which contains small dunes, kettle lakes, and tunnel valleys. Topography is level to gently rolling. There are small inclusions of ground moraine and end moraine. The other important landform is a series of sandy terraces associated with historic levels of the Mississippi River. Terraces are also associated with major tributaries of the Mississippi.

Bedrock geology. The subsection is underlain by Cambrian and Ordovician dolomite, sandstone, and shale. Bedrock is locally exposed in the St. Cloud area. Surface glacial deposits are usually less than 200 feet thick.

Climate. Total annual precipitation ranges from 27 inches in the west to 29 inches in the east, with growing-season precipitation ranging from 12 to 13 inches. The growing season length ranges from approximately 136 to 156 days, with the longest growing season in the south.

Hydrology. Terraces associated with the Mississippi River form part of the western boundary of the subsection. Most rivers and streams are tributaries of the Mississippi, although some flow east to the St. Croix River, which eventually flows into the Mississippi. Many rivers, streams, and lakes are located in old glacial tunnel valleys. There are 38 lakes larger than 160 acres in area; about 3% of the subsection's surface is covered by water. Peatlands occupy linear depressions of many tunnel valleys.

Presettlement vegetation. The predominant vegetation on the droughty uplands was oak barrens and openings. Characteristic trees included small and misformed bur oak and northern pin oak. Jack pine was present locally along the northern edge of the subsection. Brushland characterized large areas of the sandplain. Upland prairie formed a narrow band along the Mississippi River, as did areas of floodplain forest.

Present vegetation and land use. Sod and vegetable crops are extensively grown on drained peat and muck areas. Urban development is rapidly expanding into the subsection. Species associated with oak openings and oak barrens are abundant in the sandplain although large areas of opening and barrens are uncommon.

Natural disturbance. Fire and drought were important factors impacting the vegetation of the sand plain. Drought was found to cause mortality for two of the dominant species of the oak barrens and savannas, northern pin oak and bur oak. During severe periods of drought, vegetation cover was greatly reduced on portions of the sand plain, resulting in wind erosion and sand dune movement.

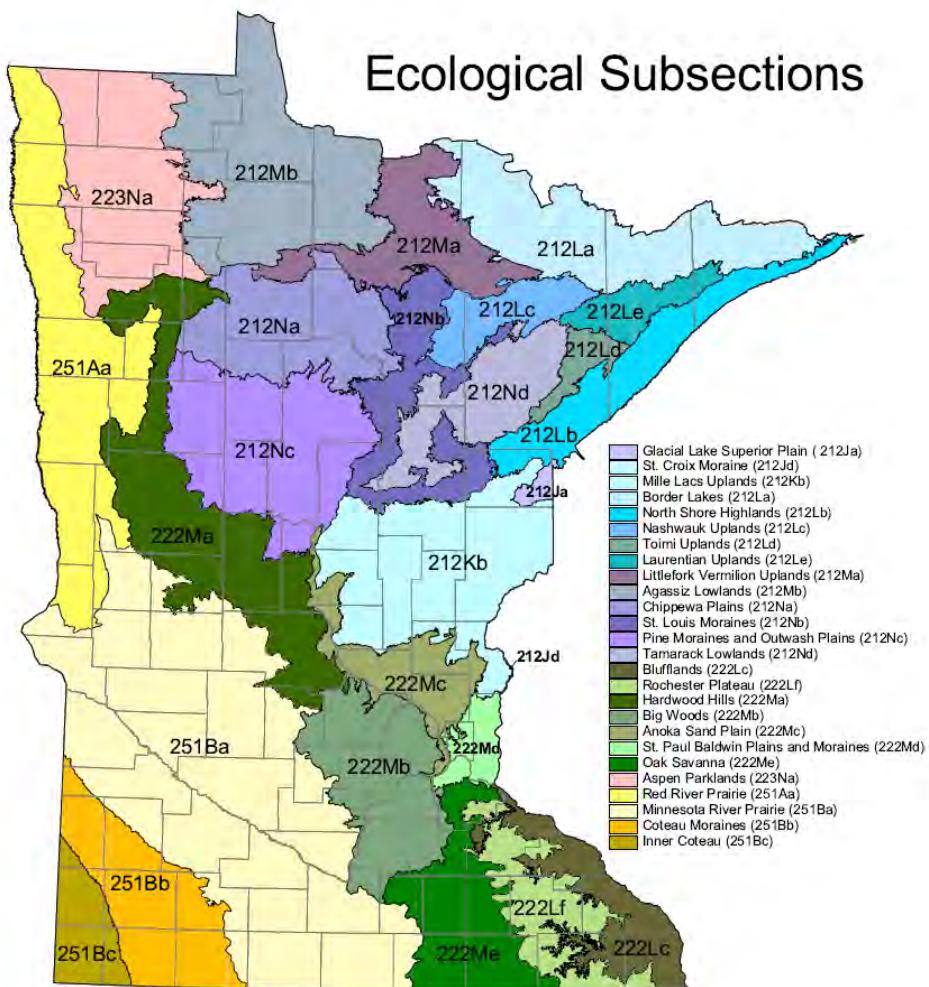
Conservation concerns. Urban development and agriculture (primarily sod and vegetable crops), which occurs in about one-third of the subsection, have resulted in the loss of prairie and savanna and drainage of peatlands.

Climate

The climate in north-central Minnesota is like that of the rest of the state, continental with extremes in temperature from summer to winter. According to the Midwestern Regional Climate Center, the northern portion of the trail corridor at Brainerd has an average temperature ranging from 5.5°F in January to 68.6°F in July. The average temperature in the southern portion of the trail corridor at Little Falls ranges from 9.8°F in January to 71.7°F in July.

The majority of the search corridor receives between 26 to 28 inches of precipitation annually, with the northern section in Brainerd receiving the most at 27.71 inches. The majority of the precipitation falls between April and October. Mean annual snowfall ranges from 50.4 inches in Little Falls to 46.8 inches in Brainerd. The average growing season is 131 to 143 days.

Ecological Subsections



Vegetation

Presettlement Vegetation

Presettlement vegetation in the trail corridor is based on Marschner's interpretation of the Public Land Survey records from 1853-1854. A variety of vegetation types were found in the area at that time. Oak openings and barrens dominated the eastern portion of the search area (the Anoka Sand Plain Subsection) with areas of prairie mixed in. The remainder of the search area was primarily made up of different mixes of pines and hardwoods, including aspen, birch, oak, maple, basswood, white pine, red pine and jack pine. Some areas of river bottom forests were found at the confluence of the Crow and Mississippi Rivers (see Figures 22 and 23).

Present Day Vegetation

Four ecological subsections converge within the trail search area, leading to a landscape with a variety of vegetation types, including both coniferous and deciduous forests, grasslands, croplands and wetlands. A majority of the current land cover throughout much of the trail search area is forestland interspersed with small amounts of agricultural land. The southeast portion of the search corridor primarily consists of

agricultural land. Significant areas of wetlands can be found along the Crow Wing and Mississippi Rivers in the northern portion of the search area and near the southwestern corner of Camp Ripley.

A variety of important native plant communities have been identified through the Minnesota Biological Survey (MBS) and are shown in Figures 22 and 23. The largest concentration of these communities is within and around Camp Ripley, which functions as a nature preserve as well as a training facility. The Army National Guard places a high value on protection of these resources.

Vegetation Management Recommendations

Recommendation 1: *Avoid threatened, endangered or special concern species.*

Recommendation 2: *Avoid high quality plant communities or rare (S1, S2 or S3) native plant communities, as defined by the Minnesota Biological Survey (MBS) maps.*

Recommendation 3: *Avoid or minimize impacts to MBS Sites of Outstanding or High Biodiversity Significance. If avoidance is not possible then impacts to the features that make the site of outstanding or high biodiversity significance are minimized.*

Recommendation 4: *Avoid or minimize impacts to Key Habitats as defined in Tomorrow's Habitat for the Wild & Rare – An Action Plan for Minnesota Wildlife. If avoidance is not possible then impacts to the features that make the plant community a Key Habitat are minimized. This may include avoiding certain times of year for construction activities to avoid critical nesting periods, for example.*

Recommendation 5: *Develop a vegetation inventory and management plan for the trail.*

Recommendation 6: *Restore, or if necessary, establish native woodland, prairie or wetland plantings using prairie plugs and seedlings along the trail in order to minimize maintenance, minimize the use of pesticides, control invasive species, and enhance natural species abundance and biodiversity, and enhance user experience as a result.*

Recommendation 7: *Use native plant species, from a locally collected seed source, to revegetate existing natural plant communities as well as areas disturbed by erosion, overuse or construction. Native plants should also be used in windbreak plantings and in the landscaping of parking areas and waysides.*

Water Resources

The Camp Ripley/Veterans Trail search area falls completely within the Upper Mississippi River Basin. Numerous smaller watersheds, including some that drain directly to the Mississippi River, fall within this basin. The trail search area includes portions of the Crow Wing River, Long Prairie River and Mississippi River – Brainerd watersheds.

Major rivers in the trail search area include the Mississippi, Crow Wing and Nokasippi Rivers.

Major Water Bodies

Mississippi River

The Upper Mississippi River Basin extends from the river's source in Lake Itasca to its confluence with the St. Croix River. The Mississippi completes its circuit around the highlands of northern Minnesota as it approaches Brainerd from the northeast. The river flows out of the forests and wetlands of northern Minnesota and into a narrow valley, bounded by broad sandplains. The river's main channel is quite broad, but broken up by islands.

From Brainerd through the south end of the trail search corridor, the Mississippi River flows relatively quietly and supports exceptional populations of game fish including muskellunge, walleye, smallmouth bass and northern pike. Agriculture is a major land use along the river in the search corridor, although much of the river banks remain undeveloped, providing high scenic quality. Water quality is good for water-based recreation. The only water quality impairments identified in this river segment are for mercury in fish tissue, a statewide air quality related problem.

Stream channels have been altered along much of the river in this area and sedimentation can be an issue in the lower portion of this river section. Four dams are located on the Mississippi River between Brainerd and Little Falls along with several water access sites.

Crow Wing River

The Crow Wing River begins in the Crow Wing chain of lakes in southern Hubbard County and flows 90 miles southeast where it meets with the Mississippi River in Crow Wing State Park, just southwest of Brainerd. A wing-shaped island at the mouth gives the Crow Wing River its name. In the trail search area, the land around the Crow Wing River is primarily made up of a mix of hardwood and pine forests and woody wetlands with very little development.

Although the Crow Wing River is rarely more than three feet deep, it is deep enough for canoeing for nearly its entire length and is a popular "wilderness" canoe route. Because of its shallow depth, sandy bottom and minimal cover, the Crow Wing River is not known for its game fishing. Water quality is good.

Gull River

The Gull River flows south from Gull Lake, one of the largest and most popular lakes in the Brainerd area, about 11 miles until it meets the Crow Wing River at the Sylvan Dam. This portion of the river is dammed to form the Sylvan Reservoir (see below). Available data for the Gull River indicate a thriving community of fish and other aquatic organisms.

Sylvan Reservoir

Sylvan Reservoir is located at the confluence of the Crow Wing and Gull Rivers. It is a riverine lake formed by the Sylvan Dam. The reservoir is 321 acres in size with a maximum depth of 31 feet. The Reservoir is a popular location for both boat and shore fishing. Shore fishing for bluegill is popular at the boat access and near the bridge over the Gull River. The area around the bridge has been improved to provide fishing access. Boat anglers commonly fish for northern pike, walleye, black crappie and largemouth bass. Sylvan Reservoir is stocked for walleye.

According to the most recent Lake Management Plan developed by the DNR Division of Fisheries, approximately 90% of Sylvan Reservoir's shoreline is classified as undeveloped forest. It is considered a eutrophic (nutrient-rich) lake with summer Secchi depth readings between four and six feet.

Placid Lake

Placid Lake is located near the city of Pillager and is formed by the Pillager Power Dam on the Crow Wing River. The lake is 537 acres with a maximum depth of 25 feet and is characterized by fast drop-offs along the shore, sunken bars and vegetation beds and islands. Gamefish species found in the lake include northern pike, walleye, largemouth bass, and smallmouth bass. According to the most recent Lake Management Plan, the shoreline is moderately developed, with 60% being classified as undeveloped forest. Sixty-one homes were counted during the 2008 survey. Summer Secchi depth readings are generally between four and six feet. The lake is classified as eutrophic based on its total phosphorous and chlorophyll A concentrations (MPCA). Sedimentation and nutrient loading have significant impacts on the condition of the lake.

Nokasippi River

The Nokasippi River drains the lowlands of southern Crow Wing County. It begins in Clearwater Lake, about 15 miles northeast of Brainerd and generally flows southwesterly. On its course, it flows through several lakes, including Eagle, Nokay, Pointon, South Long and Round Lakes. The river flows through the Little Nokasippi River Wildlife Management Area before flowing into the Mississippi River just north of Fort Ripley.

Gull Lake

Gull Lake is one of the largest lakes in the Brainerd area at 9,947 acres. The lake has a maximum depth of 80 feet, with 30% of the lake being 15 feet deep or less. The shallow areas of Gull Lake have a primarily sandy or gravel bottom and diverse aquatic vegetation. Walleye, northern pike and yellow perch can be found in Gull Lake. The lake is very popular and extensively developed, with over 25 homes/cabins per shoreline mile and a number of resorts. Summer recreational use on Gull Lake is high, with boating and angling being among the most popular activities. The lake is home to several fishing tournaments throughout the year.

Green Prairie Fish Lake

Green Prairie Fish Lake is a shallow lake located about six miles north of Little Falls near the border of Camp Ripley. The lake is 180 acres in area with a maximum depth of 22 feet. The lake has a sandy bottom with vegetation concentrated closer to the shore. The most recent Lake Management Plan characterizes the shoreline as heavily developed. A state-owned public access and township-owned park are located on the

southwest corner of the lake. Swimmer's itch has been a concern of lake users. Fishing pressure is moderate, with anglers primarily seeking black crappie, walleye and largemouth bass. The management goals for the lake focus on largemouth bass, northern pike, walleye, and bluegills.

Lake Alexander

Lake Alexander is located north of Randall near Camp Ripley and has an area of 2,709 acres with a maximum water depth of 64 feet. The shoreline of the lake is very heavily developed with homes/cottages, resorts and three public accesses. The Lake Andrew Preserve is located along the southern shore of the lake and is owned by the Nature Conservancy.

According to the most recent Lake Management Plan, the primary target fish species is walleye, which account for over 39% of angler pressure. Lake Alexander is managed secondarily for northern pike, muskellunge, largemouth bass and smallmouth bass.

The lake is classified as mesotrophic (having moderate nutrient levels) by the MPCA. Eurasian Watermilfoil, an invasive aquatic plant, is present in Lake Alexander so boaters should be diligent about cleaning their boats.

Wetlands

A variety of wetland types are found within or near the trail search corridor including both Public Waters Inventory (PWI) wetlands, regulated by the DNR, and non-PWI wetlands, regulated by local governments under the Wetland Conservation Act.

Wetlands provide important wildlife and fisheries habitat, flood and erosion control, and ground water recharge. The largest wetlands in the search area are concentrated near the Crow Wing River just south of Pillager and in the southern part of Camp Ripley. The three primary wetland types are shrub swamps, bogs with small segments of wooded swamps.

Water Resource Management Recommendations

Recommendation 1: *Where the trail is close to the Mississippi or Crow Wing Rivers or their tributary streams, provide a permanent vegetative buffer strip and/or other stormwater best management practices (BMPs) between the paved trail and the river. Riparian zones will be planted with grasses, shrubs and trees to help stabilize banks.*

Recommendation 2: *Avoid impacts to bluff impact zones, where present. (For lands within a Shoreland Management District the "bluff impact zone" is the first 20 feet of the 30-foot setback for structures proposed to be built in bluff areas that are located immediately adjacent to an 18 percent or steeper slope. This 20-foot bluff impact area should not be disturbed either by removing the vegetation or by excavation.)*

Recommendation 3: *Strive to limit water crossings and obtain permits for any crossings.*

Recommendation 4: *Efforts will be made to avoid impacting wetlands, however, wetlands will be inventoried and a wetland mitigation plan prepared to address any identified impacted wetlands.*

Recommendation 5: *Avoid impacts to wetlands with MBS Sites of Outstanding or High Biodiversity Significance.*

Recommendation 6: *Avoid impacts to rare (S1, S2, S3) wetland native plant communities and wetlands with rare species.*

Recommendation 7: *Avoid or minimize impacts to Key Habitats as defined in Tomorrow's Habitat for the Wild & Rare – An Action Plan for Minnesota Wildlife. If avoidance is not possible then impacts to the features that make the plant community a Key Habitat must be minimized. This may include avoiding certain times of year for construction activities to avoid critical nesting periods, for example.*

Wildlife

The trail search area is home to many different species of wildlife. The presence of four different ecological subsections makes the trail search area an important transition zone. The many rivers, lakes and wetlands provide habitat for aquatic and bird species. Wildlife management areas, state parks, waterfowl production areas and scientific and natural areas protect many habitats needed to sustain the diverse wildlife present in the trail area.

Mammals

Common mammal species in the area include: white-tailed deer, coyote, fox, badger, black bear, raccoon, mink, squirrels, skunks, opossum and weasels. Beaver, muskrat and river otter may be seen near water. The diverse landscape in the search area provide habitat for many different types of mammal species.

Birds

The Mississippi flyway is a heavily used route for migrating waterfowl that follows the Mississippi River to the Gulf of Mexico. Birds of prey such as bald eagle, red-shouldered hawks and owls can be seen in the area. Habitat for some special concern species such as warblers, northern goshawk, sandhill crane, upland sandpiper, yellow rail, American bittern can be found in the search area.

Both Crow Wing and Charles A. Lindbergh State Parks provide habitat for many different types of birds. At Crow Wing State Park, eagles and hawks can be seen flying in the riverway. Many species of waterfowl make their home in the wetlands and waterways. In Charles A. Lindbergh State Park, the Mississippi River provides habitat for waterfowl such as mallard, teal, wood duck, mergansers, goldeneye and Canada geese. Warblers and other songbirds can be found along the Mississippi River and Pike Creek shorelines.

Reptiles and Amphibians

Turtle species in the search area including the common snapping turtle (a special concern species in Minnesota), painted turtle, northern map turtle and spiny softshell turtle. The Blanding's turtle, a threatened species in Minnesota, can also be found in the search area. Blanding's turtles are most threatened by habitat loss and degradation of uplands and wetlands and road mortality. Population growth for Blanding's turtle is also limited by the fact that the species has relatively low mobility, high juvenile mortality rate, and low reproductive potential. Gravel disturbance during the nesting period is also a factor.

Numerous snakes can be found in the trail search area. Some of the common snake species include plains hog-nosed snakes, eastern hog-nosed snakes (a special concern species), red-bellied snakes, plains gartersnakes and common gartersnakes. The prairie skink can also be found in the area. Prairie skinks are often found along stream banks or openings in pine barrens, oak savannas and grasslands.

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Amphibians in the area include the eastern tiger salamander, blue spotted salamander, American toad, eastern newt and eight species of frogs. Northern leopard frogs are commonly found near water bodies and wetlands. Other frog species in the area include Cope's grey treefrogs, grey treefrogs, spring peepers, boreal chorus frogs, green frogs, mink frogs and wood frogs.

Fish

Good water quality in the Upper Mississippi River supports great game fish populations including muskellunge, northern pike, smallmouth bass, and walleye. Largemouth bass, bluegill, black crappie, yellow perch and white sucker among many other fish populations can also be found in the Mississippi River within the trail study area.

The Crow Wing River is not generally known as a good game fish river due to its sandy bottom and limited cover. The two most common fish species found are northern redhorse and white sucker, both rough fish. Walleye fry are stocked in Sylvan reservoir. Populations of northern pike, smallmouth bass, bluegill, black crappie are among some of the fish populations that can be found in the Crow Wing River.

Lake Alexander is a popular lake for boating and fishing. It supports large populations of many different trophy species. Within the last ten years the lake has been stocked with muskellunge, walleye and tullibee, although the tullibee stocking appears to have had little effect on the population. Black crappie are a popular species for winter angling. Populations of northern pike, smallmouth bass, largemouth bass, yellow perch and many panfish can also be found in Lake Alexander.

Two designated trout streams can be found in or near the search area. These streams include Nelson Hay Creek and Camp Ripley Brook. Nelson Hay Creek is not actively managed for any species. Brook trout can be found in Camp Ripley Brook.

Invertebrates

Freshwater mussels play a vital role in marine ecosystems in Minnesota. These mollusks live on river and lake bottoms and filter oxygen and particles from the water. They modify the habitat around them to make it more suitable for both themselves and other aquatic organisms. These invertebrates are also an important food source for many other animals such as several species of fish, muskrats and raccoons.

Mussel populations in Minnesota are threatened by dams fragmenting river connections; stream channelization, dredging and streambed destabilization; commercial harvesting; non-point and point water pollution and sedimentation due to erosion; and zebra mussel infestations in the Mississippi River.² Four mussel species of special concern have been found in the search area, the Black Sandshell, Creek Heelsplitter, Mucket and Spike.

Species in Greatest Conservation Need

Species in Greatest Conservation Need (SGCN) have been identified and are classified as such on a statewide basis. "Key habitats" are the habitats or native plant communities that SGCN rely on; these are defined by ECS subsection. SGCN include only animal species that meet the following criteria:

² <http://www.dnr.state.mn.us/mussels/index.html>

- Species whose populations are identified as being rare, declining, or vulnerable in Minnesota, including species with legal protection status (federal or state endangered or threatened species);
- Species at risk because they depend upon rare, declining, or vulnerable habitats;
- Species subject to specific threats that make them vulnerable (i.e. invasive species);
- Species with certain characteristics that make them vulnerable (i.e. highly localized distribution);
- Species with stable populations in Minnesota that are declining outside of Minnesota.

There are 89 SGCN in the Pine Moraines and Outwash Plains subsection, including 29 species that are federal or state endangered, threatened or of special concern. Nearly two-thirds of these species are birds; reptiles, mammals and insects are also well-represented. This subsection is one of the most important areas in Minnesota for red-shouldered hawks. Areas near the search area such as State Parks, State Forests, Scientific and Natural Areas and Wildlife Management Areas are important for SGCN. Key habitats in this subsection include coniferous forest, shrub or wooded upland, nonforested wetland, and rivers.

In the Hardwood Hills subsection, there are 85 SGCN, 28 of which are listed as federal or state endangered, threatened or of special concern. The majority of these are bird species; mammals and reptiles are also common. This subsection is an important migratory corridor for forest birds and waterfowl and includes numerous state WMA and federal WPAs that are important for SGCN. Key habitats include upland deciduous forests (oak, aspen and hardwood), oak savanna, shrub or wooded upland, nonforested wetland, shallow lakes, and rivers.

There are 97 SGCN in the Anoka Sand Plains subsection, including 39 species that are federal or state endangered, threatened or of special concern. Fifty-six of the 97 SGCN in this subsection are birds; mammals, reptiles and insects are also well-represented. Dry prairie associated with wetlands, rivers and streams provides important habitat for Blanding's turtles and hognose snakes. Other key habitats include oak savanna, nonforested wetlands, grassland, dune and cliff/talus shorelines, shallow lakes and rivers.

The Mille Lacs Uplands subsection contains 128 SGCN, including 58 species that are federal or state endangered, threatened or of special concern. The majority are birds, but mammals, amphibians, reptiles and insects are also common. Only a small portion of the western edge of this subsection lies within the search corridor. Key habitats include upland deciduous and coniferous forest, lowland coniferous forest, nonforested wetlands, dune and cliff/talus shorelines, deep lakes and rivers.

A complete list of SGCN and key habitats by subsection is included in *Minnesota's State Wildlife Action Plan: Tomorrow's Habitat for the Wild and Rare* (see [plan online](#), <http://www.dnr.state.mn.us/cwcs/index.html>).

Threatened, Endangered and Special Concern Species

The Minnesota Natural Heritage Information database was used to identify animal and plant species that are threatened, endangered or of special concern within the vicinity of the trail search area, as well as native plant community occurrences that are recorded in the Natural Heritage Information System. These species are protected by state law, and protecting their habitat must be considered during trail planning, development and maintenance. These plant and animal species, along with terrestrial plant communities and animal assemblages of concern are listed in Appendix A.

Wildlife and Habitat Recommendations

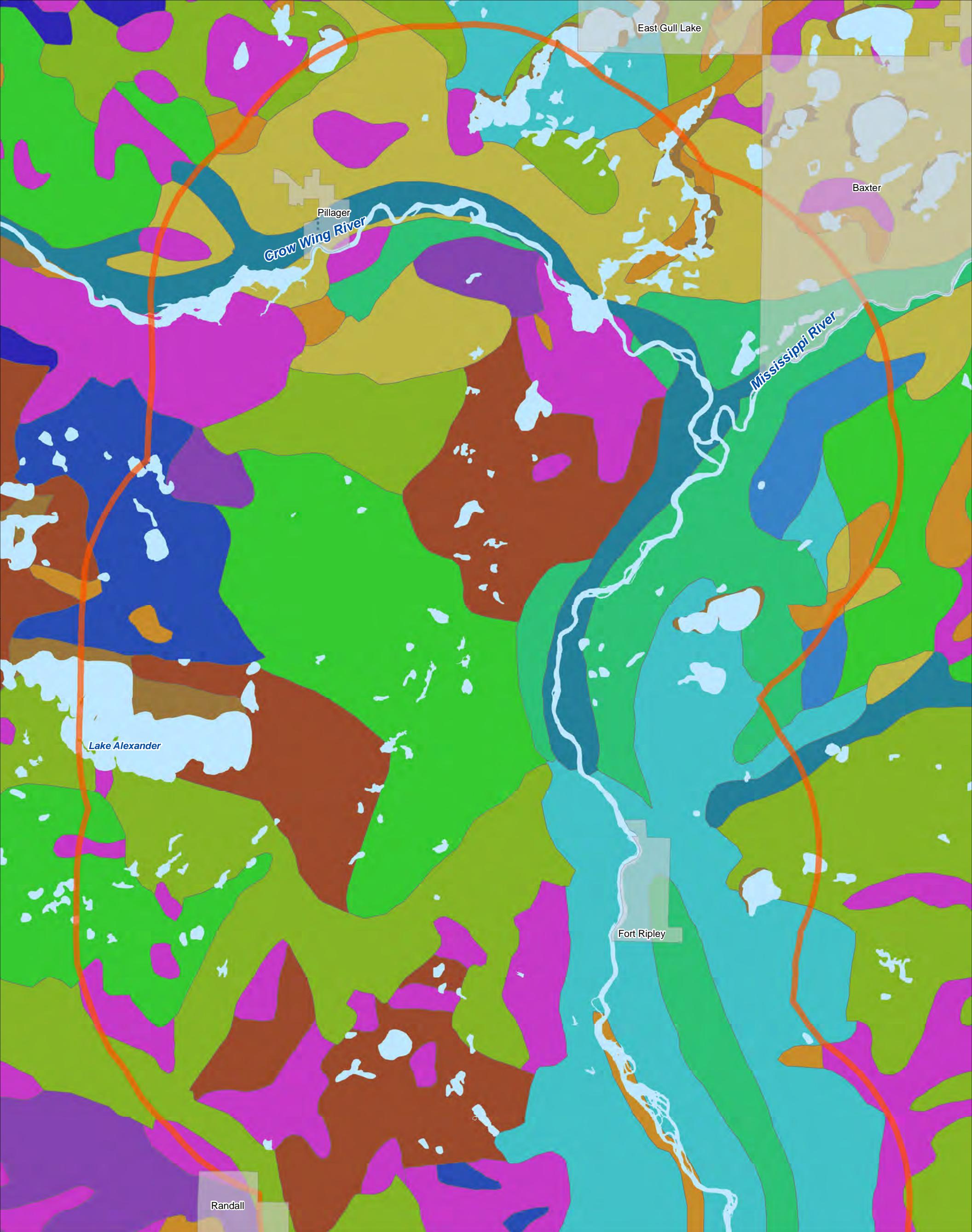
Recommendation 1: *Avoid threatened and endangered species and minimize any impacts to special concern species in trail planning, development and maintenance.*

Parks and Trails staff will keep current with Natural Heritage data, consult with regional plant ecologists and land managers, and perform on-the-ground surveys during appropriate identification times when an exact trail alignment is proposed.

Recommendation 2: *Wildlife may be affected by the trail and recreational uses.*

Species with limited mobility, sensitive habitat requirements, or that are vulnerable to disturbance or exploitation require consideration in trail planning. A trail bisecting otherwise intact habitat can be both a barrier to movement that could fragment populations of smaller species (salamanders, invertebrates, etc) and a significant source of mortality for others (Blanding's turtles, various snake species). Design considerations may include:

- *Avoiding critical habitats;*
- *Installing bridges or culverts in upland settings to provide wildlife travel ways;*
- *Considering fish and wildlife needs when designing water crossings,*
- *Using wildlife-friendly erosion mesh rather than nylon, especially in locations with existing habitat that hosts vulnerable species such as snakes, birds, and small mammals;*
- *Managing and enhancing habitats along the proposed trail corridor, and*
- *Using native species, consistent with the natural communities of the area, when re-vegetating areas disturbed by trail construction and maintenance.*

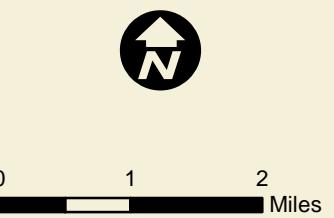


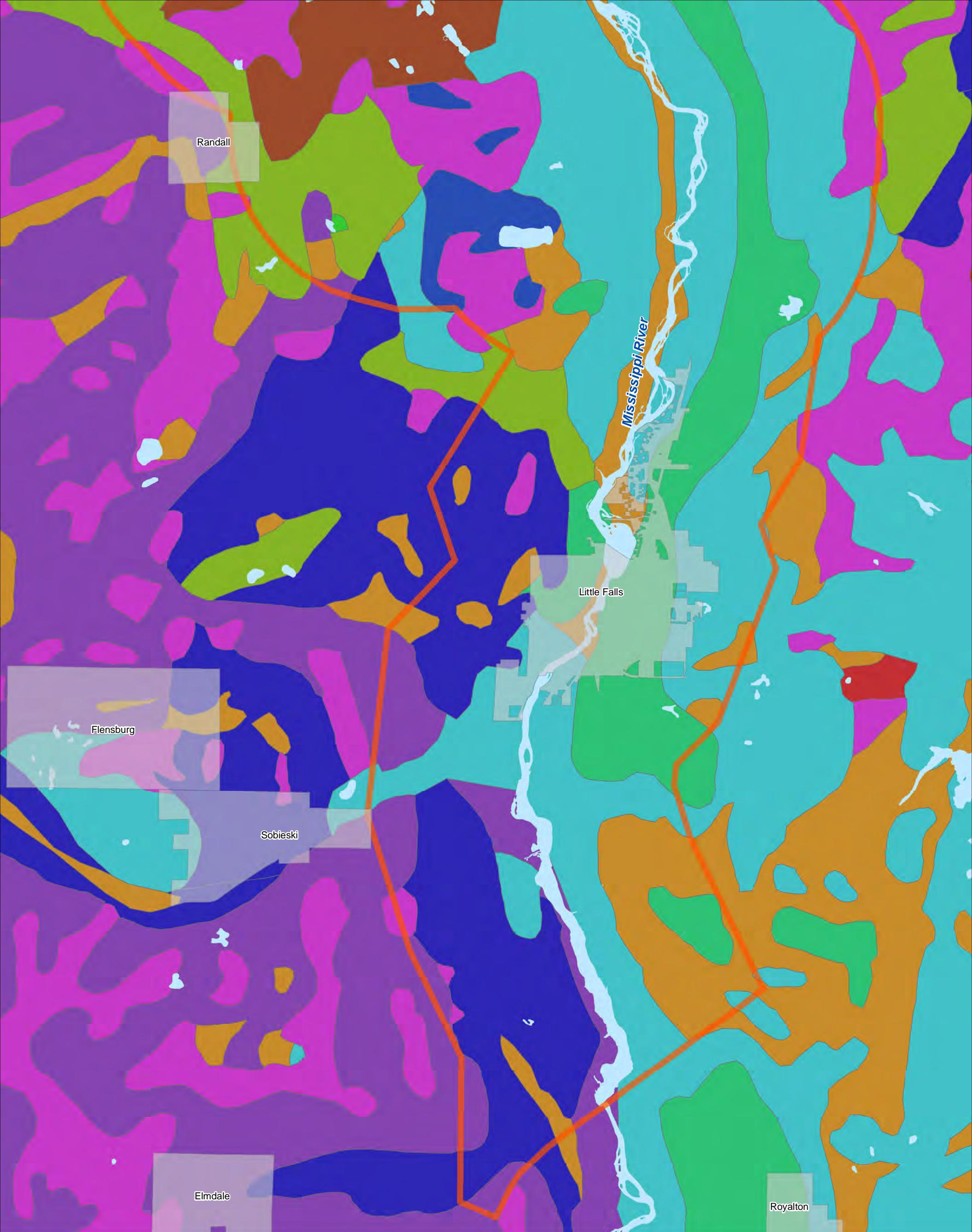
Legend

- [Green square] Prairie
- [Orange square] Wet Prairie
- [Blue square] Brush Prairie
- [Dark Blue square] Aspen-Oak Land
- [Light Green square] Aspen-Birch (trending to Conifers)
- [Teal square] Oak Openings and Barrens
- [Purple square] Big Woods - Hardwoods (Oak, Maple, Basswood, Hickory)
- [Dark Green square] Mixed Hardwood and Pine (Maple, White Pine, Basswood, etc.)
- [Dark Blue square] White Pine
- [Brown square] Mixed White Pine and Red Pine
- [Yellow square] Jack Pine Barrens and Openings
- [Pink square] Conifer Bogs and Swamps
- [Teal square] River Bottom Forest
- [Brown square] Lakes (open water)

Camp Ripley/Veterans State Trail

Figure 22: Marschner's Presettlement Vegetation

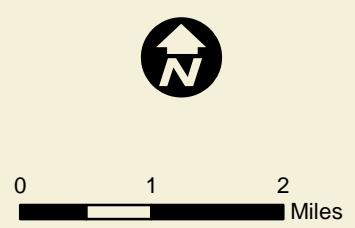


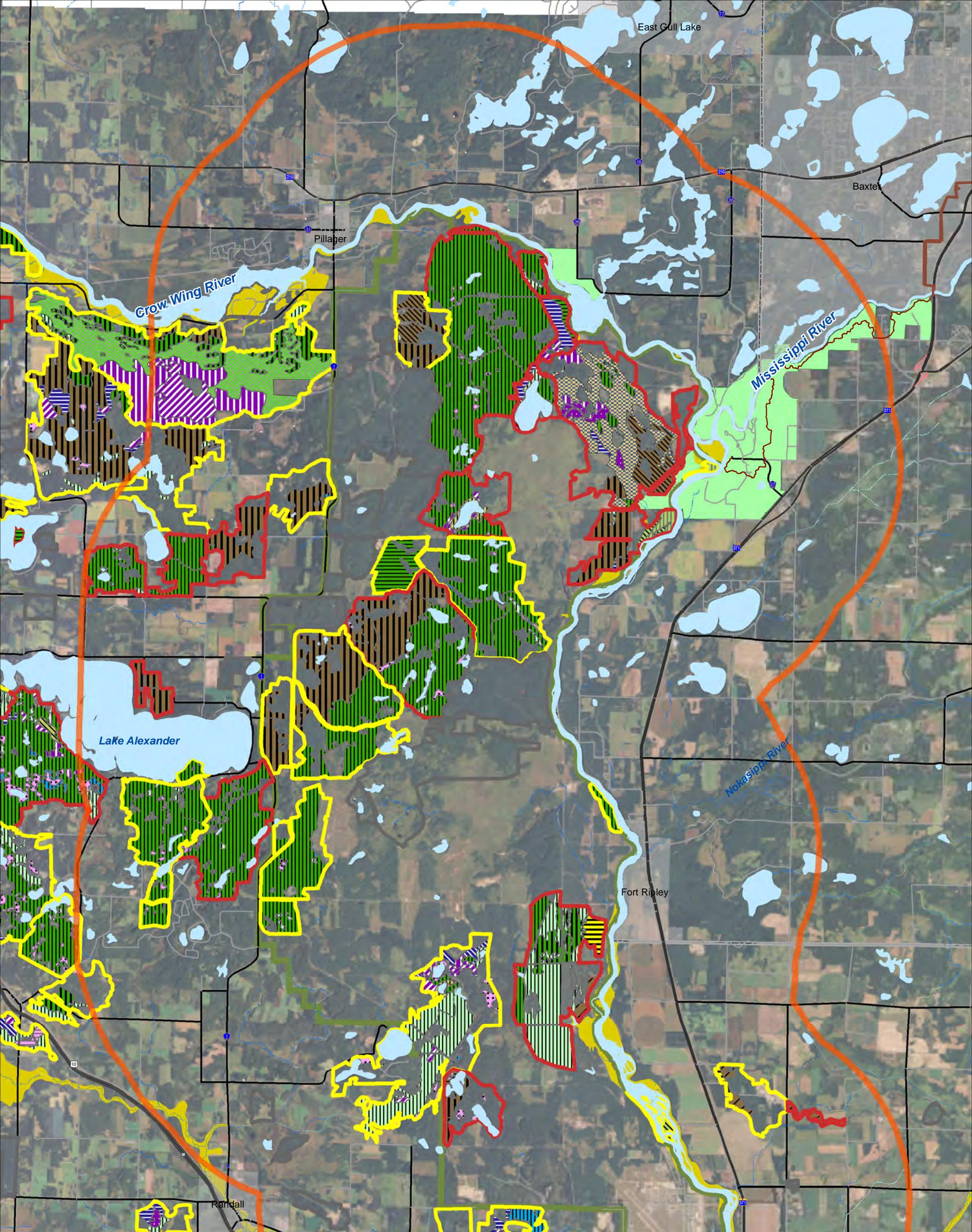


Legend

- Undefined
- Prairie
- Wet Prairie
- Aspen-Oak Land
- Aspen-Birch (trending to hardwoods)
- Aspen-Birch (trending to Conifers)
- Oak Openings and Barrens
- Big Woods - Hardwoods (Oak, Maple, Basswood, Hickory)
- Mixed Hardwood and Pine (Maple, White Pine, Basswood, etc.)
- White Pine
- Mixed White Pine and Red Pine
- Conifer Bogs and Swamps

Figure 23: Marschner's Presettlement Vegetation





Legend

Native Plant Communities	
■	Other
■	APn81b, Poor Tamarack - Black Spruce Swamp
■	APn91a, Low Shrub Poor Fen
■	APn91b, Graminoid Poor Fen (Basin)
■	FDC23a2, Jack Pine - (Yarrow) Woodland: Bur Oak - Aspen Subtype
■	FDC24a, Jack Pine - (Bush Honeysuckle) Woodland
■	FDC25b, Oak - Aspen Woodland
■	FDC34a, Red Pine - White Pine Forest
■	FDC34b, Oak - Aspen Forest
■	FFn67a, Black Ash - Silver Maple Terrace Forest
■	FFn67a, Silver Maple - (Sensitive Fern) Floodplain Forest
■	FPn73a, Alder - (Maple - Loosetrife) Swamp
■	FPn82, Northern Rich Tamarack Swamp (Western Basin)
■	FPS63a, Tamarack Swamp (Southern)
■	LKI54a, Clay/Mud Shore (Inland Lake)

Native Plant Communities	
■	MHC26, Central Dry-Mesic Oak-Aspen Forest
■	MHC36, Central Mesic Hardwood Forest (Eastern)
■	MHC47a, Basswood - Black Ash Forest
■	MMS_CX, Meadow - Marsh - Fen-Swamp Complex
■	MRn83, Northern Mixed Cattail Marsh
■	MSM_CX, Meadow - Shrub Swamp - Marsh - Wet-Mesic Hardwood Complex
■	OPn81a, Bog Birch - Alder Shore Fen
■	OPn92, Northern Rich Fen (Basin)
■	OW, Other Water Body
■	UPs13b, Dry Sand - Gravel Prairie (Southern)
■	UPs14b, Dry Sand - Gravel Oak Savanna (Southern)
■	WFn55, Northern Wet Ash Swamp
■	WFn64, Northern Very Wet Ash Swamp
■	WMn82a, Willow - Dogwood Shrub Swamp
■	WMn82b, Sedge Meadow

Areas of Biodiversity Significance

- High
- Moderate
- Below

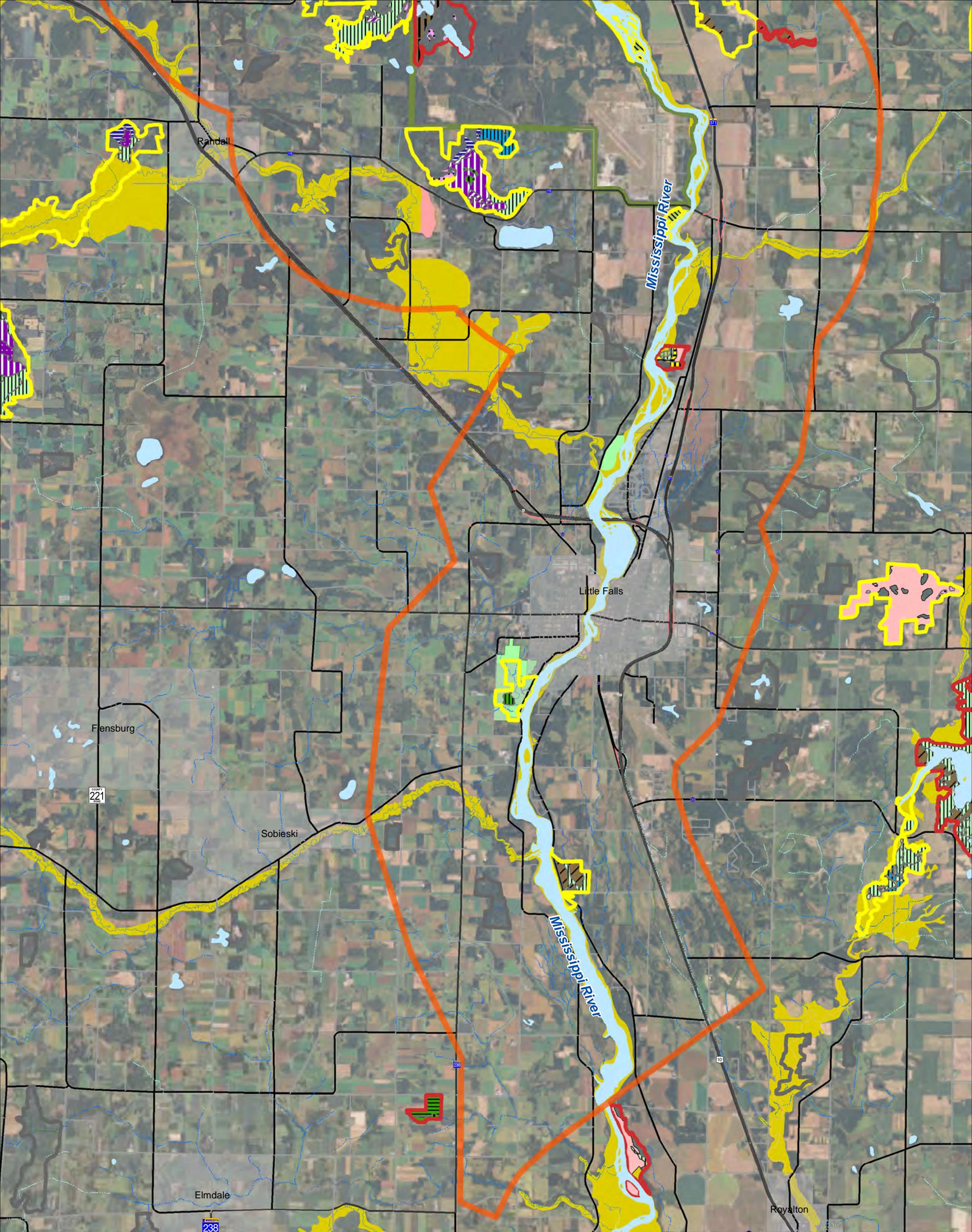
Camp Ripley/Veterans State Trail

Figure 24: Native Plant Communities



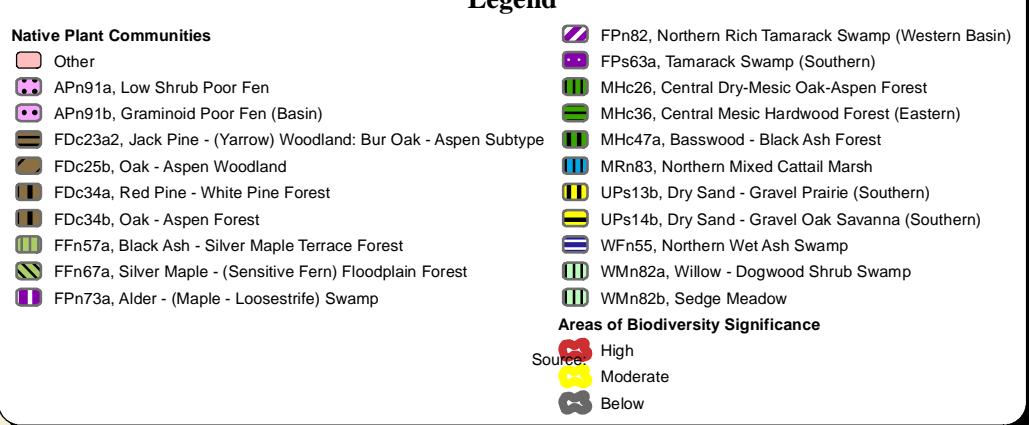
0 1 2 Miles





Camp Ripley/Veterans State Trail

Figure 25: Native Plant Communities



0 1 2 Miles

6. Cultural and Socioeconomic Resources:

Historical and Archaeological Context

The Upper Mississippi River valley has long been a place of habitation and a crossroads for many peoples, from the indigenous inhabitants to Euro-American explorers, soldiers and settlers. This section discusses the historical and cultural resources of the region, and is organized thematically rather than geographically, according to these broad interpretive themes:

- Presettlement Period
- Exploration and the Fur Trade
- Settlement and logging
- Transportation and power
- Camp Ripley development

Presettlement Period³

The **Woodland Period** (800 B.C. to Historic Contact) brought the beginnings of plant domestication and more intense settlement patterns, especially near stream and lake areas. The development of ceramics and mound construction for burial activities were significant advances in this time period.

The present-day locations of Little Falls and Crow Wing State Park were important centers of trade and occasional conflict prior to European settlement. The falls of the Mississippi were known to the Ojibwe as KaKaBikans (the little squarely cut-off rock). The confluence of the Mississippi and Crow Wing rivers is located along multiple routes of travel and trade. The first evidence of habitation dates to people of the **Woodland Tradition**, sometime after 700 B.C., who left burial mounds and pottery behind.

Both Dakota and Ojibwe people lived in the Crow Wing area in more recent times. Before European settlement, the Ojibwe moving south and west from the shores of Lake Superior began forcing the Dakota out of the region. Ojibwe peoples had largely displaced Dakota in the northeast by the mid-1700s. One of the last battles in this conflict was fought in 1768 within the present boundaries of Crow Wing State Park.

Numerous archaeological site are found in and around Camp Ripley and throughout the Mississippi River valley, dating from both the presettlement and the historic periods.

Exploration and the Fur Trade

The **Historic Contact** period began in the late 1600s, when French fur traders moved into Minnesota followed in turn by English and American traders. Early explorers traversed the region and described the falls of the Mississippi (present-day Little Falls) in their journals. Lieutenant Zebulon Pike (1805), leading the first official American

³ <http://www.osa.admin.state.mn.us/mnarch/mnoverview.html>

expedition up the Mississippi, called it “a remarkable rapid in the river, opposite a high piney island.” Joseph Nicollet (1837) called it “petite chutes.” Henry Schoolcraft and J.C. Beltrami also noted the falls. The diaries of fur traders and missionaries also gave vivid accounts.

Records indicate several trading stations of fur traders at Crow Wing, beginning in 1826. By the 1840s, the village of Crow Wing had become “the center of Indian trading for all the upper country, the general supply store being located at this place... In 1866, the settlement and village contained seven families of whites, and about twenty-three of half-breeds and Chippewas, with a large transient population... The entire population was, from reliable estimates, about six hundred. Crow Wing, as a business point, has passed away, most of the buildings having been removed to Brainerd, and the remaining ones destroyed.” (*History of the Upper Mississippi Valley*, 1881, pp. 637-38). The village and post became the nucleus of the Crow Wing State Park, established in 1959, and comprise a National Register historic district.

The Chippewa Agency site, located near the confluence of the Gull and Crow Wing rivers, was another important prehistoric habitation and historic trading site. The site, now owned by Minnesota Power, includes earthen mounds and much evidence of Middle and Late Woodland occupation. The Chippewa Agency operated from around 1851 to 1868 when most of the Ojibwe in the area were relocated to the White Earth Reservation.

The major transportation routes of the 19th century were the Red River Trails, developed and used by traders travelling by oxcart between St. Paul and the Selkirk settlements of the upper Red River Valley (near present-day Winnipeg). The Red River carts hauled goods from St. Paul to the settlements and returned loaded with furs. The wooden two-wheeled oxcarts, although crudely made and noisy, were efficient – a single ox could pull a cart with a load of up to 900 pounds. The drivers were primarily the Metis people of the Red River valley, descended from early French fur traders and native Cree and Ojibwe women.

Several trail routes were established from Pembina, at the U.S. – Canadian border, to St. Paul. The northernmost, known as the Woods Trail, traversed the Crow Wing area. The village of Crow Wing became a transfer point, where Canadian goods carried south from Pembina were exchanged for American merchandise carted north from St. Paul. A well-preserved fragment of the trail and the old Mississippi River crossing, are found in Crow Wing State Park.

Settlement and logging

The Ojibway Indian treaty of 1847 opened the area around Crow Wing to settlement. In 1849, Fort Ripley was established on the west bank of the Mississippi, within the current boundaries of Camp Ripley. As Minnesota’s second military post, it was constructed to establish a military presence on what was then the frontier of the Minnesota Territory and to serve as a buffer between the Dakota and Ojibwe, as well as a group of Winnebago (Ho-Chunk) being relocated to a nearby reservation. The fort remained in place until 1877, when several of the buildings were destroyed by fire, and it was determined to be no longer needed on the western frontier.

In the mid-1840’s settlers began to arrive in the Little Falls area. The milling power obtainable from the “little falls” in the Mississippi River attracted the attention of entrepreneurs.

"On October 1, 1849, the Little Falls Mills and Land Company was formed and a dam was built, the first in a succession of four dams, each an improvement over its predecessor... Construction of the 1887 dam brought the boom era. Little Falls was literally "turned on" with electricity for powering the industries that were arriving. The Pine Tree Lumber Company operated by Charles Weyerhaeuser and R.D. Musser, and Hennepin Paper Company were recipients of the logs driven down river from the northern pineries. Immigrants arrived in large numbers, establishing a diverse ethnic community.⁴

Transportation and power

The Fort Ripley Military Road was developed in the 1850s between Point Douglas at the confluence of the St. Croix and Mississippi Rivers and the fort. It was one of seven military wagon roads developed in the 1850s, in part to encourage the dissemination of settlers throughout the Minnesota Territory and facilitate trade with the Indians. Several fragments of the road still exist in Morrison County. In 1857, the federal government constructed a new road from Fort Ripley northward through Crow Wing.

The coming of the railroads brought an end to the use of the Red River Trails. In 1874, the Northern Pacific Railroad bypassed the Village of Crow Wing and located its depot at Brainerd, a few miles upriver. Within a few years, the village was deserted. The Northern Pacific connected Sauk Rapids and points south with Duluth and Moorhead by 1880.

A series of dams and hydroelectric power plants were constructed on the Mississippi River and its tributaries beginning with the first Little Falls Dam in 1849. These include:

- The Blanchard Dam, built in 1911 at the Soo Line (former) railroad bridge, is considered eligible for listing on the National Register because it played an important role in development of Minnesota Power (the company still owns and operates the dam) and is the only state example of outdoor powerhouse design.
- The Sylvan Dam / Hydroelectric Development was developed to supply power for mining and new development on the Cuyuna Iron Range, including the towns of Brainerd, Crosby, Ironton, and Deerwood. The Cuyuna Range Power Co. built the dam and hydroelectric plant in 1912-13. It is considered eligible for National Register listing.
- The Pillager Hydroelectric Plant was built by the Cuyuna Range Power Co. in 1917 to supplement the power produced by the Sylvan Dam.
- The current Little Falls Hydroelectric Plant was used for power generation as early as the 1890s, but extensively modified through the 1930s.

Camp Ripley development

Camp Ripley, now the largest National Guard training base in the nation, was established in 1930 about six miles north of Little Falls, near the site of the former Fort Ripley. Most of the buildings at Camp Ripley were built between 1930 and 1942,



Little Falls Dam and Hydroelectric Plant

⁴ An Informational Guide to Little Falls, Minnesota, http://www.cityoflittlefalls.com/images/pdfdocuments/LittleFalls_ResidentGuide.pdf

CAMP RIPLEY/VETERANS STATE TRAIL

mainly with labor provided by Depression work relief programs. Most of the buildings at the camp were designed by the camp's architect, Philip C. Bettenburg. The camp expanded north through the 1960s, and today encompasses about 53,000 acres.

As part of this phase of development, a new bridge (Bridge 4969) was designed by the Minnesota Department of Highways and constructed in 1930 to carry Trunk Highway 115 and a Great Northern Railroad track spur across the Mississippi River. A series of stone walls around the camp's perimeter were designed by Bettenburg and constructed between 1934 and 1942. The walls were constructed of a black stone known as Little Falls Black Granite, and laid without mortar (mortar was used on the gateposts).

In 1994 the SHPO determined that both the Camp Ripley Entrance Walls and Bridge 4969 were eligible for listing on the National Register. The walls are considered a "distinctive and well-preserved example of the 'National Park Service Rustic Style' with an interesting military motif." The excellent quality of the stonework, the use of indigenous materials and the labor-intensive construction techniques are significant. The bridge is considered significant because of its role in the development of the camp and because of additional stonewalls added to the structure in 1935.



Camp Ripley entrance walls and gate

Representative Historic Sites and Districts

As mentioned above, many of the bridges and dams throughout the search corridor are considered eligible for listing on the National Register of Historic Places. However, relatively few sites are officially listed outside of the City of Little Falls. The listed sites and districts within or near the trail search corridor include the following:

Cass County

- The Chippewa Agency Historic District – includes significant cultural resources including building depressions and fields of the agency, remains of a prehistoric village, and several burial mounds. Owned by Minnesota Power.

Crow Wing County

- Crow Wing State Park Historic District – includes Precontact, fur trade and lumbering era resources. The boundary follows the 1970 park statutory boundary and includes 15 cultural resources, mainly archaeological sites.
- Red River Trail – Crow Wing Section (within State Park) – a 10-foot side corridor one and a half miles long, extending through the town site to a ford site on the Mississippi.
- Northern Pacific Railroad Shops Historic District, Brainerd – a large-scale repair and service operation for railroad headquarters, built 1882-1925

Morrison County

- Little Falls Commercial Historic District – commercial buildings (1887-1936) largely of local brick with granite trim, reflecting the city's rise as a lumbering, agricultural and tourism center. Many individual buildings in Little Falls are also listed.
- Charles A. Lindbergh State Park WPA/Rustic Style Historic Resources – includes the log and stone buildings/structures constructed 1938-39 by WPA workers

CAMP RIPLEY/VETERANS STATE TRAIL

on parkland donated in memory of U.S. Congressman Charles A. Lindbergh Sr. by his family, including his son, famed aviator Charles Jr.

- Charles A. Lindbergh House (National Historic Landmark and State Historic Site) – frame summer house built in 1906-07 for U.S. Congressmen Charles A. Lindbergh Sr.; occupied until 1920 by his son Charles Jr.
- Our Lady of Angels Academy – a brick parochial boarding school built in 1911 and enlarged in 1931 to serve elementary students, located on the Mississippi River north of Little Falls.
- Little Elk Heritage Preserve – a 93-acre tract that includes a rich collection of archaeological sites at the confluence of the Little Elk and Mississippi rivers about two miles north of the City of Little Falls. It includes the remains of Fort Duquesne, a French wintering fort probably built ca. 1752 by Joseph Marin to control Mississippi headwaters trade. The preserve also includes an 1800s Ojibwe Mission and a former settlement called Elk City. The preserve is owned by DNR and managed as a satellite unit of Charles A. Lindbergh State Park; it is currently closed to the public.
- Fort Ripley archaeological site on Camp Ripley property.

Socioeconomic Resources:

The table below shows the population changes in the counties and cities in the trail area between 1990 and 2010. All three counties and each city except for Fort Ripley have experienced population increases in the past two decades. The City of Baxter has grown nearly 37% and Crow Wing County has grown over 13%.

As of March 2012, the unemployment rates for the trail area were as follows: Cass County, 11.4%; Crow Wing County, 9.3%; and Morrison County, 9.1%. The statewide unemployment rate for Minnesota during March 2012 was 6.5%. The unemployment rate for Brainerd was higher than the statewide and surrounding county rates at 14.2%. These rates are not seasonally adjusted.

Tourism, service industries, health care and education are the main industries for the trail area. Nearly all of the communities offer opportunities for lodging, shopping and food services. The Camp Ripley/Veterans State Trail could provide many new opportunities for increased tourism in the area, bringing in outside money and positive financial impacts to the area.

Table 1: Population Change, 1990 - 2010

County or City	Year 1990	Year 2000	Year 2010	Percent Change 2000-2010
Cass County	21,791	27,150	28,567	5.22%
Crow Wing County	44,249	55,099	62,500	13.43%
Morrison County	29,604	31,604	33,198	5.04%
Brainerd	12,353	13,178	13,590	3.13%

County or City	Year 1990	Year 2000	Year 2010	Percent Change 2000-2010
Baxter	3,695	5,555	7,610	36.99%
Pillager	306	420	469	11.67%
Randall	571	535	650	21.5%
Fort Ripley	92	74	69	-6.76%
Little Falls	7,232	7,719	8,343	8.08%

Financial Impacts of Trail Development

Communities that support trails and respond to the needs of trail users have seen positive effects on their local economies. DNR trail studies indicate that tourists attracted to the trails use local facilities for eating, shopping and lodging.

The DNR estimates that for five trails surveyed between 2007 and 2009, summer spending totaled nearly \$5 million⁵ Most of that spending (95% in total) comes from users who reside outside the local economy of the trail, and the spending represents “new” dollars to the local economy. Trail users who have traveled a long distance to the trail, not surprisingly, outspend local users by a factor of about 20 on a daily basis, primarily on food, travel, and overnight accommodations.

Trails also appear to increase property values and enhance the quality of life in the communities through which they run. Homes close to trails have become increasingly desirable. A number of studies of existing bike trails have shown that the average value of property near the trails is similar to or slightly above the value of other properties in the area.⁶

Trails also yield significant public health benefits. There is growing interest in the multiple benefits to public health that can result from the use of trails for outdoor recreation. Trail use has been shown to be valuable not only in combating obesity and related public health problems but also in reducing stress, improving mental health, and encouraging healthy lifestyles. To the extent that trail use replaces motor vehicle use, it can also result in monetary savings from lower air pollution, congestion, and oil imports.

⁵ Kelly, Tim. “Status of Summer Trail Use (2007-2009) on Five Paved State Bicycle Trails and Trends Since the 1990s.” Trails surveyed in the 2007-2009 period were the Paul Bunyan, Heartland, Root River, Douglas, and Paul Bunyan – Bemidji State Park segment.

⁶ See “Home Sales Near Two Massachusetts Rail-Trails,” 2005.

<http://www.americantrails.org/resources/dellapennasales.html>

7. Implementation

Chapter 86A.09 of Minnesota Statutes requires that a master plan be prepared for state trails before trail development can begin – although planning, design, and land acquisition can take place before the plan is complete. Trail users and trail advocates need to recognize that the completion of a master plan is only one step in what typically is a long process of implementation.

This section outlines the next steps that need to be accomplished before trail construction. There are four primary task areas that need to be completed before the Camp Ripley/Veterans State Trail can be constructed.

- Additional feasibility study and/or alternatives analysis (beyond the initial evaluation of alignment options for each segment/sub-segment outlined in this plan) if needed
- Landowner contact and land acquisition
- Preliminary engineering, environmental approvals, funding
- Final design and construction documents

Overview of the Implementation Process

Throughout the planning process for this trail, local trail advocates have asked for guidance as to how to implement the plan – that is, how to establish feasible alignments, contact landowners, and work with DNR regional staff on land acquisition. The process can be lengthy and complex.

The first generation of state trails in Minnesota were developed primarily on abandoned rail rights-of-way that state or local governments were able to acquire. Since that time, most of the remaining abandoned rail rights-of-way in the state have reverted to private ownership. The next generation of trails must cross a variety of public and private lands, making them much more challenging to develop than the rail-trails of the past.

DNR Parks and Trails staff work with individual landowners to acquire land or easements on a willing seller basis, keeping in mind that a series of acquisitions on adjoining properties will be needed in order to create a trail segment with a logical beginning and end. In other words, a trail segment should begin at an existing park or town center that can serve as a trailhead, preferably with parking and restroom facilities, and end at some type of destination – a city, a park, a wildlife preserve, or a historic site.

In this process, DNR acquisition and development staff frequently work with city and county governments, conservation organizations, and local trail interest groups to assess the feasibility of a particular trail alignment. Acquisition is done on a willing seller basis. The DNR strongly discourages local governments from using other means.

Land can be acquired or otherwise set aside for trail development through a variety of methods:

- A trail may be located on non-DNR public land, such as county or city-owned land, through a cooperative agreement.

- A local government or not-for-profit organization can acquire land from a willing seller and then sell it to the DNR.
- Local interest groups and/or DNR staff may make the initial contact with landowners, then DNR staff will assess the feasibility of a particular trail alignment and complete the land acquisition.

No matter which method is used, advance coordination with DNR staff is essential in order to ensure that the selected trail alignment is feasible to develop.

In the course of trail implementation, it may become apparent that a needed trail alignment will not be obtainable for some time – for example, until a parcel is sold or passed to another family member. In such situations, it may be advisable to assess the feasibility of **interim routes on road shoulders or on lightly-traveled streets**. Street routes may be particularly important in cities where there is little undeveloped or publically-owned land available.

The following is a typical sequence of events in trail planning and development. However, the steps will likely overlap and the process will often require several rounds of feasibility assessment and landowner contacts.

- **Complete the master plan.** The plan identifies a broad search corridor for the trail, within which one or more alternative alignments are identified. The intent of the plan is to provide flexibility while identifying the most feasible alignments, rather than “locking in” a specific route.
- **Explore feasibility of each alignment.** Assess land ownership, road right-of-way width (is there enough room for a trail within the right-of-way?), connectivity, and physical conditions such as slope, wetlands and natural and cultural resources. The alignment must allow state and federal design guidelines and rules to be met, including trail width, shoulders, curvature, accessibility, etc. Therefore, it is important for local governments and trail groups to coordinate their efforts with DNR staff.
- **Initial informal landowner contact.** It is often preferable for landowners to be contacted by local trail supporters rather than DNR staff. Landowner concerns frequently relate to privacy, safety and liability, and there are many information resources available to address these concerns.
- **Formal landowner contact; complete acquisition process.** As mentioned above and with proper coordination, DNR or other entities may take the lead on land acquisition.
- **Trail engineering and design.** The design process offers a final opportunity to assess feasibility, including the need to avoid sensitive natural or cultural resources and address constraints such as wetlands or steep slopes. Trail alignments may shift during the design process. Also note that design standards may differ depending on the funding source for the trail – for example, MnDOT trail standards may differ from DNR standards.
- **Construction** on one or more segments, while the processes of negotiation and design continue on others.
- **Ongoing maintenance and stewardship.** Trail associations often act as “eyes on the trail” to monitor conditions, notify DNR of concerns and volunteer on

BASIC DESIGN STANDARDS FOR PAVED, SHARED-USE STATE TRAILS

The following standards briefly highlight key points from the DNR publication *Trail Planning, Design and Development Guidelines*. See the full document for more details on the design of many types of trails.

- Pavement width: 10 feet is typical; 12 feet an option in high-use areas, 8 feet is an option where limitations exist or lower use is expected.
- Shoulders: 2 to 5 feet, depending on conditions such as side-slopes and hazards
- Maximum grade: 5% except where accessibility exceptions apply.
- 2% maximum cross-slope (the slope from one side of a trail to the other)
- Corners gently curved to meet standards rather than right angles
- 100' wide corridor width where possible to allow for buffers, storm water control and grading.

Trail Planning, Design and Development Guidelines is available through the [DNR](#) or Minnesota's Bookstore, http://www.dnr.state.mn.us/publications/trails_waterways/index.html.

certain efforts. Local units of government may provide trail maintenance via a cooperative agreement.

- **Orientation and Interpretation.** All trails are developed with traffic safety and directional signs. Some trails provide interpretive signs that highlight notable natural and cultural resources and landscape features. An interpretive plan may be developed to identify themes and features that will be interpreted.

Actions Local Governments Can Take to Support Trail Development:

City and county governments can play an important role in trail development through their planning and development review processes, including the following:

- **Integrate the trail concept into community plans**, including comprehensive and land use plans, park and open space plans, and transportation plans.
- Through the local park and trail plan, **link the state trail corridor to local and regional trails**; integrate it with local parks.
- **Seek opportunities to meet multiple goals through trail development** – i.e., to improve water quality, protect natural areas, provide educational opportunities, or provide additional transportation options.
- **Require park and trail set-asides**. Through their subdivision ordinances, cities and counties may require that developers dedicate a reasonable portion of land within a development to public use for such things as streets, utilities, drainage, and parks, trails and recreational facilities.⁷ (If the set-aside is for a state trail, coordinate with DNR staff in advance.)
- **Work with DNR staff to seek funding for state trail acquisition and development.** State trails are typically funded by the State Legislature via bonding money or special appropriations, or through the Legislative-Citizen Commission on Minnesota Resources (LCCMR). Some federal grants are also eligible to be used in conjunction with state funding for development. Transportation enhancement project grants and other transportation funding sources may also be used for state trails. It is important for local government representatives to work closely with DNR regional staff in any pursuit of state trail funding.

The Division of Parks and Trails is currently developing a State Park and State Trail System Plan which will address priorities for trail acquisition and development in light of current funding realities. In addition, the system plan will include an assessment of the status of existing legislatively authorized state trails. This assessment will determine whether some existing legislatively authorized state trails could be better positioned for Legacy grants and other funding as trails of regional significance. The Camp Ripley/Veterans State Trail will be included in this analysis.

⁷ Minn. Stat. §462.358 subd 2b (a) applies to cities; §394.25 subd. 7(c) to counties

- **Seek funding for local and regional trail connections.** Local and regional trails can be funded through a variety of sources, available through DNR and other agencies, including:

Parks and Trails Legacy Grant Program -

http://www.dnr.state.mn.us/grants/recreation/pt_legacy.html

Local Trail Connections Grant Program -

http://www.dnr.state.mn.us/grants/recreation/trails_local.html

Federal Recreation Trail Grant Program (also available for state trails) -

http://www.dnr.state.mn.us/grants/recreation/trails_federal.html

Regional Trail Grant Program

<http://www.dnr.state.mn.us/grants/recreation/trailsRegional.html>

Transportation Enhancement Projects awarded by MnDOT with Federal

Highway Administration funding (also available for state trails)

<http://www.fhwa.dot.gov/environment/te/index.htm>

Safe Routes to School: funding for local trail connections through MnDOT

<http://www.dot.state.mn.us/saferoutes/index.html>

Outstanding Issues for Trail Implementation

This plan presents an initial evaluation of trail alignment options in each segment. Each segment and/or sub-segment will differ in the level of additional feasibility study/alternatives analyses needed, based on the number of potential trail alignment options remaining after the initial evaluation. If several alignment options exist, more work will be needed to narrow the options to a preferred alignment. Every segment or sub-segment will be required to complete the preliminary engineering, environmental approvals and secure funding before final design and construction documents can be prepared.

The CRVST covers a very large study area and it is unlikely that funding for the entire CRVST will become available all at one time. Funding will probably come from a variety of sources at different times throughout the trail development process. Because of this, it is important to identify the outstanding issues in each trail segment, as well as the complexity of these issues, so that when funding is allocated, the trail development and construction process can be implemented efficiently. Table 1 at the end of this section provides a snapshot of the variables that were considered in developing the trail implementation plan.

It is important to note trail implementation initiatives will largely be the responsibility of local trail advocates. Therefore, the identification of the level of outstanding complexity of outstanding issues in this section is merely meant to guide these efforts and is not meant to suggest a certain order of trail segment development. As suggested in the following paragraphs, each segment of the study area has differing levels of outstanding issues; however, local initiatives will drive the ultimate development of the CRVST.

As shown in Table 1 and illustrated in Figure 25, the complexity of outstanding issues for trail implementation for each segment of the proposed CRVST was identified. Below is a summary of each segment and a review of the outstanding issues related to trail development, which should be used to guide local trail advocates on where to focus implementation efforts.

Low Complexity of Outstanding Issues

CRVST segments with little or no additional feasibility studies/alternative analyses required were identified as having low complexity of outstanding issues. Segment 2 (2A, 2B and 2C), Segment 4 (4A and 4B) and Segment 6 fall into this category for the following reasons:

- **Segment 2** - The willingness of Camp Ripley to work with local trail advocates in the development of the CRVST on a portion of property (both on-post and off-post) is a significant factor streamlining implementation of portions of Segment 2. In addition, the topography and natural features of this area (wetlands, lakes, etc.) make deviation from the CSAH 1 roadway alignment difficult. Therefore, trail alignment options were able to be narrowed to the corridor as shown in Figures 7-9.

If all of Segment 2 were built at the same time, a connection between Pillager and Randall would be provided. Although this would provide a useful connection between two communities, the function of the state trail would be somewhat limited until it can connect to other segments of the CRVST. One issue that will need to be resolved in Segment 2A is how to cross the Crow Wing River in Pillager. Additional study is needed to determine if the existing CSAH 1 bridge could be widened to accommodate trail users or if a separate bridge to accommodate trail users would be required. The existing CSAH 1 bridge is planned to be re-decked in the next few years. Cass and Morrison Counties should work together to investigate the feasibility of widening the deck for trail use.

The implementation of the CRVST will need to take place in phases and construction of segments like Segment 2 that have two logical endpoints (Randall and Pillager) and few issues standing in the way of trail development should be actively pursued.

- **Segment 4** – Similar to Segment 2, there are few trail alignment options for the CRVST between the Camp Ripley entrance and Crow Wing State Park. Lands adjacent to the Mississippi River are largely under private ownership and trail development through this area would be challenging. Therefore, it is likely that the development of the CRVST will occur within the MN 371 corridor. An existing ATV trail is already designated in the right-of-way along the east side of MN 371. The implementation of Segment 4 provides two logical endpoints with a location for a rest area/interpretive site at the Fort Ripley/Nokasippi Historic Monument approximately mid-way between Camp Ripley and the state park. Access to the Fort Ripley ATV trails east of MN 371 would also be provided for ATV trail users in this segment.
- **Segment 6** – Although, two trail alignment options exist for Segment 6, it is not anticipated that significant additional alternatives analyses will be required. The main issue that needs to be resolved is which side of the river the CRVST will be located on. The City of Little Falls has expressed preference to keep the trail on the west side of the Mississippi River south of MN 27 so that it provides access to the Charles A. Lindberg State Park and utilizes the CSAH 52 (Great River Road). This trail alignment on the west side of the river also provides direct access to the Soo Line Regional Trail at the Blanchard Dam. Several motorized trail alignments also exist for Segment 6. However, it is anticipated

that additional discussions with trail advocates could result in the identification of a preferred alignment for motorized uses as well.

Although the function of the state trail will again be somewhat limited until all segments are constructed, the lack of major issues in Segment 6 suggests trail advocates could focus implementation efforts here. Once Segment 6 is completed, it will create a link for non-motorized uses between the Charles A. Lindbergh State Park and the Soo Line Trail, and for motorized uses between the Soo Line Regional Trail and Camp Ripley (if US 10 right-of-way is used).

When complete, the segments listed above will provide a link between Pillager and Randall, Crow Wing State Park to the Camp Ripley entrance, and from southern Little Falls to the Soo Line Regional Trail.

Medium Complexity of Outstanding Issues

Segment 3B and Segment 5 require some additional alternatives analyses and have a few issues needing to be addressed prior to construction, so they were categorized as having a medium complexity of outstanding issues for the following reasons:

- **Segment 3B** – This segment could be built prior to completing Segment 3A because it does not require the construction of a new bridge and would connect Camp Ripley to the City of Little Falls. It is categorized as of medium complexity because it does have several viable trail alignment options for consideration. Therefore, some additional analysis of alternatives will be required. The main outstanding issue in this segment is to determine which side of the river the CRVST trail should be located on and whether or not motorized and nonmotorized trail uses should be on parallel treadways or on separate alignments. However, these remaining issues are not significant and through additional coordination with the City of Little Falls and trail advocacy and other interest groups, could be resolved without major delay.
- **Segment 5** – This segment covers the City of Little Falls. The city offers many destinations, connections, and points of interest which has led to the development of several trail alignment options through the city. Segment 5 is categorized as having a medium complexity of outstanding issues because it does have several viable alignment options still on the table. Additionally, the City needs additional time for consideration of their policies on motorized trail uses through town. As a result, some additional analysis of alternatives will be required. The main issue yet to be resolved is which side of the Mississippi River the trail would be located and what if any river crossings would be required. The City has expressed a preference to locate the trail across the MN 27 Bridge. Since this bridge is programmed for improvements in MnDOT's 10-year plan, the need for additional width to accommodate the CRVST on the bridge was not identified as a highly complex issue. Close coordination with MnDOT to discuss bridge improvement plans will be required.

When complete, the construction of Segments 3B and Segment 5 will provide a direct connection between the Soo Line Regional Trail and the Crow Wing State Park (assuming the “low complexity” segments have previously been constructed).

High Complexity of Outstanding Issues

Segments that still have multiple viable trail alignment options due to several complex outstanding issues that need to be studied further were categorized as having high complexity of outstanding issues. This also includes segments that require either existing highway bridge reconstruction (to widen it) or construction of a separate bridge to accommodate trail traffic, if the bridge is not currently programmed for improvements. Segment 1 (1A and 1B) and Segment 3A were placed in this category for the following reasons:

- **Segment 1** – This segment is comprised of two sub-segments with differing levels of outstanding issues. Segment 1A runs from Crow Wing State Park to approximately CSAH 36 (near the connection of the potential Cass CSAH 18 trail to the Gull Lake trail system). Several viable alignment options exist for this segment and require further analysis before a preferred alignment can be chosen. The outstanding issues in this segment include the feasibility of a bridge over the Mississippi River in Crow Wing State Park and the feasibility of using Minnesota Power land surrounding the Gull River and Crow Wing River.

The resolution of these outstanding issues will require additional coordination with Minnesota Power and DNR natural and cultural resource managers.

Additionally, if Minnesota Power land can be utilized, the need for another trail bridge (over the Gull River) will need to be considered. Bridges add time and cost to a trail project but may be at the same time unavoidable or on the positive side, could significantly add to the functionality and attractiveness of a trail.

Segment 1A was categorized as having a high complexity of outstanding issues because it will require additional work and coordination before funding can be sought and applied to this segment. Trail advocates should continue pursuing and working through these issues so this segment is ready to move forward.

Segment 1B runs from CSAH 36/MN 210 to and through the City of Pillager. Constraints such as the proximity of existing development to the Crow Wing River, railroad and state highway in this segment resulted in the identification of one primary trail alignment option in this area. However, additional design work will be necessary to determine the ultimate location of the trail alignment within this area in proximity to the highway and railroad. Because of the multiple agencies and landowners as well as the railroad that will need to be involved in these discussions, this segment was classified as having high complexity of outstanding issues.

- **Segment 3A** – This segment connects Randall to the Camp Ripley entrance and MN 371. Segment 3A was identified as having a high complexity of outstanding issues due to the need to construct a separate bridge for trail users over the Mississippi River. The existing MN 115 Bridge is considered eligible for the National Register of Historic Places, and reconstruction to widen the bridge is not feasible. The historic eligibility of the MN 115 Bridge may have an impact on the location of a new trail bridge in this area due to visibility impacts to the historic structure. Because of these issues, additional studies of how to connect the trail through this area and across the river will be needed. Trail advocates should continue pursuing and working through these issues to ensure this segment is ready to move forward when the opportunity arises.

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When complete, these segments will provide the final missing link in the overall CRVST, filling the gap between Crow Wing State Park and Pillager and from Randall to the Camp Ripley entrance.

Key Steps for Trail Implementation

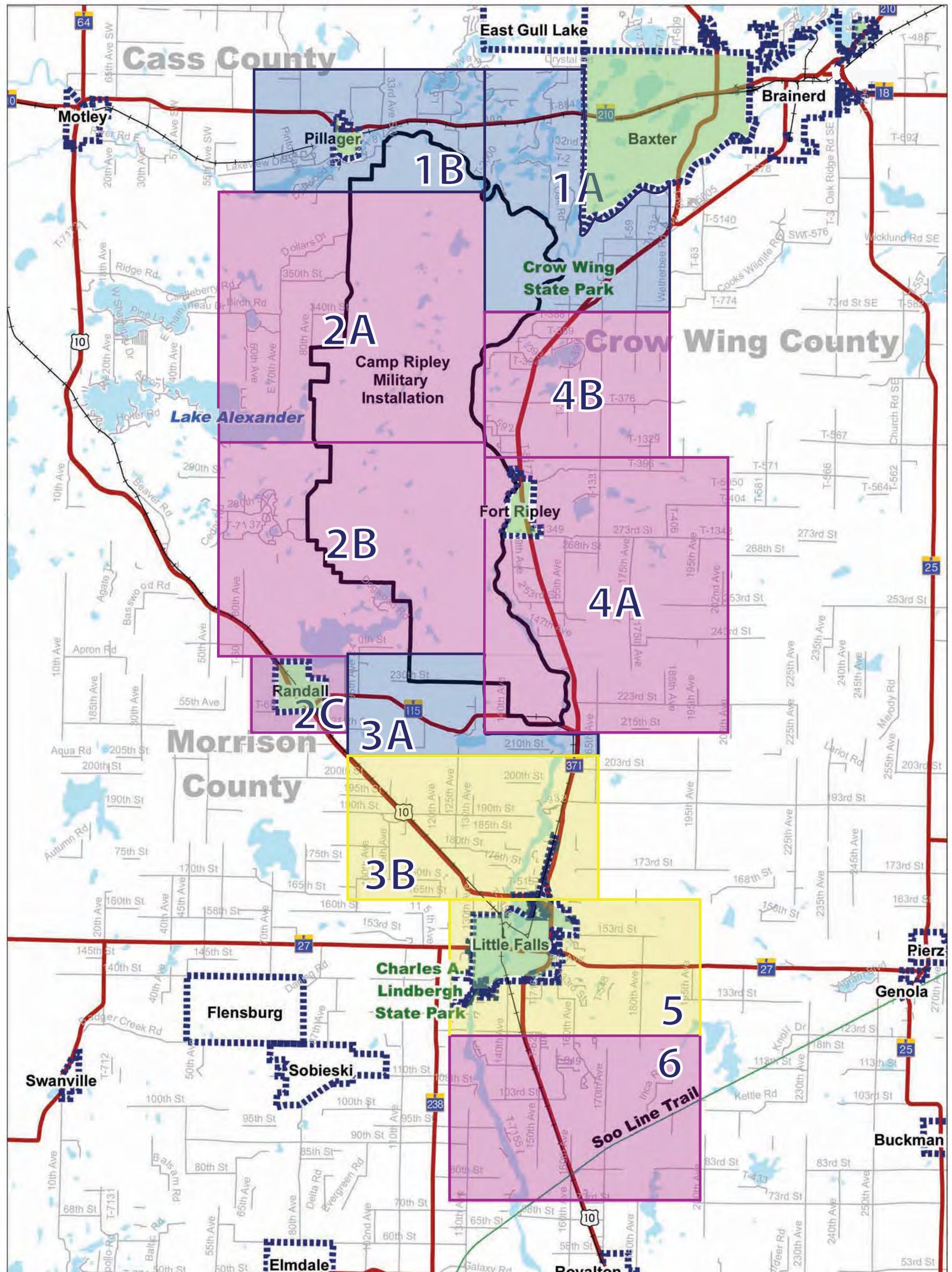
Trail implementation will involve multiple cities, townships, and counties, as well as several interest groups (i.e., trail user advocates/clubs, etc.) and state and national agencies (DNR, MnDOT, National Park Service, etc.). Since each of these agencies and key stakeholders has different interests and priorities, it is recommended that a CRVST Committee be established to ensure representation by the different interests and agencies and to organize trail development efforts. The committee's mission should be to continue communication and advocacy efforts for trail development. It should serve as a resource to guide the efforts of interested groups and advocates and to ensure these individual trail development efforts are organized and work towards the ultimate development of the entire CRVST corridor.

It is recommended that the CRVST Committee include representation from the following agencies/stakeholders at a minimum: Region 5 Development Commission, Cass County, Crow Wing County, Morrison County, DNR, MnDOT, the National Park Service, and the Cities of Baxter, Brainerd, Pillager, Randall, Little Falls and Fort Ripley, as well as local trail advocates/interest groups. Other local agencies and stakeholders should be invited to participate in this committee as desired.

TABLE 1 – Implementation Variables

Segment	Segment Length (miles)		Number of Alignment Options		Additional Alternatives Analysis Required	Provides a logical trail connection (if built independently)?	Comments	Complexity of Outstanding Issues
Crow Wing State Park to Pillager	Multi-Use	ATV Only	Multi-Use	ATV Only				
1A	12	*	4	*	Yes	Yes	Bridge over Mississippi River in Crow Wing State Park? Ability to cross Gull River south of MN 210?	High
1B	6	*	1	*	No	Yes	Location of trail in relation to MN 210, railroad and platted properties.	High
Pillager to Randall								
2A	9	*	1	*	No	Yes	Function of trail better if these segments were built at the same time - connect Pillager to Randall. CSAH 1 Bridge expansion for trail or new bridge in Segment 2A?	Low
2B	8	*	1	*	No	Yes		Low
2C	3	*	2	*	No	No		Low
Randall to Camp Ripley and Camp Ripley to Little Falls								
3A	10	*	2	*	Yes	Yes	Requires new bridge over Mississippi River (existing bridge is eligible for National Register). Ability to use MN 115 corridor?	High
3B	6	10	3	2	Yes	No	Many trail options. Need to decide which side of river. Function of trail best if this segment was constructed at the same time as Segment 5 - connect Camp Ripley area to Little Falls (without new bridge over Mississippi River)	Medium
Camp Ripley to Crow Wing State Park								
4A	9	9	2	1	No	Yes	Function of trail better if these segments were built at the same time - connect Camp Ripley to Crow Wing State Park.	Low
4B	11	11	2	1	No	Yes		Low
Little Falls Area								
5	4	6	4	3	Yes	Yes	Many trail options. Need to decide which side of river. Function of trail best if built with Segment 6 - connect Little Falls to the Soo Line Trail.	Medium
Little Falls to Soo Line Trail								
6	8	8	3	2	Yes	Yes	Function of trail best if built with Segment 5 - connect Little Falls to the Soo Line Trail.	Low

* In many segments, the alignment options have been identified as multi-use at this point. Further study is needed to determine how motorized and non-motorized uses can be accommodated. In other segments, some alignment options have been identified as motorized only. These options are identified particularly in areas where there are known constraints to congruent motorized and non-motorized uses.



Complexity of Outstanding Issues for Trail Implementation

Camp Ripley/Veterans State Trail Corridor Study

Figure 26

September 2012



0 2.5 5 7.5 Miles



MORRISON COUNTY



References

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APPENDIX A: Rare Species and Communities of Concern

The following lists of species is drawn from the database of the Natural Heritage Information System of the DNR, Division of Ecological and Water Resources, within or near (within one mile) of the proposed trail search corridor. Species are classified as follows:

- **SPC** Special Concern
- **THR** Threatened
- **END** Endangered
- **NON** A species with no legal status, but about which the Division of Ecological and Water Resources is gathering data for possible future listing

Terrestrial Communities are listed because they represent high-quality habitats, but have no legal status.

Table A.1.: Animals (Vertebrate)

Common Name	Scientific Name	MN Status
American Bittern	<i>Botaurus lentiginosus</i>	NON
Bald Eagle	<i>Haliaeetus leucocephalus</i>	SPC
Blanding's Turtle	<i>Emydoidea blandingii</i>	THR
Cerulean Warbler	<i>Setophaga cerulea</i>	SPC
Common Snapping Turtle	<i>Chelydra serpentine</i>	SPC
Eastern Hognose Snake	<i>Heterodon platirhinos</i>	NON
Hooded Warbler	<i>Setophaga citrina</i>	SPC
Least Darter	<i>Etheostoma microperca</i>	SPC
Loggerhead Shrike	<i>Lanius ludovicianus</i>	THR
Northern Goshawk	<i>Accipiter gentilis</i>	NON
Plains Hog-nosed Snake	<i>Heterodon nasicus</i>	SPC
Prairie Vole	<i>Microtus ochrogaster</i>	SPC
Pugnose Shiner	<i>Notropis anogenus</i>	SPC
Red-shouldered Hawk	<i>Buteo lineatus</i>	SPC
Sandhill Crane	<i>Grus canadensis</i>	NON
Upland Sandpiper	<i>Bartramia longicauda</i>	NON
Wilson's Phalarope	<i>Phalaropus tricolor</i>	THR
Yellow Rail	<i>Coturnicops noveboracensis</i>	SPC

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Table A.2.: Animals (Invertebrate)

Common Name	Scientific Name	MN Status
A Caddisfly	<i>Agapetus tomus</i>	SPC
Black Sandshell	<i>Ligumia recta</i>	SPC
Creek Heelsplitter	<i>Lasmigona compressa</i>	SPC
Leonard's Skipper	<i>Hesperia leonardus</i> <i>leonardus</i>	SPC
Little White Tiger Beetle	<i>Cicindela lepida</i>	THR
Mucket	<i>Actinonaias ligamentina</i>	THR
Northern Barrens Tiger Beetle	<i>Cicindela patruela patruela</i>	SPC
Two-spotted Skipper	<i>Euphyes bimacula</i>	NON

Table A.3.: Animal Assemblage

Assemblage
Colonial Waterbird Nesting Site
Freshwater Mussel Concentration Area

Table A.4.: Plants

Common Name	Scientific Name	MN Status
Blunt Sedge	<i>Carex obtusata</i>	SPC
Bog Bluegrass	<i>Poa paludigena</i>	THR
Butternut	<i>Juglans cinerea</i>	SPC
Drummond's Campion	<i>Silene drummondii</i>	SPC
Hill's Thistle	<i>Cirsium hillii</i>	SPC
Humped Bladderwort	<i>Utricularia gibba</i>	NON
Kitten-tails	<i>Besseyea bullii</i>	THR
Tuberclad Rein-orchid	<i>Platanthera flava var.</i> <i>herbiola</i>	END
Virginia Water Horehound	<i>Lycopus virginicus</i>	NON

Table A.5.: Terrestrial Communities

Terrestrial Communities
Black Ash - (Red Maple) Seepage Swamp
Central Mesic Hardwood Forest (Eastern)

Terrestrial Communities

Clay/Mud Shore (Inland Lake)
Dry Sand - Gravel Oak Savanna (Southern)
Graminoid Poor Fen (Basin)
Low Shrub Poor Fen
Native Plant Community, Undetermined Class
Northern Poor Fen
Northern Rich Tamarack Swamp (Western Basin)
Oak - Aspen - Red Maple Forest
Red Oak - Sugar Maple - Basswood - (Large-Flowered Trillium) Forest
Sand Beach (Inland Lake)
Silver Maple - (Sensitive Fern) Floodplain Forest
Tamarack Swamp (Southern)
Willow - Dogwood Shrub Swamp

Table A.6.: Other Ecological Features

Other Ecological Feature
Esker (Quaternary)

APPENDIX B: Summary of Meeting Results and Public Comments

Three open house meetings were held as part of the trail planning process. The first meeting was held in November 2011 in Little Falls. Large maps depicting the trail search corridor and natural resources information were displayed. DNR staff, consultants, and the trail committee were available to answer questions. Meeting attendants were given the opportunity to fill out a questionnaire about how they envision the Camp Ripley/Veterans State Trail, desired trail uses, and key trail connections. Nearly 70 people attended the meeting.

A second meeting was held in Baxter on March 22, 2012. Maps depicting potential trail alignment and cultural and natural resources information were on display. A short presentation outlined trail benefits, the planning process, and proposed trail alignments. Over 70 people attended the meeting and gave comments on the potential trail alignments.

A draft of the master plan was released for public review in June 2012. An open house was held on June 7, 2012 in Little Falls to review the draft plan. A short presentation outlined the major differences between the corridor study and the master plan, and discussed the implementation process. Approximately 35 people attended the meeting.

In addition, a letter was sent in July 2012 to all townships located within the trail study corridor to inform them about the plan and solicit township board feedback. A response was received from Sylvan Township (see below).

As the summaries below indicate, the proposed trail has attracted both support and opposition.

Summary of November 2011 questionnaire comments:

Changes or additions to vision statement:

- Include cultural resources
- Address both motorized and non-motorized
- Use more realistic language

What do you think will be unique about this trail? Why would people come to ride this trail?

- Scenery – Mississippi, Crow Wing Rivers, wildlife
- Connects to many other trails

Do you have any issues or concerns with the proposed uses for this trail?

- Potential issues with ATVs on the same trail as non-motorized uses
- Multiple uses are not always compatible (ATVs with bikes or horses)

How do you plan to use the trail?

- Bicycling

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- Walking
- ATVs
- Skiing
- Snowmobiling
- Horseback riding

Do you have any ideas for other connections to this trail?

- Soo Line Trail
- Lindbergh State Park
- Belle Prairie Regional Park
- Existing Grant-in-Aid trails (ATV and snowmobile)

What are the significant points of interest that should be connected and why?

- Soo Line & Paul Bunyan Trails – connect most of MN by trail
- Crow Wing and Lindbergh State Parks
- Connect to towns and communities

Do you have any recommendations for location of the trail alignment?

- Along Old 371
- Great River Road in Morrison County
- Follow rivers as closely as possible
- Hwy 210

Do you have any additional comments or questions to assist the study committee?

- Rest areas that include amenities – restrooms, water and shelter
- How will the potential incompatibility of uses be addressed?

Summary of March 2012 comments on potential alignments:

Segment 1A

- Likes:
 - Trail option between Hwy 210 and railroad tracks – if on south side of tracks, provide full privacy fence along private properties
 - Perimeter along #1
 - Go through southern Baxter
 - South side of 210
 - Allow snowmobile use on paved trail portions like on Paul Bunyan trail
 - Keep motorized trail users out of ditches; allow them to ride on same surface as bicycles
- Dislikes:
 - Any connection via 18 to East Gull Lake
 - Not another bridge over Mississippi R. Use current Hwy 371 bridge.
- Changes:
 - Multi-use trails create huge corridors and cut through landscapes
 - When this is connected to Paul Bunyan State Trail does PBT become motorized? Do not want PBT to be motorized.

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Segment 1B

- Likes:
 - Perimeter along #1.
 - Find bike option closer to Crow Wing R.
 - Use south side of river on Camp Ripley property or between Hwy 210 and railroad.
- Dislikes:
 - South side of railroad – sensitive land and unwilling landowners
- Changes:
 - Why not include Sylvan Township?

Segment 2A

- Likes:
 - Like perimeter along #1
 - ATVs can use Hwy 1 corridor
- Dislikes:
 - Land is too steep for community biking
 - No connection to Pillsbury SF for horse riding
- Changes:
 - Top of Rossing Hill for a wayside rest/scenic overlook

Segment 2B

- Likes:
 - ATVs can use Hwy 1 corridor
 - Fairgrounds in Pillager as a possible trailhead for horse riders.
- Dislikes:
 - Land is too steep for community biking

Segment 2C

- Likes:
 - Go into downtown/main street of Randall
 - Look for community friendly bike lanes in town and 2 miles out
 - Work with City of Randall to find options in city
 - Use Camp Ripley land as much as possible
- Dislikes:
 - Don't go north of Randall
- Changes:
 - ATVs should have route into Randall
 - Go into downtown Randall

Segment 3A

- Likes:
 - South of CR 115 for bikes out of Randall to Green Prairie Lake
 - Through town
 - Trail below Green Prairie Lake
- Dislikes:
 - CR 115 has narrow corridor and is too busy

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Segment 3B

- Likes:
 - Bike route along west side of Hwy 371 or further west
- Changes:
 - ATVs have the best access on east side of Hwy 371

Segment 4A

- Likes:
 - From Fort Ripley to Camp Ripley – use rural roads closer to Mississippi R.
- Dislikes:
 - Too much ditch riding for snowmobiles and ATVs is boring and dangerous
- Changes:
 - ATVs have the best access on east side of Hwy 371

Segment 4B

- Likes:
 - Bike route west of 371 or closer to Miss. R.
 - Snowmobilers don't want to ride road ditches. Allow use on paved trail as on Paul Bunyan
- Changes:
 - ATVs have the best access on the east side of Hwy 371

Segment 5

- Likes:
 - Little Falls has a good start on family friendly biking and promoting along Miss River
- Dislikes:
 - Little Falls needs better access to the east – airport road overpass is the best access for bikes

Segment 6

- Likes:
 - Good biking options exist now with wide shoulders on CR 258 or 52 Great River Rd.
 - Stay on east side of river into Little Falls
- Dislikes:
 - Snowmobile and ATV trails need to be in scenic woods
- Changes:
 - ATVs follow 371 east but have use of trail parking lot overpass as connector

Other Comments:

- This trail system is attempting to do too much - it threatens to cut huge swaths in places - usage between ATVs & bicycles is not going to always work. Adding more bituminous surface doesn't seem environmentally sound. Specific to us as landowners is trail coming along livestock & fences

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- Bridge access is important for ATV users to get to west. In constricted areas, I feel ATVs can combine on the same trails as hikers & bikers, horses, etc. Maybe pave these sections. Impose speed limits. Please do not restrict access because the the outlaws will only be on these areas.
- It is extremely important to have access to the west side of the river at Blanchard Dam or Camp Ripley for ATV.
- It is extremely important to allow access for ATVs to cross river to get to west side. Blanchard Dam bridge would be ideal or Camp Ripley would be OK. There are currently no ATV trails on west side anywhere and this is the only opportunity to develop trails in that area. Bicyclers do not bring enough revenue to area and motorized recreation can help this. We are respectful riders and we want to help the local economy
- ATV on the west side of river is useless if they cannot cross the river south of Little Falls. Side by side trails don't work. It would be better to pave the whole thing.
- We need the ATV trail to cross the Blanchard Dam so the people from the west side of Morrison County get on the Soo Line trail east.
- Cass Co Draft - Utilize northern most route - first utilize Great River Energy, Co. 36 route second.
- Let's continue to talk with Camp Ripley re a route on the south side of Crow Wing River. I really like the Pillsbury Forest route!

Summary of June 2012 comments: Verbal comments were generally supportive. Many attendees also inquired about the timeline for development, which is still undetermined. A few written comments were received, both in support and in opposition to the trail.

- I oppose the trail. We have excellent roads with wide paved shoulders for bikers to enjoy.
- The momentum is building on this trail and it's exciting to see. Other trail systems across the country have proven the economic impact a long trail system can have on distressed rural areas. The Hatfield-McCoy Trails in W. Virginia is 500 miles across 5 counties. In its first 5 years, small businesses in the area had sales growth of 25%. Payroll in the area increased 9.5% or \$104 million. While primarily motorized, it is open to non-motorized recreation as well. I am a region 3 director with ATVAM and totally support this multi-use trail.

Sylvan Township comment:

- The Sylvan Town Board of Supervisors recommend that the location of the Camp Ripley Veterans State Trail be located in the road right-of-way of State Highway 210 between the highway and the railroad through Sylvan Township.

Response to Comments

As the above comments indicate, there are many options for implementation of the CRVST plan, and many varying opinions regarding these options. Most comments focused on specific trail alignments and the uses that might be appropriate for each

CAMP RIPLEY/VETERANS STATE TRAIL

alignment. As discussed in Section 7, Implementation, additional feasibility studies will be needed to assess not only the most feasible alignments but also the potential for each trail use (motorized and non-motorized) within each segment. Therefore, all trail alignment options will be studied in greater detail before land acquisition or development can occur.