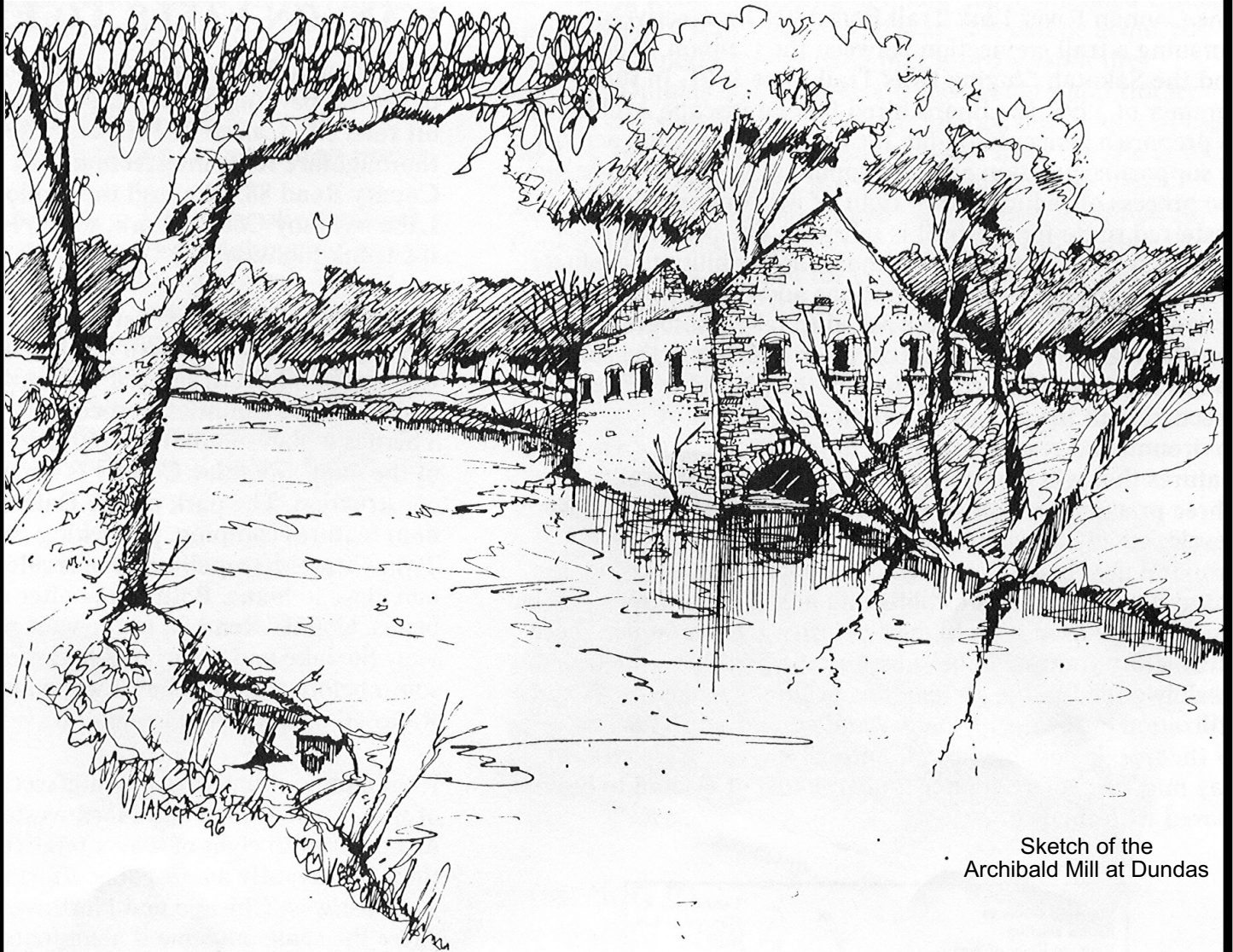


Mill Towns State Trail Master Plan



Sketch of the
Archibald Mill at Dundas

Faribault to Cannon Falls

***Minnesota Department of Natural Resources
Division of Trails and Waterways
May 2005***

The Minnesota Department of Natural Resources, Trails and Waterways Division would like to thank all who participated in this master planning process. Assistance from the Mill Towns State Trail Friends Group and the Mill Towns State Trail Joint Powers Board was greatly appreciated. Many DNR staff, city and county officials, trail association members and local citizens contributed their time and energy to the planning process as well. The cover sketch is courtesy of John Koepke.



May 2005, Minnesota Department of Natural Resources.

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Executive Summary

Trail Alignment

The Mill Towns State Trail is a legislatively authorized state trail which will be an important link in the overall trail system connecting the Sakatah Singing Hills State Trail and the Cannon Valley Trail. It will also provide a recreational connection between the cities of Faribault, Dundas, Northfield, Waterford, Randolph and Cannon Falls. The trail is projected to be approximately 25 miles in length, but actual mileage will be determined by the final route selection.

For purposes of this plan, the trail alignment has been divided into four planning segments. The segments are Faribault to Dundas, Dundas to Waterford Bridge, Waterford Bridge to Lake Byllesby Regional Park, Lake Byllesby Regional Park to Cannon Falls. If an exact alignment has not been determined for a segment, criteria for location of the trail are listed, as well as alternative corridor options.

Recommended Trail Uses

The Mill Towns State Trail is a multi-use trail but the limitations of width dictate that not all uses can be accommodated at all times on the entire length of the trail. The following are the recommended trail uses: bicycling, hiking and walking, cross-country skiing, dog walking, running/jogging, in-line skating/skate skiing, horseback riding, snowmobiling, hunting (except where discharge of firearms is regulated by community ordinance) and environmental education/interpretation. Trail development will take accessibility into consideration wherever practical. Certain segments of the trail can be used for fishing access and canoe launching.

Trail Management

This plan contains recommendations for maintenance, enforcement and interpretation of natural and cultural resources. Trail maintenance is critical to provide and sustain the 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. The plan recommends that the natural and cultural features along the trail be interpreted and that a standard kiosk design should be used in trail communities and at other locations where wayside exhibits are proposed. The kiosk design should reflect the milling theme for which the trail is named.

Natural and Cultural Resources

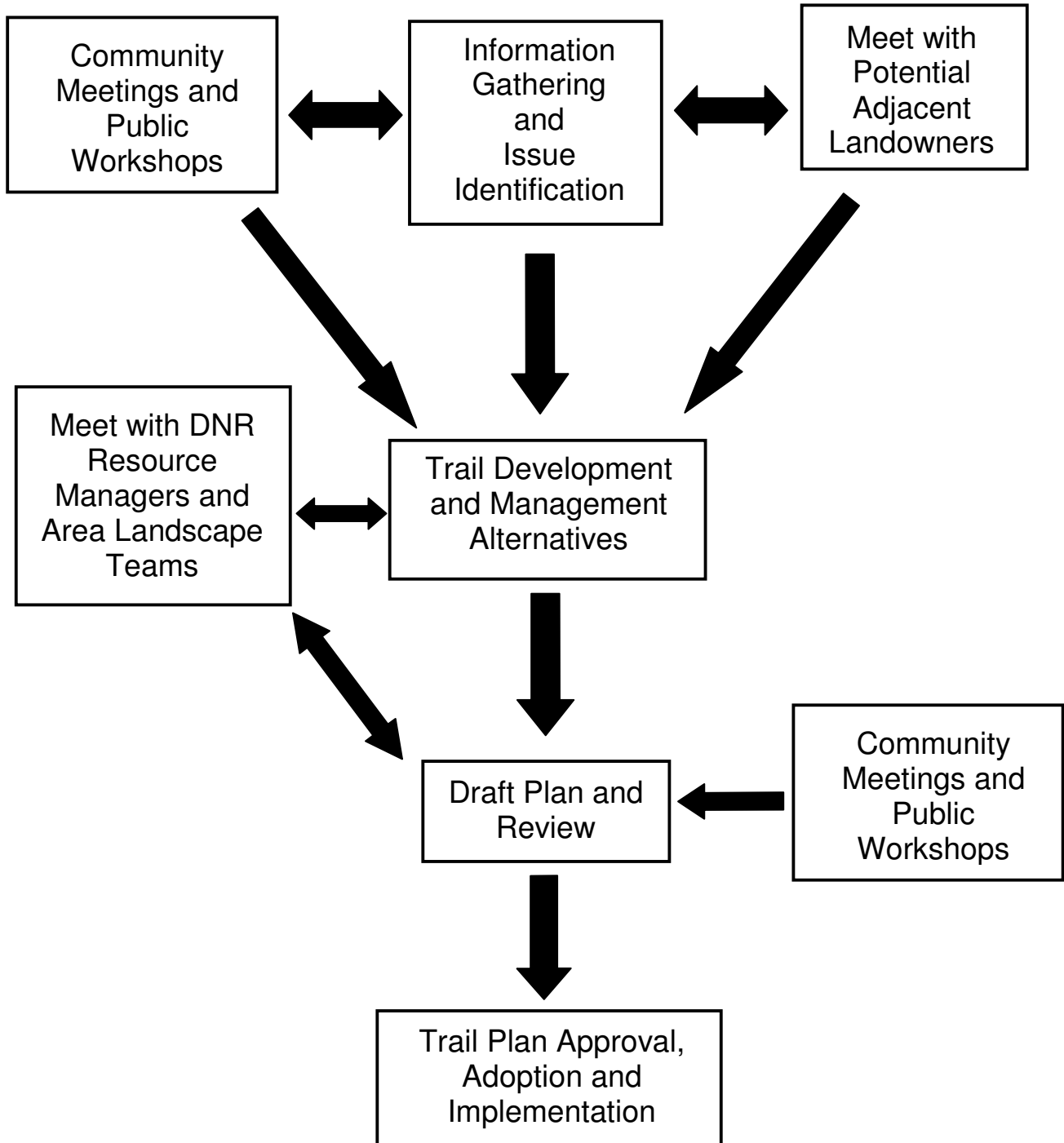
The vegetation within the trail right-of-way will be enhanced and managed to provide a healthy diversity of native species. This will be achieved by planting native flowers, grasses, trees and shrubs that are consistent with the natural plant communities of the area. Cultural resources will be preserved and managed for interpretive purposes. There will be opportunities for trail users to experience the milling history of the area through existing historical and proposed interpretive sites.

Planning Process: Purpose and Scope

Master planning for the Mill Towns State Trail was conducted in order 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. The Mill Towns Trail Joint Powers Board and the Mill Towns Trail Friends Group are the driving forces behind the establishment, acquisition and development of this trail.
- Guide the development, management, maintenance and operation of the Mill Towns State 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.
- Satisfy the requirement of Minnesota Statutes, Section 86A.09, which requires that a master plan be prepared for state trails.

Master Plan Process



Trail Authorization

The Mill Towns State Trail was legislatively authorized in 2000 (Minnesota Statutes, Section 85.015, Subdivision 8a.)

(a) The trail shall originate at a point commonly known as Faribault Junction in Rice County, the termination point of the Sakatah Singing Hills Trail, and shall extend through the towns of Faribault, Dundas, Northfield, Waterford, and Randolph, to the termination point of the Cannon Valley Trail in Cannon Falls. The trail may be located within the Cannon River Wild, Scenic, and Recreational Land Use District.

(b) The trail shall be developed primarily for riding and hiking. Motorized vehicles, except snowmobiles, are prohibited from the trail.

The Mill Towns State Trail is one of the legislatively authorized state trails in the State Trail System. (See the maps of Minnesota's State Trail System on pages 7 and 8.) 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 Statutes Section 86A.05.) 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 Mill Towns State Trail meets the following criteria established for state trails in the Outdoor Recreation Act, Minnesota Statutes 86A.05, Subdivision 4, State Trail: purpose; resource and site qualifications; administration; designation.

(a) A state trail shall be established to provide a recreational travel route which connects units of the outdoor recreation 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.

(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.

The Mill Towns State Trail will connect several points of interest. One of the most significant natural interests is the Cannon River. The Cannon River Valley, between Faribault and Cannon Falls, is historically significant, as it supported as many as 30

mills. Hence, the adoption of “Mill Towns” for the name of the trail. More information about the milling history of the Cannon River Valley can be found on page 66.

The Mill Towns State Trail will connect the communities of Faribault, Dundas, Northfield, Waterford, Randolph and Cannon Falls. These communities have many historical and cultural resources, including buildings and structures that are listed on the National Register of Historic Places. Faribault, Northfield, and Rice County have historical society museums that can be potentially accessed from the proposed trail. These will serve as a great resource for understanding the history of the communities.

Many city parks in the communities will be connected by the trail. The trail will also connect to Carleton College’s Cowling Arboretum, a significant natural and scientific area used by Carleton College as an outdoor classroom and as an area to demonstrate conservation and restoration.

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

The Cannon River Valley corridor, through which portions of the trail may pass, possesses outstanding beauty. Trail users will be able to view wetlands, streams, woodlands, grasslands and the Cannon River.

(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 natural, rural character of the trail will be appreciated through the various modes of travel allowed on the trail. The slower modes of travel foster the opportunity to recreate in a natural setting and allow the trail user to observe their surroundings in greater detail.

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

“Early in Minnesota’s history the area west of Red Wing began to produce valuable harvests of wheat. Beginning in the 1850’s, the number of farmers who hauled their wheat to Red Wing increased yearly. In 1873, Red Wing became the largest primary wheat market in the world. Wheat was transported by wagon from Cannon Falls, Goodhue, Wanamingo and Faribault throughout the fall.” (Roger Bee, et al. 1984). Eventually, railroads dominated the transportation market through the valley and beyond. Appendix 4 illustrates how the agricultural market areas of the Cannon River Valley were diverted from a market dominated by Red Wing, at the mouth of the Cannon River, to a much larger regional market controlled by Minneapolis, Duluth, Milwaukee, Chicago and other places hundreds of miles from the Cannon valley. The four railroads and the power company that developed in the valley were: 1.) Chicago Milwaukee Saint Paul and Pacific Railroad, 2.) Chicago Great Western Railway, 3.) Chicago Rock Island and Pacific Railroad, 4.) Minneapolis Northfield and Southern Railway (the Dan Patch Electric Lines,) 5.) Consumers Power Company.

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

The Mill Towns State Trail is an important link in the trail system of southeast Minnesota. It is the missing link between the Sakatah Singing Hills State Trail, which passes through Sakatah Lake State Park, and the Cannon Valley Trail. Completion of this trail would allow trail users to travel seamlessly from Rapidan, west of Mankato, to Red Wing, which is a distance of over 80 miles. Another state trail, the Goodhue Pioneer, can be accessed from the south side of Red Wing, and will eventually connect to the existing Douglas State Trail. So in the future, a trail user could benefit from a network of trails that would allow him/her to travel from Mankato to Rochester.

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

Road rights-of-way will be utilized to make vital connections. Railroad rights-of-way have also been examined as possible alignments. There is minimal public land available within the corridor so private land is also being sought in some instances. Carleton College is allowing the Mill Towns State Trail to utilize the edge of their 800-acre arboretum property.

(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.

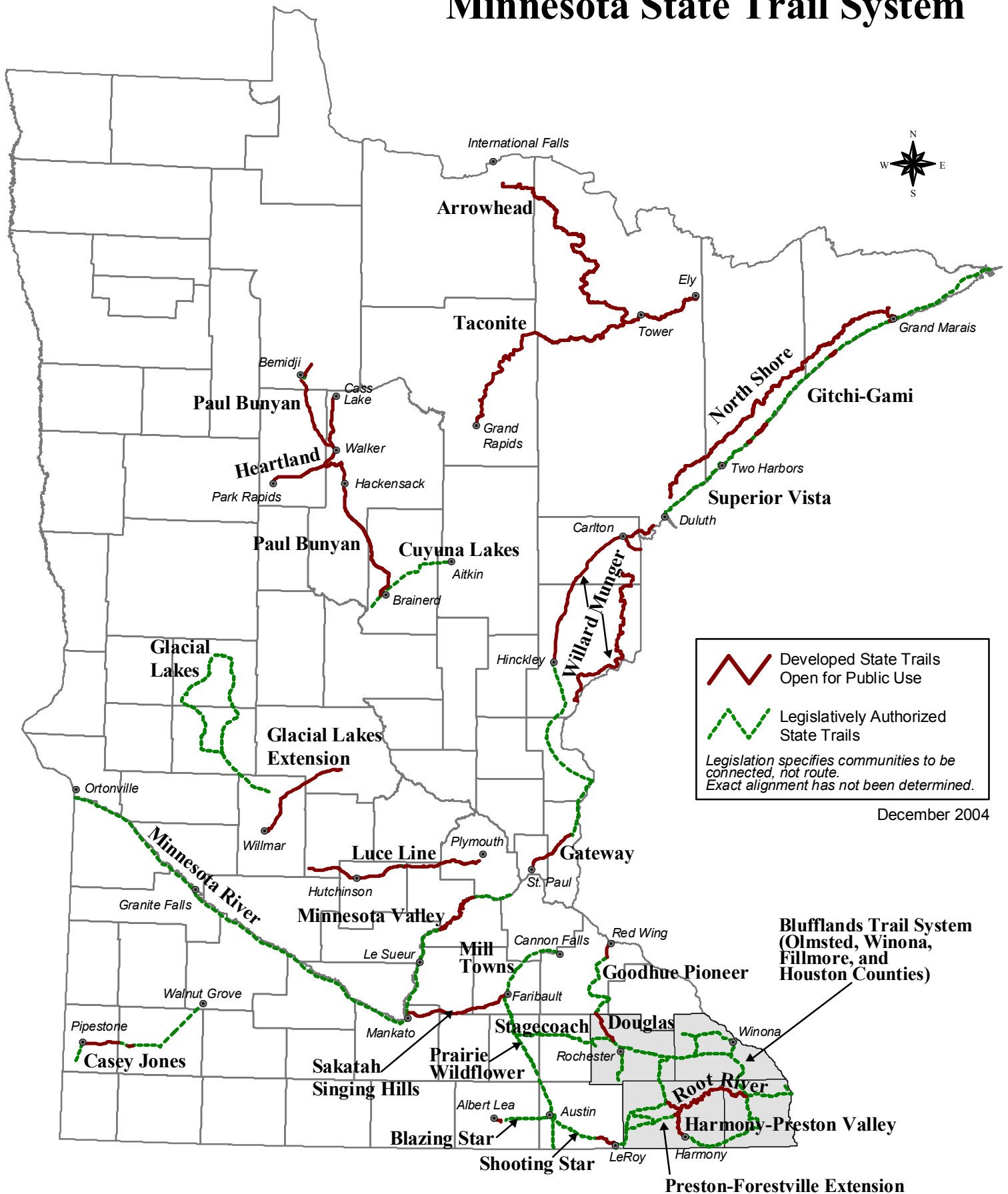
Interpretive facilities have been proposed to increase trail users understanding and appreciation of the area. For example, information could be displayed explaining the milling history along the Cannon River, the designation of the Cannon River as a State Wild and Scenic River, the designation of the Cannon River as a State Canoe and Boating Route, the history of the area and possibly the Big Woods and Oak Savannah ecological subsections.

Depending on the final route selection for the Mill Towns State Trail, the Rice County Historical Society and Museum, located near North Alexander Park, could be connected by the state trail or by a combination of state and city trails. In Northfield, the Northfield Historical Society Museum is located a block north of where the Mill Towns State Trail is proposed to go through town. Cannon Falls also has a historical museum, which can be accessed via a combination of city trails and streets. Trail users could easily access these three museums to learn about the rich history of this area.

(4) Takes into consideration predicted public demand and future use.

The plan evaluates and uses the current research and trends on use of existing trails and demand for trail opportunities. Current demographic data is taken into account. Information obtained at public workshops is also considered.

Minnesota State Trail System



Southeast Minnesota Trail System



Vision and Goals for the Mill Towns State Trail

Vision

The Mill Towns State Trail will provide a connection between public and semi-public open spaces serving three counties and six communities. It is envisioned as a recreational investment that will link these communities in a way that will ensure their continued vitality.

Goals

- Develop a trail route that can be used for hiking, biking, and snowmobiling or skiing which links Cannon Falls, Randolph, Waterford, Northfield, Dundas and Faribault.
- Provide a permanent trail right-of-way linking the Cannon Valley Trail at Cannon Falls and the Sakatah Singing Hills State Trail at Faribault.
- Establish a recreational facility focused upon the communities along the proposed right-of-way.
- Create an individual identity for the Mill Towns State Trail that will distinguish it from both adjoining trails.
- Establish loop options for trail users in each of the communities along the trail.
- Identify and provide access to public spaces, historic mill sites and the cultural and natural features along the trail.
- Identify trailhead sites in each community to facilitate economic development.
- Promote the trail as an integral element in the regional open space system.
- Promote the trail as a vital facility for health in the community.

Summary of Recommended Trail Uses

This page summarizes the recommended allowable uses for the trail. The Mill Towns State Trail is a multi-use trail but the limitations of width dictate that not all uses can be accommodated at all times on the entire length of the trail. The following are the recommended trail uses: bicycling, hiking and walking, cross-country skiing, dog walking, running/jogging, in-line skating/skate skiing, snowmobiling, horseback riding, hunting (except where discharge of firearms is regulated by community ordinance) and environmental education/interpretation. Trail development will take accessibility into consideration wherever practical. Certain segments of the trail can be used for fishing access and canoe launching.



Bicycling



Canoe Launching



Hiking/Walking



Fishing



Cross-Country Skiing



Accessibility



Dog Walking



**Environmental
Education/Interpretation**



Running/Jogging



In-Line Skating/Skate Skiing



Snowmobiling – Snowmobiling will be accommodated wherever possible and will be accomplished by developing a treadway that will be separate 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.



Horseback Riding – Horseback riding may be accommodated on some sections, where practical, by developing a separate treadway.

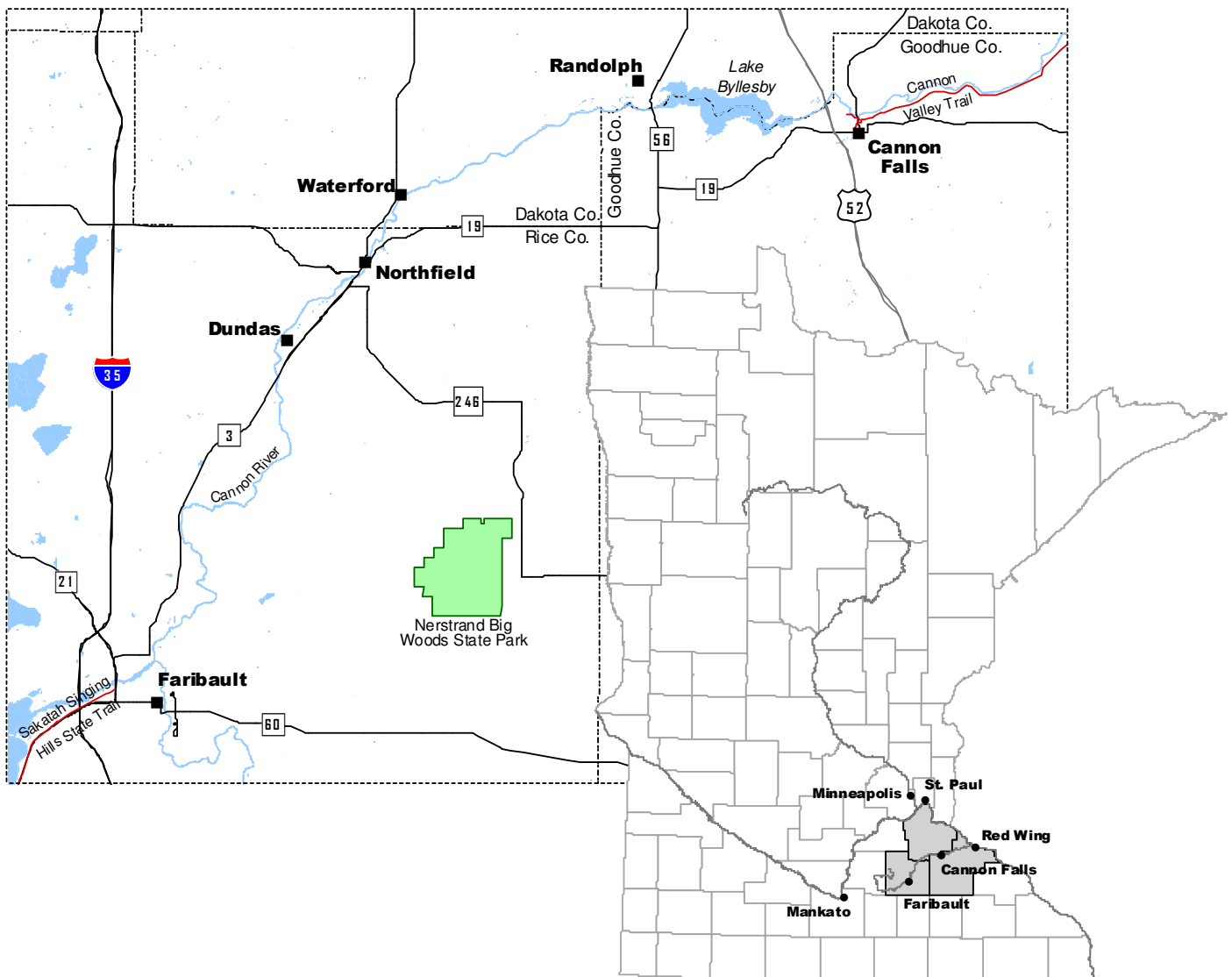


Hunting - During legal hunting season only - Currently, state trail rules allow hunting within the trail right-of-way, except where restricted by local ordinance. The current rule states: *"No firearm or bow and arrow shall be discharged within the trail at any time, except for the purpose of lawful 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."* Communities may restrict firearms or bow and arrow discharge, or trapping, by ordinance. These ordinances take precedence over state trail rules.

Overview of the Trail Alignment

The Mill Towns State Trail is a legislatively authorized state trail which, when complete, will connect the towns of Faribault, Dundas, Northfield, Waterford, Randolph and Cannon Falls. This trail will serve as a vital connection between the Sakatah Singing Hills State Trail and the Cannon Valley Trail. It is projected to be approximately 25 miles long, but it will ultimately be determined by the final route selection.

For purposes of this plan, the trail alignment has been divided into four planning segments. The segments are: Faribault to Dundas, Dundas to Waterford Bridge, Waterford Bridge to Lake Byllesby Regional Park, Lake Byllesby Regional Park to Cannon Falls. If an exact alignment has not been determined for a segment, criteria for location of the trail are listed, as well as alternative corridor options.



Segment 1: Faribault to Dundas

Description of the Alignment and Landscape

An exact alignment has not been determined for this segment but there are many promising options. The Mill Towns State Trail will begin at the trailhead facility, named White Sands, located at the eastern terminus of the Sakatah Singing Hills State Trail (see description on the next page.) From the trailhead, it is a goal to connect to Faribault's Alexander Park and Faribault's city trail system. State Highway 21 presents an obstacle of connecting White Sands trailhead to the rest of Faribault due to its size and the speed of vehicles. Trail user safety will be taken into account when designing the exact route. Some options include a pedestrian bridge, an underpass or crossing at-grade at a controlled intersection. See the map of Faribault on page 23 and the map of Dundas on page 25 for location of city parks and trails.

Criteria for Trail Alignment

- Connect to Faribault's proposed trailhead at the eastern terminus of the Sakatah Singing Hills State Trail – the former White Sands Pool area
- Connect to Alexander Park in Faribault
- Connect to Two Rivers Park and the Straight River Trail in Faribault
- Connect to Faribault's emerging city trail system
- Connect to Mill Park in Dundas
- Connect to Memorial Park and the Dundas Dukes Amateur Baseball Field
- Use existing public right-of-way where necessary (for connections)
- Utilize the abandoned railroad segment at State Highway #3 and Rice County Highway #8 which is owned by the Mill Towns Trail Friends Group
- Minimize trail users exposure to vehicular traffic

Options for Trail Alignment

A combination and/or portions of the following:

- Abandoned Chicago Great Western Railroad line
- Active Iowa Chicago & Eastern Railroad shared right-of-way
- Active Union Pacific Railroad shared right-of-way
- State Highway 3 right-of-way
- Rice County Road 46
- Rice County Road 1
- Rice County Road 8
- Rice County Road 9
- Rice County Road 76
- Rice County Road 83
- Rice County Road 77
- 140th Street East
- Ames Trail

- Abandoned Township Road (located in Cannon City Township – section 6 and Bridgewater Township – section 31)
- Pursue private lands from willing landowners

Trail Access – Parking Areas, Rest Areas and Interpretive Sites

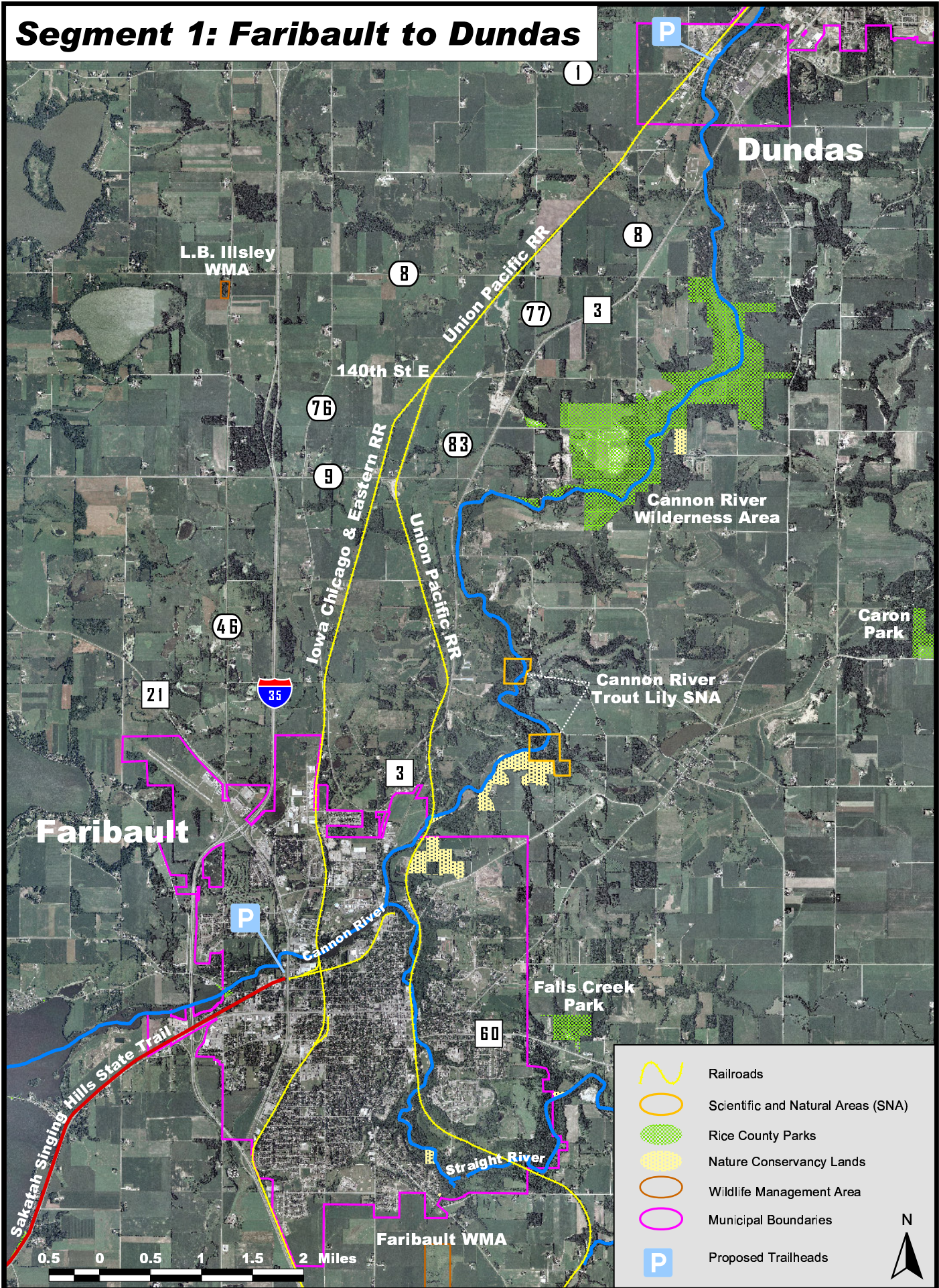
Faribault

A trailhead facility is planned for an area formerly known as the White Sands Pool, located on the west side of Highway 21. It is an 8.5-acre lot owned by the city of Faribault and is situated at the eastern terminus of the Sakatah Singing Hills State Trail. It will serve as a trailhead for both state trails. The facility will have heated restrooms, picnic tables, shelters, a paved parking lot, an information kiosk, water and bike racks. It will be owned and maintained by the city of Faribault and will be a four-season facility. The trailhead facilities will meet the ADA Accessibility Guidelines for Buildings and Facilities.

Dundas

A multi-use trailhead facility is planned for the city of Dundas and will be located at the southeastern corner of Hester Street and Railway Street North. Besides the typical trail users, (bicyclists, in-line skaters, walkers and runners, etc) canoeists will utilize the facility, as it will serve as a canoe launch. Snowmobilers will also utilize the trailhead as an access point to the grant-in-aid snowmobile trail that runs parallel to Hester Street. The facility will have a paved parking lot, three wooden benches, a drinking fountain, a bike rack, a wooden toilet shelter and an informational kiosk. To meet ADA guidelines, two of the parking stalls will be accessible (one car-accessible, one van-accessible.) One of the portable toilets will be ADA accessible as well. An interpretive display explaining the history of milling in the area is recommended at this site, especially since it is in close proximity to the historic remnants of the Archibald Mill.

Segment 1: Faribault to Dundas



Segment 2: Dundas to Waterford Bridge

Description of the Alignment and Landscape

An alignment has been determined for this segment. The first part of this segment will utilize a city trail that is three miles in length and was built by the city of Northfield. It will be incorporated into the Mill Towns State Trail once the master plan is completed and approved. It runs from Dundas to Northfield along Armstrong Road/County Road 78 and ends at Laurel Court. From that point, the route is proposed to pass under State Highway 3 along the Cannon River. It will continue on the west bank of the Cannon River around the Safety Center to the Fifth Street bridge. To assist trail users through town, "Share the Road" street signage will mark three blocks along Fifth between Water and Union Streets and along Union for one block between Fifth and Fourth Streets. Bike lanes have been painted on Fourth Street between Union and Prairie Streets. See the map of Northfield on page 27 for location of city parks and trail location.

For the second part, Carleton College has graciously allowed the Mill Towns State Trail access to Cowling Arboretum. Motorized traffic is not allowed on this segment. The trail will enter the arboretum property near Fourth Street and Prairie Street and will run in an easterly direction to the corner of Wall Street and Hall Avenue. It will then turn north and skirt the edge of the arboretum property until it reaches Highway 19. The trail will jog west for a short distance and then head north to cross Highway 19 by means of a grade-separated crossing. Once the trail crosses Highway 19, it will turn east and follow the Highway 19 right-of-way to Canada Avenue. The trail will then turn north and again skirt the edge of the arboretum property until it reaches the Cannon River at the site of the Waterford Bridge.

Criteria for Trail Alignment

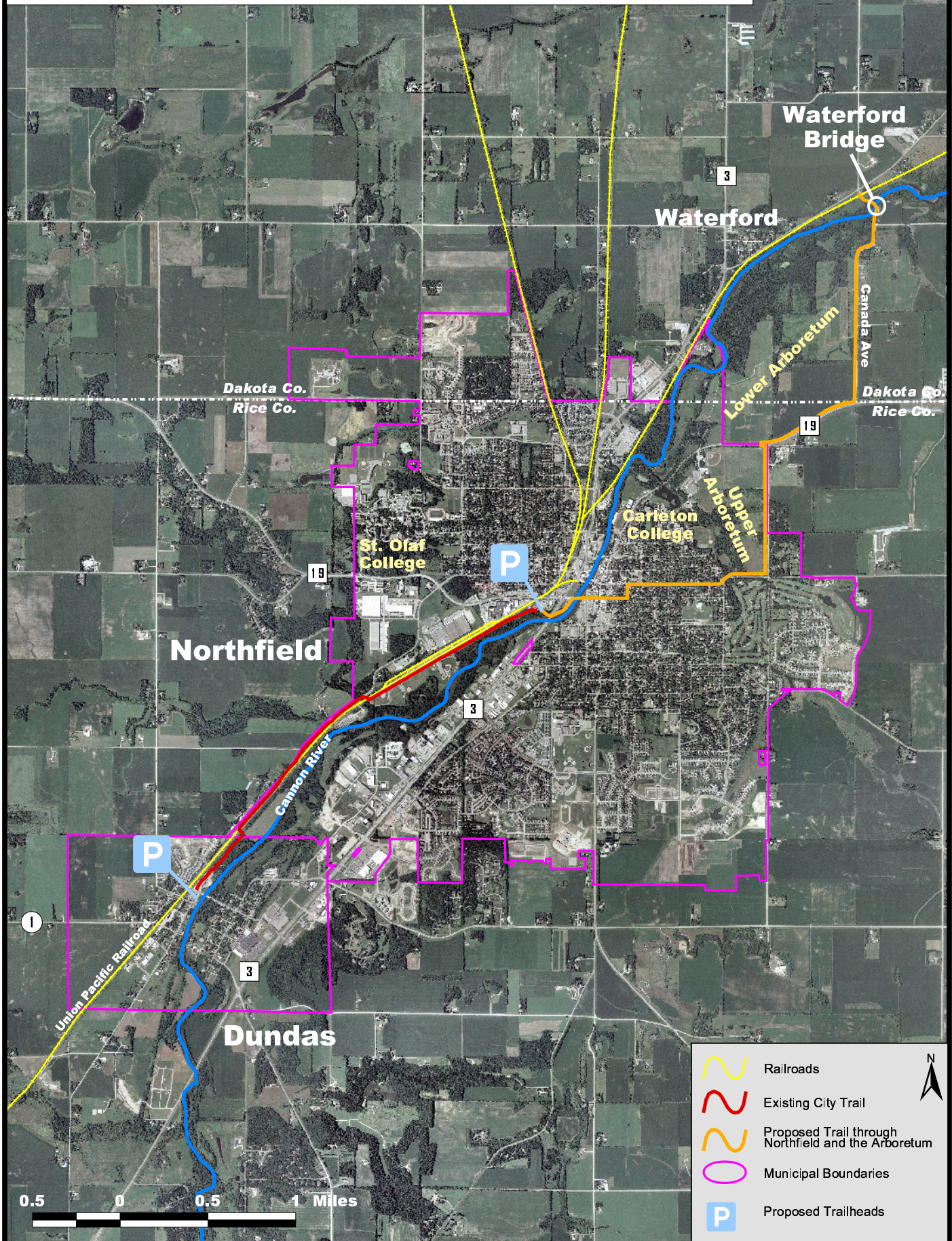
- Provide a safe crossing of State Highway 3
- Connect to Sechler Park in Northfield
- Connect to Riverside Park in Northfield
- Connect to Babcock Park in Northfield
- Connect to Central Park in Northfield
- Connect to Northfield's city trail system
- Connect to Carleton College's Cowling Arboretum
- Provide connections to Carleton College and St. Olaf College
- Work with the village of Waterford, on a spur trail, to connect to the main trail

Trail Access – Parking Areas, Rest Areas and Interpretive Sites

Northfield

The city of Northfield will develop a trailhead, complete with a parking lot and shelter, portable toilets, drinking fountain and informational kiosk, located at the intersection of Highway 19 and Highway 3.

Segment 2: Dundas to Waterford Bridge



Segment 3: Waterford Bridge to Lake Byllesby Regional Park

Description of the Alignment and Landscape

An exact alignment has not been determined for this segment. However, several alignment options exist.

Dakota County is in the process of planning for the future development of Lake Byllesby Regional Park. They have introduced preliminary concepts that suggest improving current activities and developing facilities that will strengthen the park as a regional destination for recreation. Other introduced ideas include a vision of trail connections outside the park boundary as well as a trail circling Lake Byllesby. DNR Trails and Waterways and Dakota County will work cooperatively to site a potential alignment through Lake Byllesby Regional Park.

Criteria for Trail Alignment

- Minimize railroad crossings
- Minimize crossing of wetlands
- Connect to Dakota County Lake Byllesby Regional Park
- If a southern route is feasible:
 - Work with Dakota County on the proposed trail loop around Lake Byllesby
 - Connect to Maltby Nature Preserve
 - Connect to McKnight Prairie
 - Connect to Cascade – a former mill site

Options for Trail Alignment

Northern Route Options:

A combination and/or portions of the following:

- Union Pacific Railroad shared right-of-way, north side
- Dakota County Road 47
- Cannon River Boulevard
- Dakota County Road 88
- Abandoned railroad segments in Dakota County, Randolph Township, Sections 11 and 12
- Harry Avenue
- Pursue private lands from willing landowners

Southern Route Options:

A combination and/or portions of the following:

- 320th Street
- Barnard Avenue
- 315th Street
- 302nd Street

- State Highway 56
- 23rd Avenue
- 310th Street
- State Highway 19
- Pursue private lands from willing landowners

Trail Access – Parking Areas, Rest Areas and Interpretive Sites

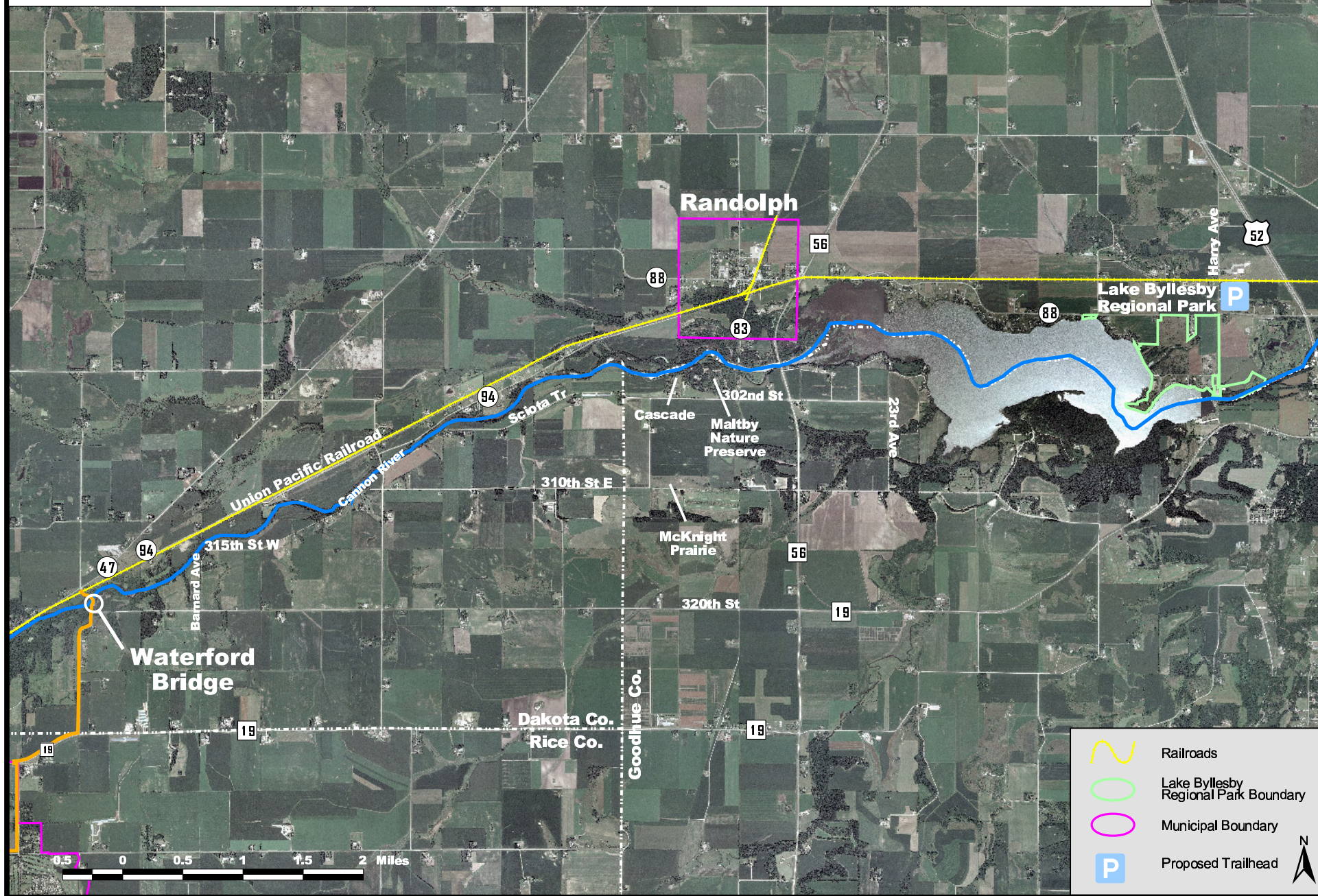
Lake Byllesby Regional Park

This Dakota County Regional Park is situated on the north shore of Lake Byllesby Reservoir, the largest lake in Dakota County, which is also the site of a hydroelectric dam. The lake provides many opportunities for water recreation including boating, sailing, wind surfing, fishing and swimming. Land activities include picnicking, hiking, camping and a children's playground. Winter activities include ice fishing, dogsledding and skijoring. Snowmobiling and other motorized uses are not allowed in Lake Byllesby Regional Park.

Dakota County is in the process of updating the master plan for this park that will set the course for the next fifteen years. See the *Interrelationship of the Mill Towns State Trail and Lake Byllesby Regional Park* section for further information.

According to the draft Lake Byllesby Regional Park master plan, the park will accommodate two trailheads. One trailhead will be at the eastern end of Lake Byllesby, in the main park area (East Byllesby), and one at the western end of Lake Byllesby (West Byllesby.) The location of the East Byllesby trailhead has not been determined, as the routing of the trail through the park has not been finalized. The DNR and Dakota County will work cooperatively to determine the best location for this trailhead and the preferred amenities. The West Byllesby trailhead will have parking, picnicking, toilet facilities and views of the migratory birding area. See the map on the following page for the location of the West Byllesby trailhead.

Segment 3: Waterford Bridge to Lake Byllesby Regional Park



Segment 4: Lake Byllesby Regional Park to Cannon Falls

Description of the Alignment and Landscape

An exact alignment has not been determined for this segment. A few options are available for routing the trail. See the map of Cannon Falls on page 33 for location of the fairgrounds and city parks.

Criteria for Trail Alignment

- Connect to the Cannon Valley Trail
- Connect to Cannon Falls City Trail System
- Connect to Goodhue County Park - Lake Byllesby
- Connect to the Fairgrounds in Cannon Falls
- Connect to Hannah's Bend City Park and Riverside City Park in Cannon Falls
- Connect to the Gemini Aquatic Management Area

Options for Trail Alignment

A combination and/or portions of the following:

- Go south out of Lake Byllesby Regional Park by way of a proposed bridge, east of the dam, to connect with Goodhue County Park - Lake Byllesby
- Continue east along the Cannon River, passing under the US Route 52 bridge, to Hannah's Bend City Park in Cannon Falls

Trail Access – Parking Areas, Rest Areas and Interpretive Sites

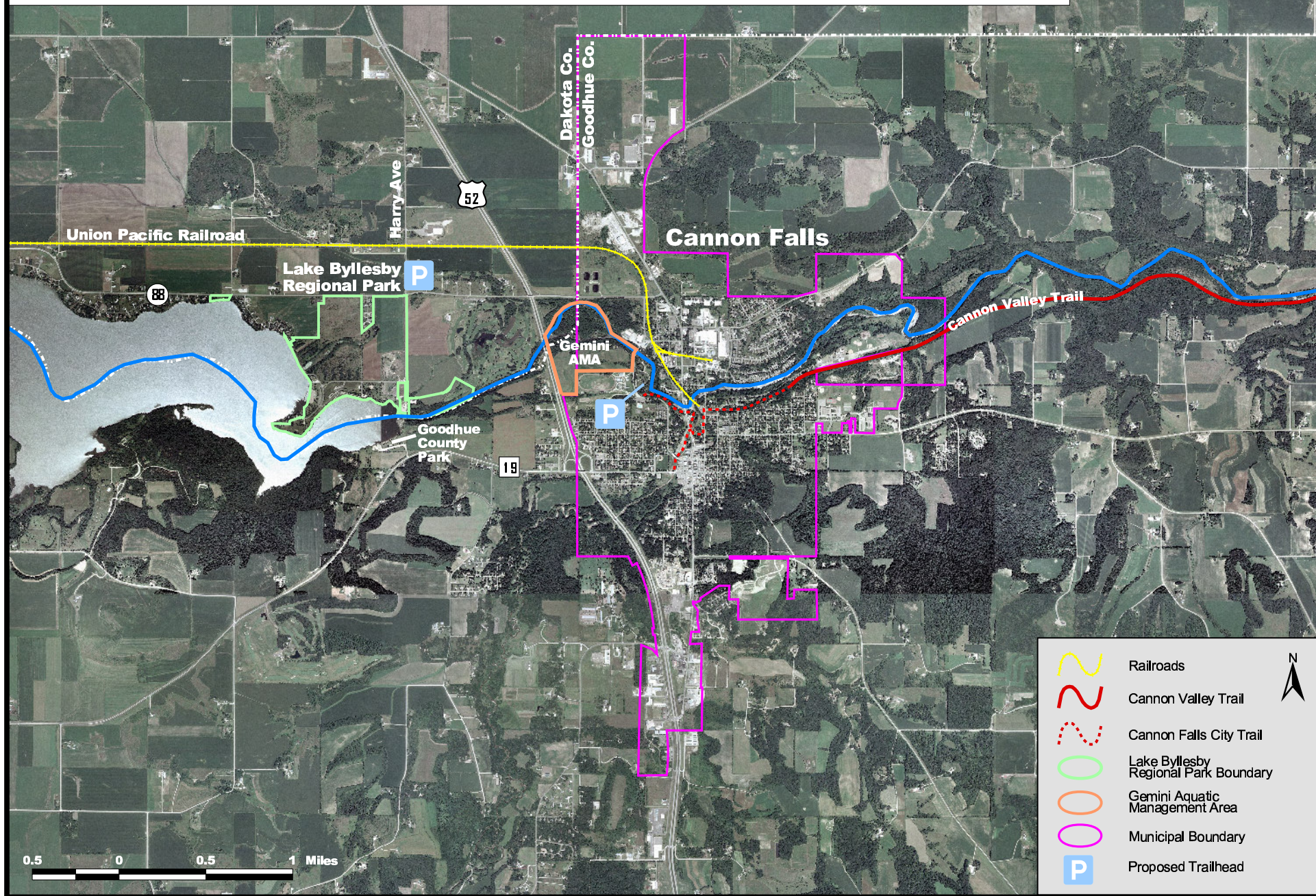
Goodhue County Park – Lake Byllesby

This park is located on the southeast corner of Lake Byllesby, directly across from Dakota County Lake Byllesby Regional Park. It could serve as a rest area and picnic site for trail users. Amenities include a picnic shelter, grills, restrooms, playground equipment, ball diamond and a swimming beach (no lifeguard.)

Cannon Falls

Parking will be available at Hannah's Bend City Park. Using the paved city trail system, trail users can access the Cannon Valley Trail from Hannah's Bend City Park. See the map of Cannon Falls on page 33 for location of city parks and trails.

Segment 4: Lake Byllesby Regional Park to Cannon Falls



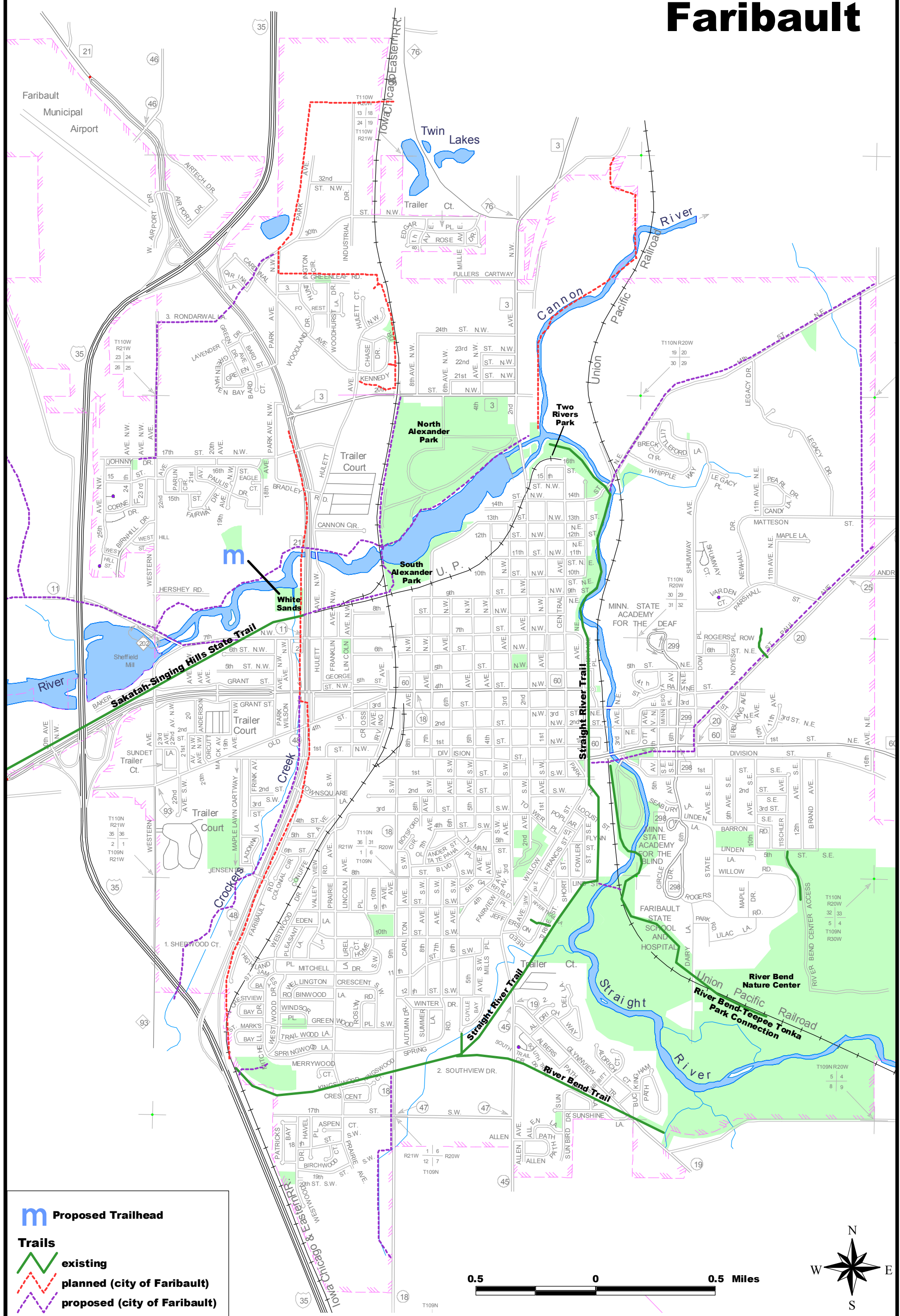
Faribault

Faribault is located in central Rice County, approximately 50 miles south of the Twin Cities. The city is at the confluence of the Cannon and Straight Rivers. According to the 2000 census, the population was 20,818. In 1990, it was recorded at 17,085, which was a 21.8 percent change in population between 1990 and 2000. According to the State Demographer's Office, the estimated 2003 population was 22,037.

The city of Faribault was platted in 1855 and incorporated as a city in 1872. It was named in honor of Alexander Faribault. Faribault came to the area in 1826 as a trader and established trading posts at the modern-day locations of Waterville and Morristown as well as at a Dakota village on the northwestern shore of Cannon Lake. In 1834-1835 he persuaded the Dakota to move their village to what is now Faribault. The first frame house in the area was built by Alexander Faribault and is now on the National Register of Historic Places. As the city grew, it gained national recognition in education and religion due in large part to Bishop Henry Whipple who developed Shattuck (a military style school for boys) and St. Mary's School for Girls. As the town prospered, churches, businesses and homes with outstanding architectural styles were built. To date, Faribault is home to more than 40 structures listed on the National Register of Historic Places.

Faribault's size and opportunities for recreation support numerous amenities for trail users. The proposed trailhead at White Sands area will be a four-season facility serving the Sakatah Singing Hills State Trail as well as the Mill Towns State Trail. A plethora of restaurants, lodging, and commercial services exist as well as potential connections to Faribault's park and recreation system.

Faribault



Data from MnDOT and the City of Faribault.

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Dundas

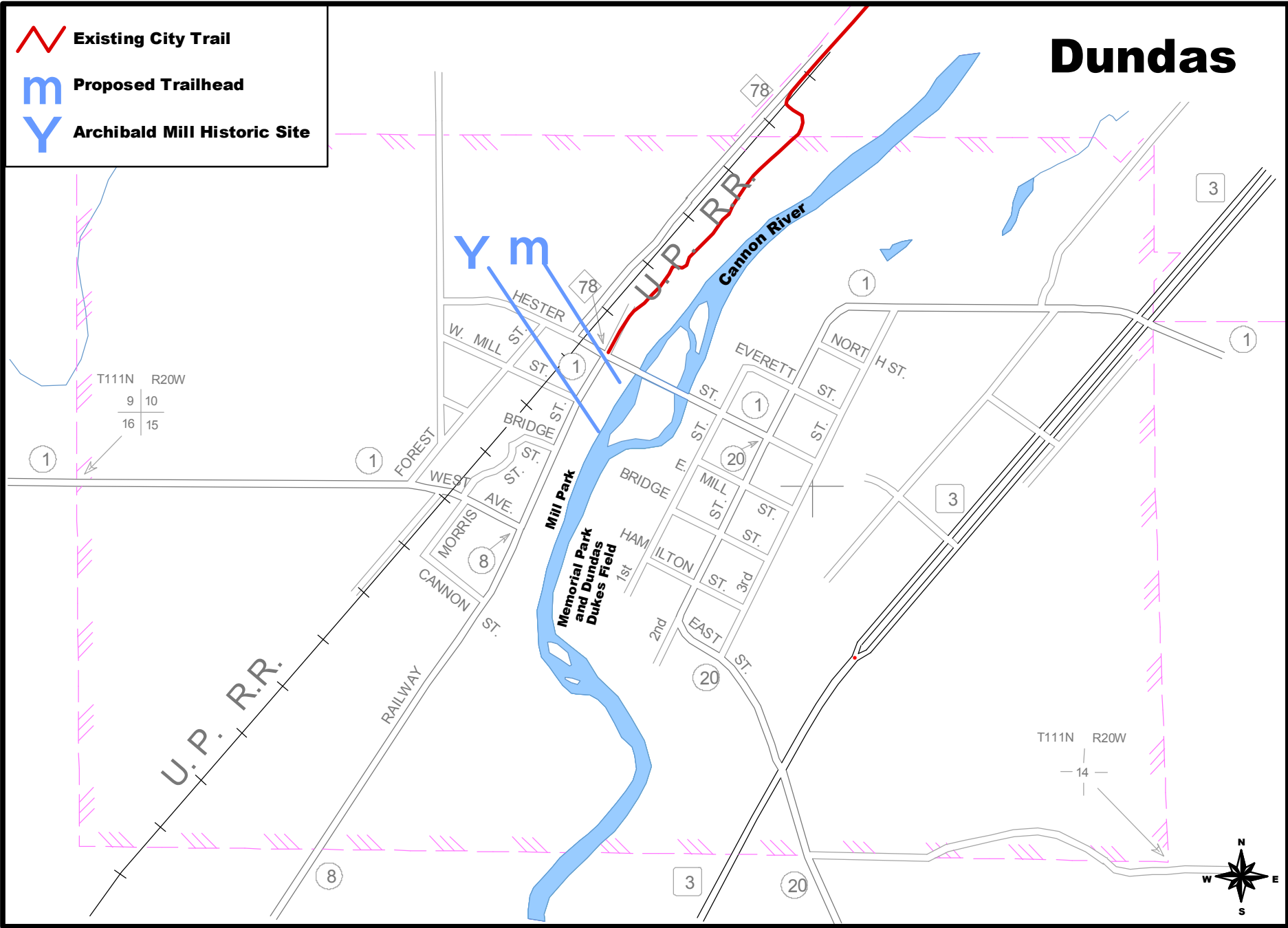
Dundas is located in northern Rice County, approximately 40 miles south of the Twin Cities. The population from the 2000 census was 547. In 1990, it was recorded at 473 which is a 15.6 percent change in population between 1990 and 2000. According to the State Demographer's Office, the estimated 2003 population was 679.

The city of Dundas was platted in 1857 and was chartered in 1879. Dundas was named by its founders, Edward and John Archibald, in honor of the town in Ontario, Canada from which they hailed. The Archibalds built a flour mill on the Cannon River and reportedly made the best flour in the state which became Gold Medal Flour. The ruins of the mill, which is listed on the National Register of Historic Places, can still be seen in downtown Dundas.

Currently, Dundas has two bed and breakfast inns, two bars, and a fine-dining restaurant. The trail will connect to Memorial Park where a very successful amateur baseball team, the Dundas Dukes, play.

-  Existing City Trail
-  Proposed Trailhead
-  Archibald Mill Historic Site

Dundas



0.1 0 0.1 0.2 0.3 0.4 0.5 Miles

Road Data from MnDOT

Northfield

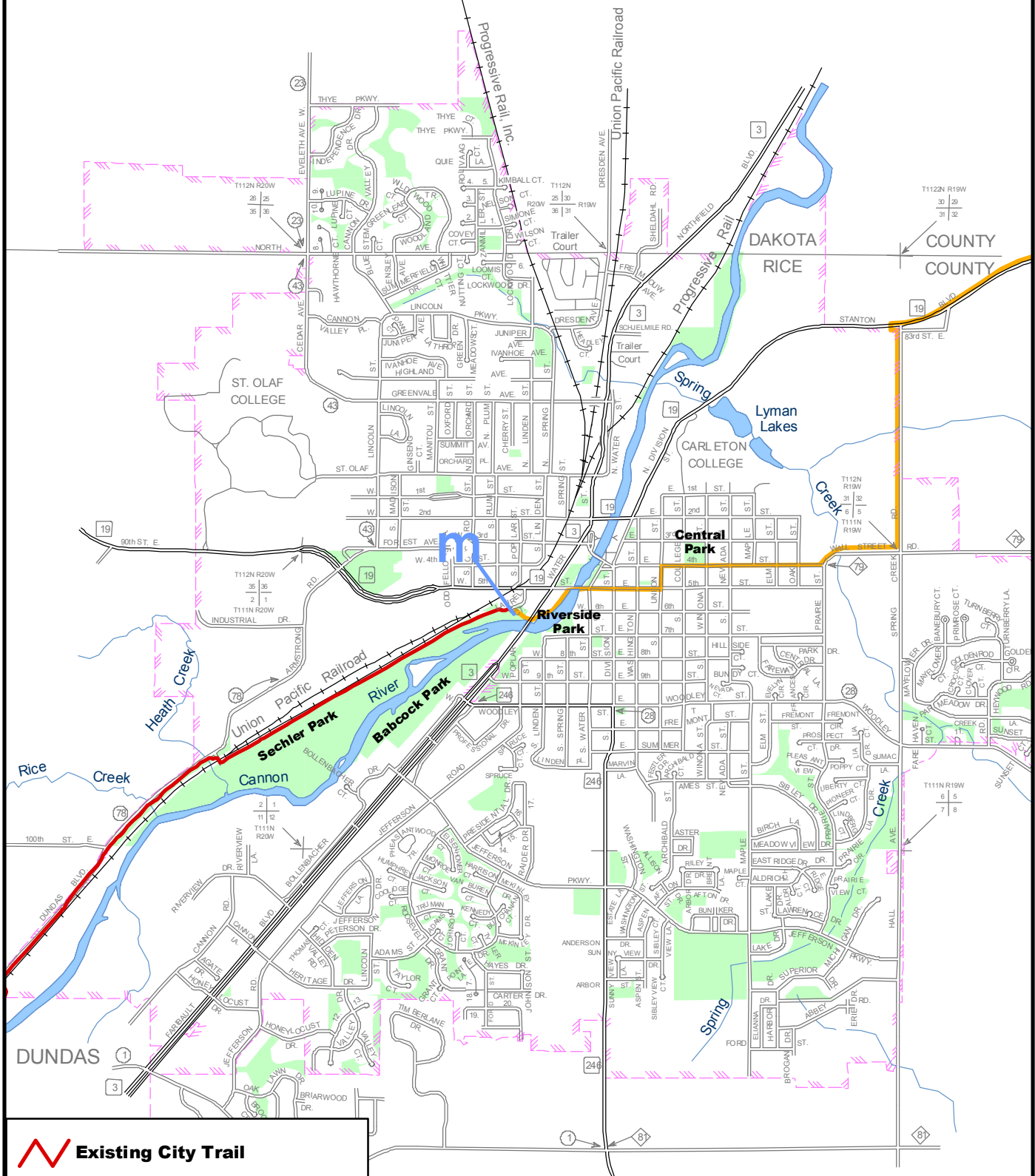
Northfield is located primarily in northern Rice County and partially in southern Dakota County, approximately 35 miles south of the Twin Cities. The population from the 2000 census was 17,147. In 1990, it was recorded at 14,684 which is a 16.8 percent change in population between 1990 and 2000. According to the State Demographer's Office, the estimated 2003 population was 18,256.





The city of Northfield was platted in 1855 and was incorporated as a city in 1875. It was named in honor of John W. North, a lawyer who came to Minnesota from New York in 1849. He gave lectures on anti-slavery and was a firm believer in education and the women's suffrage movement. Among many of his accomplishments, he is considered the father of the Minnesota Republican party and was influential in the founding of the University of Minnesota. He bought land near Northfield and built a saw mill and a flour mill. The villages in the area flourished from the mills that were built along the Cannon River as many people at that time were trying to make a living as millers. A dam was built in Northfield to provide power for the Ames Mill – a flour mill that produced high quality flour. It is now home to Malt-o-Meal – a food manufacturer that produces breakfast cereals.

Northfield's motto is "Cows, Colleges, and Contentment." The reference to cows stems from the fact that Northfield was a leader in the Holstein cow industry. The college reference is because Northfield is home to two distinguished colleges - St. Olaf College (founded in 1874) and Carleton College (founded in 1866.)

Amenities for trail users are numerous in Northfield. There are many restaurants, lodging options, and commercial services along the route of the proposed trail.

Northfield



-  Existing City Trail
-  Proposed Route through City
-  Parks and Open Space
-  Proposed Trailhead

0.5 0 0.5 1 Miles

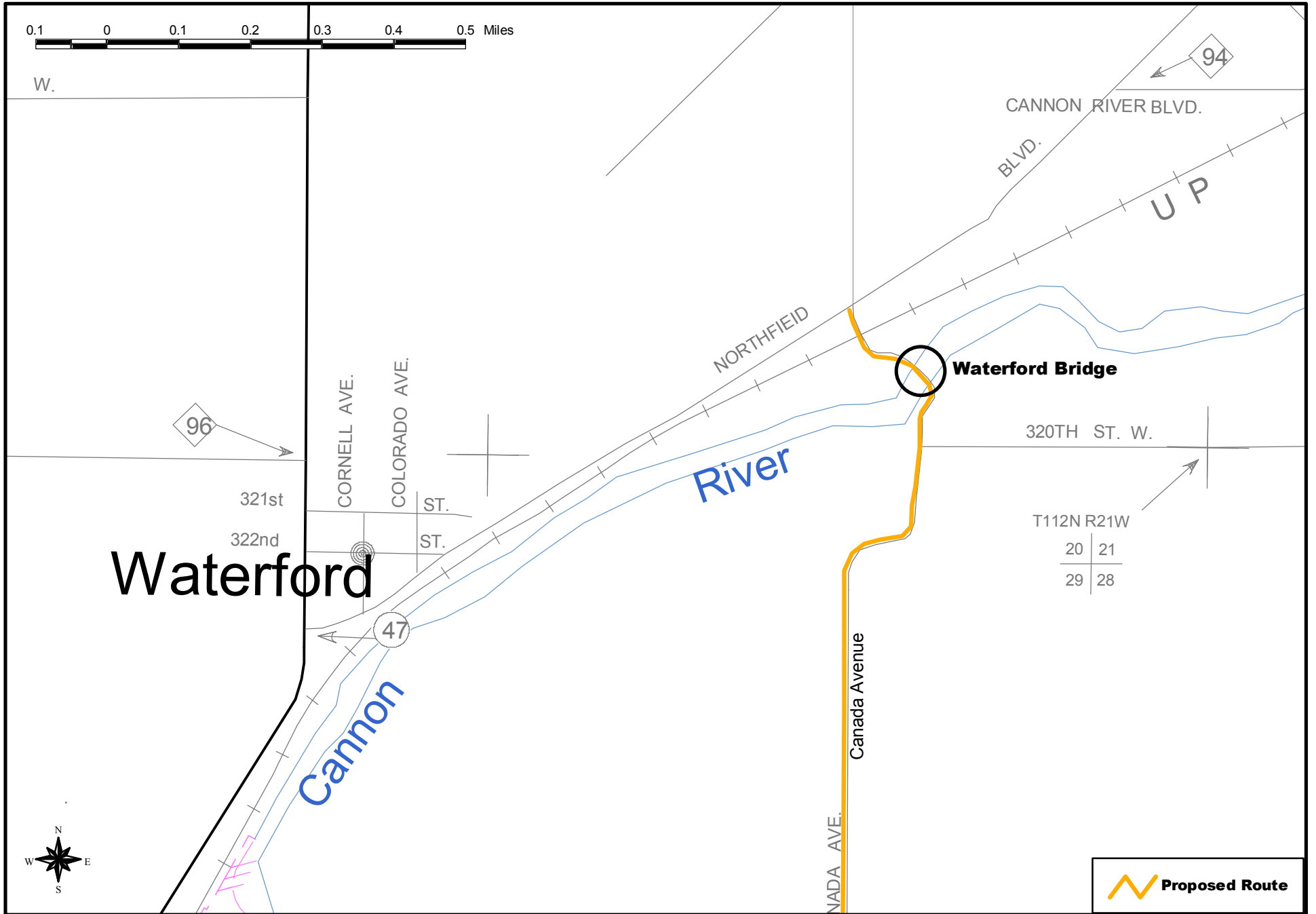
Data from MnDOT and the City of Northfield.



Waterford

This community is two miles north of Northfield and is not currently connected by the proposed trail alignment. However, a spur trail could be developed to make a connection with the main Mill Towns State Trail treadway. The village has a community center and a park that could function as a trailhead.

The name, Waterford, was derived from the fact that there was a ford across the Cannon River near the village. This area was attractive to settlers because of its location near water, its fertile soils, and its proximity to good markets. The village was platted on land owned by the Cannon River Manufacturing Company. It was also a stop on the Chicago Great Western and Chicago Milwaukee and St. Paul railroads. Waterford had a sawmill and a post office. It was also the site of the Grange Flour Mill and Cooperage, built in 1873 by the Cannon River Manufacturing Company. Northfield Heat, Light and Power Company also built a steam generating plant in 1896.

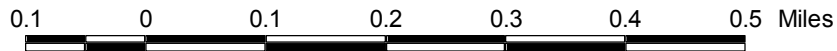


Road data from MnDOT.

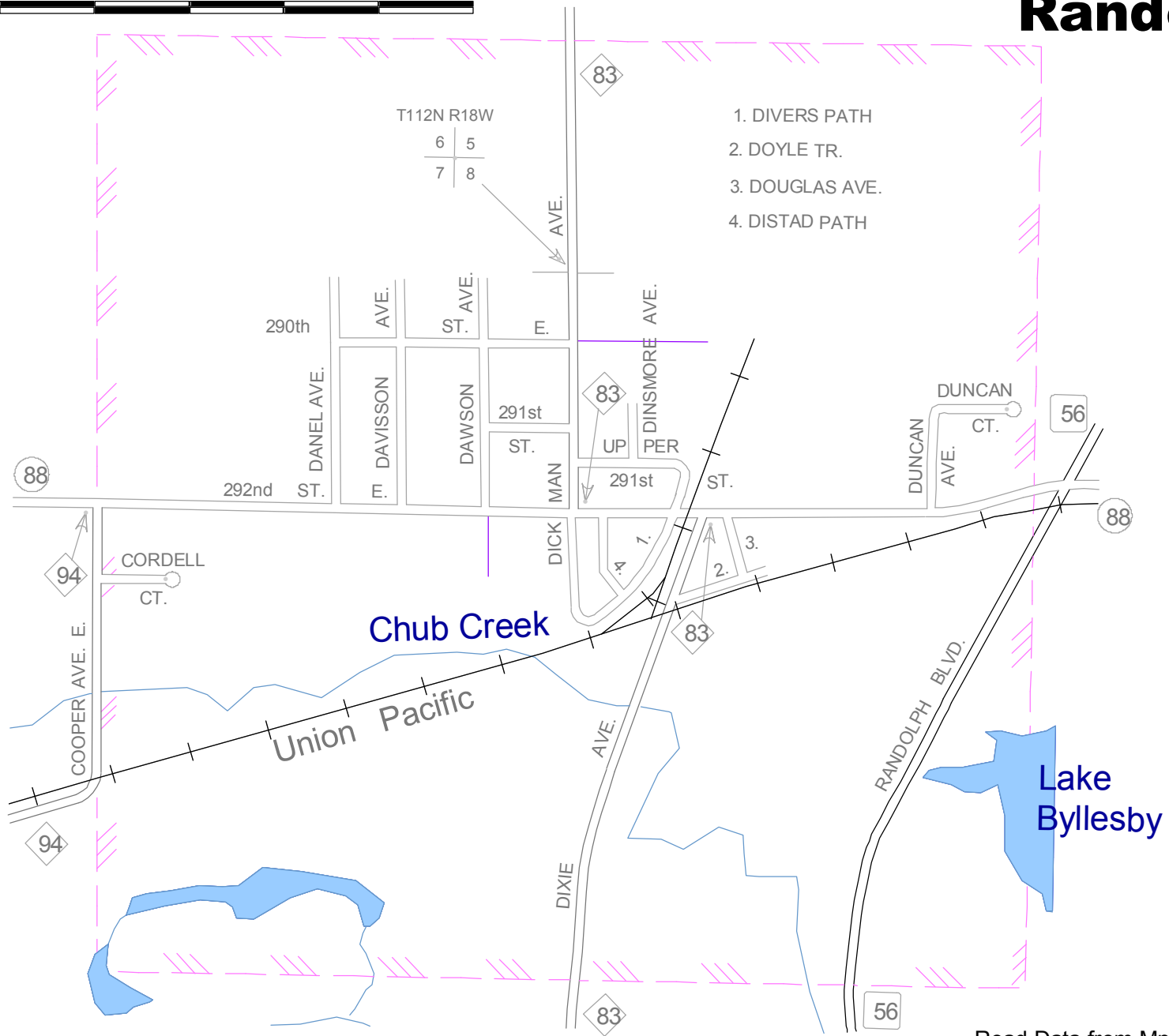
Randolph

The city of Randolph is located in southern Dakota County and is on the border between Dakota and Goodhue Counties. It is approximately six miles west of Cannon Falls. The population from the 2000 census was 318. In 1990, it was recorded at 331 which is a -3.9 percent change in population between 1990 and 2000. According to the State Demographer's Office, the estimated 2003 population was 336. Amenities in Randolph include a convenience store and a city park.

Randolph was incorporated in 1857. This town prospered from rail passenger traffic because, like Waterford, it also was a stop on the Chicago Great Western and Chicago Milwaukee and St. Paul railroads. Randolph had two grain elevators, two hotels and a post office.



Randolph



Road Data from MnDOT.

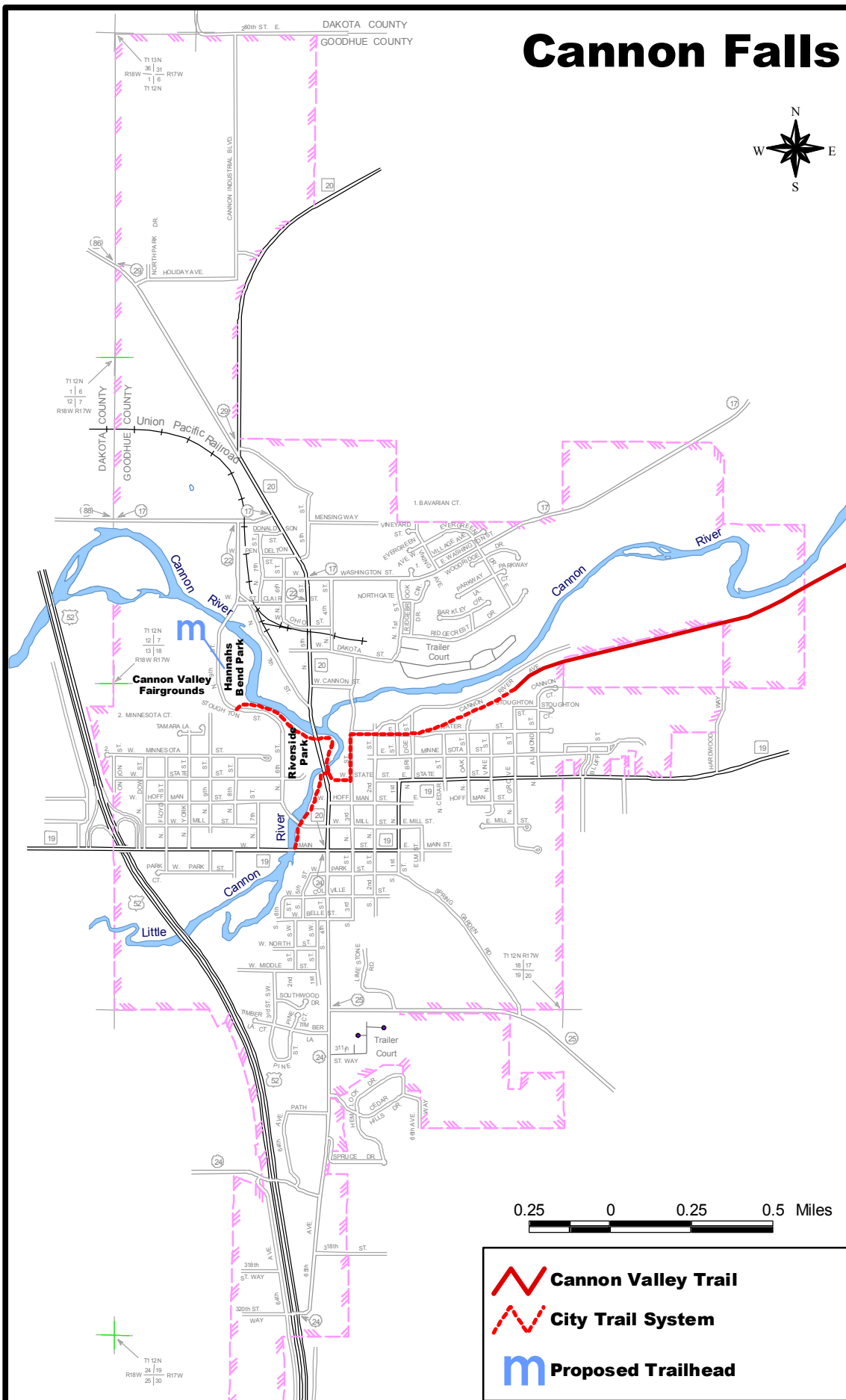
Cannon Falls

Cannon Falls is located in northern Goodhue County, approximately 35 miles south of the Twin Cities. The population from the 2000 census was 3,795. In 1990, it was recorded at 3,232 which is a 17.4 percent change in population between 1990 and 2000. According to the State Demographer's Office, the estimated 2003 population was 3,877.

The city of Cannon Falls was platted in 1855 and incorporated as a village in 1857. The location of being near a river that supplied water power attracted settlers and businessmen with an interest in investing money in mills. The first flour mill was built in 1867 by R.C. Knox but was destroyed by a flood that same year. A woolen mill was operating in town by 1861. It remained in operation until 1875 when it was converted to a grist mill. The listing of businesses from the book, *The History of Dakota and Goodhue Counties*, would indicate that Cannon Falls was very prosperous in the 1900's as the listing was quite extensive.

Trail users will find that Cannon Falls offers numerous choices for lodging, dining, and other recreational opportunities. There are also commercial services available. The Mill Towns State Trail will connect with city trails in Cannon Falls. Those city trails connect with the Cannon Valley Trail, which is owned by Cannon Falls, Red Wing and Goodhue County.

Cannon Falls



Interrelationship with Lake Byllesby Regional Park

This Dakota County Regional Park is situated on the north shore of Lake Byllesby Reservoir, the largest lake in Dakota County. The lake is also the site of a hydroelectric dam, the origin of Xcel Energy Company. The lake affords many opportunities for water recreation including boating, sailing, wind surfing, fishing and swimming. Land activities include picnicking, hiking, camping and a children's playground. Winter activities consist of ice fishing, dogsledding and skijoring. Snowmobiling and other motorized uses are not allowed in Lake Byllesby Regional Park.

Dakota County is in the process of updating the master plan for this park that will set the course for the next fifteen years. The planning team has drafted an updated master plan that will improve current activities and facilities, introduce new recreational opportunities and facilities, and make the park a regional recreational destination. The maps on the following pages, from the draft Lake Byllesby Regional Park Master Plan dated March 31, 2005, show the possible route options and trailheads for the Mill Towns State Trail.

The park is divided into two distinct areas. East Byllesby, on the northeast corner of the lake, supports most of the recreation including RV and tent camping, picnicking, and water-related pursuits. West Byllesby, on the western end of the lake, is the more forested portion that is recreationally underdeveloped. It is, however, a destination for birdwatchers.

Dakota County is in favor of utilizing Lake Byllesby Regional Park as a trailhead for the Mill Towns State Trail. They currently have or are in the process of planning facilities that would accommodate trail users. One trailhead would be located in the main park area, Byllesby East, and another located at Byllesby West. Several options exist for routing the trail through Byllesby East, but they are dependent on how the trail is routed from the west.

Visitors to Lake Byllesby Regional Park want a connection to the Cannon Valley Trail. Currently there is not a safe, dedicated route into the city of Cannon Falls, where the Cannon Valley Trail ends, other than county road shoulders. The Mill Towns State Trail would provide that critical, safe connection to the Cannon Valley Trail.

Recommendation 1: The MN DNR, Division of Trails and Waterways will work cooperatively with Dakota County Parks and Planning Departments to route the Mill Towns State Trail through Lake Byllesby Regional Park and site trailheads.

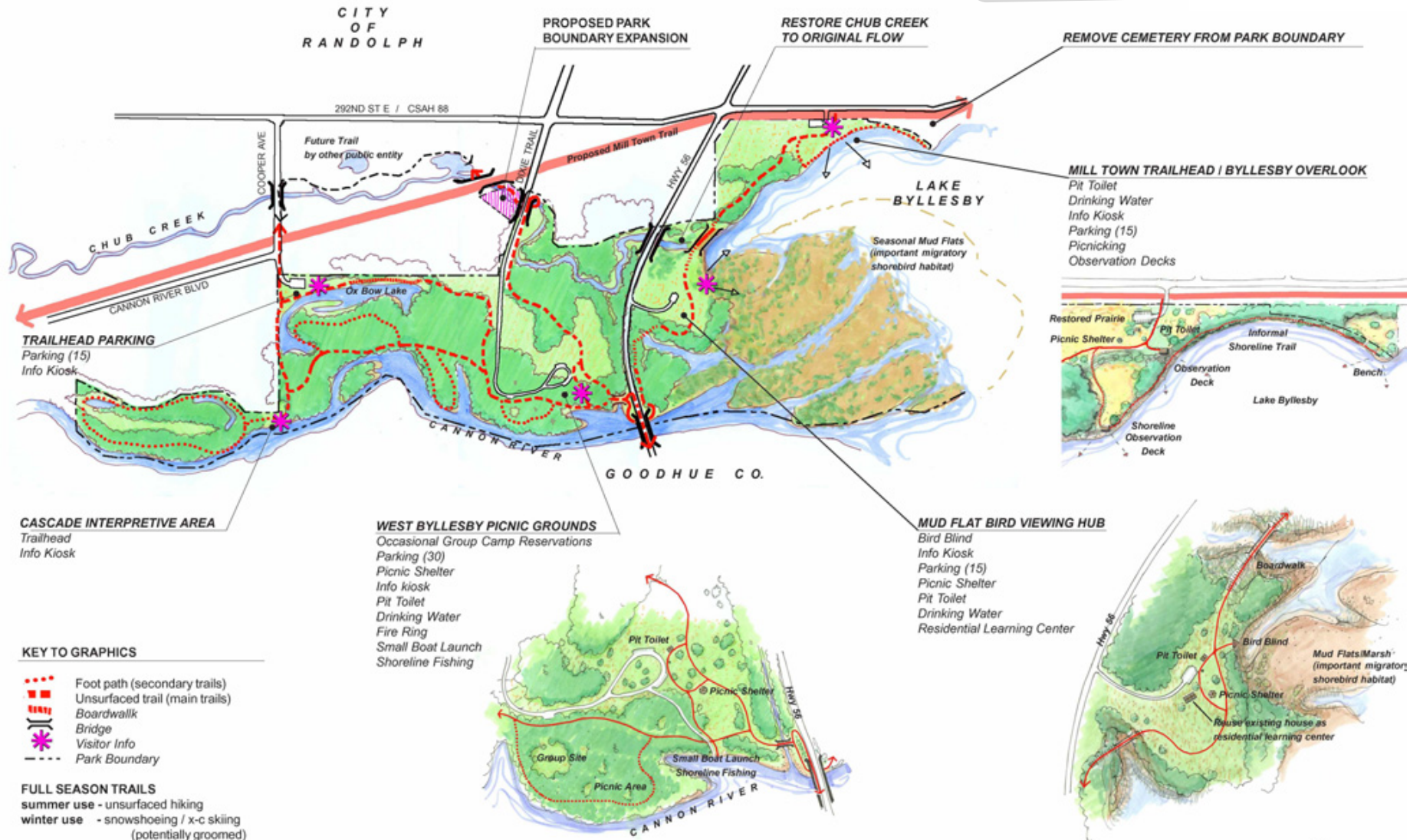
Figure 6.2 East Lake Byllesby Regional Park Master Plan with Details

DRAFT



DRAFT

Figure 6.3 West Lake Byllesby Regional Park Master Plan with Details



Interrelationship with the Cannon Valley Trail

The Mill Towns State Trail will connect to the 19.7-mile Cannon Valley Trail in Cannon Falls. The Cannon Valley Trail runs from Cannon Falls to Red Wing on the former Chicago Great Western Railroad line. Each trail is managed by a different government entity. The Mill Towns State Trail will be owned and managed by the Minnesota Department of Natural Resources. The Cannon Valley Trail is not a state trail. It belongs to Cannon Falls, Red Wing, and Goodhue County. A 9-member Joint Powers Board, made up of three local citizens and six elected officials, manages it. A wheel pass is required for those age 18 and older who are on a bicycle, in-line skates or other modes of transportation. The wheel pass for the Cannon Valley Trail, as of 2003, was \$3.00 per day or \$12.00 per season.

This connection of the Mill Towns State Trail to the Cannon Valley Trail will create some benefits and concerns from the standpoint of trail users and trail administrators.

Benefits

1. The addition of the Mill Towns State Trail in the Cannon Falls area creates an additional opportunity for trail users thereby lengthening and diversifying the trail experience.
2. The addition of the Mill Towns State Trail has the potential to increase visitors' length of stay in Cannon Falls and the surrounding towns because visitors may want to take multiple days to ride each trail.
3. The addition of the Mill Towns State Trail has the potential to attract more visitors to the area, which means a potential increase in revenue for the local businesses.
4. The addition of the Mill Towns State Trail will connect camping facilities at Byllesby Regional Parks, in Dakota and Goodhue Counties, with the Cannon Valley Trail.

Concerns

1. The set of rules that relate to each trail are somewhat different. This has the potential to confuse the trail user and make enforcement of each trail more difficult. For example, dogs are allowed on the Mill Towns State Trail, however, they are not allowed on the Cannon Valley Trail. Snowmobiles will be allowed on the Mill Towns State Trail whereas they are not allowed on the Cannon Valley Trail.
2. A wheel pass is required on the Cannon Valley Trail but is not required on the state trail. It will be important to communicate to trail users that a fee is required to use the Cannon Valley Trail.
3. The Cannon Valley Trail is dependent on the money generated from the wheel pass for 70% of the cost of the maintenance and operation of the trail. Concern was

expressed that some users may choose the trail where a fee is not required, cutting into the revenue necessary to operate the trail.

4. Over crowding of the parking areas for the Cannon Valley Trail is a concern. There is already limited parking for the Cannon Valley Trail in Cannon Falls.

5. The Cannon Valley Trail Joint Powers Board wants the Cannon Valley Trail to retain its unique identity.

Recommendation 1: DNR will make trail users aware of the differences relating to the rules and fee required by including this information on maps of the Mill Towns State Trail and at kiosks located on the Mill Towns State Trail.

Recommendation 2: Both trails could consider using techniques to clearly convey to the trail user they are entering a new trail. The development of archways, entranceways and signage are techniques that should be considered.

Recommendation 3: Ensure adequate parking is provided in Cannon Falls for Mill Towns State Trail users and communicate the location, Hannah's Bend City Park, clearly to trail users.

CANNON VALLEY TRAIL

Goodhue County, Minnesota A 19.7 mile (31.7km) long recreational trail connecting Cannon Falls, Welch, and Red Wing, Minnesota

HANNAH'S BEND PARK
RIVERSIDE PARK
MINNIESKA PARK
ATHLETIC FIELD
DOWNTOWN
East Side Park

CANNON FALLS
EL. 815.00

CANNON FALLS HISTORICAL MUSEUM
208 W. Mill Street, Cannon Falls, MN
OPEN: Fri. — 3:00 - 5:00 p.m.
Sat. — 9:00 a.m. - 2:00 p.m.

For further information contact the Cannon Falls Area Chamber of Commerce
103 4th St. N. • Cannon Falls, MN 55009 • Phone (507) 263-2289
www.cannonfalls.org

CANNON FALLS
EL. 815.00
SEE MAP ABOVE FOR DETAILS

TO TWIN CITIES
TO ROCHESTER

LAKE BYLLESBY REGIONAL PARK
LAKE BYLLESBY
GOODHUE COUNTY PARK

TRAIL RUN CREEK
SUNSET TRAIL
5 MILE LOOP TRAIL
MT. BIKES RECOMMENDED

ANDERSON MEMORIAL REST AREA
RIVER TERRACE PRAIRIE SNA
CANNON VALLEY INTERPRETIVE TRAIL
1.5 MILE LOOP
MT. BIKES RECOMMENDED

WELCH STATION ACCESS
WELCH
EL. 715.00

WELCH VILLAGE SKI AREA
CANNON RIVER TURTLE PRESERVE SNA
REST AREA
5 MILE HIKING PATH MARSHALL REFORESTATION PROJECT
PEDESTRIAN USE ONLY

UPPER & LOWER A.P. ANDERSON PARK
1/8 MILE HIKING PATH TO PRESERVE
PEDESTRIAN USE ONLY

BAY POINT PARK
BARN BLUFF

RED WING
EL. 700.00
SEE MAP BELOW FOR DETAILS

STATE NATURAL AREA (SNA)

STATE FOREST LAND

(BOUNDARIES ARE APPROXIMATE)

TRAIL - PAVED

MILE POST

CITY TRAIL - PAVED

PLEASE RESPECT PRIVATE PROPERTY
SERVICES AND FACILITIES SUBJECT TO CHANGE
MANY ARE SEASONAL



EMERGENCY
DIAL 911

MILEAGE CHART						
Cannon Falls 3rd St.	3.6	4.8	9.6	11.1	15.2	19.4
Anderson Rest Area	1.2	6.0	7.5	11.6	15.8	
Sunset Trail (west crossing)	4.8	6.3	10.4	14.6		
Welch Station Access	1.5	5.6	9.8			
Belle Creek		4.1	8.3			
Cannon Bottom Rd.			4.2			
Red Wing Old W. Main Access						

SHARE THE TRAIL

- Watch for and obey all signs
- Look both ways at road crossings
- Be in control of your bicycle at all times
- Watch for hazards on or near the trail
- Use the right hand side of the trail
- Announce your presence when passing others
- Wear a helmet

Cannon Valley Trail follows the route of a former Chicago Great Western Railroad line that connected Red Wing and Mankato, MN. Upright concrete posts, many of which still remain, were used to identify the number of miles from Mankato.

RED WING
EL. 700.00

TO TWIN CITIES
TO ROCHESTER

LAKE BYLLESBY REGIONAL PARK
LAKE BYLLESBY
GOODHUE COUNTY PARK

TRAIL RUN CREEK
SUNSET TRAIL
5 MILE LOOP TRAIL
MT. BIKES RECOMMENDED

ANDERSON MEMORIAL REST AREA
RIVER TERRACE PRAIRIE SNA
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1.5 MILE LOOP
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WELCH STATION ACCESS
WELCH
EL. 715.00

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PEDESTRIAN USE ONLY

BAY POINT PARK
BARN BLUFF

RED WING
EL. 700.00

GOODHUE COUNTY HISTORICAL SOCIETY MUSEUM
1166 Oak Street, Red Wing, MN
OPEN: Tues. - Fri. — 10:00 a.m. - 5:00 p.m.
Sat. and Sun. — 1:00 - 5:00 p.m.
CLOSED MONDAY

For further information contact the Red Wing Visitor and Convention Bureau
418 Levee Street, Red Wing, MN 55066
(800) 498-3444 or (651) 385-5934 • www.redwing.org

P PARKING **?** INFORMATION **W** DRINKING WATER **T** TOILET **F** FOOD SERVICE **L** LODGING **C** CAMPING **G** GASOLINE **PT** PUBLIC TELEPHONE **WP** WHEEL PASS PAY STATION **DA** DISABLED ACCESSIBLE TOILETS **P** PICNIC AREA **PL** PUBLIC CANOE LAUNCH

Projected Trail Use

The Mill Towns State Trail will be an important link between the Sakatah Singing Hills State Trail and the Cannon Valley Trail. We can use data from surveys done on both trails to make estimates of the volume of trail users. However, the data obtained for each trail is not equally comparable so a single conclusion based on both data sets cannot be drawn.

Trail user numbers on the Cannon Valley Trail, from the 2003 annual report, indicate an increase in use of the trail from 2002. For 2003, there were 79,576 bicycling user days, 5,079 in-line skating user days, 8,466 pedestrian user days, and 500 cross-country skiing user days. A visitor use day is one person on the trail for up to one day. Visitations are estimated using counter numbers, sales records, and assumptions based on survey results. A wheel pass is required for those age 18 and older who are on a bicycle, in-line skates or similar. The wheel pass, as of 2003, was \$3.00 per day or \$12.00 per season (including sales tax). Since users under 18 do not buy wheel passes, youth riders may increase the numbers significantly.

Estimated Visitor Use Days: Cannon Valley Trail						
Activity	1998	1999	2000	2001	2002	2003
Bicycling	87,758	80,858	80,437	77,100	60,454	79,576
In-line Skating	5,601	5,405	5,134	4,921	3,859	5,079
Pedestrian	8,776	8,348	8,557	8,202	6,431	8,466
Skiing	100	500	500	600	500	500
Total	102,235	95,111	94,628	90,724	71,244	93,621

Data from the 2003 Cannon Valley Trail Annual Report

The most recent data on trail use for the Sakatah Singing Hills State Trail is from the July 2000, State Trail Use Survey published by the Minnesota DNR. Data for the Sakatah Trail was gathered in the summer of 1998 (the Saturday of Memorial Day weekend to Labor Day) and is reported as "user hours." One user hour is defined as one person using the trail for one hour. Two people using the trail for one hour is reported as two user hours. User hours are an effective way to combine and compare trail activities that have varied outing lengths. From that survey, bicycling accounted for 73,009 user hours, in-line skating accounted for 6,271 user hours, and walkers accounted for 12,729 user hours. The highest intensity of summer use was on the portion of trail from Morristown to Faribault. This would suggest that there are more trail users near the Faribault end that would potentially continue their trail activity by utilizing the Mill Towns State Trail.

While it is difficult to predict future trail use, it would be safe to conclude that there would be a mix of local and tourist use on the Mill Towns State Trail, similar to that found on the Sakatah Singing Hills State Trail. We could also expect that trail users from the Cannon Valley Trail and the Sakatah Singing Hills State Trail would continue their trail activity by utilizing the Mill Towns State Trail. This would be valuable for the communities on the Mill Towns State Trail as trail users typically spend money in the communities they pass through.

Trail Maintenance

Maintenance of the Mill Towns State Trail 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, parking lots
- Winter grooming and plowing
- Tree and shrub pruning
- Trash removal
- Trail repair - fixing washouts and controlling erosion
- Maintaining bridge decking and railings
- Trail drainage control
- Trail surface maintenance
- Repair of animal damage to trail or facilities
- Checking and repairing fence lines, gates and cattle crossings
- Mowing and brushing farm crossings
- Cleaning out ditches and culverts, replacing failing culverts
- Vegetation management – restoration/enhancement
- Controlling noxious weeds
- Maintaining equipment
- Painting posts and picnic tables
- Maintaining boundary signs and working to resolve encroachment issues
- Coordination of volunteer efforts
- Training and supervision of employees, Minnesota Conservation Corps, or Sentence-to-Service crews doing maintenance work
- Any future sections of the trail developed with asphalt will require sweeping.

Recommendation 1: The Division of Trails and Waterways will require additional maintenance funds as the trail is developed.

Recommendation 2: Faribault's Park and Recreation department will maintain the White Sands Trailhead facility, located in Faribault, as stated in the Federal Recreational Trails Program 2004 Grant Application.

Recommendation 3: The City of Dundas will maintain the Dundas trailhead facility as stated in the Federal Recreational Trails Program 2004 Grant Application.

Recommendation 4: The City of Northfield will maintain the Northfield Trailhead facility as stated in the T21 Enhancement Grant for 2007.

Information and Education

Identification of Services

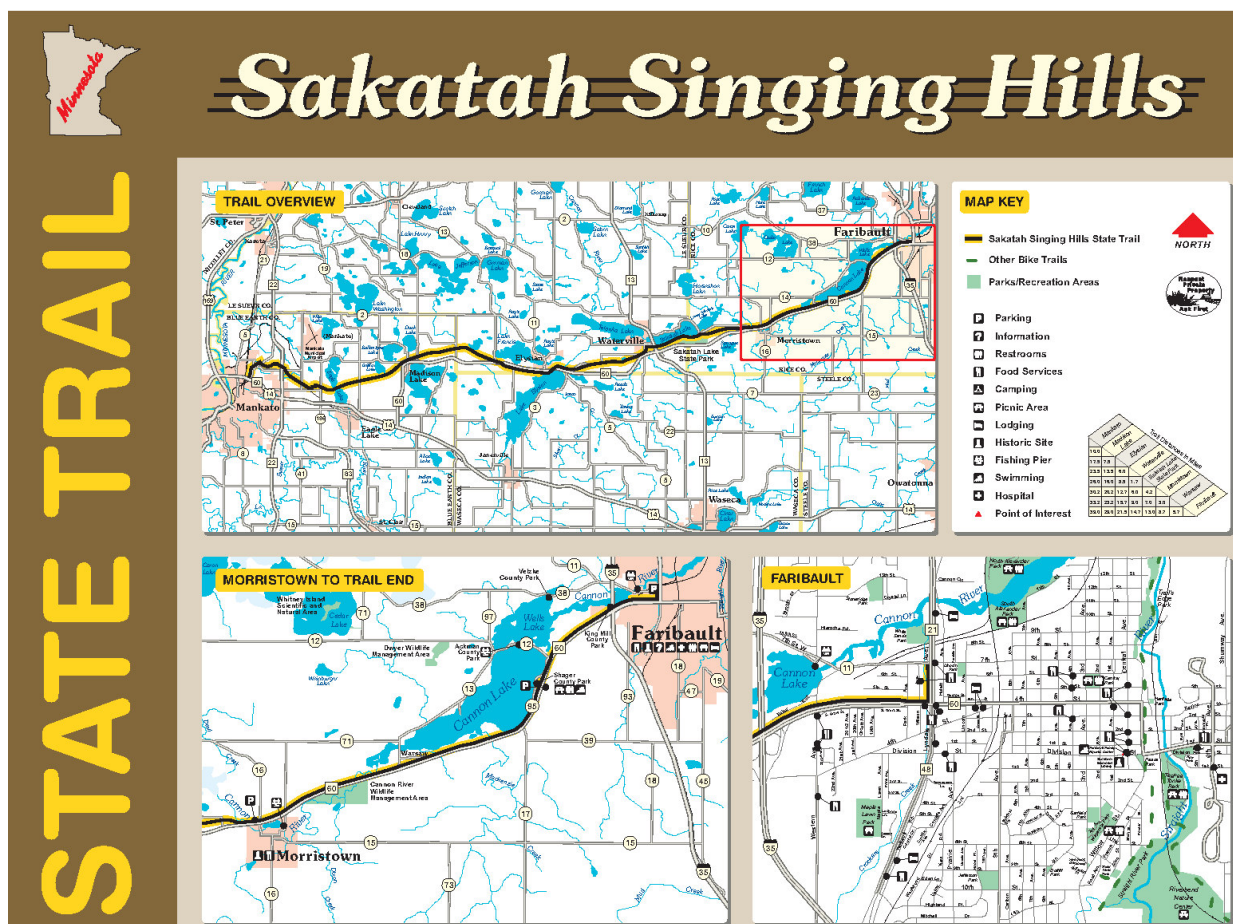
Trail users benefit from knowing where they can obtain services (medical assistance, gasoline, food, lodging, rest rooms, campgrounds, repair facilities, other retail) and local businesses benefit from an increase in customers. A listing of the services available in each community should be developed in cooperation with local businesses and community groups and be displayed on information boards in each community.

A standardized sign indicating the distance to services should be put up in the trail right-of-way. Currently, state trail rules and regulations prohibit commercial advertisements and concessions in the trail right-of-way.

Trail User Orientation

A mile marker system should be established along the trail. Mile markers will serve to orient trail users to their location as well as assist emergency responders in locating trail users in need of medical assistance.

Information boards at parking areas and in communities should be installed to provide an overview of the trail and to orient trail users. The DNR is in the process of developing standardized “You Are Here” signs for each of the state trails. A sample from the Sakatah Singing Hills State Trail can be seen below.



A standard kiosk design should be used in host communities and at other locations where wayside exhibits are proposed. The design should reflect the milling theme for which the trail is named.

Trail Rules and Regulations

Trail courtesy and safety display boards that are aimed at educating trail users about appropriate behavior, promoting safe trail use and protecting the quality of the trail environment should be posted at information kiosks along the trail. This type of information is currently being incorporated into the newly designed “You Are Here” signs to minimize the clutter of regulatory signs that can occur at trailheads.

Trail users are legally responsible for obeying the rules and regulations provided in Minnesota Rules, State Recreational Trails, 6100.3000 through 6100.4300. They can be obtained from the web at www.leg.state.mn.us/leg/statutes.asp.

Interpretation of Natural and Historical Resources

Interpretive signs and displays should be placed along the trail to provide information about natural resources of significance and interest (Cannon River, Big Woods landscape, Oak Savanna landscape, lakes, wetlands, forests and prairie vegetation) and at places that tell the history of the region. A milling theme will be emphasized.

Environmental Education

The trail has great potential for environmental education. The Mill Towns State Trail Friends group, Joint Powers Board, local citizens, nature centers, local colleges and the DNR will work together to advocate appropriate environmental education programs along the trail.

Recommendation 1: Develop a kiosk design that reflects the historical milling theme that can be used in the communities along the trail. Use of the same design helps build an identity for the trail and alerts users to trail information.

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

Recommendation 3: Interpret the natural, historical and cultural features along the trail.

Recommendation 4: Interpret the natural communities in relation to the Big Woods and Oak Savanna landscape. Consult the associated DNR landscape teams for assistance.

Trailside Art

The use of sculpture within the trail right-of-way can be an effective way to provide interpretive information about the resources and the history of the trail. Practical and functional objects such as benches, gateways, bridges, water fountains and tables can be designed in such a manner that they are aesthetically attractive and at the same time provide information about the area through design and use of materials. Sculpture for purely aesthetic purposes can also fulfill this purpose.

A proposal of initiating an art internship, to develop art along the trail, has been discussed and is being explored by local community members. Relationships with local community art groups will be established to assist in aspects of the internship. The internship is proposed to be one year in length and it is hoped that this program could last as long as fifty years. The Friends group is considering seeking funding of public art. It is envisioned that some of the works of art would emphasize the local milling history of the Cannon River. Some of the works could also be memorials to citizens that had a great influence in the process and completion of the trail.

Recommendation 1: The Division of Trails and Waterways, local citizens, community art groups and members of the internship program should work cooperatively to develop trailside art in the right-of-way.

Enforcement

Enforcement activities are a vital aspect of maintaining a safe and secure trail environment. Enforcement of state trail 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. DNR has the primary responsibility for law enforcement on DNR owned and operated recreation areas. Enforcement assistance will also be sought from the local Police Departments and the County Sheriffs.

Funding for law enforcement on state trails has not kept pace with the need created by new trail development. When miles are added to the system, funds for the additional law enforcement needed have not been appropriated. A negative impact on public safety and natural resources can result due to the lack of sufficient law enforcement. A solution promoting law enforcement coverage with trail development must be found.

Recommendation 1: Provide an adequate level of enforcement via a multifaceted approach to help 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. To accomplish this, additional enforcement officers are required to address the enforcement needs of the expanding trail system in Minnesota.

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: Use increased visibility of Trails & Waterways staff during peak use times for an enforcement effect.

Recommendation 4: The Division of Trails & Waterways will include the cost of enforcement when providing information to legislators, trail advocates and local government officials about the overall cost of the trail.

Impact of the Trail

It is essential that the trail be located, developed, and maintained in a way that does not detract from the natural landscape. Both site and landscape level impacts of the trail will be assessed when a specific alignment is determined. It is a goal to minimally impact existing natural and cultural resources. Preliminary groundwork, pertaining to inventory of natural and cultural resources, has been completed to assess any potential impacts the trail may have. These impacts, both positive and negative, need to be evaluated on both a site and landscape level so that we can minimize the negative and accentuate the positive impacts. The trail will most likely be located in existing, disturbed corridors.

We know that the trail will attract additional people to experience the area as well as provide a recreational need for the residents of the area. Trail users will come to the trail to enjoy the landscape and the natural and cultural resources it has to offer. By providing people with access and opportunities for recreation, as well as education about the landscape they will be experiencing, trail users will develop an appreciation for the resources, which will translate into stewardship and appreciation for the landscape.

Ecological Classification System

The following descriptions are from the MN DNR, Division of Ecological Services, Ecological Classification System website.

The Ecological Classification System (ECS) is part of a nationwide mapping initiative developed to improve our ability to manage all natural resources on a sustainable basis. This is done by integrating climatic, geologic, hydrologic and topographic, soil and vegetation data.

Three of North America's ecological regions, or biomes, representing the major climate zones converge in Minnesota: prairie parkland, deciduous forest and coniferous forest. The presence of three biomes in one non-mountainous state is unusual, and accounts for the diversity of ecological communities in Minnesota.
(<http://www.dnr.state.mn.us/ecs/index.html>)

The Mill Towns State Trail proposed corridor is located at the transition zone of the Big Woods subsection and the Oak Savannah subsection. See the ECS map on the following page.

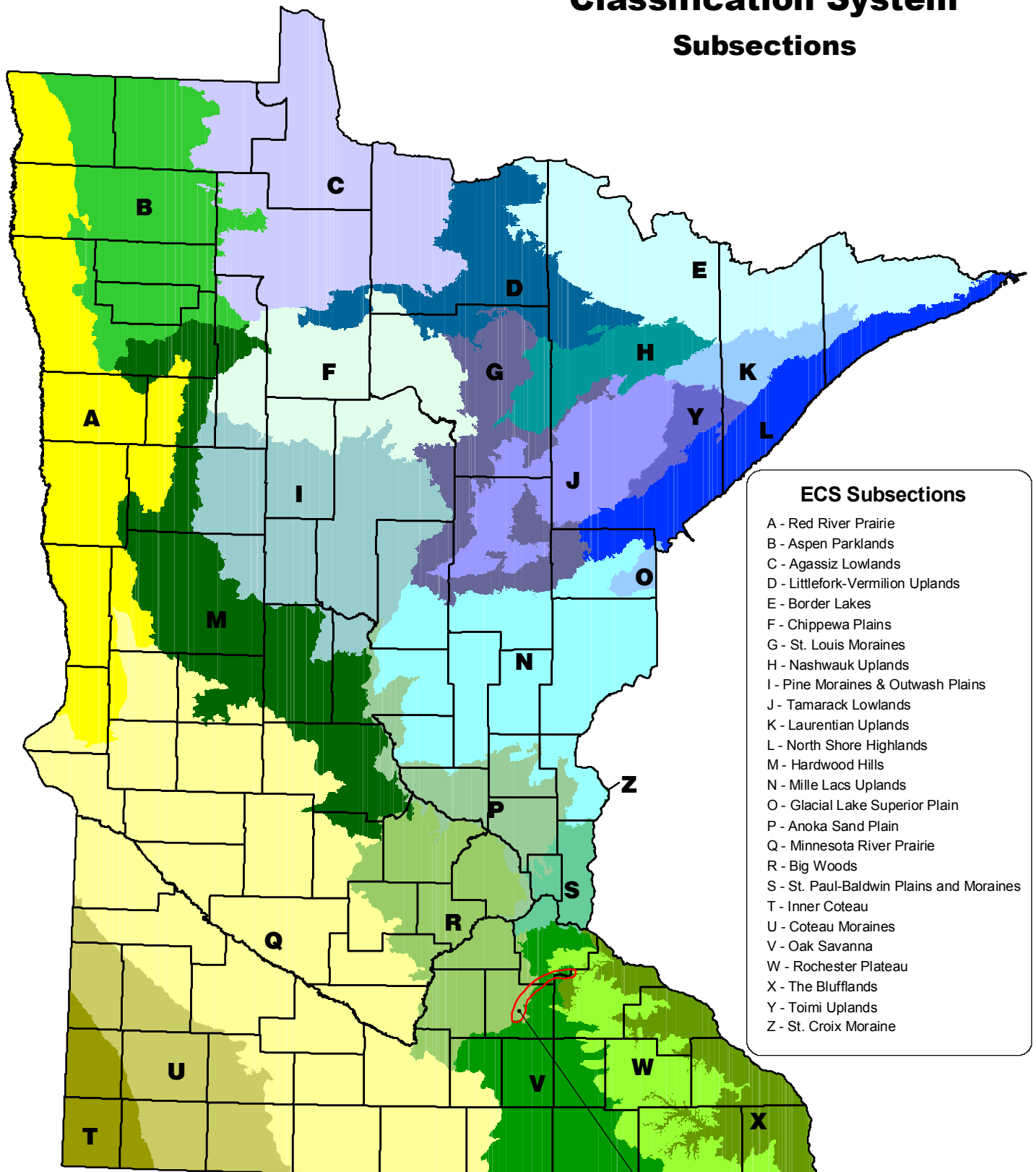
The Big Woods subsection was historically an area dominated by a deciduous forest containing elm, basswood, sugar maple, bur oak, red oak, ironwood and aspen. The typical topography of this subsection is gently to moderately rolling hills interspersed with lakes and peat bogs. Today, very few areas of the Big Woods remain as most of it has been cleared for cultivation and pastureland. A small remnant of Big Woods remains protected as Nerstrand Big Woods State Park, which is east of the proposed Mill Towns State Trail corridor. See the alignment overview on page 11 for location of this park in relation to the trail cities.

In 2000, the Minnesota Legislature authorized the creation of the Big Woods Heritage Forest in recognition of the value of protecting and enhancing what remains of the Big Woods. Through County resolutions of support and a MN DNR Commissioner's Order, the Big Woods Heritage Forest will be established in nine counties by spring 2005, including Rice and Dakota Counties. This is a voluntary program whereby landowners managing lands for native plant communities can choose to participate in a Big Woods Heritage Forest Registry and selected existing state lands are designated as part of the Heritage Forest.

The Oak Savannah subsection was historically an area dominated by bur oak savannahs but it was not uncommon to find tallgrass prairie and maple-basswood forests in this section as well. The typical topography of this subsection is gently rolling. The area contains very few lakes. Presently, most of the area is cultivated.

Minnesota's Ecological Classification System

Subsections



ECS Subsections

- A - Red River Prairie
- B - Aspen Parklands
- C - Agassiz Lowlands
- D - Littlefork-Vermilion Uplands
- E - Border Lakes
- F - Chippewa Plains
- G - St. Louis Moraines
- H - Nashauk Uplands
- I - Pine Moraines & Outwash Plains
- J - Tamarack Lowlands
- K - Laurentian Uplands
- L - North Shore Highlands
- M - Hardwood Hills
- N - Mille Lacs Uplands
- O - Glacial Lake Superior Plain
- P - Anoka Sand Plain
- Q - Minnesota River Prairie
- R - Big Woods
- S - St. Paul-Baldwin Plains and Moraines
- T - Inner Coteau
- U - Coteau Moraines
- V - Oak Savanna
- W - Rochester Plateau
- X - The Blufflands
- Y - Toimi Uplands
- Z - St. Croix Moraine

Mill Towns State Trail
Area of Interest

Vegetation

Presettlement

Presettlement vegetation in the vicinity of the proposed trail corridor options, based on Marschner's *Original Vegetation of Minnesota* map, consisted of the following types: Prairie, wet prairie, aspen-oak land, oak openings and barrens, big woods-hardwoods (oak, maple, basswood, hickory), and river bottom forests. The following descriptions are from *The Original Vegetation of Minnesota, 1974*. See the map on page 53.

Typical vegetation found in the prairie mapping unit was big bluestem, little bluestem, indian grass, prairie clover, goldenrods, and asters. Roses and wolfberry were the typical shrubs found in this unit. Wet prairies consisted of bluejoint grass, big bluestem, cattails, bulrushes, many sedges, wild rice, willows, speckled alder and bog birch.

Aspen-oak land consisted of young, dense stands of quaking aspen and bigtooth aspen, northern pin oak, northern red oak, bur oak, elms, ash and basswood.

Oak openings and barrens were usually a buffer between prairies and big woods. This mapping unit was characterized by oak groves or single bur oak mixed with tall grass prairie.

The big woods-hardwoods mapping unit was believed to be a sugar maple-basswood forest with a diverse shrub and ground layer. It consisted of bur oak, white oak, red oak, elm, basswood, ash, maple, hornbeam, aspen, birch, hickory, butternut and black walnut.

The river bottom forest mapping unit was used by Marschner to describe nearly all major floodplain and valley-bottom forests. Typical vegetation included elm, ash, cottonwood, boxelder, basswood, willow, aspen, hackberry and oaks.

Present Day

Vegetation along the proposed trail corridor is a mixture of deciduous forest, cropland and grassland. The Natural Heritage Information database was used to obtain species that are threatened or endangered and are reported to be within the vicinity of the proposed trail corridor options. The inventory and evaluation of threatened or endangered vegetation, that may be found in the vicinity of proposed trail alignments, will be consulted during the planning and design of specific segments. Appendix 1 contains the data.

Three guiding principles provide the rationale for actions related to managing and restoring native plant communities on Trails and Waterways sites. These principles are from the document, "*Guidelines for Managing and Restoring Natural Plant Communities Along Trails and Waterways*" published by the Minnesota DNR, Trails and Waterways Division.

1. Restoration and management of natural plant communities:
 - Enhances the ecological quality of all sites
 - Contributes to the integrity and aesthetic quality of the regional landscape
 - Improves the quality of the recreational experience
 - Reduces air and water pollution.
2. New development should occur primarily in environments already influenced by human activity, with emphasis on restoring and re-establishing native vegetation in these environments for the benefit of people and remaining natural communities.
3. New development must avoid:
 - Critical habitat of endangered, threatened and special concern species as identified by the Natural Heritage Program
 - Remaining high quality natural plant communities and habitat.

Recommendation 1: Avoid high quality plant communities. See the Minnesota County Biological Survey (MCBS) maps on page 54 and 55 for location of these sites.

Information from DNR - MCBS website

Native habitats surveyed by MCBS contribute to a sustainable economy and society because they:

- Provide ecological services that contribute to the quality of air, soil, and water.
- Provide opportunities for research and monitoring on landscapes, native plant communities, plants, animals and their relationships within the range of natural variation.
- Serve as benchmarks for comparison of the effects of resource management activities.
- Are part of natural ecosystems that represent Minnesota's natural heritage and are sources of recreation, beauty and inspiration.
- Provide reservoirs of genetic materials potentially useful in agriculture, medicine, and industry.

Recommendation 2: Avoid threatened or endangered species. Data from the Natural Heritage database was used to assess the location of threatened or endangered species. Trails & Waterways will keep current with this data and perform on-the-ground surveys when an exact alignment is proposed.

Recommendation 3: The Trails and Waterways Natural Communities Coordinator will be responsible for conducting an inventory of existing plant communities. A vegetation management plan containing goals, objectives, and actions should be developed and implemented.

Recommendation 4: Native plant species, from a locally collected seed source, consistent with the native plant communities of the area should be used to revegetate existing natural plant communities as well as areas disturbed by erosion, overuse and

construction. Native plants should also be used in windbreak plantings and in the landscaping of parking areas and waysides.

Recommendation 5: Restore, or if necessary, establish native plant communities along the trail to minimize maintenance, minimize the use of pesticides, control noxious weeds, and increase natural species abundance and biodiversity for enhanced user experience.

Recommendation 6: Plant native species to screen unsightly areas, deter encroachment by adjoining landowners, deter trespassing by trail users as well as improve the quality of the trail corridor.

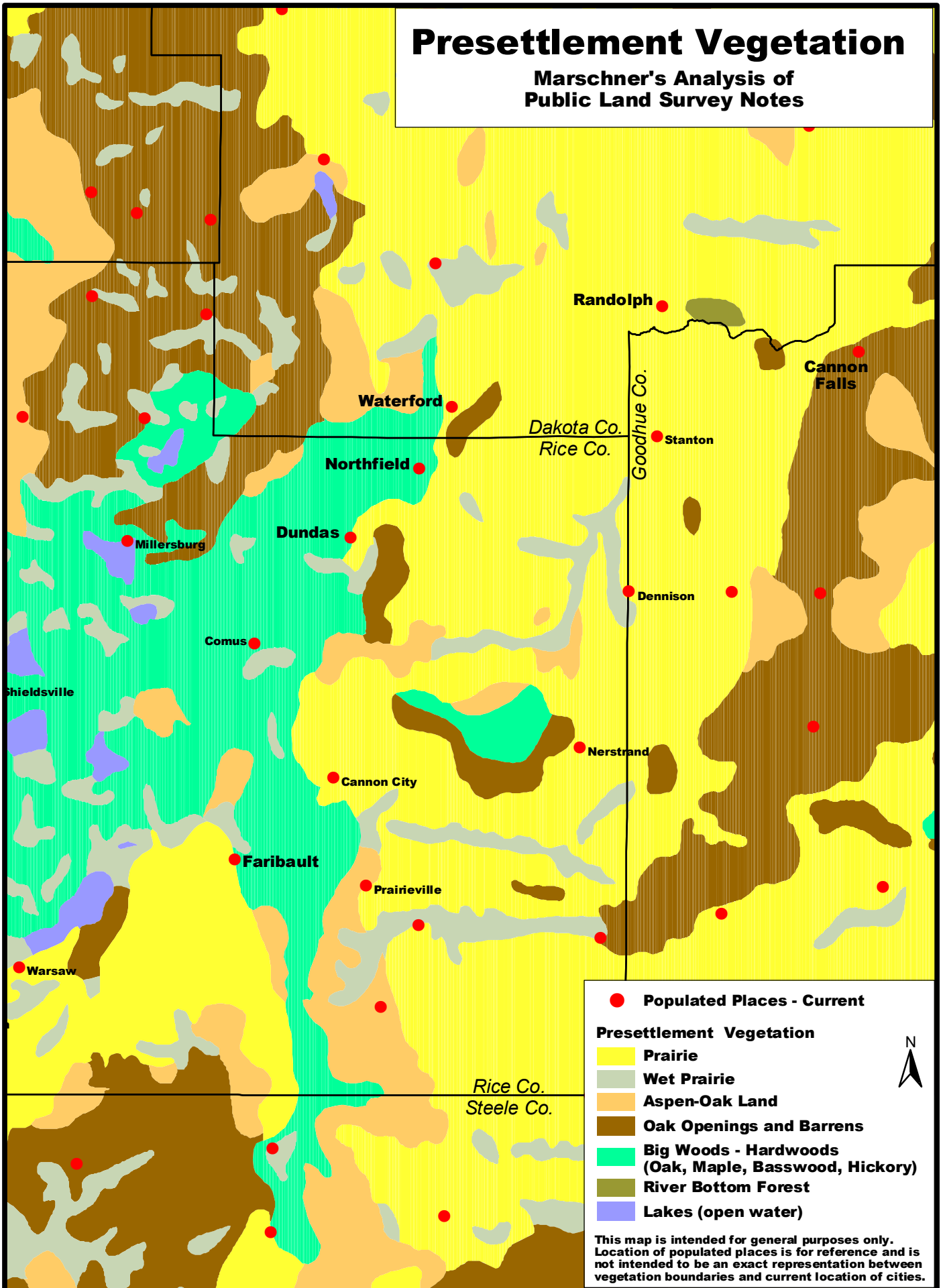
Recommendation 7: Efforts will be made to avoid impacting wetlands, however, a wetland mitigation plan will be prepared to address and identify impacted wetlands.

Recommendation 8: Avoid planting and try to eradicate any of the plants listed below; all of these plants are aggressive introduced species which will crowd out native species.

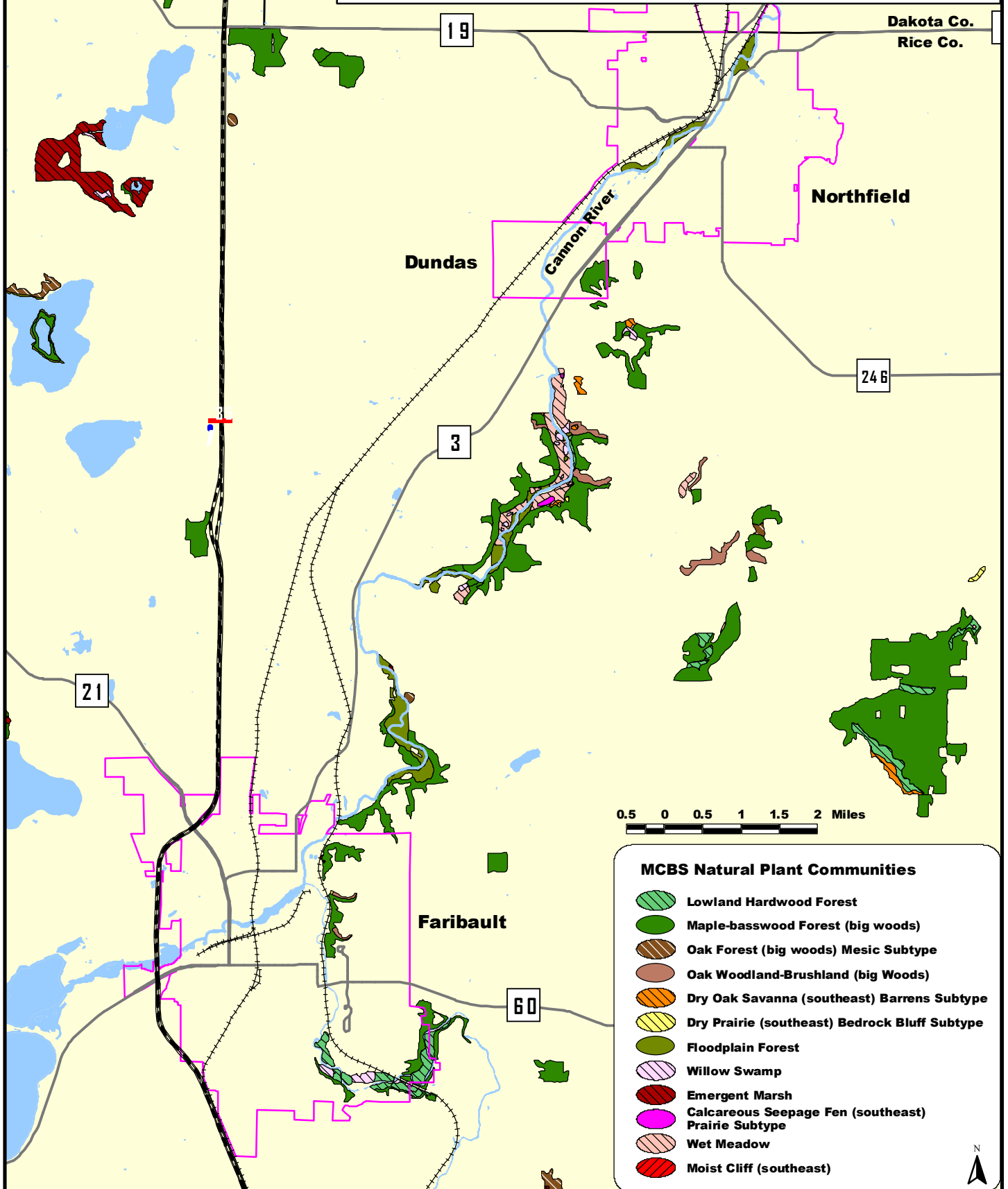
<i>Carduus nutans</i> (Musk thistle)	<i>Elaeagnus angustifolia</i> (Russian olive)
<i>Centaurea maculosa</i> (Spotted knapweed)	<i>Elaeagnus umbellata</i> (Autumn olive)
<i>Cirsium arvense</i> (Canada thistle)	<i>Glechoma hederacea</i> (Creeping Charlie)
<i>Cirsium vulgare</i> (Bull thistle)	<i>Hieracium aurantiacum</i> (Orange hawkweed)
<i>Euphorbia esula</i> (Leafy spurge)	<i>Lonicera tartarica</i> (Tartarian honeysuckle)
<i>Lythrum salicaria</i> (Purple loosestrife)	<i>Lotus corniculatus</i> (Birdsfoot trefoil)
<i>Rhamnus cathartica</i> (Common buckthorn)	<i>Melilotus alba</i> (White sweet clover)
<i>Rhamnus frangula</i> (Glossy or Alder buckthorn)	<i>Melilotus officinalis</i> (Yellow sweet clover)
<i>Robinia pseudoacacia</i> (Black locust)	<i>Digitalis lanata</i> (Grecian foxglove)
<i>Sonchus arvensis</i> (Sow thistle)	<i>Morus alba</i> (Mulberry)
<i>Acer ginnala</i> (Amur maple)	<i>Phalaris arundinacea</i> (Reed canary grass)
<i>Acer platanoides</i> (Norway maple)	<i>Iris pseudacorus</i> (Yellow iris)
<i>Berberis thunbergii</i> (Japanese barberry)	<i>Linaria vulgaris</i> (Common toadflax, Butter & eggs)
<i>Bromus inermis</i> (Smooth brome grass)	<i>Pastinaca sativa</i> (Wild parsnip)
<i>Cannabis sativa</i> (Hemp or Marijuana)	<i>Polygonum cuspidatum</i> (Japanese knotweed)
<i>Chrysanthemum leucanthemum</i> (Oxeye daisy)	<i>Tanacetum vulgare</i> (Common tansy)
<i>Caragana arborescens</i> (Siberian peashrub)	<i>Taraxacum officinale</i> (Dandelion)
<i>Convolvulus arvensis</i> (Field bindweed)	<i>Ulmus pumila</i> (Siberian elm)
<i>Alliaria petiolata</i> (Garlic mustard)	<i>Vicia cracca</i> & <i>Vicia villosa</i> (Cow & Hairy vetch)
<i>Berteroa incana</i> (Hoary alyssum)	<i>Coronilla varia</i> (Crown vetch)
<i>Butomus umbellatus</i> (Flowering rush)	<i>Miscanthus sacchariflorus</i> (Amur silver grass)
<i>Daucus carota</i> (Queen Ann's lace)	

Presettlement Vegetation

Marschner's Analysis of
Public Land Survey Notes



Minnesota County Biological Survey Natural Plant Communities Inventory *Faribault to Northfield*



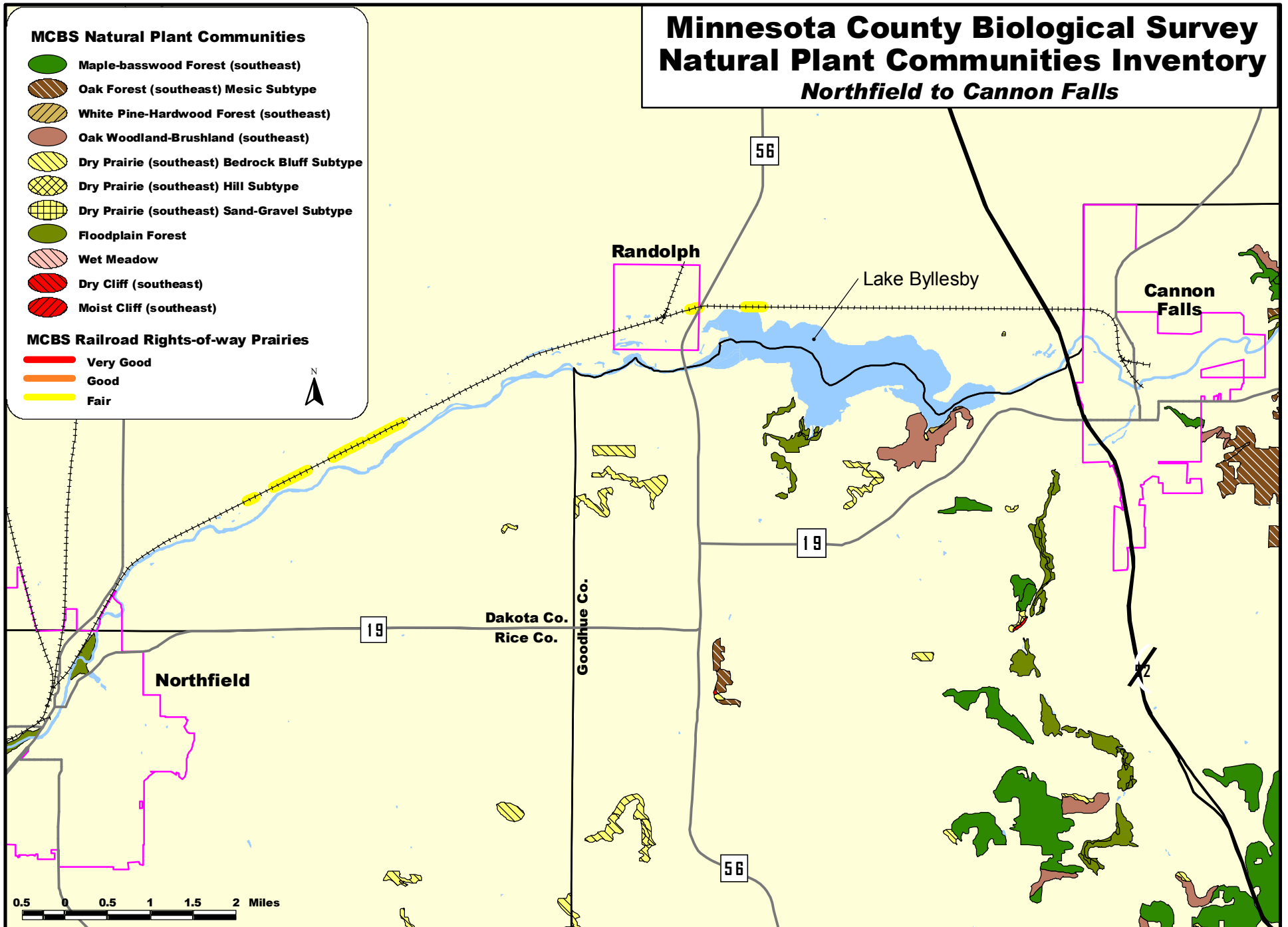
Minnesota County Biological Survey Natural Plant Communities Inventory *Northfield to Cannon Falls*

MCBS Natural Plant Communities

-  Maple-basswood Forest (southeast)
-  Oak Forest (southeast) Mesic Subtype
-  White Pine-Hardwood Forest (southeast)
-  Oak Woodland-Brushland (southeast)
-  Dry Prairie (southeast) Bedrock Bluff Subtype
-  Dry Prairie (southeast) Hill Subtype
-  Dry Prairie (southeast) Sand-Gravel Subtype
-  Floodplain Forest
-  Wet Meadow
-  Dry Cliff (southeast)
-  Moist Cliff (southeast)

MCBS Railroad Rights-of-way Prairies

-  Very Good
-  Good
-  Fair



Water Resources

The Mill Towns State Trail lies within the Cannon River Watershed. This watershed drains 1,462 square miles, eventually flowing into the Cannon River, and contains approximately 90 lakes. The Straight River is the biggest tributary of the Cannon River.

Concerns about water quality have plagued the Cannon River Watershed. Many elements contribute to the degradation of the water quality including, but not limited to, farming practices, animal manure, urban runoff, development of shorelines, degradation of stream banks and phosphorous use. The Cannon River Watershed Partnership (CRWP) has been addressing these issues since 1990. The CRWP works in cooperation with many state and federal agencies, local and state organizations, colleges, schools and individuals to protect and improve the water and natural resources of the watershed.

According to Rice County's *Water Resource Management Plan*, there are approximately 3,000 wetlands in the county that cover about 28,000 acres. The wetlands that remain in this area are only a fraction of what once covered the county in the 1800's. Most of the wetlands were filled or drained for farming practices and to make room for the increasing population. The wetlands and lakes mainly occur in the western section of the county due to glacial activity. The eastern part of the county has relatively few water bodies and wetlands.

Wild and Scenic Designation of the Cannon River

The Minnesota State Wild & Scenic Rivers Program was established in 1973 to protect rivers with outstanding natural, scenic, geographic, historic, cultural, and recreational values. Minnesota's Wild and Scenic Rivers Program sets minimum protection standards, then assists communities in developing management plans and ordinances to protect the scenic, recreational, natural, historical, and cultural values for which the rivers were originally designated. Wild & Scenic rivers and their segments are classified into one or more of the three classes of rivers: wild, scenic, and recreational.

The Cannon River was designated a State Wild and Scenic River in 1980. The designated portion extends from Faribault to its confluence with the Mississippi River. The designated portion is broken down into two classifications. See the classification descriptions below and the map on page 59. Following each classification description is the location of the corresponding Cannon River segments.

Recreational Classification

Recreational rivers are those rivers that may have undergone some impoundment or diversion in the past and that may have adjacent lands which are considerably developed, but that are still capable of being managed so as to further the purposes of this act. This means that bordering lands may have already been developed for a full range of agricultural or other land uses, and may also be readily accessible by pre-existing roads or railroads.

- *From the northern city limits of Faribault (the common border of the north and south halves of Sections 19 and 20, T110N-R20W) to the state highway 56 bridge, and from the Lake Byllesby Dam (the common border of Sections 13 and 14, T112N-R18W) to the common border of Sections 7 and 8, T112N-R17W, in Cannon Falls. The Lake Byllesby Reservoir is excluded from this segment.*

Scenic Classification

Scenic rivers are those rivers that exist in a free-flowing state and with adjacent lands that are largely undeveloped (i.e., adjacent lands still present an overall natural character, but in places may have been developed for agricultural, residential, or other land uses.

- *From the common border of Sections 7 and 8, T112N-R17W, in Cannon Falls to the river's confluence with the Mississippi River.*

Canoe and Boating Route Designation

The Cannon River is also designated a State Canoe and Boating Route. This program currently has 23 designated rivers. River maps are available, on the DNR website or from the DNR Information Center, that describe public access points, campsites, rest areas, navigational features and river miles. The Cannon River is a popular canoeing route as it has few rapids (Class I) that are easily maneuverable. Due to the small number of rapids, low stream flow usually isn't a problem for canoeists except during very dry periods. There are dams, however, that require portaging.

Canoeists starting their trip in the upper reaches of the Cannon River will experience rolling hills, bluffs, farmland and woods. Once past Cannon Falls, the river enters a broad gorge where it is flanked by bluffs up to 300 feet high. The river varies in width from 50 to 200 feet.

A variety of fish can be found in the upper section of the river including northern pike, black crappies, bluegills and bullheads. In the lower section of the river past Faribault the most common fish are smallmouth bass, northern pike and walleye. Channel catfish can be found in the section of river below Cannon Falls.

There is a variety of wildlife in the river corridor, typical of southeast Minnesota, which includes deer, beaver, raccoon, squirrel, otter, wild turkey, coyote and red and gray fox. Waterfowl and songbirds are plentiful during the spring and fall migration periods.

As discussed in previous sections, several of the designated Mill Towns State Trail trailheads will also serve as canoe launching sites.

Recommendation 1: There are state statutes and rules that pertain to the Wild and Scenic designation of the Cannon River. The Division of Trails and Waterways will work

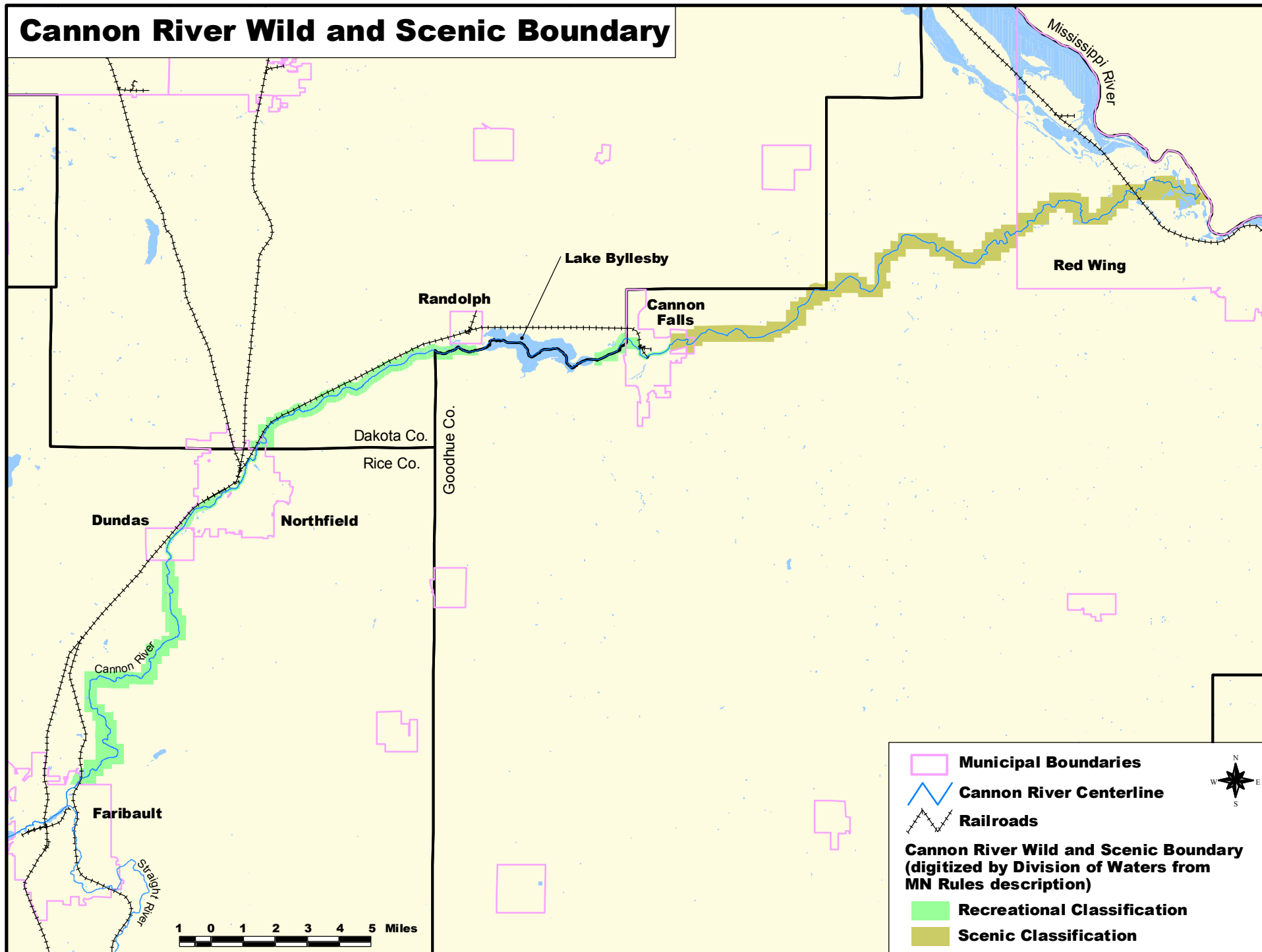
with the local units of government and the Division of Waters when a specific alignment is being proposed to ensure that the standards are being met.

Recommendation 2: Minimize trail development and maintenance impacts to adjacent water resources through the use of mulching, geo-textiles, silt screens and seeding to establish vegetation.

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

Recommendation 4: A partnership between the Division of Trails and Waterways, the Joint Powers Board, the Friends Group and the Cannon River Watershed Partnership should be formed to develop information and education regarding water quality issues of the Cannon River Valley.

Cannon River Wild and Scenic Boundary



Wildlife

The proposed corridor of the Mill Towns State Trail traverses an area with a rich natural history where prairies and savannas met the Big Woods. Most wildlife species common to farmland areas of Minnesota can be found here.

Common mammals in the mix of agricultural lands and woodlots of the proposed corridor include white-tailed deer, coyotes, red fox, striped skunks, opossum, fox and gray squirrels, cottontail rabbits, and white-footed mice. Thirteen-lined ground squirrels, pocket gophers and meadow voles are common inhabitants of pastures and meadows. Other grassland species include jack rabbit, badger, jumping mouse and prairie vole. Forest denizens include gray fox, southern flying squirrel, eastern chipmunk, southern red-backed vole, eastern pipistrel, and silver-haired, red and big brown bats. Watch for signs of muskrats, beaver, raccoons and mink and otter along the waterways.

A rich legacy of bird life is found in the Cannon River valley. Over 300 bird species are considered regular or casual in Minnesota and a large percentage of these species have been observed in or near the proposed trail corridor. Only a small number of birds are year-round residents. Examples include American crow, blue jay, hairy, downy and red-bellied woodpeckers, white-breasted nuthatch, blacked capped-chickadee, American goldfinch, northern cardinal, mourning dove, red-tailed hawk, and great horned owl. Other less common resident species include pileated woodpeckers, barred and eastern screech owls in the larger patches of forested lands.

Two game birds are common in the proposed Mill Towns State Trail corridor, ring-necked pheasant and wild turkey. Of the four native gallinaceous birds, the prairie chicken and sharp-tailed grouse have been extirpated. Natural populations of bobwhite quail are probably extirpated. Ruffed grouse are rare and most often encountered when populations in southeastern Minnesota reach their cyclic high.

The majority of birds in the proposed Mill Towns State Trail corridor are migrant species that are found in the area seasonally. This leads to an ever-changing bird assemblage throughout the year. A few species travel here for the winter including dark-eyed junco, snow bunting, Lapland longspur, northern shrike and rough-legged hawk. Spring is the best season for bird observation. Marshes provide habitat for American coot, common gallinule, grebes, herons, egrets, bitterns, sandhill crane and rails as well as songbirds including marsh wrens, red-winged and yellow-headed blackbirds and common yellowthroat. Watch for white pelicans and double-crested cormorants on the Lake Byllesby reservoir. Belted kingfishers, green herons, spotted sandpipers, wood ducks and hooded mergansers can be seen along the Cannon River. Forests and woodlands host a wide variety of migrant and breeding birds including vireos, flycatchers, American robin, wood thrush, warblers, scarlet tanager and Baltimore oriole. Birds dependent on grasslands include northern harrier, meadowlark, bobolink, dickcissel, several species of sparrows such as the vesper sparrow, savannah sparrow, and grasshopper sparrow and the rare loggerhead shrike. Southern Dakota County is home to the state's highest

concentration of loggerhead shrike, which is listed as a threatened species. Shrikes use grassy, open areas with scattered trees and shrubs such as pasture, prairie patches and grassy roadsides. It would be valuable to manage and enhance shrike habitat along the proposed trail corridor.

A number of amphibians and reptiles are found along the proposed Mill Towns State Trail corridor. Several of these species are considered sentinels of environmental quality or are of special conservation concern. Tiger salamanders, American toads, leopard frogs, western chorus frogs, and Cope's gray tree frog may be found associated with many water habitats in the corridor. Gray tree frogs, wood frogs and spring peepers are associated with forested habitats. Green frogs and bullfrogs require more permanent water in lakes and marshes.

Painted and snapping turtles are the most frequently encountered turtles in the proposed corridor. The highly aquatic spiny soft-shell is primarily a river turtle and not uncommon. Two state-listed threatened turtles are found in the general corridor. Blanding's turtle favors marsh habitats and the wood turtle is associated with rivers and riparian habitats. Turtles are vulnerable to habitat losses and fragmentation, excessive nest losses to predation, mortality due to vehicle collisions and collecting for pets.

Garter snakes are common snakes in the proposed Mill Towns State Trail corridor. Fox snakes also utilize a broad range of habitats. Prairie skink and several snakes including the racer, bull snake and smooth green snake are associated with grasslands. Milk snake, red-bellied snake and brown snake prefer deciduous forest habitats. Snakes are vulnerable to collecting and excessive human-caused mortality especially when basking on roads and trails.

Other important sentinel wildlife species include invertebrates. A handful of species are known as pests, important pollinators or because they are large or colorful (e.g., butterflies, dragonflies) but most species are generally overlooked. Invertebrates perform important ecosystem services such as pollination, decay and nutrient cycling, and water purification. Invertebrates are sensitive to pesticides, many have specific hosts and others have aquatic life stages and serve as indicators of water pollution. As with reptiles and amphibians many species have limited dispersal abilities and may be disproportionately impacted by habitat changes and fragmentation.

Freshwater mussel species are of particular conservation concern. The Cannon River and its tributaries host many species that are rare or declining. Water pollution, dams and other habitat changes impact mussels. Mussels depend on host fish species for reproduction and dispersal. River dams that block fish migration or other habitat alterations that affect host species can limit the distribution and abundance of mussels.

As in much of the Midwest, natural habitats have been significantly reduced and altered since European settlement. Natural communities are found in just a small percentage of the landscape. As a consequence, fauna with habitat requirements requiring large patches and/or those that were considered competitors with human endeavors are no

longer found free ranging in the area or at best exist as transients. Examples include prairie chickens, elk and bear. Nevertheless, a rich legacy remains and a variety of wildlife can be observed in appropriate habitats.

The Natural Heritage Information database was used to obtain species that are threatened or endangered and are reported to be within the vicinity of the proposed trail corridor options. An inventory and evaluation of threatened or endangered animals that may be found in the vicinity of proposed trail alignments will be made during planning for the design of specific segments. Appendices 2 and 3 contain the data.

Recommendation 1: Avoid threatened or endangered species. Data from the Natural Heritage database was used to assess the location of threatened or endangered species. Trails & Waterways will keep current with this data and perform on-the-ground surveys when an exact 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. 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, managing and enhancing habitats along the proposed trail corridor and using native species, consistent with the natural communities of the area, when revegetating areas disturbed by trail construction and maintenance.

Geology/Topography

The following descriptions are from the MN DNR, Division of Ecological Services, Ecological Classification System website.

Big Woods subsection

The primary landform is a loamy mantled end moraine associated with the Des Moines Lobe of Late Wisconsin glaciation. Parts of the moraine have ice disintegration features. The dominant landscape feature is circular, level topped hills bounded by smooth side slopes and above a broad lower level. The lower level is interspersed with closed depressions containing lakes and peat bogs. Drainage is often controlled by the lake levels (Dept. of Soil Science, Univ. of Minn., 1973).

Depth to bedrock varies from 100 to 400 feet (Olsen and Mossler 1982). Underlying bedrock includes Ordovician and Cambrian sandstone, shale, and dolomite to the south and Cretaceous shale, sandstone, and clay to the north (Morey 1976).

The soils are dominantly loamy, with textures ranging from loam to clay loam (Dept. of Soil Science, Univ. of Minn., 1973). Parent material is calcareous glacial till of Des Moines Lobe (Late Wisconsin glaciation) origin. They are classified primarily as Alfisols (soils developed under forests). There are some Mollisols (soils developed under grassland) found on the west side of the subsection.

Oak Savannah subsection

Much of the subsection is a loess plain over bedrock or till. Also included are Late Wisconsin end moraines, stagnation moraines, and outwash. Topography is gently rolling. The subsection contains few lakes. Stagnation moraines in the southwest are not large, but slopes are often steep.

Glacial drift is generally less than 100 feet thick within the subsection, with maximum drift thickness of about 200 feet (Olsen and Mossler 1982). Ordovician and Devonian dolomite (some limestone, sandstone and shale) is locally exposed, especially in the dissected stream valleys at the eastern edge of the subsection (Morey 1976, Olsen and Mossler 1982).

This subsection is a mosaic of Mollisols and Alfisols. Alfisols correlate with savanna and forest vegetation, and Mollisols correlate with either upland prairie on relatively flat ridgetops or wetland prairies in broad depressions. Common soils include Aquolls (wet soils developed under prairie vegetation), Udolls (well drained soils developed under prairie vegetation), Udalfs (well drained soils formed under forest vegetation), and Aqualfs (wet soils developed under forest vegetation) (Cummins and Grigal 1981).

Climate

The climate of the area is cool, subhumid, and continental. Large variations in temperature, from summer to winter, describe this climate. Individual variations may arise across the landscape due to differences in vegetation, soil, urbanization and topography.

Precipitation in the area varies from month to month, as would be expected for this climate. The recordings from Faribault (1961-1990) are listed in the following table.

Month	Precipitation (inches)	Snowfall (inches)
January	0.94	9.5
February	0.87	8.8
March	2.01	9.6
April	2.91	3.0
May	3.69	0.0
June	3.57	0.0
July	4.21	0.0
August	4.05	0.0
September	3.65	0.0
October	2.38	0.2
November	1.59	4.1
December	1.14	10.6
TOTAL	31.00	45.8

Source: USDA Soil Survey of Rice County, MN

For Rice County, the average winter temperature is 15.3 degrees Fahrenheit while the average daily minimum temperature is 5.5 degrees. In the summer, the average temperature is 69.4 degrees and the average daily maximum temperature is 81.3 degrees.

Month	Average Daily Temperature
January	11.4
February	17.0
March	30.2
April	45.6
May	57.9
June	67.3
July	71.9
August	69.0
September	60.2
October	48.9
November	33.1
December	17.4

Source: USDA Soil Survey of Rice County, MN

Park, Recreation and Open Space Resources

Numerous recreational opportunities exist within or near the proposed Mill Towns State Trail corridor, not all of which can be mentioned in this section. See each individual city map for the location of city parks, trails and open spaces.

Parks

Rice County manages many parks, the largest of which is the Cannon River Wilderness Area. Located between Faribault and Dundas on the Cannon River, it serves as a nature preserve as well as a low-impact recreational facility. When the land for the wilderness area was originally bought, the sellers wanted the land to remain primarily undeveloped. The facilities at this site include a campground, canoe launch, shelter and restrooms. Recreation opportunities include trails for hiking, cross-country skiing and horseback riding. Other than the Cannon River Wilderness Area, no other Rice County Parks are within close proximity to the proposed Mill Towns State Trail corridor.

Lake Byllesby Regional Park (Dakota County) will be a wonderful hub for the Mill Towns State Trail. This park is undergoing a planning process which is designed to enhance the park and make it a regional destination. The improved facilities and trail concepts will be a great asset to the area as well as to the Mill Towns State Trail.

Goodhue County Park-Lake Byllesby is on the southeast side of Lake Byllesby. It is a small county park that offers a swimming beach, fishing pier, picnic shelter/picnic tables, grills, restrooms, playground equipment and a ball diamond. A connection, via a new bridge, is proposed to this park from Lake Byllesby Regional Park.

A connection to the River Bend Nature Center is possible through Faribault's city trail system. The independent, non-profit nature center has many natural features including a maple-basswood forest, a floodplain forest, wetlands and restored prairies. Ten miles of trail join all of these features. The Center provides a rich variety of educational programs.

Trails

The Sakatah Singing Hills State Trail and the Cannon Valley Trail will be important connections for the Mill Towns State Trail. Users of these trails are likely to utilize the Mill Towns State Trail as well. The completion of the Mill Towns State Trail will provide a seamless trail corridor from Rapidan near Mankato to Red Wing and the Mississippi River.

Faribault, Northfield and Cannon Falls each have a city trail system. Users of the Mill Towns State Trail will benefit from a network of city trails that will get them to restaurants, lodging, commercial services and other amenities.

Historical Resources

Milling History in the Cannon River Valley

The communities along the proposed Mill Towns State Trail have both natural and cultural history in common. They share the broad Cannon River valley as well as the efforts of previous generations to utilize the river's energy through the creation of a series of mills. A local historian, Tom Neuhaus, identified 118 mill sites in Minnesota, including 30 that were located along the Cannon River between Faribault and Cannon Falls. Local milling began in the 1850's and was largely over by 1910. It's difficult to find mill remains due in part to their construction which was typically wood on a limestone base. The history of milling and the processes used in this area, as well as around the country, is long and complex. The following description is a very basic account of the importance of milling in the Cannon River Valley.

It is said that the process of hard wheat milling was perfected in Rice County, along the banks of the Cannon River. When the local mills were first milling wheat, they were making flour from the hard spring wheat that grew in this area. It was different from the soft winter wheat that was milled in the east and made into the finest flour. The flour that was milled from hard spring wheat was not of high quality, as the wheat would have a tendency to heat up and stick to the stones due to the grinding process. The flour made from this wheat also had impurities from the hard, brittle wheat bran that would get into the flour and cause specks. This caused problems, as the millers would only buy hard spring wheat at a heavy discount and the flour brokers were hesitant to get involved with the flour produced from this wheat.

The French were the leaders in the milling process and were often looked upon to solve problems. Alexander Faribault, who kept connections with the French Canadians in Montreal through his fur trading business, learned of a new French milling process that milled the hard spring wheat into fine flour. He employed two highly educated millwright brothers, from Montreal, to build him a mill in Faribault. Those two brothers were Edmund and Nicholas LaCroix and they came to Faribault in 1865. Nicholas LaCroix's son, Joseph, joined them a year later. They built a mill based on a French technique that allowed them to set the stones far apart as to only crack the wheat's outer bran covering. They then installed a middlings purifier, which was a series of sieves, to sift out the flour. A blast of air was then directed to shoot up under the sieves in order to blow off the light particles of bran that were previously causing the impurities. The remaining middlings were then slowly reground into high quality flour. This purifying process was installed in other mills in which Alexander Faribault had invested. The Archibald's, who were milling in Dundas and became interested in the new purifying process, also had the LaCroixs install a purifier in their mill. The Dundas flour eventually became known as the best quality flour around and was the origin of Gold Medal Flour. The remains of the Archibald mill can still be seen in Dundas.

National Register of Historic Places

In the five communities that the Mill Towns State Trail will pass through, there are over 60 structures listed on the National Register of Historic Places. The downtown commercial areas of Faribault, Northfield and Cannon Falls are also listed as Historic Districts. See the National Register of Historic Places website for further information.
<http://www.cr.nps.gov/nr/index.htm>

Socioeconomic Resources

Demographics

According to the US Census Bureau and the State Demographer, the three counties involved with the Mill Towns State Trail are experiencing growth and are projected to continue growing. The cities, with the exception of Randolph, are also growing rapidly. It is essential to provide open space and recreational opportunities now while the opportunity exists. Below are tables with the city and county population data.

City	1980 Population	1990 Population	2000 Population	Population Change 1990-2000
Cannon Falls	2,653	3,232	3,795	17.4%
Dundas	422	473	547	15.6%
Faribault	16,241	17,085	20,818	21.8%
Northfield		14,684	17,147	16.8%
Randolph	351	331	318	-3.9%

County	2000 Population	2010 Population Projection	2020 Population Projection
Rice	56,665	64,540	72,430
Dakota	355,904	422,990	470,460
Goodhue	44,127	47,140	50,430

Distribution of occupation and industries by county, obtained from the 2000 US Census Bureau, is shown in the following tables.

Rice County – 2000 Census Data

Total Population for Rice County: 56,665	Total	%
Employed civilian population 16 years and over	29,029	100%
OCCUPATION		
Management, professional, and related occupations	8,872	31%
Service occupations	4,463	15%
Sales and office occupations	6,908	24%
Farming, fishing, and forestry occupations	298	1%
Construction, extraction, and maintenance occupations	2,939	10%
Production, transportation, and material moving occupations	5,549	19%
	29,029	100%
INDUSTRY		
Agriculture, forestry, fishing and hunting, and mining	889	3%
Construction	2,010	7%
Manufacturing	5,467	19%
Wholesale trade	870	3%
Retail trade	2,811	10%
Transportation and warehousing, and utilities	1,236	4%
Information	579	2%

Finance, insurance, real estate, and rental and leasing	1,162	4%
Professional, scientific, management, administrative, and waste management services	1,516	5%
Educational, health and social services	8,075	28%
Arts, entertainment, recreation, accommodation and food services	2,147	7%
Other services (except public administration)	1,156	4%
Public administration	1,111	4%

Dakota County – 2000 Census Data

Total Population for Dakota County: 355,904	Total	%
Employed civilian population 16 years and over	200,612	100%
OCCUPATION		
Management, professional, and related occupations	79,159	39.5%
Service occupations	23,244	11.6%
Sales and office occupations	59,808	29.8%
Farming, fishing, and forestry occupations	392	0.2%
Construction, extraction, and maintenance occupations	15,847	7.9%
Production, transportation, and material moving occupations	22,162	11.0%
INDUSTRY		
Agriculture, forestry, fishing and hunting, and mining	1,170	0.6%
Construction	10,669	5.3%
Manufacturing	27,928	13.9%
Wholesale trade	8,468	4.2%
Retail trade	23,477	11.7%
Transportation and warehousing, and utilities	17,645	8.8%
Information	6,212	3.1%
Finance, insurance, real estate, and rental and leasing	20,252	10.1%
Professional, scientific, management, administrative, and waste management services	21,438	10.7%
Educational, health and social services	33,932	16.9%
Arts, entertainment, recreation, accommodation and food services	13,436	6.7%
Other services (except public administration)	8,882	4.4%
Public administration	7,103	3.5%

Goodhue County – 2000 Census Data

Total Population for Goodhue County: 44,127	Total	%
Employed civilian population 16 years and over	23,363	100%
OCCUPATION		
Management, professional, and related occupations	6,900	29.5%
Service occupations	3,488	14.9%
Sales and office occupations	5,522	23.6%
Farming, fishing, and forestry occupations	399	1.7%
Construction, extraction, and maintenance occupations	2,439	10.4%
Production, transportation, and material moving occupations	4,615	19.8%
INDUSTRY		
Agriculture, forestry, fishing and hunting, and mining	1,293	5.5%
Construction	1,514	6.5%
Manufacturing	4,599	19.7%
Wholesale trade	793	3.4%
Retail trade	2,543	10.9%
Transportation and warehousing, and utilities	1,466	6.3%
Information	357	1.5%
Finance, insurance, real estate, and rental and leasing	1,050	4.5%

Professional, scientific, management, administrative, and waste management services	1,246	5.3%
Educational, health and social services	4,896	21.0%
Arts, entertainment, recreation, accommodation and food services	1,875	8.0%
Other services (except public administration)	986	4.2%
Public administration	745	3.2%

Financial Impacts of Trail Development

In *Benefits of Trails*, (July 1996, prepared by the DNR, Trails and Waterways Unit, as part of the DNR's Cooperative Trail Development Series) it is stated that communities that support trails and respond to the needs of trail users have seen stimulation in their local economies. In *State Trail Use*, (July 2000, prepared by the DNR, Trails and Waterways Unit) the DNR reports on surveys taken of State Trails in 1996, 1997, and 1998. These publications present data and identify references that provide several facts about the economic impact of trails:

Trail users spend money

Tourists attracted to the trails use local facilities for eating, shopping, and lodging. This input to the local economy tends to increase jobs and local revenues. For example:

- The DNR estimates that over \$5 million was spent by trail users on all state trails in Minnesota between Memorial Day and Labor Day. The July 2000 DNR report notes that 83% of spending by trail users is by tourists that directly impacts local economies, and the bulk of this (80-85%) is spent on food, lodging, and transportation. Surveys showed that use on the Sakatah Singing Hills State Trail was a mix of local and tourist use and that spending by tourists was \$271,000 compared with \$97,000 spent by local users.
- Completion of the Root River State Trail increased lodging opportunities in Lanesboro, increased food and drinking receipts by 84%, and lodging receipts by 800% between 1986 and 1992.
- A study by the DNR found that 69% of landowners living along the Heartland and Douglas State Trails in Minnesota feel the trails have benefited local economies.

Bird watching is a popular activity in the United States, according to the 2001 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation. Forty-six million people, age 16 and older, participate in bird watching. This activity is a major economic benefit to the nation and the state of Minnesota, as many birders will travel locally and nationally to pursue their activity. When it comes to birding participation rates, Minnesota is above the national average of 22%, with 36% of the population participating. The Mill Towns State Trail could be an attraction for local and out-of-state birders.

The following statistics are from the report, "Birding in the United States: A Demographic and Economic Analysis. Addendum to the 2001 National Survey of

Fishing, Hunting, and Wildlife-Associated Recreation,” published by the U.S. Fish and Wildlife Service.

- In 2001, birders spent an estimated \$32 billion dollars to pursue their activity. This includes trip-related expenditures as well as any equipment purchases.
- The \$32 billion dollars spent by birders generated \$85 billion dollars in economic benefits for the United States.
- The \$85 billion dollar economic benefit produced \$13 billion dollars in state and federal income taxes and helped create 863,406 jobs.

Trails increase property values

- A Minnesota study of two trails found that 87% of the homeowners along the trail felt the trail either had no effect, or increased their property value.
- A National Park Service funded study of three trails found that 87% to 97% of those surveyed felt a trail either increased the value of their home, or had no effect on its value. The study found that 89% of real estate professionals concurred.

Trails provide other savings

- Public monetary savings from lower air pollution, congestion, and oil imports have been calculated to be between 5 cents and 22 cents for every bicycle mile traveled on trails.
- An undetermined amount of additional savings result from the environmental and health benefits of outdoor recreation. As we fight the obesity epidemic, providing trail facilities for walking, jogging and bicycling becomes imperative.

Appendix 1: Special Concern, Threatened, or Endangered Plants

Scientific Name	Common Name	Status
<i>Aster pilosus</i>	White Heath Aster	NON
<i>Besseyia bullii</i>	Kitten-tails	Threatened
<i>Erythronium propullans</i>	Dwarf Trout Lily	Endangered
<i>Juglans cinerea</i>	Butternut	Special Concern
<i>Lechea tenuifolia</i>	Narrow-leaved Pinweed	Endangered
<i>Lespedeza leptostachya</i>	Prairie Bush Clover	Threatened
<i>Oxypolis rigidior</i>	Cowbane	NON
<i>Panax quinquefolius</i>	American Ginseng	Special Concern
<i>Scutellaria ovata</i>	Ovate-leaved Skullcap	Threatened
<i>Talinum rugospermum</i>	Rough-seeded Fameflower	Endangered

NON – a species with no legal status, but about which the Natural Heritage and Nongame Research Program is gathering data for possible future listing.

Appendix 2: Special Concern, Threatened, or Endangered Animals

Scientific Name	Common Name	Status
<i>Clemmys insculpta</i>	Wood Turtle	Threatened
<i>Elaphe vulpina</i>	Eastern Fox Snake	NON
<i>Emydoidea blandingii</i>	Blanding's Turtle	Threatened
<i>Grus canadensis</i>	Sandhill Crane	NON
<i>Haliaeetus leucocephalus</i>	Bald Eagle	Special Concern
<i>Lanius ludovicianus</i>	Loggerhead Shrike	Threatened
<i>Microtus ochrogaster</i>	Prairie Vole	Special Concern
<i>Perognathus flavescens</i>	Plains Pocket Mouse	Special Concern
<i>Polyodon spathula</i>	Paddlefish	Threatened
<i>Reithrodontomys megalotis</i>	Western Harvest Mouse	NON

NON – a species with no legal status, but about which the Natural Heritage and Nongame Research Program is gathering data for possible future listing.

Appendix 3: Special Concern, Threatened, or Endangered Invertebrate Animals (Mussels)

Scientific Name	Common Name	Status
<i>Actinonaias ligamentina</i>	Mucket	Threatened
<i>Elliptio dilatata</i>	Spike	Special Concern
<i>Lasmigona compressa</i>	Creek Heelsplitter	Special Concern
<i>Lasmigona costata</i>	Fluted-shell	Special Concern
<i>Ligumia recta</i>	Black Sandshell	Special Concern
<i>Pleurobema coccineum</i>	Round Pigtoe	Threatened
<i>Venustaconcha ellipsiformis</i>	Ellipse	Threatened

APPENDIX 4: History of Transportation and Power Along the Mill Towns State Trail, Cannon Falls to Faribault

by Paul Nordell, MN DNR - Trails and Waterways Division

OVERVIEW

The Mill Towns State Trail proposed corridor is contained entirely within the Cannon River watershed. The Cannon received its name from a mistranslation of the French name of the stream, “River aux Canots,” or “Canoe River.” This is in reference to the place near the mouth of the river where French traders and Indians, especially during the buffalo hunt, concealed their canoes (Upham, p. 10). The watershed, from east to west, was once a direct Dakota water route between the Mississippi River and the Mankato area. The Cannon River water route extends upstream to one of its headwaters, Lake Tetonka, then a three-mile portage connected to Lake Elysian. From there, a stream flowed into the LeSueur River and then into the Blue Earth River, just before flowing into the Minnesota River at Mankato (Sakatah-Singing Hills State Trail Plan, p. 29).

Settlement of the area opened up with the Traverse des Sioux Treaty of July 23, 1851 and the Mendota Treaty of August 5, 1851, which ceded most of the Dakota lands of southern Minnesota west of the Mississippi River (including the Cannon River) to the federal government. Following the Act of August 4, 1854 (10 Statute 576) these lands became available for pre-emption claims, despite the fact that the U.S. General Land Office may have not yet surveyed the land being claimed. The public response to this opening of lands was profound. Settlers packed aboard steamboats by the thousands and headed for Minnesota.

With a rush towards settlement, “wheat production on the river terraces and surrounding prairies of southeastern Minnesota stimulated the prosperity of farmers, and many small “flouring mills” were set up on the streams. Flour was a “money” crop that made some people affluent. Ox teams carried wheat through river valleys to market and brought lumber on the return trip.” (Waters, p.251). With the pressure to process wheat into flour, millwrights were searching for mill locations throughout the newly opened lands. Above Saint Anthony Falls, the Elk, Crow and Rum rivers were claimed for gristmill sites. Below the falls, the Vermillion, Cannon, Zumbro and Root rivers were harnessed, and the Minnesota River was searched as far up as the Indian reserved lands, including mills on the Big Cottonwood, Blue Earth, Watonwan, Le Sueur and smaller tributary rivers (Frame, p. 16).

“Early in Minnesota’s history the area west of Red Wing began to produce valuable harvests of wheat. From as far south as the Zumbro Valley and as far as the Le Sueur River farmers brought their crops to the mills and elevators situated on the banks of the Mississippi River in Red Wing. Beginning in the 1850’s, the number of farmers who hauled their wheat to Red Wing increased yearly. In 1873, Red Wing became the largest primary wheat market in the world. Wheat was transported by wagon from Cannon Falls, Goodhue, Wanamingo and Faribault throughout the fall. When the roads froze in November, the wheat came loaded in sleighs. Wagons and sleighs lined up by the hundreds in the streets of Red Wing waiting to unload at the mills and elevators. Wheat was also stored in temporary buildings set up to protect the harvest until it could be shipped south or east by riverboat in the spring. Several records were set (in 1873) in Red Wing.

They included the largest single day total of wheat arriving (35,135 bushels), the largest total for a single week (169,262 bushels) and the largest total shipped out in one year (more than 1,800,000 bushels).” (Roger Bee, et al. 1984).

The need for Red Wing to secure its hinterland from encroachment from other grain shipping centers was readily apparent at the close of the U.S. Civil War. However, by the 1890’s, the rush to build grain milling and/or shipping centers outside Saint Anthony falls was over, and flour milling was dominated by giant urban mills and complicated, expensive machinery. The railroads had reached out beyond the grasp of the rivers, and had commandeered the wheat markets of Minnesota farmlands (Frame, pp. 44, 46).

The following timelines illustrate how the agricultural market areas of the Cannon River valley were diverted from a market dominated by Red Wing, at the mouth of the Cannon River, to a much larger regional market controlled by Minneapolis, Duluth, Milwaukee, Chicago and other places hundreds of miles from the Cannon valley. The dates, incidents and corporate names in this timeline will help corroborate and date local railroad and other information concerning this historic trade corridor over time.

A developing transportation network extended well beyond the former confines of the valley, and eventually a hydro-electrical power grid also interconnected the industrial power sites of the river. These internal improvements were shaped by the following railroad construction, consolidation, merger, leasing and reorganization developments. What each of the following five developments have in common is that they all share a portion of the corridor known as the Mill Towns State Trail. They are five strands of a rope with strands that interconnect an entire continent.

1. Development of the Chicago Milwaukee Saint Paul and Pacific Railroad (CMSPP).
2. Development of the Chicago Great Western Railway (CGWRwy).
3. Development of the Chicago Rock Island and Pacific Railroad (CRIP).
4. Development of the Minneapolis Northfield and Southern Railway (MNS) (the Dan Patch Electric Lines).
5. Development of the Consumers Power Company (CPC).

1. Chicago, Milwaukee and Saint Paul and Pacific Railroad (PRESENCE ALONG TRAIL CORRIDOR: from Northfield to Faribault). The CMSPP went from Northfield to Faribault, along the west side of Cannon River. From there it went south past the west side of Faribault. On the north bank of the Cannon River, it went from Northfield to Red Wing.

OVERVIEW OF THE CMSPP:

This was the first all-rail route extending beyond Minnesota, completed in 1867. It was originally a 215-mile route between Minneapolis and McGregor, Iowa (on the Mississippi River). The Minneapolis end of the line served the Saint Anthony Falls milling district, powered by the greatest waterfalls west of Niagara Falls. An 1869 guide book described this site as being “rapidly improved” and “The buzz and roar of these numerous factories is almost deafening at times... Here are paper mills, foundries, saw mills, tub and pail factories, furniture factories, tool

factories, etc. The greatest of these, however, is the lumbering trade.”

The McGregor, Iowa end of the line, on the Mississippi River, was connected by a temporary pontoon rail bridge to the Chicago railhead across the river in Prairie du Chien, Wisconsin. This rail link connected the power of one of the finest American milling districts with the vast and growing Chicago and larger Eastern markets. It also gave Minnesota products an advantage over steamboat shipping to the south, toward Saint Louis and beyond.

Most significantly, the development of the 1867 Minneapolis to McGregor, Iowa rail line illustrated the tremendous competition that existed between rail and water routes in the later part of the 19th century. In the Eastern states, various canal routes, most notably, the Erie Canal (constructed from 1817 to 1825), had revolutionized the way in which goods were marketed to the population centers of the Eastern seaboard. This was further strengthened with the linking of Lake Michigan with the Illinois River south of Chicago, by way of the Illinois-Michigan Canal, constructed between 1836 and 1848. The east-west canal and rail system proved effective in directing trade away from the Ohio-Mississippi River route via Saint Louis.

As railheads reached the Mississippi River, beginning with Rock Island, Illinois in 1854, the steamboat lines to Saint Louis became increasingly diminished by rail shipping and passenger lines. Thus the Chicago rail link crossing the Mississippi River at McGregor, Iowa was part of the general trend to replace the steamboat as the primary way to get to Minnesota. With every passing year, the Mississippi River railheads moved further north along the river. Most significantly, the Confederate blockade of the Mississippi River during the U.S. Civil War (1861-1865), in conjunction with increasing rail development, permanently re-oriented Minnesota trade from north-south river transport to east-west rail transport. Rail had the added advantage of avoiding the winter freeze-up in water transport, and it also avoided the problems of shallow channels during summer droughts. For Minnesota, the opening of the Minneapolis to McGregor rail line in 1867 continued a long decline in the dominance of river transport. This line also redirected local grain traffic from Red Wing to this north-south line that sliced through the Cannon Valley, from Northfield to Faribault.

March 1, 1856: Minneapolis and Cedar Valley Railroad Company (MCV) was incorporated. The objective of the company was to build and operate a railroad from Minneapolis, via Mendota and Faribault, to the state's southern boundary. It received a federal railroad land grant for through the Minnesota Territorial Legislature for construction purposes.

1858-59: The MCV graded 69.25 miles of right-of-way between Minneapolis and Owatonna. They used \$600,000 in state bonds.

1860: The MCV filed bankruptcy.

March 10, 1862: The MCV charter was re-assigned to the Minneapolis, Faribault and Cedar Valley Railroad (MFC), including the federal railroad land grant of 1857.

February 5, 1863 (Iowa): The McGregor and Western Railway (McGW) was incorporated. Its

objective was to build and operate a railroad from McGregor, Iowa west and northwest.

May 5, 1863: The Milwaukee and Saint Paul Railway (MSP) was incorporated in Wisconsin.

February 1, 1864: The MFC changed its name to Minnesota Central Railway (MCRwy). It included the federal railroad land grant of 1857.

1864-65: The MCRwy laid track from Minneapolis to Saint Paul Junction (Mendota) and Faribault. It obtained rights to West Saint Paul from Saint Paul Junction over the Minnesota Valley Railroad.

1866: The MCRwy, from Faribault to Owatonna, was operated under a lease by Milwaukee and Prairie du Chien Railroad from August 31, 1866 to June 22, 1867, when it was sold to the McGW.

1866: The Milwaukee and La Crosse Railroad and the Milwaukee and Prairie du Chien Railroad consolidated into the Milwaukee and Saint Paul Railroad (MSP), with exclusive carrier rights up the Mississippi River with the Northwest Union Packet Company. This transportation arrangement became the fastest, best access to the developing Minnesota commerce market.

June 22, 1867: The McGW purchased the MCRwy (Minneapolis to Owatonna) and trackage rights from Saint Paul Junction (Mendota) to West Saint Paul.

1867: The McGW built track from the Iowa state line near Le Roy to Owatonna.

August 5, 1867: The MSP purchased the McGW trackage rights from Saint Paul Junction (Mendota) to Saint Paul and West Saint Paul as well as the McGW trackage rights from Minneapolis to LeRoy. This action put the entire 215-mile line into one ownership, and the newly completed McGregor to Saint Paul line was then in business with two passenger trains daily departing from Saint Paul. This "Eastern Express" day trip left Saint Paul at 7:45 a.m., arriving in McGregor at 7:15 p.m. The night train left Saint Paul at 3:45 p.m., arriving in McGregor at 11:10 p.m. The table of distances, in miles, for this first Minnesota rail link with the outside world, or "Eastern Express", was:

Minneapolis to Minnehaha	5
Mendota	9
Westcott	16
Rosemount	22
Farmington	29
Castle Rock	36
Northfield	42
Dundas:	45
Faribault:	56
Medford:	65
Owatonna	71
Aurora:	80

Blooming Prairie	89
Lansing:	98
Austin:	104
Rose Creek:	112
Adams:	119
LeRoy:	130
In Iowa -	
Chester:	136
Lime Springs	142
Cresco:	153
Ridgeway:	162
Conover:	169
Calmer:	172
Ossian:	178
Castalia:	183
Postville:	189
Luana:	196
Monona:	200
Spaulding:	207
Giard:	209
North McGregor:	215

The guide book described each town along the way, giving the 1869 visitor to Minnesota a play-by-play for each town.

December 29, 1870: The LaCrosse, Trempealeau and Prescott Railroad (LTP) completed a bridge at Winona, thus becoming the first permanent rail link into Minnesota. The 1867 MSP pontoon bridge across the Mississippi at McGregor was a bottleneck on that line, as would be the MSP train ferry crossing at LaCrosse (operating from 1872-1875). The LTP was extended to Hastings by December 1871. This line became an alternative to the MSP line through LeRoy and MacGregor, Iowa (on the Mississippi River).

January 3, 1872: MSP purchased the Saint Paul and Chicago Railroad, which was incorporated on March 20, 1867 (building from Saint Paul to Hastings by 1869, to Red Wing by 1870 and to LaCrescent (connecting with La Crosse, Wisconsin by 1878).

June 28, 1872: The MSP purchased the Hastings and Dakota Railway, with track extending as far west as Glencoe, Minnesota. This railroad had received a federal railroad land grant in 1866.

February 11, 1874: The MSP became the Chicago, Milwaukee and Saint Paul Railway Company (CMSP).

1878: The CMSP built from La Crescent to the Mississippi River bridge into La Crosse.

May 1, 1880: The CMSP absorbed the Southern Minnesota Railway (from Grand Crossing, or La

Crosse, to the western state line (Airlie, near Pipestone, Minnesota). The Southern Minnesota had received a federal railroad land grant in 1866.

October 1, 1880: The CMSP absorbed the Chicago, Clinton Dubuque and Minnesota Railroad (La Crescent south to the Iowa state line (New Albion, Iowa).

October 17, 1882: The CMSP completed its line from Northfield to Cannon Falls.

June 1883: The CMSP completed its line from Cannon Falls into Red Wing (along the north bank of the Cannon), six months after the MCRR completed their own line along this route (along the south bank).

1884: The CMSP acquired the Minnesota Midland Railway (Wabasha City to Zumbrota).

1904: The CMSP built from Zumbrota to Faribault.

1918: The CMSP abandoned its line on the north bank of the Cannon River, from Cannon Falls to Northfield (14.7 miles).

November 22, 1926: The CMSP became the Chicago, Milwaukee, Saint Paul and Pacific Railroad (CMSPP). It became known as the Milwaukee Road.

August 27, 1937: The CMSPP abandoned Cannon Junction (Red Wing) to Cannon Falls (17.28 miles), after receiving trackage rights from the Chicago Great Western Railroad. This line was on the south bank of the Cannon River.

April 1, 1980: The CMSPP abandoned the segment from Faribault to Zumbrota, built in 1904.

November 7, 1983: The CMSPP abandoned the Austin to Calmar (on the Iowa line). This included the portion through Le Roy (The first all-rail route out of Minnesota, built in 1867).

January 1, 1986: The CMSPP merged with Soo Line Railroad.

1992: All shares of Soo Line were purchased by Canadian Pacific Railway as a wholly owned subsidiary.

2. Chicago Great Western Railway (PRESENCE ALONG CORRIDOR: Cannon Falls to Faribault). The CGWRwy went west from Red Wing to Cannon Falls, following the south bank of the Cannon River. It then crossed over the CMSPP as it crossed the river in Cannon Falls. Track was side-by-side with CMSPP from Cannon Falls to Northfield, then shared/side-by-side track through “the digs” to Dundas. From there, the track separated towards the Cannon River. At Faribault, the CGWRwy crossed Cannon at its confluence with the Straight River. It then went west, crossing above the CMSPP tracks and then west on the grade now occupied by Sakatah Singing Hill State Trail. This was a complex of inter-related companies. One of the

common links was A.B. Stickney, a supporter of Minnesota-controlled rail lines.

June 27, 1840: Alpheus Beede Stickney was born. He became the builder of the Chicago Great Western Railway, existing from January 16, 1892 until August 1, 1968. He retired in 1908, at the age of 68. He moved to Saint Paul from Stillwater on December 8, 1869. He died in 1916.

March 3, 1853: Minnesota Western Railroad (MW) incorporated (one of five railroads authorized by the Minnesota Territorial Legislature in 1853).

March 4, 1854: The Minnesota and North Western Railroad (MNW) incorporated to operate between Lake Superior and Dubuque, Iowa. This was the only railroad chartered by the territorial legislature in either 1854 or 1855.

May 23, 1857: The Minnesota Central Railroad (MCRR) was authorized for a route from Red Wing to the Great Bend of the Missouri River. It was one of 12 authorized railroads in 1857, but was not one of the four that received a federal railroad land grant that year.

1863: Red Wing business leaders were aware of the urgent need for more efficient transport of wheat to their city, where the grain was shipped down river. Competition from neighboring cities was becoming intense. For example, the Winona and Saint Peter Railroad had built from Winona to Saint Charles by 1863 and to Rochester by 1864. The Southern Minnesota Railroad was building from Grand Crossing (La Crosse, Wisconsin) to Lanesboro, where track was completed by 1868. Finally, the Hastings and Dakota Railway was building west from Hastings, arriving in Farmington by 1868.

March 2, 1865: Chapter 6 of the *General Laws of Minnesota* was approved. It was entitled “An Act to provide for the Incorporation of Canals, Slack-Water Navigation Companies and other Companies for the prosecution of works of Internal Improvement”. The same day, the Legislature approved “Joint Resolution Number III”, which requested Congress “to use their endeavors to obtain a grant of land to aid in the construction of Slack-Water Navigation on the Cannon River and Lakes from Red Wing, on the Mississippi River, to the Minnesota River, near Mankato.”

1865: W.W. Phelps proposed a canal between Red Wing and Mankato, the Cannon River Slack Water Navigation Company. It would have 13 locks and dams between Red Wing and Faribault, and 15 locks and dams between Faribault and Mankato. When cost estimates ran as high as \$2.5 million, the plans were scrapped.

1867: With the completion of the Milwaukee and Saint Paul Railroad (MSP), connecting Minneapolis and Saint Paul with McGregor, Iowa, on the Mississippi River (and passing through Northfield and Faribault), the Red Wing hinterland was effectively cut off, and grain was gradually re-routed away from the Red Wing shipping center. Red Wing began to futilely plead with the MSP for a branch line from Red Wing to Northfield. By 1872, the MSP had purchased the Saint Paul and Chicago Railroad, which already passed directly through Red Wing, along the river, on its way to La Crescent, where the MSP (later the CMSP) ferried trains across the Mississippi between La Crescent and North La Crosse. Finally, in 1875, the CMSP built an iron

bridge to connect these points.

May 26, 1870: MW changed to the Minneapolis and Saint Louis Railway (MSL).

May 16, 1871: MSL stockholders incorporated the Minneapolis and Duluth Railroad (MD), a company that received an 1864 federal railroad land grant.

August 15, 1871 to November 30, 1873: The MD is operated under lease by the Lake Superior and Mississippi Railroad (LSMR)

1871: MSL built from Minneapolis to Sioux City Junction (Merriam) south of Carver (Carver County), where the track crosses the Saint Paul and Sioux City Railroad to Omaha.

1873: Alpheus Beede (A.B.) Stickney, with previous railroad experience, moved to Saint Paul. He had been observing the railroad rate wars between the MSP and the LSMR, which began shipping between Saint Paul and Duluth on August 1, 1870. Stickney noted that wheat shipped to Duluth could be shipped to the East as cheaply as it could be shipped through Chicago. This meant the farmers of southern Minnesota could sell to the East through Duluth more cheaply than through Chicago. This set off the intense competition between the Chicago-oriented MSP and the new route through Duluth. The MSP made sure that its rates to Chicago were always equal, if not less than the rates charged by the LSMR. The MSP in turn boosted its rates to their Wisconsin customers, thus subsidizing the lower rates charged in Minnesota. Because this competition pre-dated federal rail regulation, towns having only one railroad were victimized by discriminatory freight rates. A.B. Stickney was disturbed by this, and was determined to do something about it wherever and whenever he could. He saw the river towns of Red Wing, Winona, La Crosse, Clinton and Dubuque being diminished by the Chicago-oriented railroad companies. Further, Stickney saw all of Minnesota held hostage to Chicago rail rates. He set out to break this monopoly.

December 1, 1873 to May 31, 1881: The MD operated under lease by the MSL.

1877: The MSL completed its line from Minneapolis to Albert Lea.

December 3, 1878: The MCRR (which had no federal railroad land grant) merged with the Cannon River Improvement Company, which included a U.S. Swampland Act land grant of 275,000 acres.

1879: The MSL built from Albert Lea to Emmons, Iowa, on the Minnesota line southwest of Albert Lea.

June 1, 1881: The MSL purchased the MD.

1881: After an assignment with J. J. Hill on the Canadian Pacific Railroad in Canada, Stickney returned to Saint Paul in 1881 to serve on the board of the MSL. While on this board, he oversaw the building of a subsidiary railroad, the MCRR. Within a few months, he moved to

Red Wing, becoming president of that railroad, which had an inactive charter since 1857. It did not have a federal railroad land grant, but did have a federal swamplands grant through an 1878 merger (see above).

Summer 1882: The MCRR built from Northfield to Faribault.

July 21, 1882: A temporary truce occurred in the battle between the MCRR and the CMSP. The MCRR granted the CMSP rights through Northfield and the rights to cross at certain other points. In return, the MCRR was granted the rights to cross over the CMSP just north of Faribault.

August 1, 1882: The MCRR completed track from Waterville to Morristown (west of Faribault), using ties and rails brought to Waterville by the MSL. The CMSP began hauling MCRR construction supplies to Faribault for rail construction. However, the CMSP began harassment of MCRR construction crews between Northfield and Cannon Falls.

September 6, 1882: The MCRR was ready to cross the CMSP north of Faribault, as earlier agreed upon. Construction was delayed there until September 13. Meanwhile, the CMSP blasted through solid rock in order to shorten a grade into Cannon Falls, completing that rail link by October 17. On October 22, the CMSP made its first excursion trip into Cannon Falls. Two weeks later, in a surprise move, the MCRR crossed over the CMSP tracks from the north and built a bridge over the Cannon River, to locate its depot and yard just below the center of downtown Cannon Falls. This gave the MCRR an advantage, because the south bank of the Cannon was relatively flat all the way to Red Wing. The CMSP was building along the narrow rock ledge on the north bank of the river. The next battle would be on Levee Street in Red Wing, where the two railroads would again need to cross if the MCRR was to be able to interchange with riverboats. The CMSP had had tracks on Levee Street since 1871.

November 6, 1882: The Red Wing city council granted the MCRR the right to cross the CMSP on Levee Street, after a period of several days when the MCRR was crowding the CMSP with fill, and the CMSP was undercutting this fill along Levee Street.

November 22, 1882: After a brief visit by CMSP officials to Red Wing, several hundred laborers began filling in below Levee Street to build a new riverside track. Further court orders and haggling ensued. The case was moved to federal court. Finally the MCRR was permitted to build on Levee Street, and to cross over it to build a riverboat terminal. They built a small freight depot and passenger station just 20 feet above the CMSP yard and depot on Levee Street.

December 24, 1882: The MCRR completed its line into Red Wing, with passenger service beginning two weeks later. The CMSP, however, ran into further difficulties. On December 3 a gale blew down their 420-foot bridge just east of Cannon Falls. By late January the bridge was replaced, but further track construction into Red Wing had ended until spring. The CMSP was not completed into Red Wing until June of 1883. The MCRR, under A.B. Stickney, had further plans to build a bridge over the Mississippi, but was unable to raise sufficient financing, and was further unable to convince the city council to partner with him to build a combination wagon and rail bridge. The company was also depleted of capital after the legal battles with the CMSP.

January 1, 1883 to June 30, 1884: The MCRR made arrangements with the MSL to operate the new railroad.

August 14, 1883: The MCRR reorganized as the Wisconsin Minnesota and Pacific Railway (WMP). At this point, Stickney resigned from this board to form his own railroad.

Fall 1883: Stickney and William R. Marshall purchased all of 10,000 shares and the franchise for the MNW, with territorial charter authorization from 1854. It was the last such railroad charter in Minnesota. Although it had no federal railroad grant, it did have an exemption from all local and other taxes in Minnesota, except for a 2% tax on gross earnings. Stickney knew wealthy English investors from his time spent working for J.J. Hill on the Canadian Pacific Railroad in Canada. With strong investor backing, his plan was to build the MNW from Saint Paul to Mona, Iowa, where he planned to meet the Cedar Falls and Minnesota Railroad. He would then lease trackage into Chicago on the Illinois Central Railroad.

December 1883: MNW acquisition began on 110 miles of right-of-way from Saint Paul to Mona, Iowa.

September 1884: MNW began construction.

1885: Work resumed on completing the WMP to Mankato.

September 27, 1885: With completion of a 1,400-foot bridge into downtown Saint Paul, the MNW was opened for service.

June 10, 1886: The Chicago Saint Paul and Kansas City Railway (CSPKC) incorporated. It planned to construct, lease, purchase and operate a railway into Iowa, Minnesota, Missouri, Kansas and Nebraska.

October 20, 1886: The MNW was completed from Saint Paul, through Randolph to Lyle (on the Iowa line, south of Austin), and built from Hayfield (in south Dodge County) to Taopi (southeast of Austin), where the line crossed the Milwaukee Road, then south to link with the Dubuque and Northwestern Railroad in Iowa). The Dubuque and Northwestern then dissolved into the MNW. From Dubuque, Iowa, this line connected with the Minnesota and Northwestern Railroad of Illinois. To improve this Chicago line, the Winston tunnel, a half-mile long structure, was built. It was the longest tunnel in the state of Illinois. The tunnel was completed by January 1888.

August 1, 1887: The MNW began service from Saint Paul to Chicago two times daily, in only 14 hours. At the time, the Omaha Road/Chicago Northwestern or the CMSP was taking 20 hours to go from Saint Paul to Chicago, having to stop in many towns along the way. By 1888, this trip was shortened to 12 hours.

June 13, 1887: The WMP completed the line into Mankato (the line was now complete from Red Wing). This became the effective western end of the "Cannon Valley Road".

December 8, 1887: The CSPKC acquired the MNW, including the line from Hayfield (in south Dodge County) to Taopi (near the Iowa line, where it crossed the Milwaukee Road).

January 16, 1892: The Chicago Great Western Railway (CGWRwy) was incorporated. Its mission was to reorganize the CSPKC.

July 1, 1892: The CSPKC was leased to the CGWRwy.

September 7, 1893: The CGWRwy purchased the CSPKC, including the line from Saint Paul to Taopi (where this line crossed the Milwaukee Road south east of Austin).

October 23, 1897 to June 1, 1899: The WMP was controlled by the Chicago, Rock Island and Pacific Railroad, operated by the MSL as agents.

June 1, 1899 to April 30, 1901: The WMP was controlled by the CGWRwy through stock ownership. Two miles of track were built from Faribault Junction (on the north edge of town) along the west bank of the Straight River, into the industrial heart of downtown Faribault.

April 30, 1901: The WMP was reorganized with the CGWRwy.

July 5, 1901: The CGWRwy purchased the Duluth Red Wing and Southern Railroad (operated under the WMP). This included the line from Red Wing to Zumbrota.

September 10, 1901: The CGWRwy purchased the Winona and Western Railway, including a line from Winona to LeRoy (on the Milwaukee Road) and a line from Simpson to Rochester.

November 29, 1901: The MD was sold to the Northern Pacific Railroad.

1902: The CGWRwy sold the Hayfield to Lyle segment to the Mason City and Fort Dodge Railroad.

1902-1903: The CGWRwy built from Rochester to Zumbrota.

February 10, 1908: Following the Panic of 1907, the CGWRwy went into receivership.

September 1, 1909: The CGWRwy reorganized as the Chicago Great Western Railroad (CGWRR).

August 9, 1916: Stickney died at his home at 288 Summit in Saint Paul. Stickney did much in his life to diversify farming along his railroads, moving from wheat-only to livestock and diverse planting. To accomplish this he founded the South Saint Paul stockyards (1886), and started the first creamery in Saint Paul. His interests were diverse and far-reaching. For example, by 1893, his CGWRwy was carrying 70% of all the corn transported between Kansas City and Chicago.

February 28, 1935: CGWRR filed for bankruptcy and trusteeship.

February 21, 1941: The CGWRR reorganized as the CGWRwy.

1946: The CGWRwy began introducing 4,500 horsepower diesel locomotives (steam was completely replaced by September 1949).

1954: Boeing introduced its first passenger jet, beginning to displace passenger rail travel.

1956: The Federal Highway Act called for the construction of 42,000 miles of super highway. Grain trucks became primary carriers of grain, a very important commodity that had been hauled primarily by rail.

November 1, 1960: The MSL was sold to the Chicago and Northwestern Railroad (CNW).

September 1, 1968: The CGWRy merged into the CNW.

1976: The Northfield to Faribault segment of the original CGWRwy transferred traffic to the parallel CMSPP line.

December 1978: The CNW was authorized to abandon the Northfield to Faribault segment. Track was removed in 1980.

March 22, 1981: The CNW abandoned the segment from Austin to Manley (Iowa).

September 9, 1981: The CNW abandoned the Northfield to Dundas segment (2.4 miles).

July 25, 1982: The CNW abandoned the Cannon Falls to Red Wing segment (19.5 miles). It had been out of service since the late 1980's. It was the last portion of the CGWRwy between Red Wing and Mankato to be abandoned. It is now the Cannon Valley Trail, on the south bank of the river.

May 31, 1986: The Cannon Valley Trail is dedicated on the old rail bed of the CGWRwy between Cannon Falls and Red Wing.

1995: CNW was purchased by the Union Pacific Railroad (UP). The mainline of the old Omaha Road through southwest Minnesota became a UP mainline in Minnesota. By this time, virtually all CGWRwy-turned CNW lines in the Cannon Valley had been abandoned, including the original north-south CGWRwy line through Randolph. The UP's CMSPP/ CNW track between Northfield and Cannon Falls was eventually leased to Progressive Rail, Inc. The UP's CMSPP/CNW line from Comus south past the west side of Faribault was eventually leased to Iowa Chicago and Eastern Railway.

1995: The UP abandoned 0.3 miles of track in Cannon Falls.

1990s: The UP purchased the CRIPRR, giving the UP a new north-south mainline all the way north to South Saint Paul, passing through Faribault and Northfield.

3. Chicago Rock Island and Pacific Railroad (PRESENCE ALONG CORRIDOR: Northfield to Faribault) Entering Northfield from the north, on shared track with Chicago Milwaukee Saint Paul and Pacific Railroad to Comus, then crossing the Cannon River above the confluence with the Straight River, then crossing from the east across the Straight River into downtown Faribault, then exiting Faribault to the southeast.

February 27, 1848: Rock Island and La Salle Rail Road Company (RILS) incorporated.

February 7, 1851: RILS is renamed Chicago and Rock Island and Pacific Rail Road.

August 20, 1866: Renamed (in Illinois) as the Chicago Rock Island and Pacific Railroad Company.

June 2, 1880: Name changed to Chicago Rock Island and Pacific Railway Company.

1878: The Burlington Cedar Rapids and Northern Railway (BCRN) built from Iowa line at Gordonsville (southeast of Albert Lea) to Albert Lea.

1901: The BCRN built from Iowa state line (Homedale, Faribault Co.) to Albert Lea.

1901 to 1902: The BCRN built from Albert Lea to Comus (south of Northfield) and Rosemount to Newport (trackage rights from Comus to Rosemount on CMSPP; trackage rights from Burlington R.R. and CMSPP from Inver Grove to West Saint Paul).

1903: The BCRN built from Inver Grove to West Saint Paul, thus completing a competing north-south line to move Minnesota goods and services into the mid-continental rail route from Minneapolis/Saint Paul to Fort Worth and Dallas, Texas.

June 15, 1903: The CRIPRwy purchased the BCRN.

January 1, 1948: The CRIPRwy is succeeded by the Chicago Rock Island and Pacific Railroad (CRIPRR). It was chartered in Delaware.

1975: The CRIPRR went into receivership.

1990's: The CRIPRR was purchased by the UP. The UP leased some lines to Progressive Rail, Inc., the Iowa Chicago and Eastern Railroad and the Dakota Minnesota and Eastern Railway.

4. Minneapolis, Northfield and Southern Railway (Dan Patch Electric Lines). (PRESENCE ALONG CORRIDOR: From Randolph to Northfield to Faribault on CGWRwy track). In addition, for certain periods, this line had trackage rights on the CGWRwy to Mankato.

1906: The Minneapolis, Rochester and Dubuque (MRD) Electric Traction Company was incorporated. It began buying-up rights-of-way for interurban high-speed freight and passenger service between Minneapolis and Northfield.

September 1907: The Minneapolis Saint Paul, Rochester and Dubuque (MSPRD) Electric Traction Company was incorporated in Maine.

October 12, 1907: The MRD right-of-way was purchased by the MSPRD. The objective of the new company was to construct, maintain and operate various railroads in the United States. It was to become an interurban high-speed freight and passenger service from Minneapolis to Rochester (via Northfield, Faribault and Owatonna). In Rochester it was to connect to another line proposed from Rochester through Decorah, Iowa, to Dubuque. In Dubuque, it was to connect with the Rockford and Interurban Electric Railway to Chicago. Another branch line would connect to Saint Paul.

June 10, 1908: The MSPRD construction began between Minneapolis and Northfield.

July 4, 1910: The MSPRD began service from Minneapolis to Lakeville.

1911: The MSPRD built from 50th Street in Minneapolis to Northfield (including the 1.69 mile link to the Chicago Great Western Railway in Northfield, the Ellison Line). It did some grading between Northfield and Faribault.

March 1, 1911: MSPRD sold track from 50th to 54 Street in Minneapolis to the Minneapolis Street Railway, which built a turn-around at 54th Street.

June 30, 1911: The MSPRD line became known as the “Dan Patch Electric Lines,” consisting of 37.34 miles of line from Minneapolis to Northfield, including the Ellison CGWRwy connecting line. It cost \$1,004,776.40 to build. It had seven gasoline-electric passenger motorcars. Although it was planned to be an electric line, it never materialized. It was always a gasoline-electric or steam-powered line. During 1911, 13 miles of right-of-way from Northfield to Faribault were purchased and graded, but connections into Faribault could not be made, so the grade was never used. Instead, trackage rights were eventually obtained on the CGWRwy.

1913: The Dan Patch secured trackage rights over the CGWRwy from Northfield to Mankato and from Northfield to Randolph.

May 29, 1915: a 14.23 mile branch line in the Minneapolis western suburbs connected the MSPRD with Luce Line Junction and the Electric Short Line Terminal Company line linking both the Lake Minnetonka area and downtown Minneapolis. The company now had the

following connections: in Northfield, it connected with the CGWRwy, the Milwaukee Road and the Chicago Rock Island and Pacific Railway. In Randolph it connected with the CGWRwy's north-south line. In Savage it linked with the Chicago Saint Paul Minneapolis and Omaha. In Minneapolis it connected with the Great Northern and the Minneapolis and Saint Louis.

January 31, 1916: The MSPRD trackage rights between Northfield, Mankato and Randolph were discontinued because of heavy costs.

May 18, 1918: The MSPRD re-established passenger service from Minneapolis to Northfield.

June 21, 1918: Minneapolis Northfield and Southern Railway (MNS) incorporated in South Dakota. Its objective was to acquire, maintain and operate a railroad between Minneapolis and Northfield, and other points in Minnesota.

June 23, 1918: The MNS was incorporated in Minnesota.

August 6, 1918: The MSPRD was purchased at foreclosure by the MNS.

December 1, 1918: The MNS re-established connections with downtown Minneapolis, via the Electric Short Line Terminal Company (Luce Line).

July 17, 1921: The MNS re-established, with a 10-year lease, trackage rights for passenger service on the CGWRwy line to Faribault.

January 18, 1925: The MNS further re-established its trackage rights with the CGWRwy, connecting from Northfield to Randolph and from Faribault to Mankato.

January 17, 1931: The MNS passenger service ceased between Northfield and Randolph, and between Faribault and Mankato.

July 17, 1931: The MNS passenger service ceased between Northfield and Faribault.

1941: The MNS abandoned the 1.69 Ellison line in Northfield (the link with the CGWRwy).

April 30, 1942: The MNS discontinued passenger service between Minneapolis and Northfield.

1982: The MNS was purchased by Soo Line.

1985: Soo Line bought the CMSTPP.

1992: The remaining shares of Soo Line stock were purchased by Canadian Pacific (CP), making it a wholly owned subsidiary.

2001: The CP sold a nine-mile segment of the Dan Patch Line to Progressive Rail, Inc., a short line railroad based in Lakeville, Minnesota.

5. Development of the Consumers Power Company. (PRESENCE ALONG THE CORRIDOR: this company harnessed hydropower from Faribault to Cannon Falls).

1872: Faribault Gas Light Company (FGLC) was incorporated for the manufacture and distribution of gas.

June 1873: FGLC began building their first plant to make naphtha oil gas. During the same month, gas mains were laid in Faribault.

June 18, 1873: The first gas was turned on, with free use on a trial basis. They were open gas jets.

March 1877: The gas works was leased to J. H. Walker of Milwaukee, who produced eight gas streetlights installed in October 1879.

October 21, 1879: Thomas Alva Edison invented a workable electric incandescent lamp after 14 months of experimentation at his Menlo Park, New Jersey laboratory. (“the longer it burned, the more fascinated we were... There was no sleep for any of us for 40 hours.” – Edison)

1881: Henry Mavison Byllesby worked as a draftsman for Thomas Edison.

1882: Thomas Edison flipped a switch at his Pearl Street Generating Station in New York City, introducing electric light to lower Manhattan.

March 6, 1885: Faribault city council passed an ordinance granting the organization of the Faribault Electric Company (FEC). Existing steam engines or other machines in factories generated the power.

1885: Byllesby joined an Edison competitor, George Westinghouse, designing 40 lighting devices for manufacture.

January 16, 1886: The first electric lights are turned on in Faribault.

1888: Northfield’s first electric generation came from an old flourmill.

September 27, 1889: The FGLC and FEC, purchased by a group of Saint Paul men, incorporate as Faribault Consolidated Gas and Electric Company (FCGEC). Eventually the founder of the General Electric Company purchased this company.

1891: Byllesby went to work for Charles A. Coffin, president of Thomson-Houston Electric Company, a rival of both Edison and Westinghouse. Byllesby was sent to Saint Paul to run the company in that region. Thomson-Houston was known as a “cowbird” company, one that thrived on the nests of others. While in Saint Paul, Byllesby observed former Governor Alexander Ramsey’s Saint Paul Gas Light Company, and in Minneapolis, the Minnesota Brush Electric

Company. The region was dominated at the time by many upstart hand-to-mouth power companies, all needing money, engineering and nerve to try new things.

1893: A steam-engine power company incorporated in Northfield under the name of Northfield Light, Heat and Power Company (NLHPC).

1894: Polar Star Electric Company (PSEC) organized electricity generation at the King mill, just west of Faribault on the Cannon River. It was driven by waterpower from a mile-long raceway from a dam up stream. Additional power was from a steam engine.

1895: The Cannon Falls Electric Light Company (CFELC) organized and began electric service that year. The power source was steam.

1895: Byllesby's company merged with Edison's General Electric Company, so Byllesby left to free-lance in the West, designing and building hydroelectric plants in Oregon.

1902: Byllesby started his own company (H.M. Byllesby Company, or "BC") in Chicago to buy up, rehab and build public utilities.

1907: NLHPC contracted with a mill in Waterford, two miles north of Northfield, for use of waterpower owned by the mill to drive a generator.

June 1909: Byllesby returned to Minnesota to organize the Washington County Light and Power Company, which acquired Stillwater Gas and Electric on June 16.

1909: CFELC reorganized as the Cannon Falls Electric Service Company (CFESC).

1909: Cannon Valley Power Company (CVPC) secured options on flowage lands for a power project on the Cannon River near Cannon Falls. They also secured an option on the NLHPC.

Fall 1909: The BC began negotiating for the purchase of the FGEC, the PSEC, the NLHPC and the CVPC.

November 1909: The BC was renamed Consumers Power Company (CPC).

February 26, 1910: The four power companies of Faribault, Northfield and Cannon Falls merge with the Consumers Power Company (CPC). Work began immediately on a 33,000-volt transmission line (largest lines then in common use) from Faribault to Cannon Falls, by way of Northfield. Construction began immediately on a dam and powerhouse at Cannon Falls. Despite the fact that hand labor with picks, shovels and wheelbarrows was used for excavation, and hauling was done with horses and wagons, a crew of 500 to 600 men, living in a camp near the site, completed the job in just one year. The dam developed a head of 57 feet, and generated 1,100 kilowatts, which was increased to 1,900 kilowatts by 1916. After completion of the power line from Faribault to Northfield to Cannon Falls, the power plants of the FGEC and the plants in Northfield and Cannon Falls were removed. The PSEC plant in Faribault was kept for standby

purposes. At the same time as this development was taking place, The CPC was building a dam and power house on the Blue Earth River, at Rapidan, south of Mankato and at Coon Rapids. The plan was to integrate these systems with other CPC facilities in Stillwater and Saint Paul, and soon many other area communities were linked into the growing system of 33,000-volt transmission lines.

April 1, 1916: The CPC became Northern States Power Company (NSP). Eventually 25 utility companies were purchased over a 20-year period, including steam, hydro and diesel-driven electric plants.

1966: NSP decommissioned the hydro plant at Cannon Falls.

1969: NSP donated the land surrounding Lake Byllesby Dam to Dakota and Goodhue Counties. Dakota County created Lake Byllesby Regional Park.

1983: A study by the Saint Anthony Falls Hydraulic Laboratory determined the feasibility of re-commissioning the Byllesby Dam, and it was reconditioned.

1987: The Byllesby Dam was put back into production by North American Hydro. It now produces 2.6 megawatts. The dam does not generate a profit, but it does return locally produced, renewable energy into the local power grid. The electricity produced compares with 69.6 megawatts from the state's largest hydro-electric plant, the Thomson Dam, on the Saint Louis River near Duluth. It is one of 33 sites in Minnesota, or one of 564 inventories waterpower sites in the state that have driven mills in the past.

2000: NSP merges with Denver-based New Centuries Energies to become Xcel Energy.

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