



MINNESOTA RIVER TRAIL COMMUNITIES:

DESIGNS FOR TRAILS & WATERFRONTS IN REDWOOD FALLS, NEW ULM, AND SAINT PETER

JUNE 2007



ACKNOWLEDGEMENTS

This project was produced and completed by The Center for Changing Landscapes, College of Design, College of Food, Agriculture, and Natural Sciences, at the University of Minnesota. The project team included:

Mary Vogel, Co-Director

Roger Martin, Senior Research Fellow, Professor Emeritus

James Pettinari, Senior Research Fellow

Nichole Schlepp, Design Coordinator

Laura Reuter, Research Fellow

Carlos J. Fernandez, Research Fellow

Andrea M. Wedul, Research Fellow

Cynthia M. Carlson, Research Assistant

Laura Lyndgaard, Research Assistant

Funding for this project was received by the Legislative Commission on Minnesota Resources (LCMR) from the Minnesota Environment and Natural Resources Trust Fund in ML 2005, First Special Session, Chapter 1, Article 2, Section 11 Subd. 61

This publication is available in alternative formats upon request. Direct requests to:

Center for Changing Landscapes
College of Design
University of Minnesota
151 Rapson Hall
89 Church Street
Minneapolis, MN 55455
612.624.7557

©2007 Regents of the University of Minnesota. All rights reserved.

The University of Minnesota is an equal opportunity educator and employer.

Printed on recycled and recyclable paper with at least 10 percent postconsumer material.



UNIVERSITY OF MINNESOTA

This project was completed with the help and resourcefulness of the following individuals and organizations:

City of Redwood Falls:

Redwood Falls Hike and Bike Group

Vicki Phillips, Recreation Director, Redwood Falls

Mike Salmon, City Council Member

Ron Mannz, City Engineer

Minnesota Department of Natural Resources:

Laurie Young, DNR Trails and Waterways

Mn DNR South Minnesota Regional Office

Gary Tiepel and Flandrau State Park Staff

Minneopa State Park

City of New Ulm:

Tom Schmitz, Director of Parks and Recreation

David Schnobrich, Community Development Director

Steven Koehler, City Engineer

Hoisington Kogler Group, Inc.:

J. Russell Fifield, Jr., Strategic Planner

Greg Ingraham, Vice President

Lance Bernard, Planner

City of Saint Peter:

City Council and Parks Commission

Todd Prafke, City Administrator

Lewis Giesking, Director of Public Works

Russ Wille, Director of Community Development

Bonestroo, Rosene, Anderlik and Associates, Rochester, MN

Bolton and Menk, Inc.

Lower Sioux Tribal Council

Senator Dennis Frederickson

Diane Wilson

Waziyatawin Angela Wilson

Neil McKay, American Indian Studies, University of Minnesota

Howard Vogel, Hamline University

George Glotzbach

Peter Harff and MnDOT Mankato Offices

Scott Bradley, MnDOT

Mark Bjelland, Gustavus Adolphus College

Scott Anfinson, MN State Archeologist

David G. Pitt, College of Design, University of Minnesota

Allen Mattson and John Cook, University of Minnesota,
Facilities Management Records



TABLE OF CONTENTS

■	Introduction	1-6
■	Project Background	1-4
■	Regional Trail Network	4-5
■	Minnesota River Valley	6-26
■	Geology	9-14
■	Hydrology	15-16
■	Vegetation	17-20
■	Cultural History	21-26
■	Minnesota River Trail	27-46
■	Trail Concept	29-32
■	Interpretation	33-36
■	Trail Identity	37-44
■	Study Areas	45-46
■	Redwood Falls	47-82
■	Trail Experience	49-52
■	Existing Trails	53-54
■	Trail Options	55-62
■	The Tributary Community	
	History	63-64
	Analysis	65-72
	Community Trail Options	73-78
	Trailhead Designs	79-82

■	New Ulm	83-124
■	Trail Experience	85-88
■	Existing Trails	89-90
■	Trail Options	91-98
■	The Terrace Community	
	History	99-100
	Analysis	101-110
	Community Trail Options	111-112
	Flandrau State Park Trail Options	113-116
	Trail Design	117-120
	Trailhead Designs	121-124

■	Saint Peter	125-164
■	Trail Experience	127-130
■	Existing Trails	131-132
■	Trail Options	133-138
■	The Valley Community	
	History	139-140
	Analysis	141-148
	Trail Design	149-160
	Trailhead Design	161-164

■	Bibliography	165-166
---	---------------------	----------------

PROJECT BACKGROUND

The Center for Changing Landscapes worked with Redwood Falls, New Ulm, Saint Peter, and local citizens to create a whole systems approach to integrating state trails into communities and their landscapes. The design/planning work included site specific designs for the integration of the trail with trail communities that address such elements as trail head facilities, trail connections to natural and cultural sites, design of community trail systems that connect to the state trail, and in some cases, the state trail corridor. This project extends the design work done in *Linking Communities, Design, Technology, & DNR Trail Resources*, funded by the 2003-5 LCMR cycle, to three more communities on the Minnesota River State Trail. Valuable in and of themselves, state trails can leverage even more value if the larger context of natural resource systems, cultural amenities, future development patterns, and community form are considered and linked to trail corridors. This project extended and enhanced the traditional DNR Trails and Waterways Division corridor-based trail planning on the Minnesota River State Trail.

Project Funding:

Funding for this project was recommended by the Legislative Commission of Minnesota Resources (LCMR) for funding from the Minnesota Environment and Natural Resources Trust Fund and was appropriated by the Minnesota State Legislative during its 2005 session.

Center for Changing Landscapes:

The Center for Changing Landscapes is an interdisciplinary design center of the College of Design and the College of Food, Agriculture, and Natural Sciences, University of Minnesota. A team of architects, landscape architects, urban designers, and technical support created planning/design work at the regional, community, and site scales.

Collaboration:

Although the Center for Changing Landscapes is responsible for the project, CCL worked with the Department of Natural Resources (DNR) to assure that the DNR could use the design/planning work in its master planning efforts for the Minnesota River State Trail.

Design/Planning Intent: Reconnecting Communities to the River:

The Minnesota River Valley has a rich cultural and natural history. Pre-European settlements and post-European settlements were sited along the river because of its resources for food, transportation, industry, and energy. Through time many river communities have turned away from the river. The design/planning intent was to use the trail as a vehicle for strengthening each of the community's connection to the river and to enrich the trail experience by connecting the communities to the trail. Trails and trailheads were placed in the communities close to the river to interpret the river and its landscape for both for the community members and the visitors who use the trail.

The State Trail as Environmental Educator:

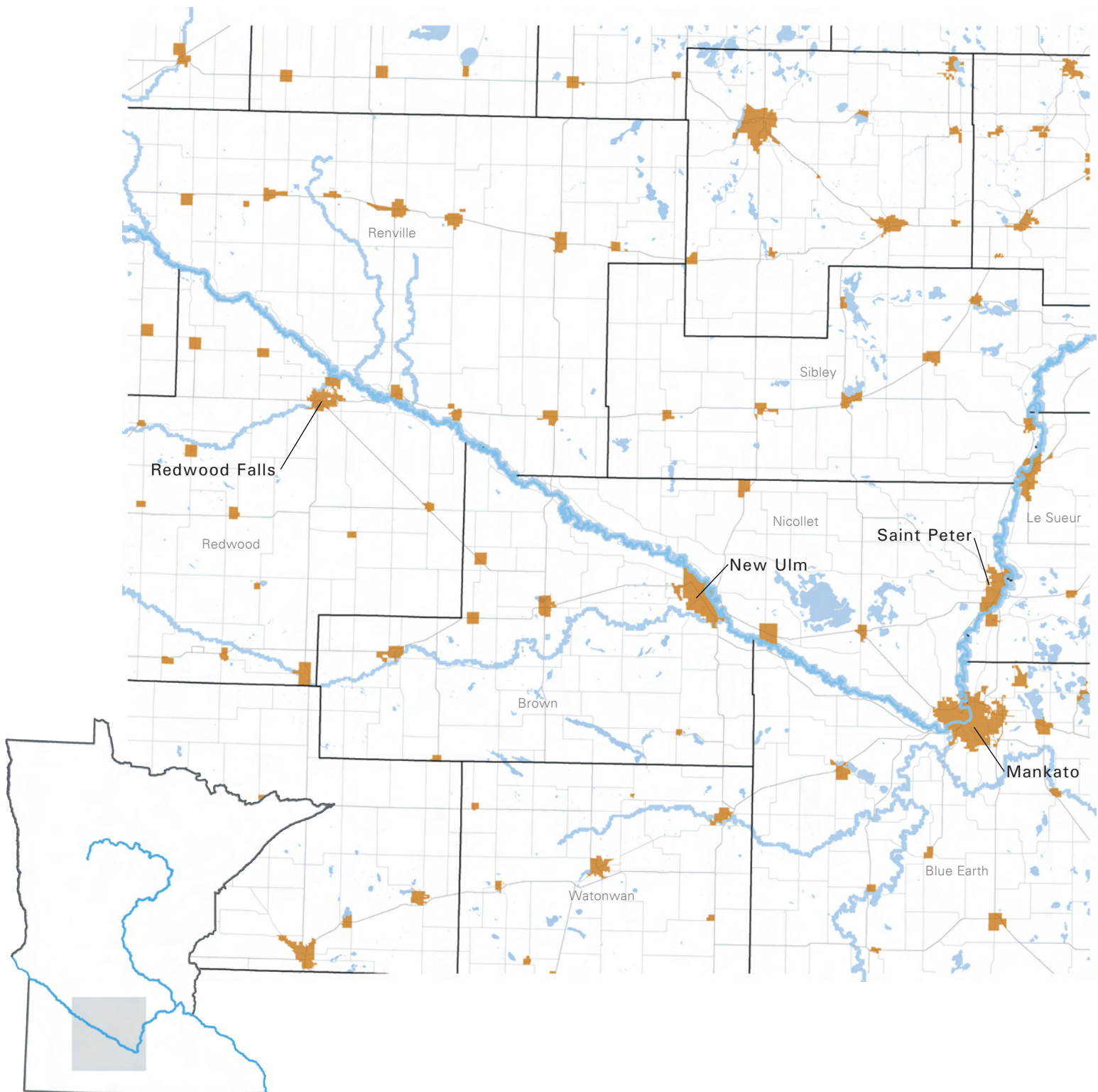
The Minnesota River State Trail was seen as a vehicle for raising environmental awareness by experiencing the landscape and interpreting it. The Minnesota River Watershed is very interesting and beautiful. It is also a major polluter the Mississippi River. Trail design/planning sought to create greater understanding of both the environmental strengths and the weaknesses found in the valley in the belief that understanding is often the first step in valuing and protecting a landscape.

Linking Communities:

The Minnesota River State Trail was also seen as a catalyst for connecting communities together to create working partnerships among communities. In rural landscapes, such as the Minnesota River Valley, small communities are facing economic challenges as farms become larger and the farming population continues to decline. State recreational trails are very popular because they create opportunities for Minnesotans to experience the natural environment, add to the livability of communities, increase their desirability as places to live and work, and contribute considerably to the tourist economy. Using the state trail as a catalyst for connecting communities into a regional system that celebrates the Minnesota River Valley's rich cultural and natural resources helps sustain the communities economically, environmentally, and socially.

Community Participation:

The Department of Natural Resources and the Center for Changing Landscapes led meetings with communities and local trail groups to ensure local and user input on environmental, recreational, tourism, and community livability issues. These workshops produced maps with each of the communities' suggested trail alignment options and points of cultural, historic, ecological, and recreational interests. After receiving community feedback, the Center for Changing Landscapes produced preliminary plans/designs for each community at the regional, community, and site scales that were presented at a second community meeting for discussion and comment. From this information and feedback the final plans/designs were created. Final designs were then presented to the community in public meetings.



PROJECT SCOPE

High-quality recreational experiences, alignment alternatives, natural systems protection strategies, community aspirations and concerns, linkages to cultural and natural amenities, impact of current and future development patterns, the needs of a variety of trail users, specific site designs, and local trail designs were studied.

Regional planning/design work included:

- Using geographic information systems (GIS) for an extensive inventory of recreational, ecological, and cultural resources,
- Interpreting cultural and environmental elements,
- Analyzing landscape character and experience,
- Identifying local and regional trail alignment options and network connections,
- Developing a design identity for the Minnesota River State Trail, and
- Locating potential trailhead sites throughout the region.

Community scale work included:

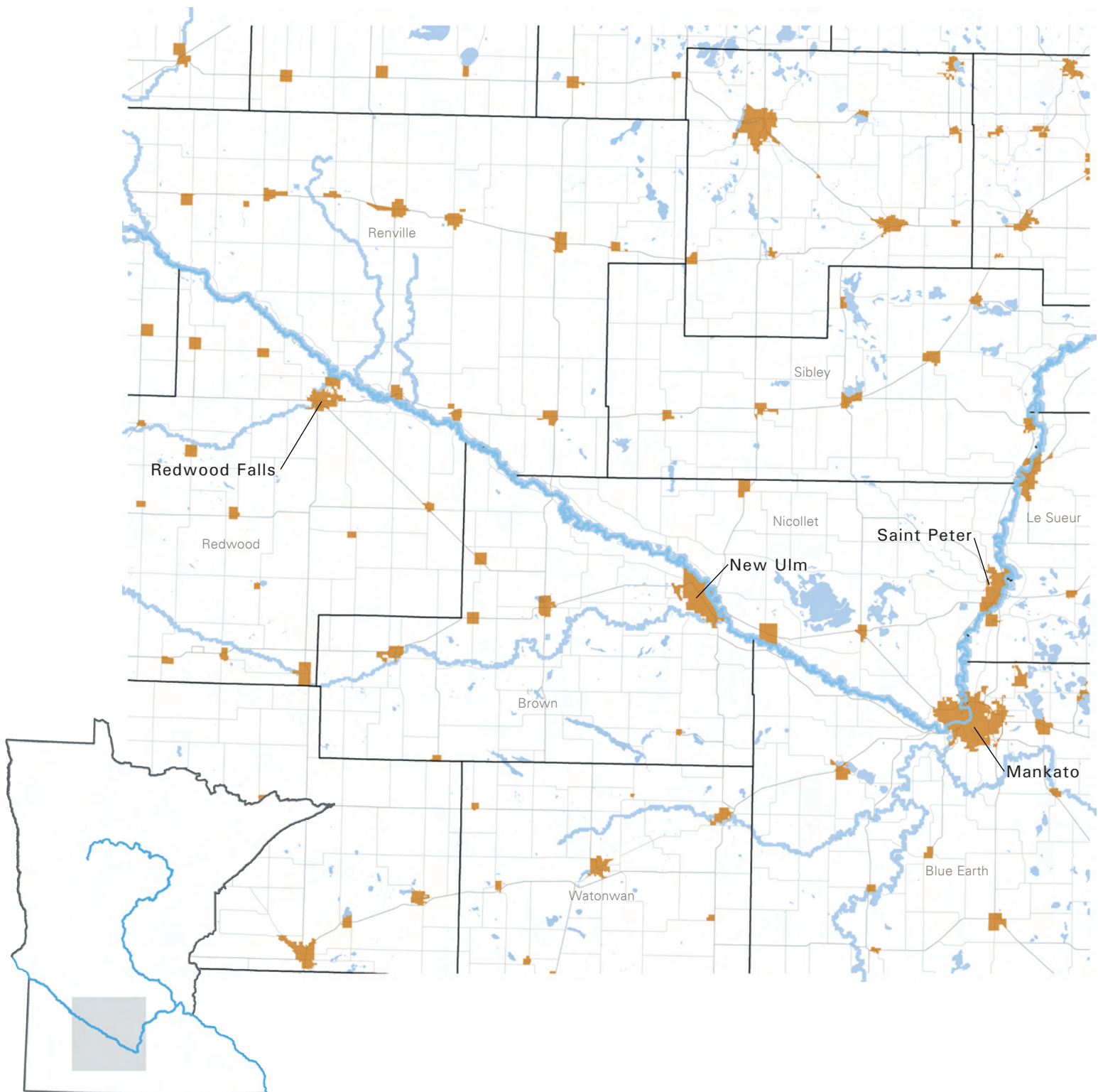
- Analyzing the opportunities and constraints to connecting the community, its downtown, local parks, and its local trails to the state trail,
- Identifying community amenities,
- Creating a visual character analysis, and
- Identifying potential locations for trailheads within the community,

Site scale work focused on:

- Designing trailheads at the site scale,
- Creating rest areas along the trail, and
- Designing a space to be used for the Commemorative March.

Trail identity work focused on creating a signature design vocabulary that reflected the landscape as it changed along the trail, it included:

- Designing a signature kiosk and bicycle rack, and
- Designing signature places of rest and contemplation along the trail.



CONNECTING THE TRAIL TO EXISTING SYSTEMS

The existing recreational trails in Minnesota River Valley were mapped and taken into consideration when designing the Minnesota River State Trail in order to create a comprehensive regional trail network that links the systems together.

The **Minnesota River Valley Scenic Byway** was designated as a byway in 1996. The Byway is managed by the Minnesota River Valley Scenic Byway Alliance, a nonprofit corporation. Its purpose is to promote, develop, and share the stories of the river. It is an automobile route that follows quiet county roads close to the river and connects many of the important natural and cultural valley resources. The Byway starts in Brown's Valley on the Minnesota/South Dakota border and continues east down the river to end in Belle Plaine. A well-developed web site allows byway users to create their own journey by providing a variety of routes, maps, and brochures that focus on a particular river story. Along the Byway many existing "discovery sites" have interpretive panels or plaques that were placed over time by a variety of organizations. There is a plan to place interpretive byway kiosks along the Byway that will tie the route together. The Minnesota River State Trail will enhance the Byway and add to the promotion of the Minnesota River Valley as a route and a destination. The design and placement of state trail kiosks are to be coordinated with the Byway.

The **Minnesota River Canoe Trail** starts in Ortonville and travels the length of the entire river. Brochures and maps, provided by the Minnesota Department of Natural Resources, divide the trail into four segments: Ortonville to Granite Falls, Granite Falls to State Highway 4, State Highway 4 to Le Sueur, and Le Sueur to Fort Snelling. The Minnesota River Trail connects to the canoe trail's public water access points and canoe carry-in points wherever possible.

The **Minnesota River Valley Birding Trail**, a project of Audubon Minnesota, promotes the enjoyment of natural resources, habitat, and wildlife along the Minnesota River and throughout the Minnesota River Valley Basin. The Birding Trail divides the watersheds into regions that describe the area's natural character. Regional loops are designed to focus on the prime birding areas in each region. The birding loops follow existing roads and tie into existing amenities. Birding has recently become quite popular, and the Minnesota River Valley Birding Trail draws in many visitors to the Minnesota River Valley each year. The Minnesota River State Trail planning/design work connects many of the birding loops together along the Minnesota River corridor to foster interpretation of the natural resources within the valley.

Presently Southwestern Minnesota and Minnesota River Valley region have only a few state trails. The design of the Minnesota River State trail sought to connect to the existing state trails and the state trails that are being planned in order to create a comprehensive state trail network for the region. The **Sakatah 'Singing Hills' State Trail** starts near Mankato

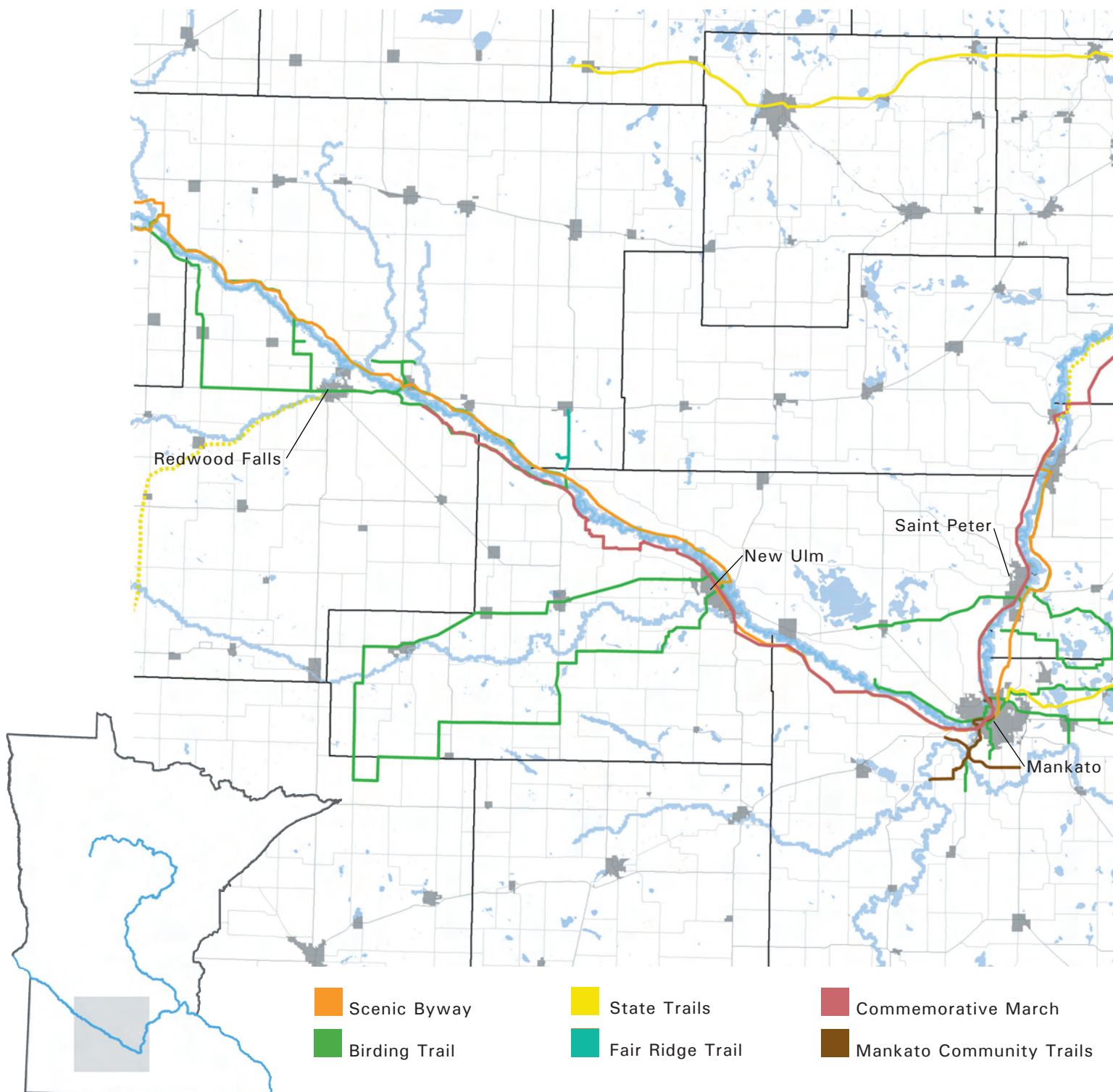
and continues through the Lakes Region to Fairbault. Once the Chicago Great Western Railroad line, the abandoned railroad bed is now paved to serve bicyclists, hiking, and in-line skating. The trail connects many small lake towns and Sakatah Lake State Park. Equestrian trails are incorporated from Lime Valley Road in Mankato to Eagle Lake and from Sakatah Lake State Park to Morristown. These trail segments are used for cross-county skiing in the winter.

The **Minnesota Valley Trail** links Fort Snelling State Park and units of the Minnesota Valley National Wildlife Refuge to the Minnesota Valley State Recreation Area. The area extends from Shakopee to Belle Plaine. It includes paved biking trails, unpaved mountain bike trails, hiking, and equestrian trails. In the winter it is used for cross-country skiing and snowmobiling. The state recreation area is divided into six main areas: Chaska/Shakopee, Lawrence, Carver Rapids, Nyssen's Lake, and Rush River. Each of these areas has unique trailhead amenities. The specific listings of its features and facilities as well as trail maps can be found on the web site of the Minnesota Department of Natural Resources. The Minnesota River State Trail would eventually connect to the Minnesota Valley State Recreational Area at Rush River near Le Sueur.

In Southwest Minnesota the **Casey Jones Trail** is planned from Split Rock Creek State Park to Walnut Grove. It will travel through Pipestone, Woodstock, Lake Wilson, Hadley, Slayton, and Currie to connect to Lake Shetek State Park. The segment from Pipestone to Woodstock is built as a multi-use trail. The planning for this trail began in the late 1960's in order to use an abandoned railroad bed to connect Pipestone to Lake Shetek State Park. Progress was made in the 1970's. Recently new interest and support from the counties and local communities has spurred additional planning and fundraising to complete this trail. The community of Redwood Falls has expressed interest in a trail segment that would connect the city to the Casey Jones Trail at Walnut Grove.

The **Fair Ridge Trail** connects the town of Fairfax to Fort Ridgley State Park and the Minnesota River Valley. This paved trail starts at the historic Fairfax Depot Park and Museum, follows State Highway 4, enters the state park at two different points, and ends at two scenic overlooks. Bicycling, hiking, jogging, and in-line skating are welcome on this trail.

The many additional trails within the Minnesota River Valley include: snowmobile trails, equestrian trails, state park trails, community trails, and county park trails. These trails are shown in the existing regional trail maps found within each community study area.



FORMATION OF THE MINNESOTA RIVER VALLEY

The Wisconsin Glaciation, the most recent ice advance in Minnesota, started approximately 75,000 years ago. Its many different ice lobes pushed their way into Minnesota while the Des Moines lobe covered what is now the Minnesota River Lowlands. Landscape formations such as wetlands, lakes, and outwash streams were created as the ice moved and retreated.

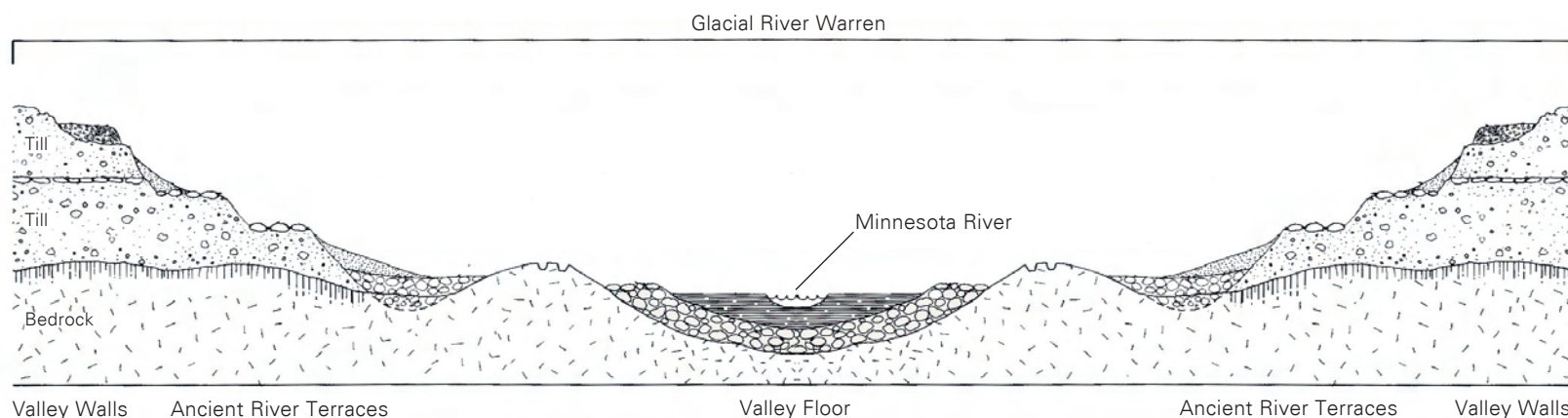
Most of Minnesota's most prominent topography is due to moraines that were formed when the glacial ice stayed in one place for an extended period of time. With the retreat of the Wisconsin Glacier, approximately 12,000 years ago, a large mass of ice blocked the natural drainage way leaving no drainage outlet. Melt-water began to pond behind the Big Stone Moraine forming Glacial Lake Agassiz. With the melting of the ice mass to the north, Glacial Lake Agassiz grew immensely covering the majority of what is now northwestern Minnesota. Several outlets started to breach the Big Stone Moraine ice dam and eventually a main outlet channel formed near Brown's Valley to create the Glacial River Warren.

At first, the River Warren split into several channels forming wide plains, terraces, and channels. Later, these multiple channels were abandoned and a single channel was formed. The turbulent, eroding waters of Glacial River Warren carved the Minnesota River Valley creating "valley walls that reached up to 252 feet high and an extensive valley floor that spanned 5 miles at some points" (Anfinson 13). When the natural drainage way to

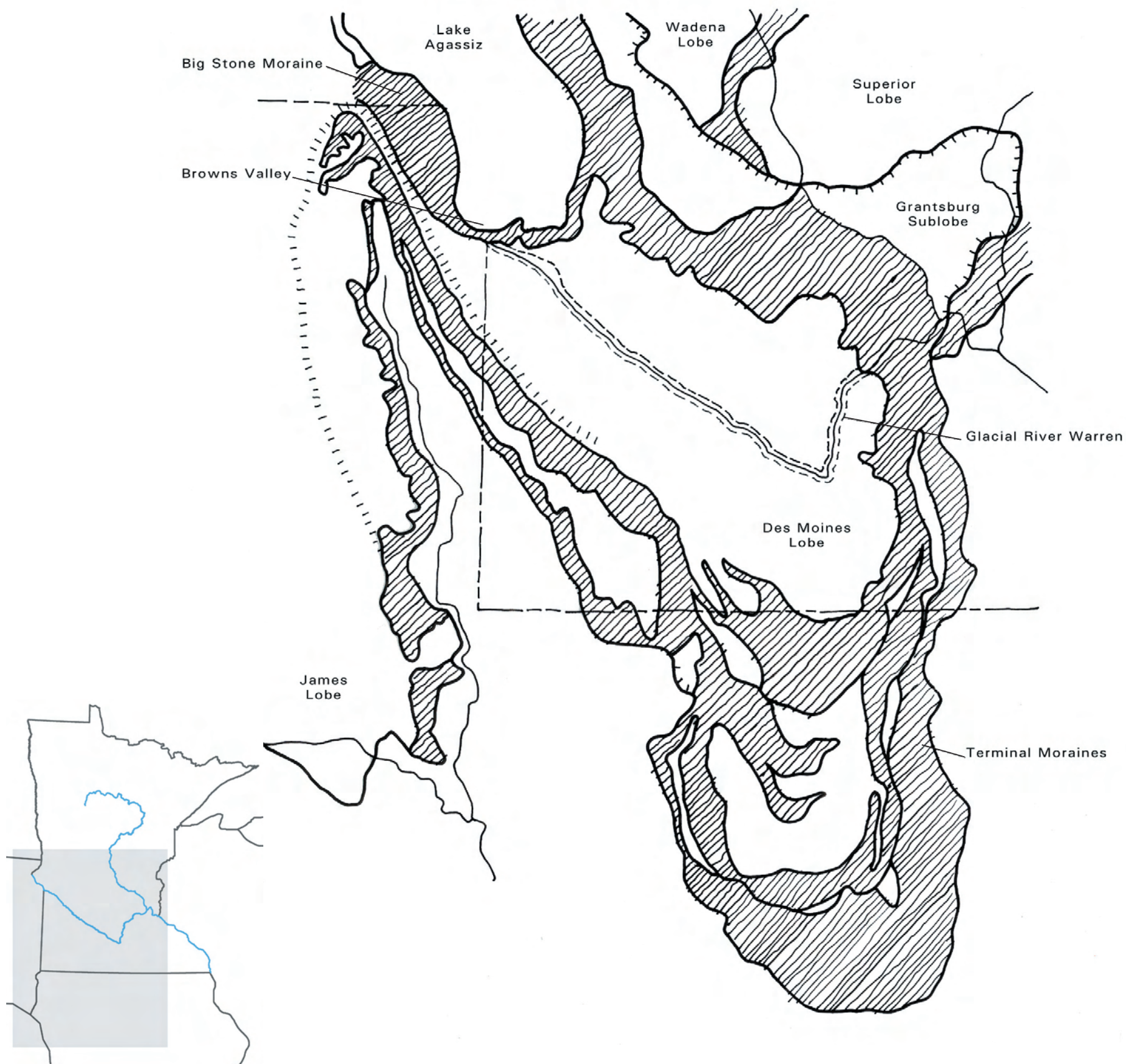
the north reopened, the melt-water started flowing to the north and the outlet that fed the Glacial River Warren was abandoned. Today the Glacial River Warren Valley is the Minnesota River Valley. The Minnesota River slowly winds its way through this wide valley with a flowage that is stark contrast to the mighty River Warren. (Tester)

Glacial River Warren and Design:

The Glacial River Warren created the Minnesota River Valley's landscape character and identity. The valley floor, ancient river terraces, valley walls, bluffs, and the tributary channels form this landscape. This Minnesota River Trail work reflects the glacial valley identity; the character of trail segments, special places along the trail, trail experiences, the communities along the trail, and the valley's cultural patterns all respond to and reflect this special landscape and its features.



Adapted from *Minnesota's Geology*



Adapted from *Southwestern Minnesota Archaeology*

BEDROCK GEOLOGY

Deep layers of glacial till bury the Minnesota Valley's bedrock. Therefore, the bedrock is most visible in rock outcroppings where the glacial till was eroded away by the Glacial River Warren. The different types of exposed bedrock in the valley reveal the story of the valley's shifting bedrock geology.

In the Redwood Falls area, Morton Gneiss outcroppings are extensive. Morton Gneiss or Rainbow Granite is considered one of the oldest rocks at 3,600 million years old (Ojakansas and Matsch). Morton has an active mine of this famous architectural stone that is operated by the Cold Spring Granite Company.

Towards New Ulm, Cretaceous Sandstone is most prevalent. This highly erosive substance is made of poorly consolidated soft shale, quartz sand, and lignitic clay. A small area of Sioux Quartzite is located northeast of New Ulm. This rock is primarily found outside the study area by Pipestone and near the Southwestern Minnesota/South Dakota border.

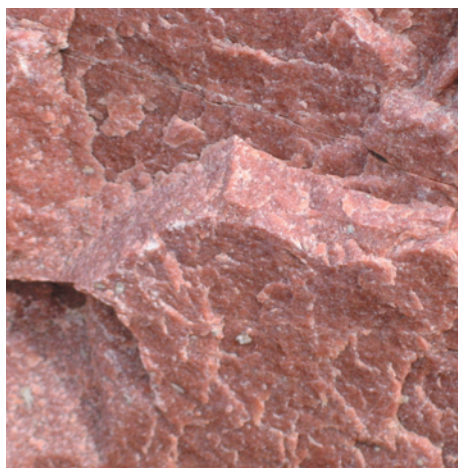
The bedrock shifts dramatically from New Ulm to Mankato. St. Peter sandstone or Kasota stone, a pure quartz sand with a yellow ochre color, is layered between the Prairie du Chein and Glenwood dolomites. These sedimentary layers are evident in the bluffs of the Minnesota River Valley between Mankato and St. Peter.

Bedrock Geology and Design:

The shift in bedrock from gneiss and granite to Kasota stone drove the design work. Trail alignments were sited to experience the bedrock conditions in areas where the bedrock is revealed. The stone used to create the trail's signature elements reflect the change in bedrock geology. In areas with granite, granite is used, areas with Kasota stone, Kasota stone is used, etc.



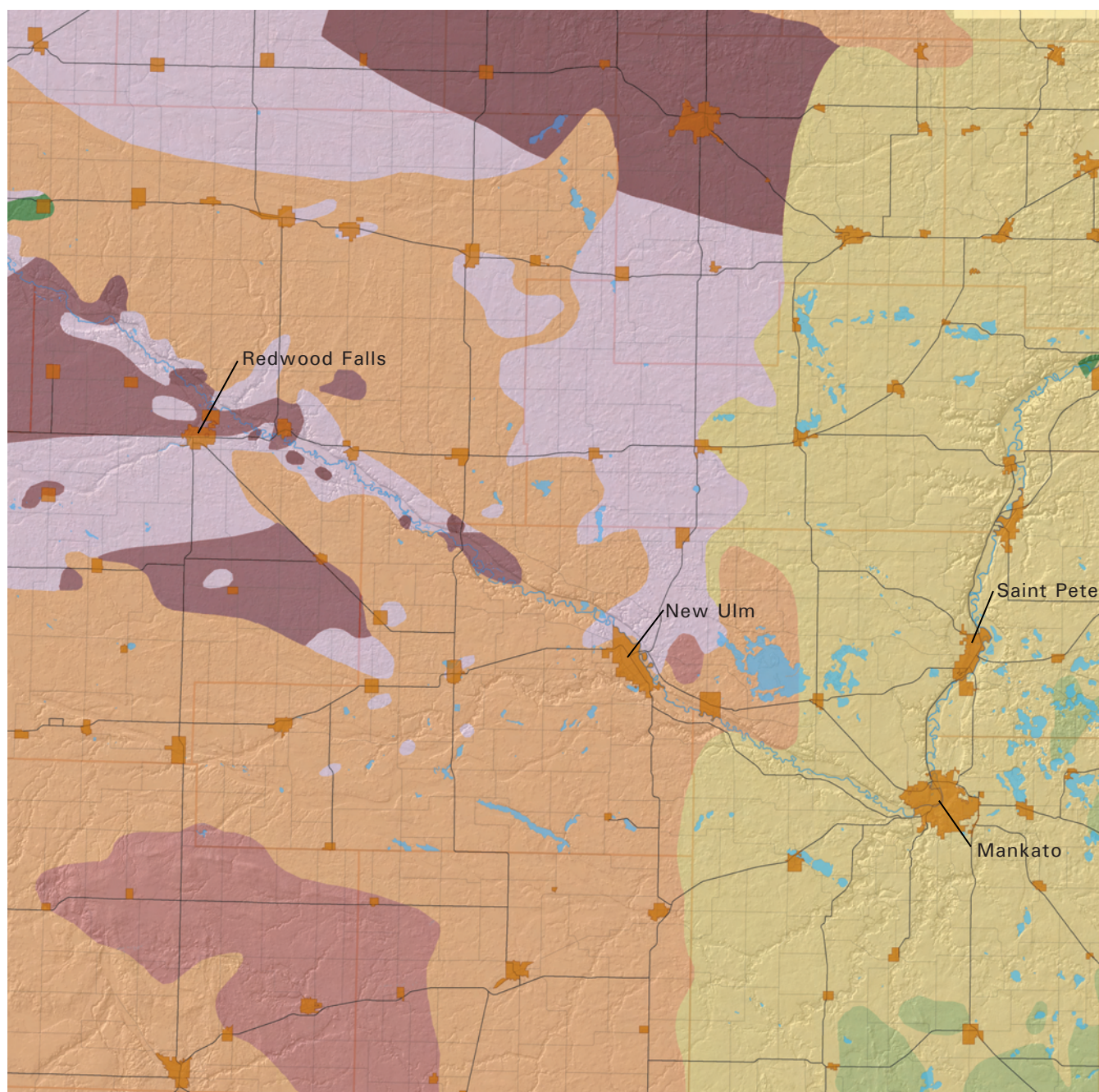
Granite



Sioux Quartzite



Kasota Stone



Granite
Gneiss

Cretaceous, Undifferentiated
Sioux Quartzite

Saint Peter Sandstone
Municipalities



SURFICIAL GEOLOGY

Surficial geology defines the majority of the landscape character and how that character is experienced. The Minnesota River Valley has five distinct landscape types, each of which have been shaped by layers of glacial till. The valley's surficial geology includes ground moraine, outwash channels, ancient terraces, stagnation moraines, and an ancient lakebed.

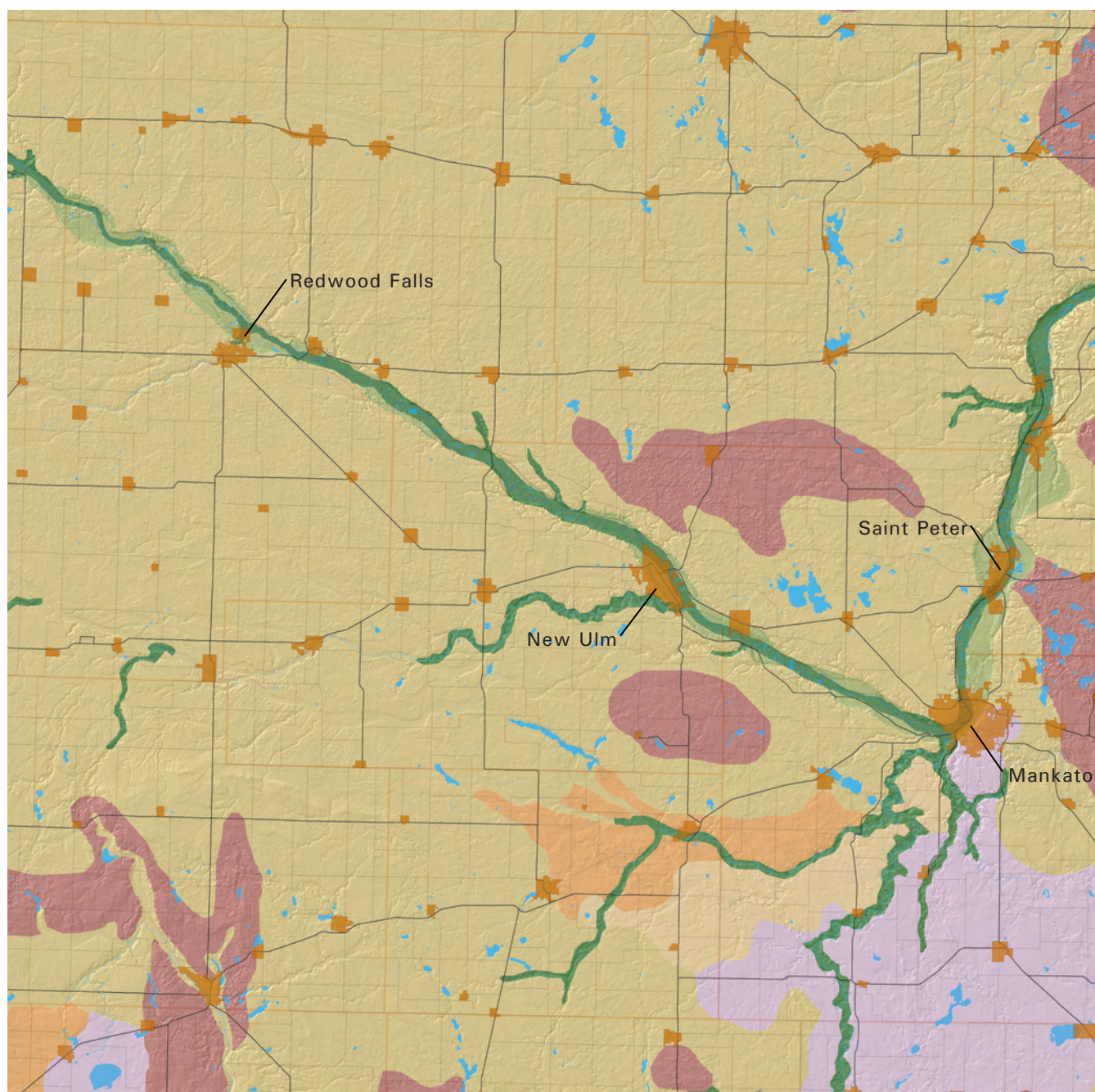
Ground moraine dominates the majority of the area creating level to slightly rolling terrain. Old outwash channels created by glacial streams are evident in the Geographic Information System (GIS) analysis mapping, but are not perceived in the actual landscape. The ancient terraces of the Glacial River Warren are still evident and are quite large in some areas. These terraces contribute to defining the width and breath of what was once the Glacial River Warren. Portions of New Ulm and Saint Peter are sited on these river terraces.

Stagnation moraines are visible in the landscape and are characterized by a hillier terrain that contains pothole lakes caused by glacially formed depressions. Swan Lake in Nicollet County is an example.

The lakebed of the ancient Glacial Lake Minnesota is south of Mankato. A very level landscape and many small tributaries of the Minnesota River characterize this area.

Surficial Geology and Design:

The trail is sited to experience the characteristics of the five landscape types shaped by the surficial geology. Because New Ulm and Saint Peter are located on ancient river terraces, the design interprets these terrace landscapes.



HYDROLOGY

In the Minnesota River Basin, 1183 minor watersheds make up 12 major watersheds. A major tributary generally defines the major watersheds. This study area's major tributaries are the Redwood River which cuts through Redwood Falls in a deep, picturesque ravine, the Cottonwood River at New Ulm that has a culturally significant, beautiful state park, and the Blue Earth River which meets the Minnesota River near Mankato.

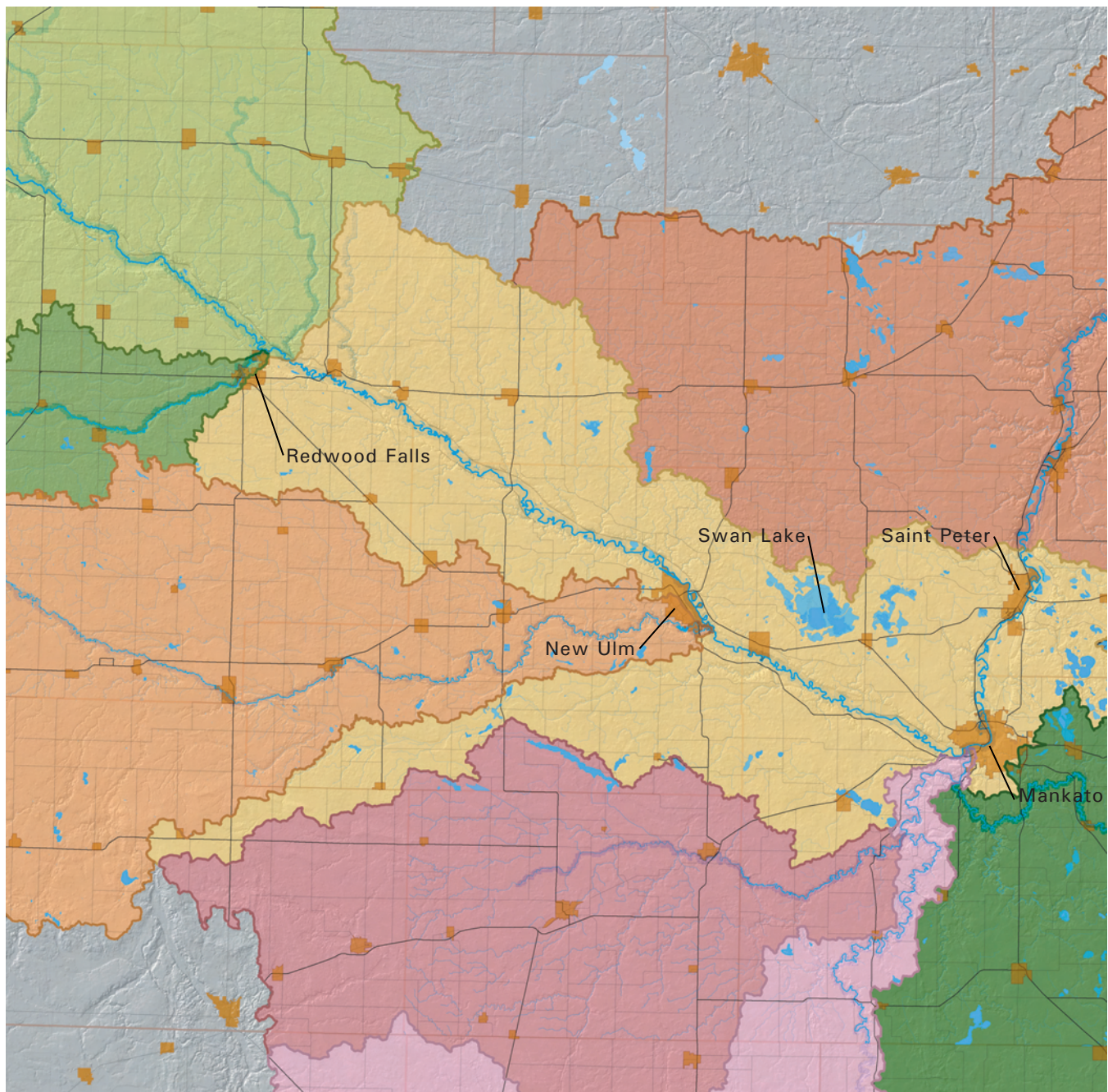
Historically this area was dotted with prairie wetland complexes, such as the Swan Lake complex. As European settlers moved into the region and started to farm the land, the wetlands were systematically drained by systems of drainage tiles and drainage ditches. This extensive drainage created a very rich and productive agricultural landscape, but it resulted in the loss of approximately 2-3 million acres or 90 percent of the historic prairie wetlands. Because of this, the Minnesota River is susceptible to frequent flooding and is considered one of the most polluted rivers in the state and the nation. (Minnesota River Basin Data Center). This water pollution affects more than just the environment of the Minnesota River Valley. "The Minnesota River is the state's largest tributary to the Mississippi River. Where the Minnesota River flows into the Mississippi River, the flow of the Mississippi doubles" (Minnesota River Basin Data Center). The nutrients in the Minnesota River contribute to the pollution of the Gulf of Mexico and its ever-increasing hypoxia zone, the "dead zone" devoid of oxygen that cannot support life.

Efforts by several organizations, individuals, and government bodies are being made to improve the water quality and restore wildlife habitat in the Minnesota River Valley. Many of the major tributaries to the Minnesota River are undergoing clean up and restoration. The U.S. Department of Agriculture's Conservation Reserve Program (CRP) and Minnesota's Reinvest in Minnesota Reserve Program (RIM) have worked together to provide incentives to farmers for enrolling their land into conservation easement programs that takes it out of agricultural production. Riparian buffers, frequently flooded land in the Minnesota River Valley and its tributaries, and land that is near a major identified pollutant source are the first targets for these programs.

Hydrology and Design:

Because both Redwood Falls and New Ulm were sited by tributaries of the Minnesota River, these small rivers play important roles in the trail alignment and trail interpretation planning/design strategies.

Using the Minnesota River Trail to interpret some of these crucial clean-up efforts and the resulting conservation lands and promoting water quality education is a project goal.



Major Watersheds

Hawk Creek/Yellow Medicine	Middle Minnesota	Lower Minnesota	Municipalities
Redwood	Watonwan	Le Sueur	Lakes & Wetlands
Cottonwood	Blue Earth	Rivers & Streams	

PRE-EUROPEAN SETTLEMENT VEGETATION AND PRESENT BIODIVERSITY

Mapping the Pre-European Settlement vegetation of this region shows a gradient along the Minnesota River from the Prairie to the Big Woods. The majority of this landscape was once tall grass prairie dominated by big bluestem, little bluestem, switch grass, and Indian grass with many large patches of wet prairie. In this drier prairie landscape it is easy to see how the Minnesota River Valley with its river bottom forest and hardwood bluffs attracted its first inhabitants. (Anfinson)

Small patches of the transitional Aspen-Oak and Oak Savanna were found as the river approached the big woods to the east. As the river turned north at Mankato, the vegetation changed dramatically to the Big Woods complex that included oak, maple, basswood, and hickory.

This landscape is very altered now. Agricultural land has replaced the wet and dry prairie and the Big Woods. Fragmentation of these native plant communities has had a negative impact on wildlife. Most of the main

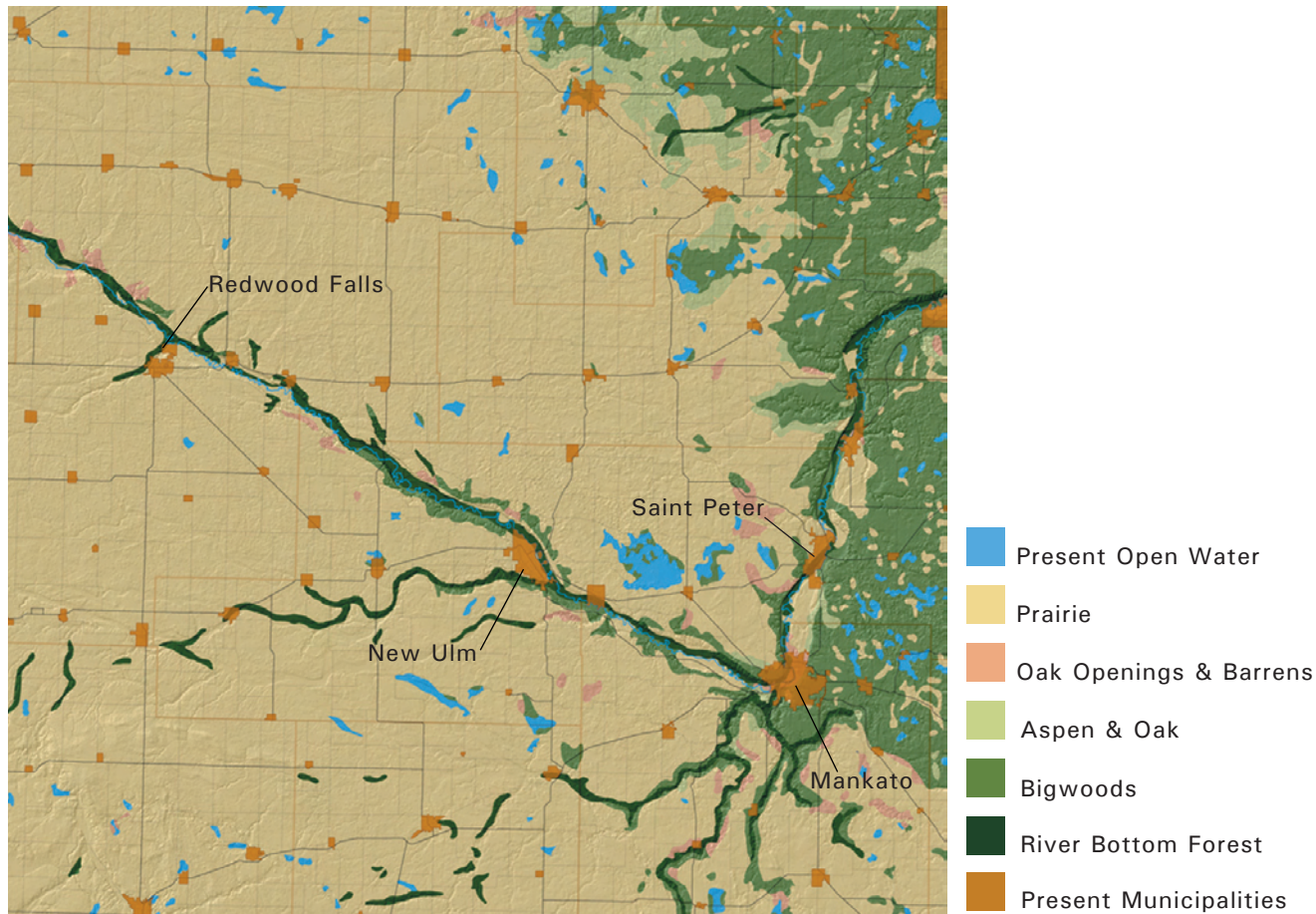
sites of biodiversity significance that still exist are being managed through the Scientific and Natural Areas (SNA), Wildlife Management Areas (WMA) and state parks.

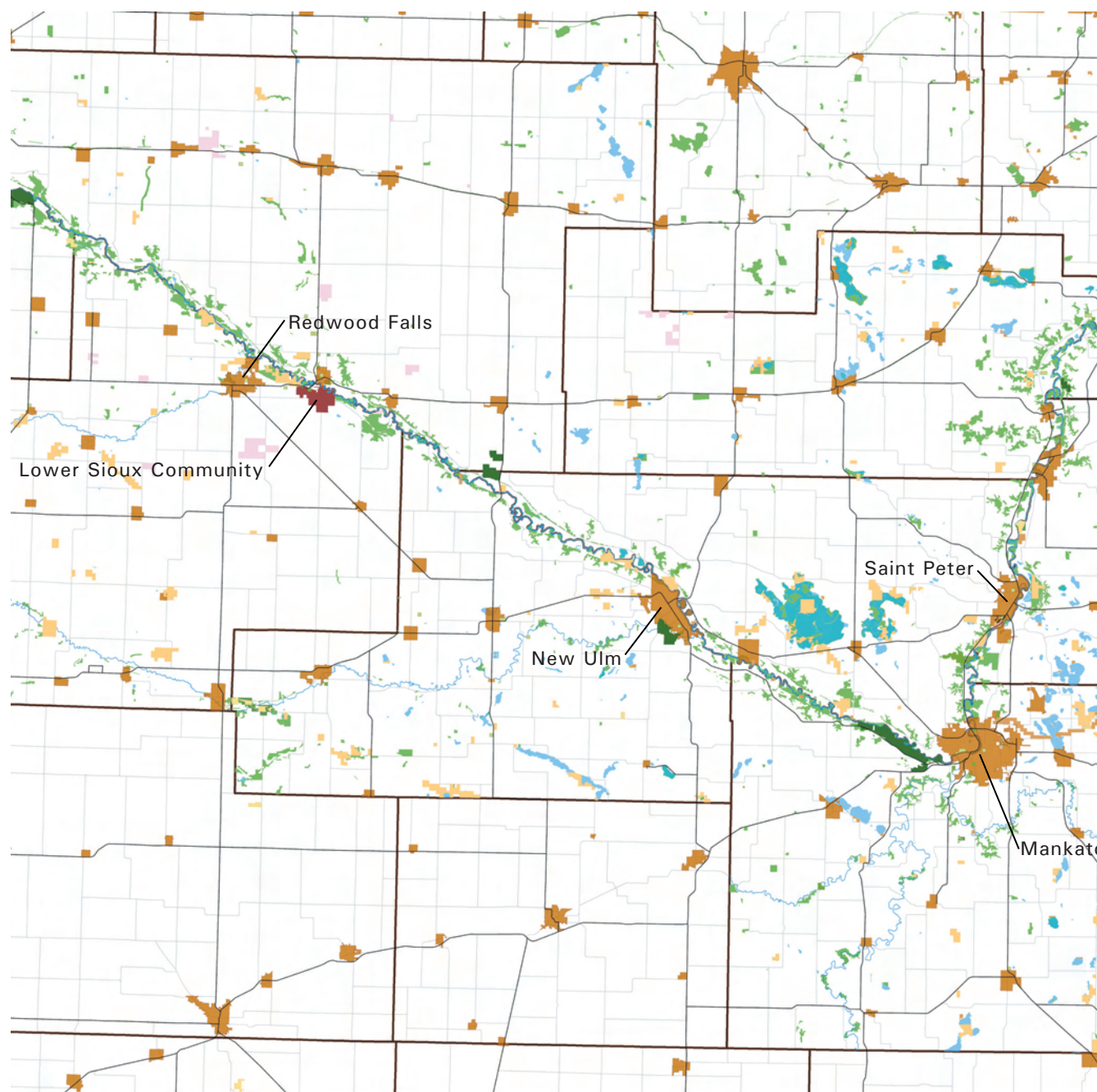
Some of the most notable biodiversity sites in the study area are Cedar Rock WMA, Cedar Mountain SNA, Fort Ridgely State Park, the Swan Lake complex, Minneopa State Park, and the Kasota Prairie SNA.

Vegetation and Design:

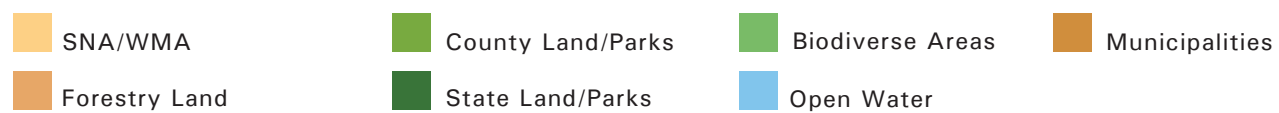
The alignment and design of the Minnesota River Trail celebrates these areas of biodiversity. The transition of Prairie to Big Woods that once existed is interpreted and revealed. Native plants are placed at trailheads, kiosks, and rest circles.

Pre-European Settlement Vegetation





Present Bio-diversity



PRESENT LANDCOVER

Agriculture is dominant throughout the Minnesota River Valley region, starting in the mid-1800s with the first immigrant settlers. Slowly, prairie gave way to today's landscapes: an agricultural matrix of cultivated land, farmsteads, windbreaks, and county roads. Drainage ditches and drainage tile systems have altered the land's natural drainage.

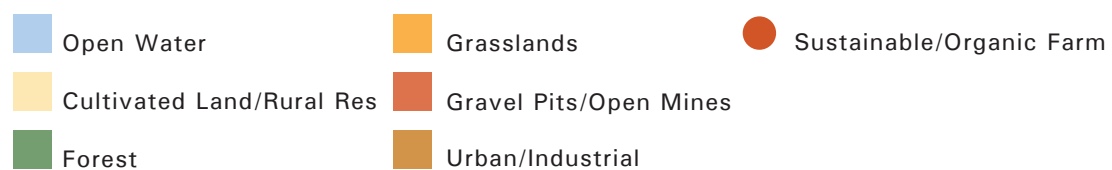
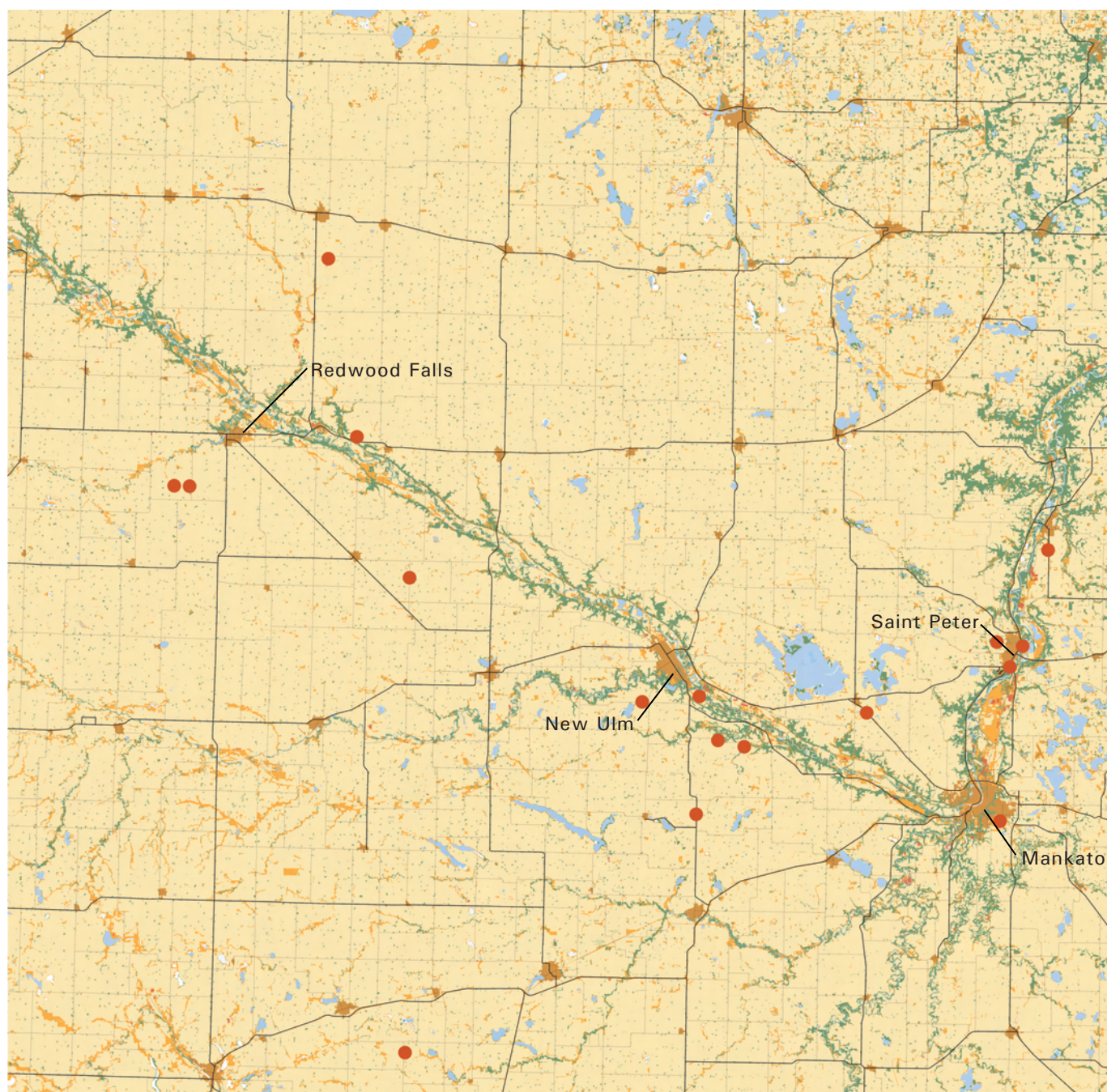
Over the last half century, farming has radically changed. Agricultural technology has led to specialized crop production on much larger farms. Market forces and government programs have led to the consolidation of small, traditional farms into large farming and feedlot operations. Unused homes and barns dot the valley landscape. However, farming continues to be the economic powerhouse of the region, and farming is still very much a part of the culture of this landscape. Its presence and its history are very important to its communities. Historical societies and many independent groups have become very active in preserving the agricultural history of the valley. Many of the barns and farmsteads have been placed on the National Register of Historic Sites. A century farm program has been

started, celebrating farms that have been in continuous family ownership for at least 100 years and are at least 50 acres in size. Farm and machinery museums can be found in the valley as well as many harvest and farm festivals.

Most recently, there has been some movement away from the larger farms. Those interested in sustainable agriculture have started to bring back the traditional farm. Using agri-tourism ideas, sustainable farmers have formed networks and hosted events throughout the year. Many small farms have also diversified to include wineries, bed and breakfasts, or have become 'U-pick' or CSA (community supported agriculture) sites.

Design and Present Land Cover:

Both large-scale conventional farming and smaller sustainable farming are features of the Minnesota Trail landscape that are experienced and interpreted by the trail.



THE DAKOTA PERSPECTIVE

"The Minnesota and Mississippi River Valleys have been home to the Dakota for centuries. The existence of our ancestors was sustained by their relationship with the earth and their surroundings. For generations, Dakota families fished from the rivers, gathered rice from area lakes, hunted game on the prairies and in the river valley woodlands, and established villages along the riverbanks and surrounding lakes. Our ancestors lived in harmony with the world around them, and Dakota culture flourished.

In the 1640s, the first recorded non-Indian contact with the Dakota took place. For the next 200 years, our ancestors tolerated the presence and ever increasing numbers of non-Indians encroaching on their homelands. Some Dakota villages took advantage of the presence of non-Indians by establishing trade, inter-marriage, and even adopting many non-Indian ways of life and religion. Still other villages did not accept or trust the newcomers and did not wish to have traditional ways of life changed. By the end of the 1700's, the fur trade had become a major way of life for many Dakota, and almost all villages were trading goods with the non-Indians.

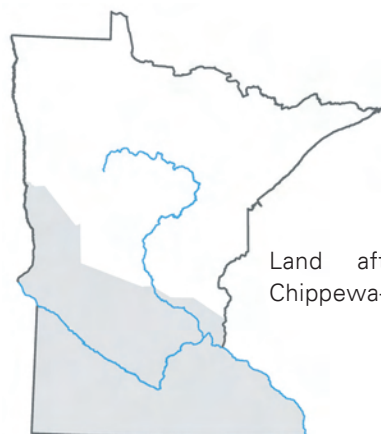
In 1805 US soldiers arrived at Mendota, and the world of the Dakota began to change drastically. A series of treaties forced on the Dakota nation over the next 50 years would see their homeland taken away, their ability to provide for themselves destroyed, and an increasing reliance upon the government's promises for payments and goods. The traditional Dakota way of life was stolen and replaced by confinement to reservations. Missionaries, fur traders, Indian Agents and the U.S. government all worked to change the culture of the Dakota. The U.S. government broke treaties, made endless empty promises and slowly attempted to eradicate the Dakota nation.

Finally, in 1862, the Dakota could no longer allow this mistreatment. Our ancestors battled for their homelands, their way of life, their culture. The events of 1862 ended with the largest mass execution in United States history when 38 Dakota were hanged at Mankato.

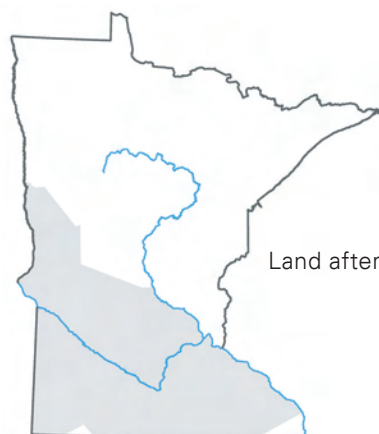
As a result of the Dakota boldness in standing up for their rights, the United States Congress abrogated all treaties with our ancestors and decided that the Dakota had to be removed from Minnesota. The majority of Dakota were sent on barges to Crow Creek, South Dakota, in 1863, and eventually removed to Santee, Nebraska. Other Dakota traveled to Canada and settled there. Some Dakota never left their homeland. Those Dakota who remained in Minnesota spent many impoverished years attempting to gain support and help from the federal government. Generations of our ancestors experienced U.S. government control, Indian boarding schools, and little opportunity for success. Strong Dakota communities eventually developed at Lower Sioux, Prairie Island, Upper Sioux, and Shakopee."

Excerpted from the Shakopee Mdewakanton website:
<http://www.ccsmdc.org>

Dakota Land



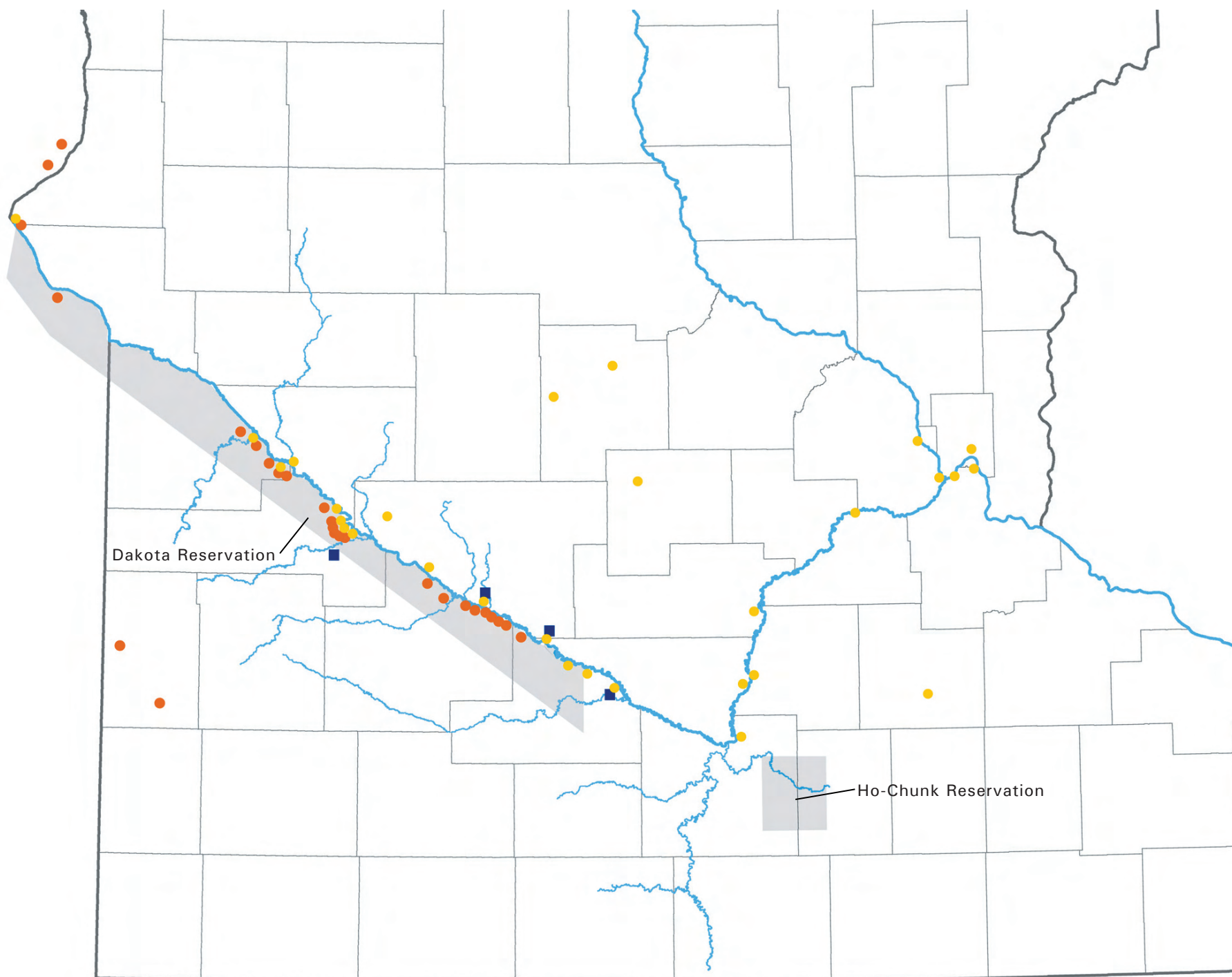
Land after the 1825
Chippewa-Dakota Treaty



Land after 1830's cessions



Land after the 1851 Treaty
of Traverse des Sioux



1862 Reservation Land *adapted from Through Dakota Eyes*

● Dakota Villages ● European Settlements ■ Battle Sites

COMMEMORATION

On November 7, 2002, the first-ever Dakota Commemorative March was organized to honor the nearly 1,700 women, children and elders who were forced to march 150 miles from the Lower Sioux reservation to a concentration camp at Fort Snelling following the 1862 Dakota War. The Commemorative March allowed Dakota people to grieve for their ancestors, some of whom died on the original march and were never buried, and for the loss of ancestral lands when treaties were abrogated and the Dakota were forcibly removed from the state. One of the organizers, Waziyatawin Angela Wilson, wrote of this traumatic history in a collection of writings about the March, *In the Footsteps of Our Ancestors*, published by Living Justice Press in 2006.

“The punishment of the Dakota after the war officially ended was swift and brutal, resulting in Dakota casualties and losses that have yet to be enumerated. Governor Alexander Ramsey stated unambiguously in September of 1862 that, “The Sioux Indians of Minnesota must be exterminated or driven forever beyond the borders of the State.” Henry Sibley was commissioned to carry out these goals, which he did with marked success. At the final Battle of Wood Lake, Dakota people began to surrender, believing that they would be treated as prisoners of war, while others fled north into Canada or west into the Dakotas. Twelve hundred Dakota initially surrendered to Colonel Sibley, and that number quickly grew to two thousand.

It was soon clear that the price for Dakota military resistance to the invasion would be exceedingly high. Upon surrendering, the men were immediately separated from the women and children, shackled, and tried for war crimes before a five-man military tribunal. By November 5, 392 trials had been completed, some having lasted as little as five minutes; 307 Dakota men were sentenced to death, and 16 were given prison terms. An executive order was still required, however, and the trial records were sent to Washington for President Lincoln’s review.

On November 8, the condemned men were forcibly removed to the concentration camp at Mankato, where they continued to await execution orders. On December 26, 1862, at the order of President Abraham Lincoln, thirty-eight of those Dakota men were hanged in what remains the largest mass execution in United States history. In the spring of 1863, those with commuted death sentences were transported to Davenport, Iowa, and imprisoned there for three years. By the time they were finally released in 1866, only 247 were still alive; 120 had died in prison.

Meanwhile, on November 7, 1862, the group of some 1,600 women and children were forcibly marched to Fort Snelling, where they, too, were imprisoned through the winter. In May of 1863, the 1,300 women and children who had survived the death camp were sent to a new reservation beyond Minnesota’s borders in Crow Creek, South Dakota.

Once the Dakota were forcibly removed from Minnesota, bounties were placed on the scalps of any and all Dakota people who remained. These bounties began at \$25 and eventually were raised to \$200. Moreover, the treaty money, which had arrived too late the previous summer to prevent the war, was sent back to Washington and then redistributed to White settlers, totaling \$1,370,374 in 1863-64, as recompense for depredations incurred during the war. The Dakota treaties were abrogated, the people were exiled from our homeland, and our lands were opened to White settlement. The legacy of the policies is evident in the extant diaspora of our exiled people and our only minimal presence in our ancient homeland.”

*With permission from Waziyatawin Angela Wilson,
Decolonizing the 1862 Death Marches
forward by Diane Wilson*



Photo by Waziyatawin Angela Wilson

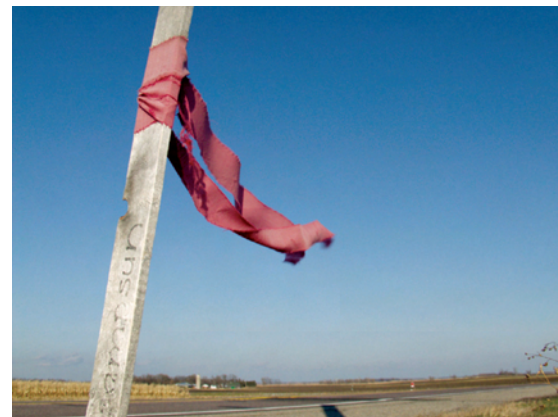


Photo by Waziyatawin Angela Wilson



Photos by Molly Schoenhoff

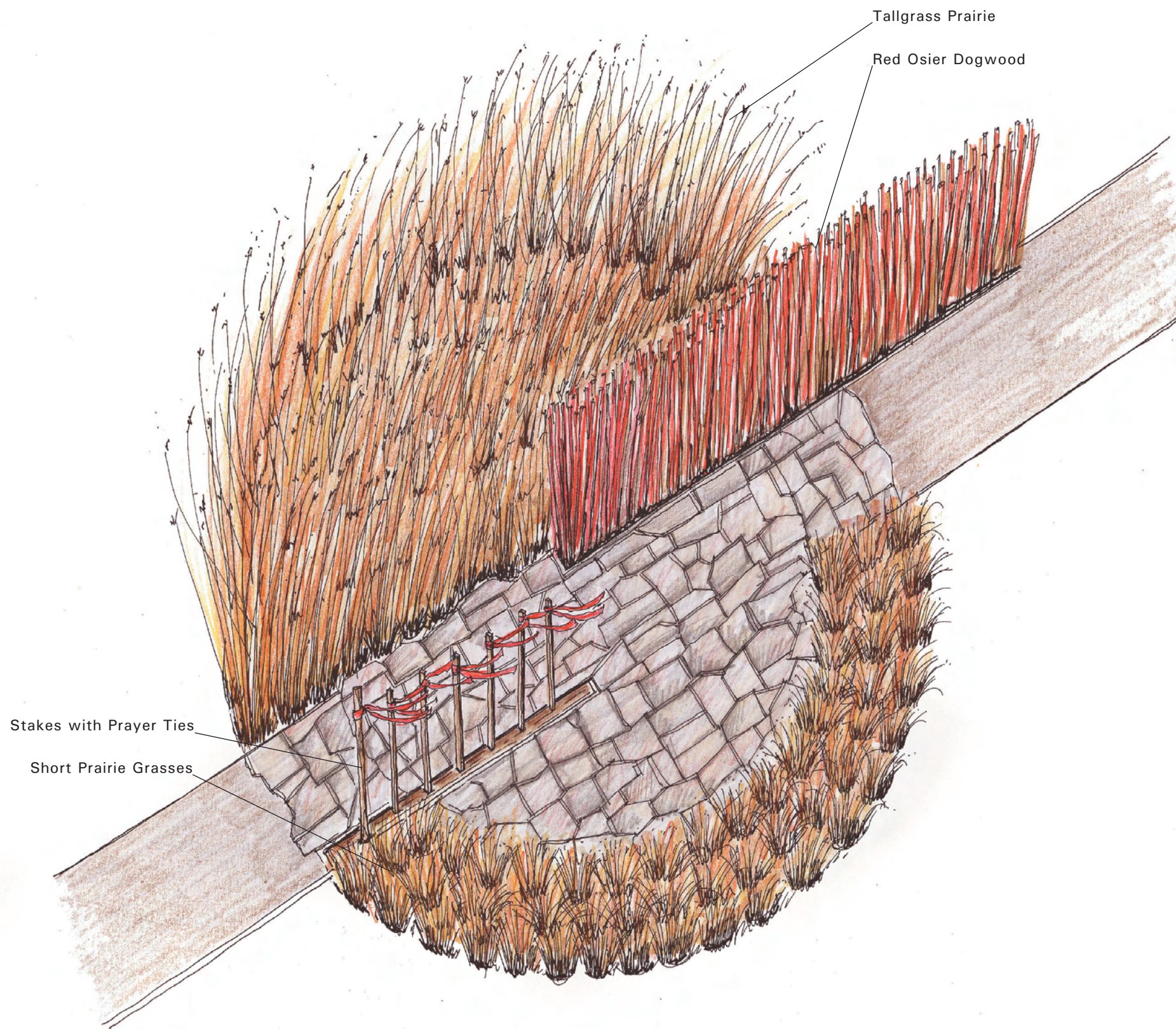
DAKOTA COMMEMORATIVE MARCH CIRCLE

The Dakota Commemorative March and the preliminary plans for native red plantings as a 'living memorial' along its route by Molly Schoenhoff, one of the marchers, inspired this design. During the march, marchers stop at each mile to pray and place a red prayer tie stake into the ground. The names of two of the original marchers are on the stake.

Because the march is a linear journey, this design is to be placed right in the path to act as a mile marker. If this is not desirable or possible, the design could be placed at key points or large intervals instead of at every mile.

A circle of big bluestem and Indian grass (tallgrass prairie) on one side and little bluestem or prairie dropseed (short prairie grass) on the other side surrounds the path. Red Osier dogwood leads up to the paved circle. The path texture changes to stone as the circle space is entered. Family names could be engraved on the pavers. The circle provides room for the marchers to set stakes into the row of earth set in the stone alongside a permanent wooden stake and place offerings there. One of the stakes is permanent so descendants of the original marchers can pray and make offerings at the sites throughout the year.

The commemorative march route may be very different from the Minnesota River State Trail's alignment, but both may cross at certain points. Placing a Commemorative March Circle at some of these points may be desired.





MINNESOTA RIVER TRAIL

- TRAIL CONCEPT ■
- INTERPRETATION ■
- TRAIL IDENTITY ■
- STUDY AREAS ■

THE RIVER WARREN

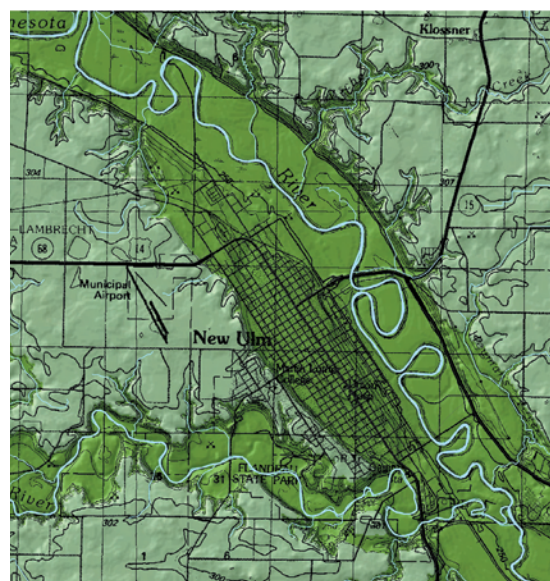
The Glacial River Warren created the Minnesota River Valley's landscape character and its identity. The valley floor, ancient river terraces, valley walls, bluffs, and the tributary channels form this landscape. The Minnesota River Trail work reflects this glacial valley identity. The character of trail segments, special places along the trail, and trail experiences are shaped by these unique landscape character types.

The communities along the trail and the valley's cultural patterns also respond to this special landscape and its features. Each of the three study communities represents a landscape type that was formed by the River Warren. Redwood Falls was built around a tributary of the glacial river, New Ulm was built up on the ancient river terraces, and Saint Peter lies in the glacial river's wide valley. The extent of the Glacial River Warren is illustrated with dark green and the uplands with light green.

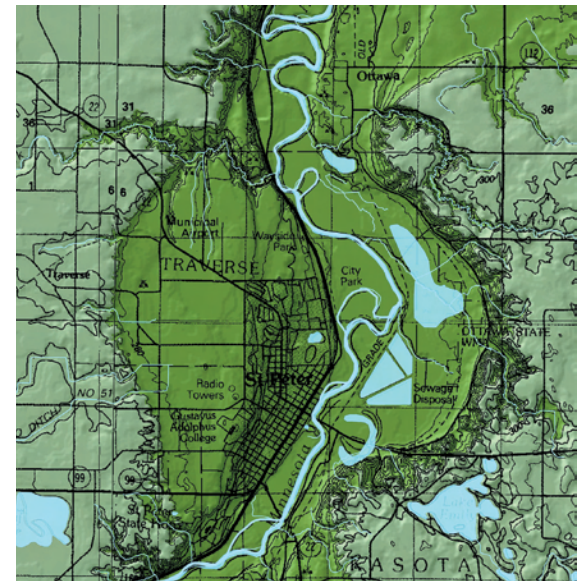
The Glacial River Warren is interpreted at sites crucial vistas along the trail. At these points the trail user can take in the breadth of the existing valley to comprehend this very unique landscape in the context of its ancient, wide, and deep glacial history.



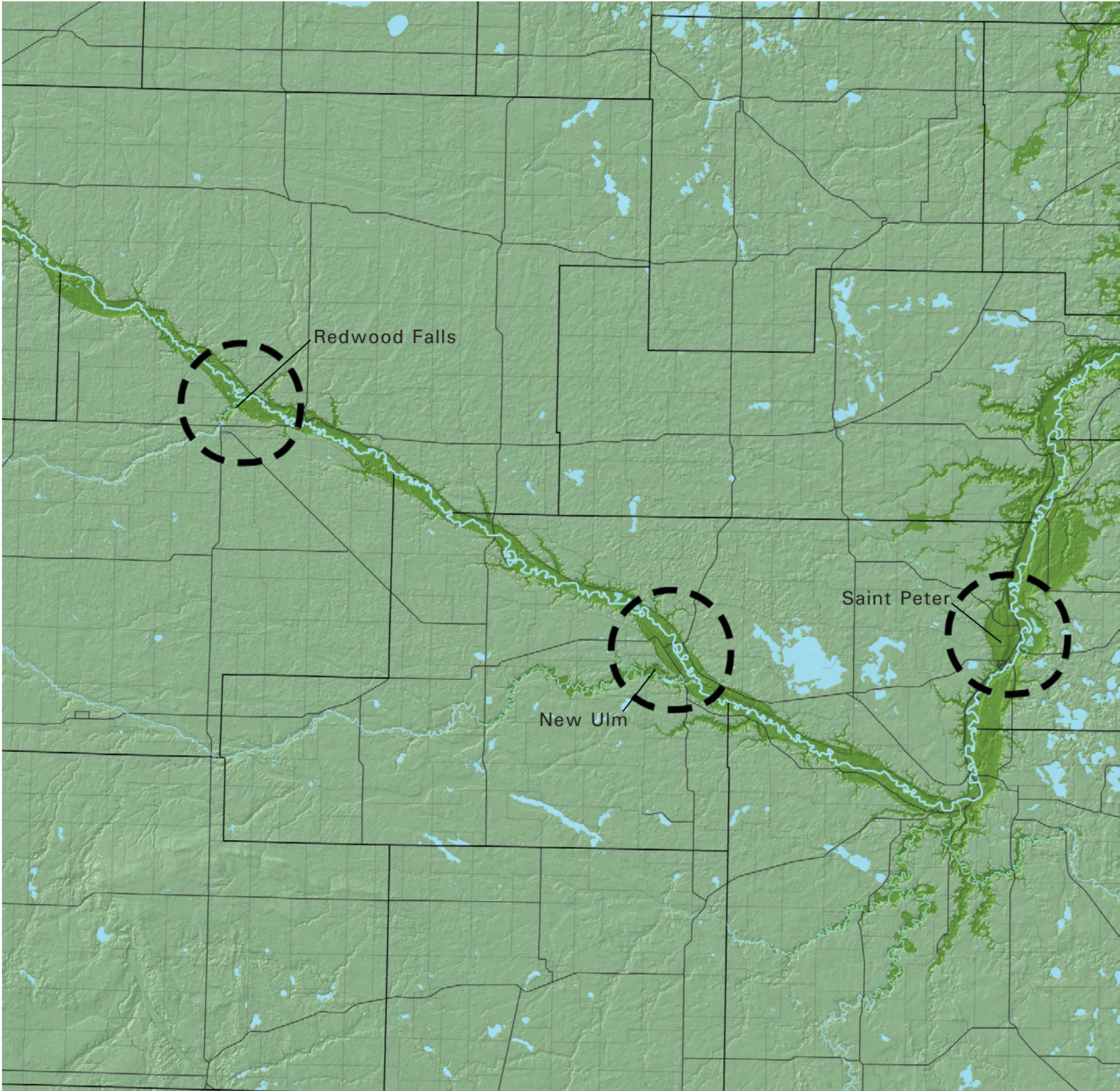
Redwood Falls



New Ulm



Saint Peter





THE 'LOOP STRATEGY'

Because the Glacial River Warren created varied landscape types across the current valley, to truly experience the Minnesota River Valley's natural and cultural history and its current amenities, the trail needs to be more than a trail along the river. To interpret this complex and varied landscape, the trail needs to include uplands, bluffs, and terraces, as well as the floodplain along the river. This project has created a number of loops that move along the river, transverse the wide river valley, and follow along bluff lines rather than a single linear trail parallel to the river. The cultural history of the river valley also includes more than just places near in the river.

The loop strategy uses a number of elements to make the trail. Existing spines, designated hubs, and loops that move across the landscape to include natural and cultural features and to reach points of interest are used to make an integrated trail system that links to existing systems and connects to amenities.

Spines:

The Minnesota River Canoe Trail, the Minnesota River Valley Scenic Byway, and the Minnesota River are all linear elements that move through the landscape.

The plan/design of the Minnesota River State Trail strengthens the existing byway and the canoe trail by creating pedestrian/bike/hike connections to them.

Hubs:

The community hubs are the largest communities in the study corridor segment: Redwood Falls, New Ulm, Mankato, and St. Peter. These centers are surrounded by an agricultural landscape and provide opportunities for trailheads that give access both to the trail and to community amenities.

State parks with their extensive grounds and many recreational amenities are recreational hubs. Their existing historic sites, unique natural features, multi-use and multi-season trails, interpretive elements, campsites, water access points, rest rooms, etc. already have many of the facilities needed for a trailhead.

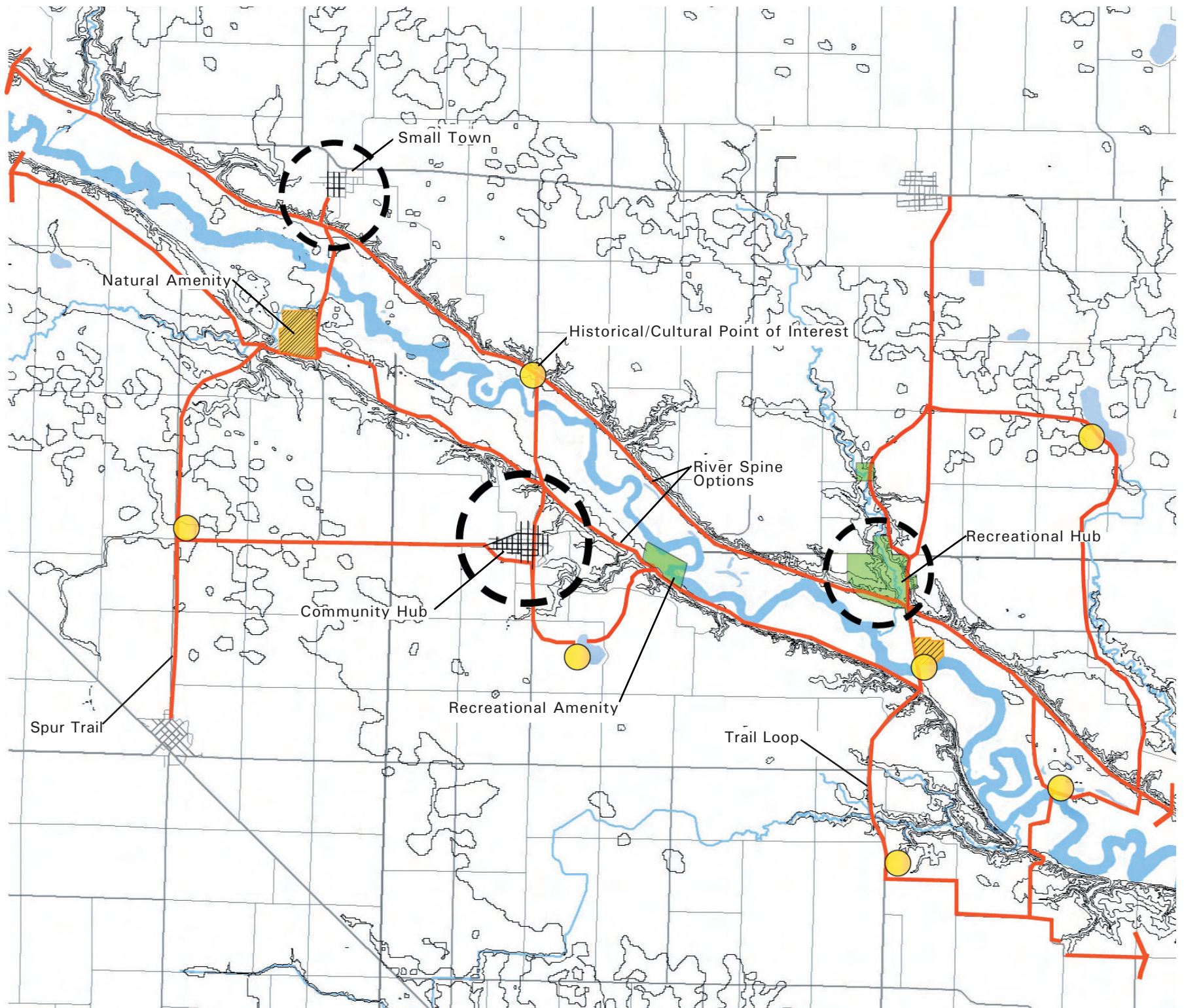
In a few cases, large natural amenities serve as trail hubs.

Points of Interest:

Within the Minnesota Valley there are many small communities, historic sites, and sites of natural/environmental significance such as scientific and natural areas, wildlife management areas, wildlife refuges, scenic overlooks, etc.)

Trail Loops:

Trail loops connect the main trail spine to state parks, small towns, and points of interest that are not located near the river. Loops vary in length and often have a theme. They provide trail users with short or long routes, celebrate a certain kind of trail experience, and provide the option of returning the users to the place where they started.



INTERPRETIVE AREAS

Drawing from the information assembled and analyzed in the regional scale work, interpretive areas are located to explain and celebrate natural features and the man-made use of the land and to showcase the efforts to restore and enhance the environmental health of the Valley.

Interpretive areas include the following:

Agriculture:

The Minnesota River Valley has been dominated by agriculture from the time of European settlement when the land was divided into small farms to encourage settlement.

Conventional Farming: Currently large-scale farming operations are the standard. Vast fields of corn and soybeans, large poultry operations, and feedlots are all found in the throughout the uplands. Places of interpretation would be located near feedlots in Renville and Nicollet Counties which are also in proximity to natural resources.

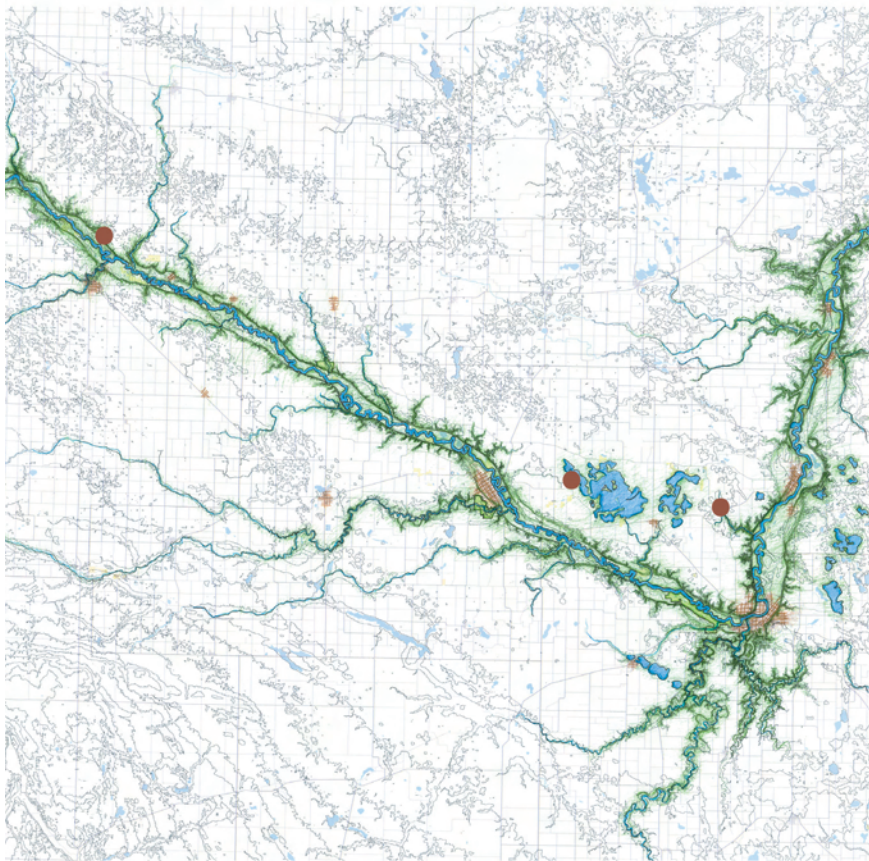
Sustainable Farming: Sustainable and organic farms dot the landscape. Interpretive areas are located relatively close to the river or near a natural or cultural amenity.

Water Quality Improvement Efforts:

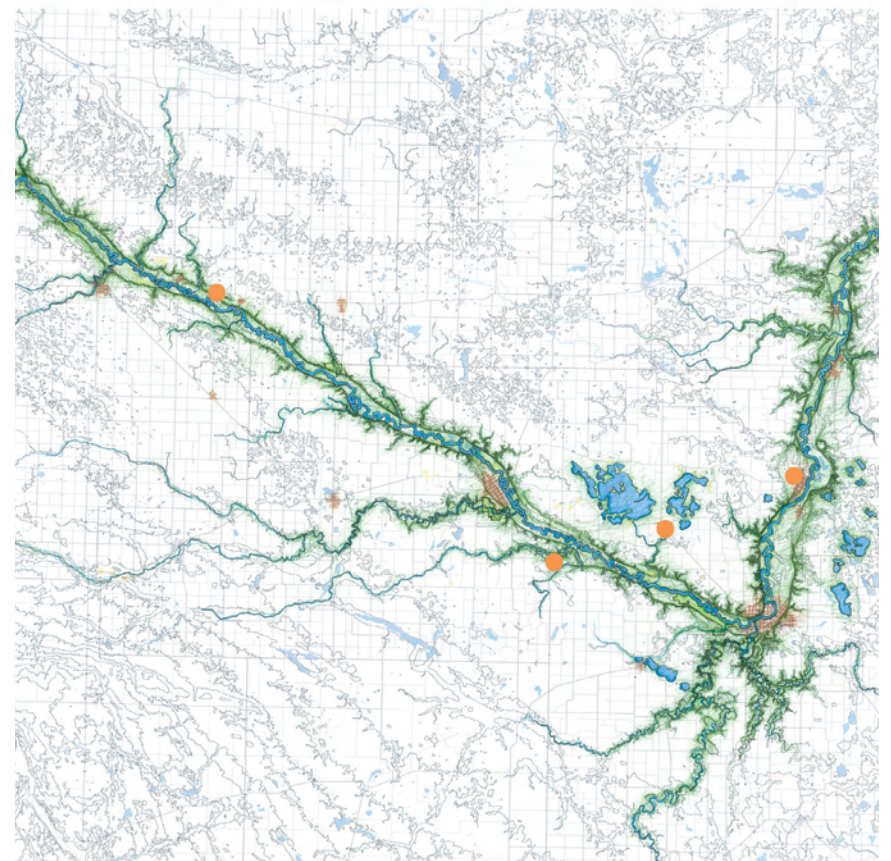
Because the Valley is a major source of pollution, large amounts of federal and state funding has been invested to improve water quality. Local governments and citizens groups are actively engaged in locally based efforts. Places of interpretation of these efforts include the clean-up going on in the Redwood River, Lake Redwood, and the Tiger Lake Wildlife Management Area in the floodplain near Redwood Falls; the Cottonwood River in Flandrau Park at New Ulm; the Swan Lake Wildlife Management Area which is surrounded by conventional farming in Nicollet County; and the Seven Mile Creek/Oakleaf Lake area near St. Peter where water quality testing and interpretation is on-going.

River Industry:

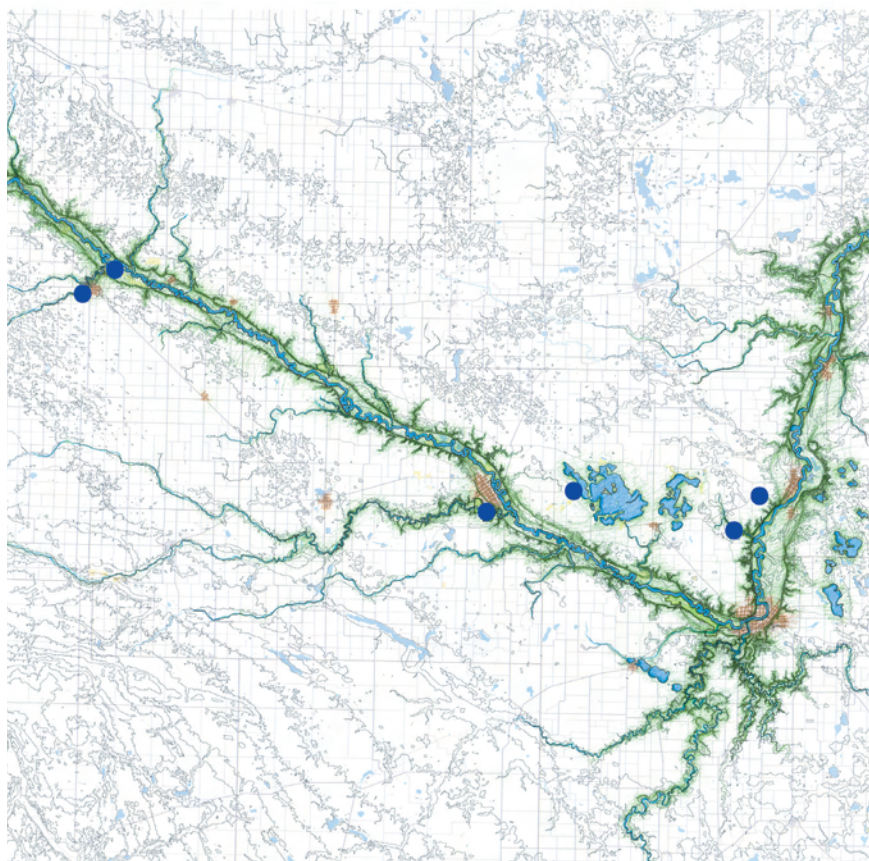
In addition to farming the Valley has been a place of industry. The places of interpretation include the falls of the Redwood River in Redwood Falls with the its historic mill site and the current electric power plant, the historic and current river industry on the New Ulm riverfront, the ethanol and soy industrial plants in Mankato, the history of river transportation and retail in the St. Peter historic district, and the numerous mining operations located throughout the region (see Geology on page 36).



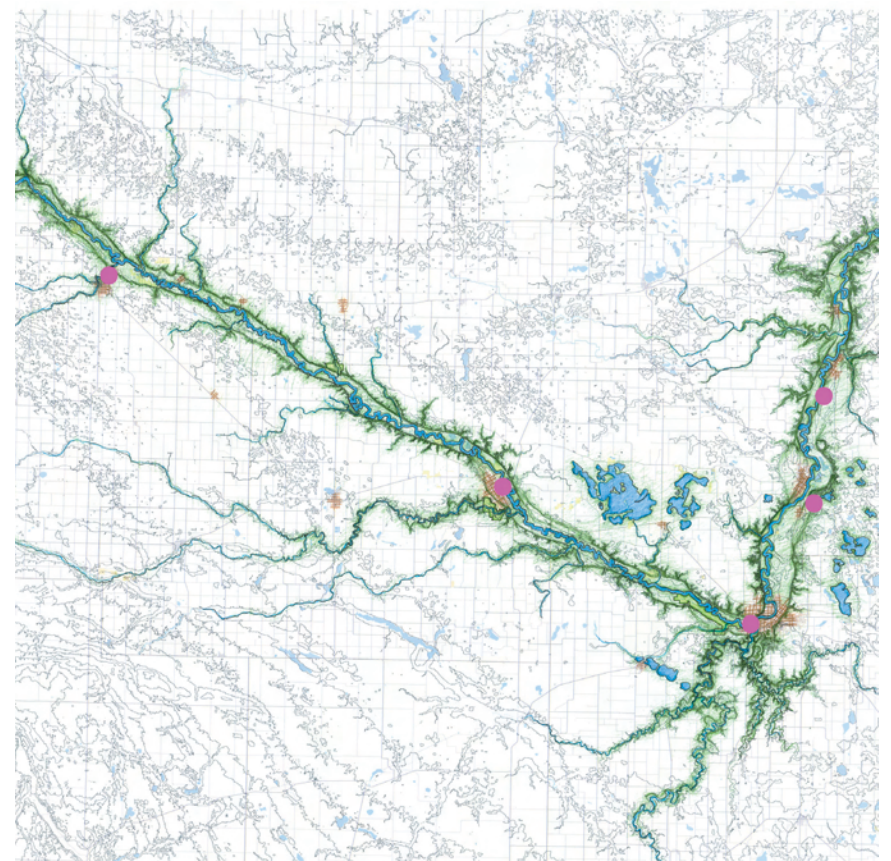
Conventional Agriculture



Sustainable Agriculture



Water Quality



River Industry

INTERPRETIVE AREAS

Pre-European Settlement Vegetation:

Because historically the Valley had both big woods and prairie biomes, both types are interpreted. The shift in Pre-European settlement vegetation from prairie to big woods is interpreted with the trail kiosk design. The remnants of this past landscape vegetation are located in the present bio-diversity sites that are protected or conserved as Scientific and Natural Areas (SNAs), Wildlife Management Areas (WMAs), and Nature Conservancy lands. Although the trail would not be allowed to enter these sites, the trail passes by many of them. Trail users would be able to stop to hike through these landscapes.

Geology:

Active mines and quarries dot the Minnesota River Valley landscape. Besides architectural stone of granite, quartzite, and limestone, the river valley is a major resource for kaolin clay and silica sand. Interpretive areas are located near active mines and in places where the bedrock is revealed on the eroded bluff. The shift in bedrock along the river from granite to limestone (Kasota stone) is interpreted in the design of the trail kiosk and the rest/contemplative areas. The kiosk and the rest/contemplative areas have granite in granite areas and Kasota stone in Kasota stone areas.

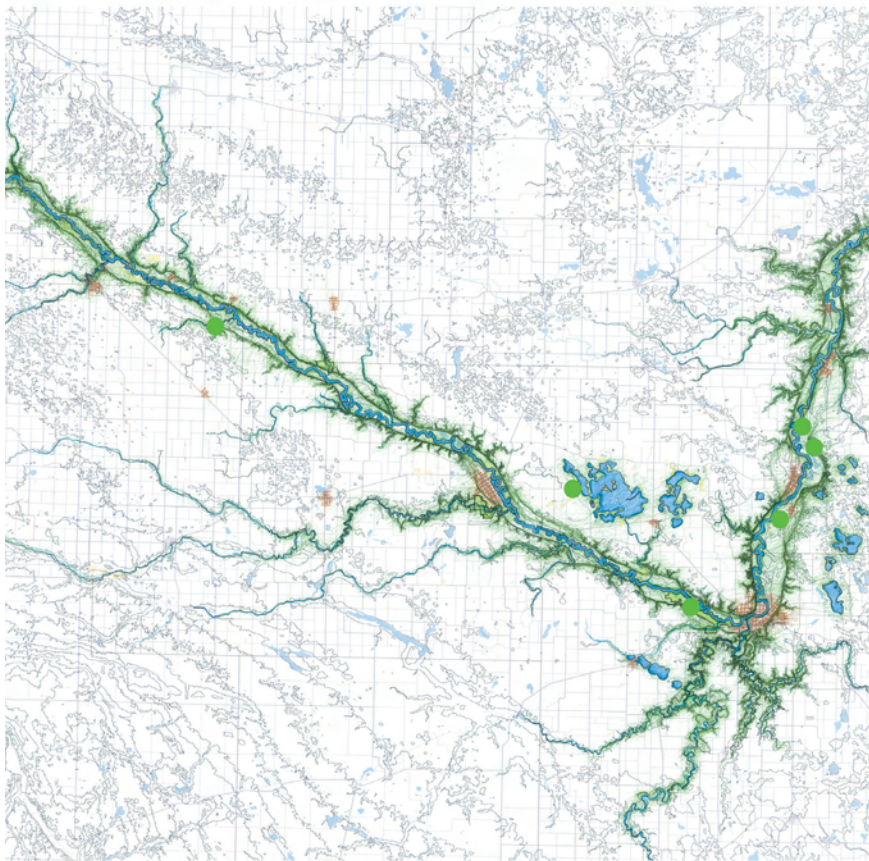
Cultural History:

European Settlement:

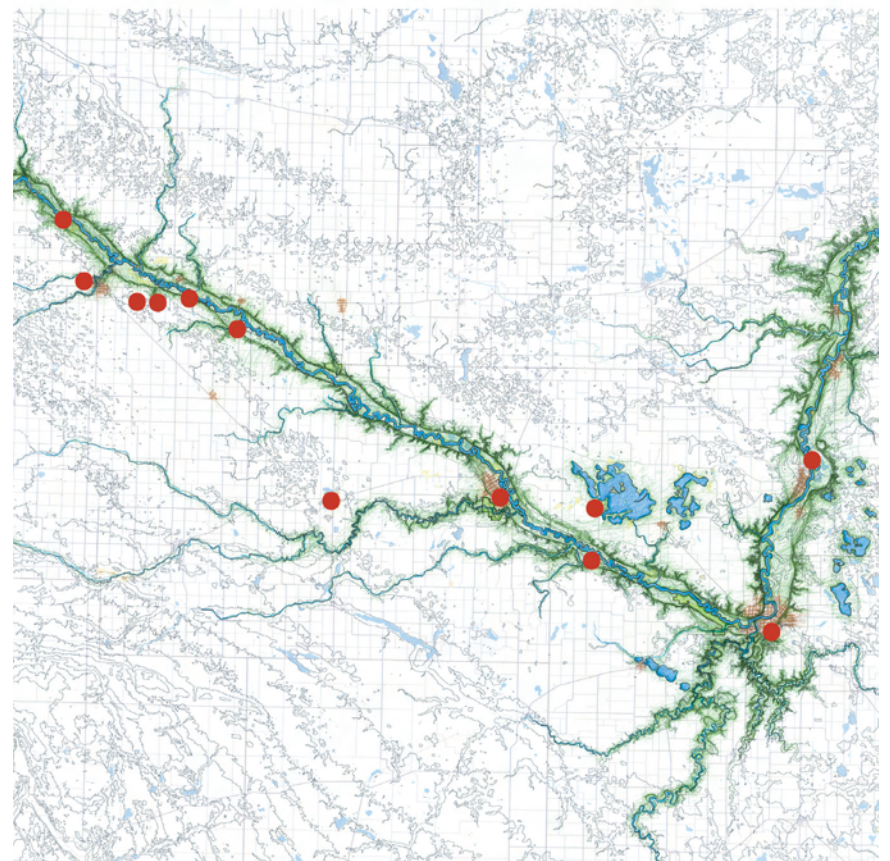
Interpretation of European settlement is very prevalent in the Valley. Much work has been done to memorialize and interpret early European settlers and their struggles by the Minnesota Historical Society and county historical societies. The Minnesota River Trail would connect to these existing historical sites where possible to interpret the story of settlement.

Dakota Culture:

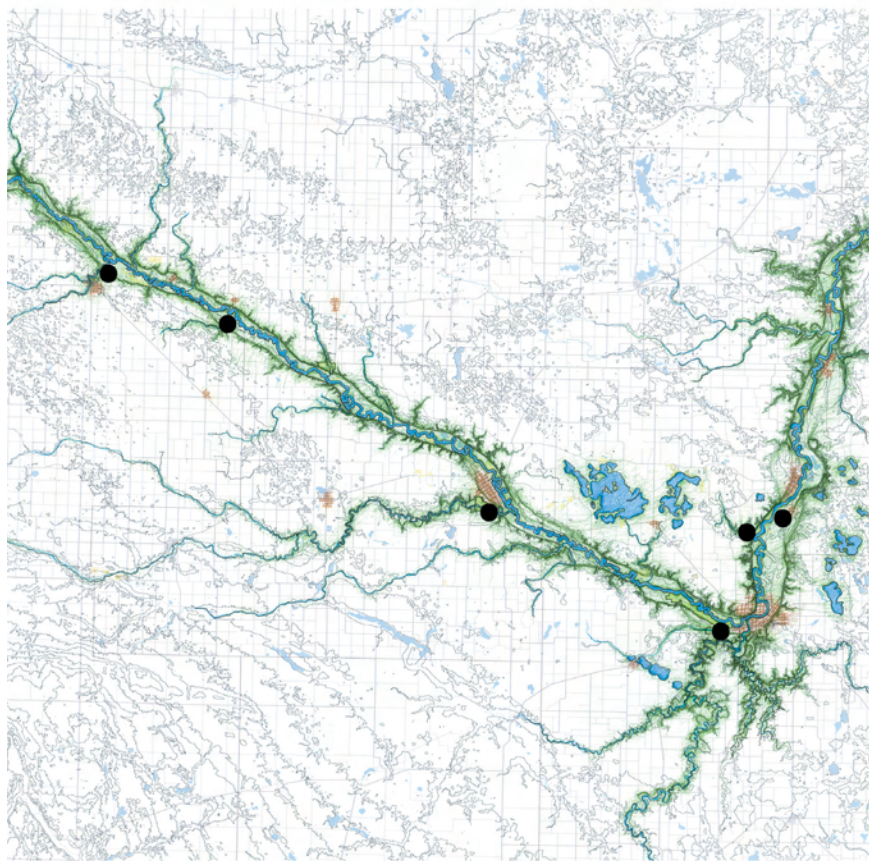
The Minnesota River Valley is rich with the history, presence, and culture of the Dakota people. Presently, there are only a few sites that interpret this rich history. Most of these sites focus on the 1862 war. The Minnesota River Trail seeks to increase the number of sites that interpret Dakota culture in ancient times, before the war, after the war, and in present times. Interpretive areas are located near but not in sacred sites and near known locations of historic Dakota villages. The places of rest and contemplation reflect Dakota culture. The site design for marking the Dakota Commemorative March route could be used in places where the state trail and the March route cross or coincide.



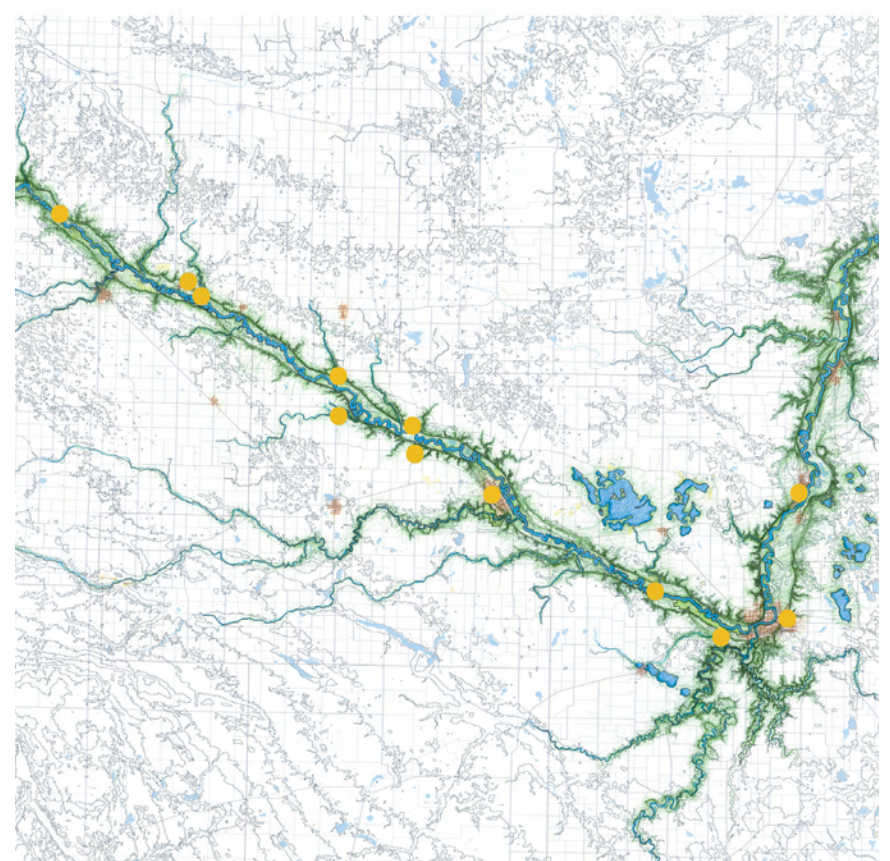
Pre-European Settlement Vegetation



Dakota Culture



Geology



European Settlement

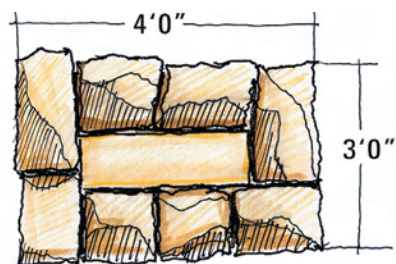


MINNESOTA RIVER STATE TRAIL SIGNAGE

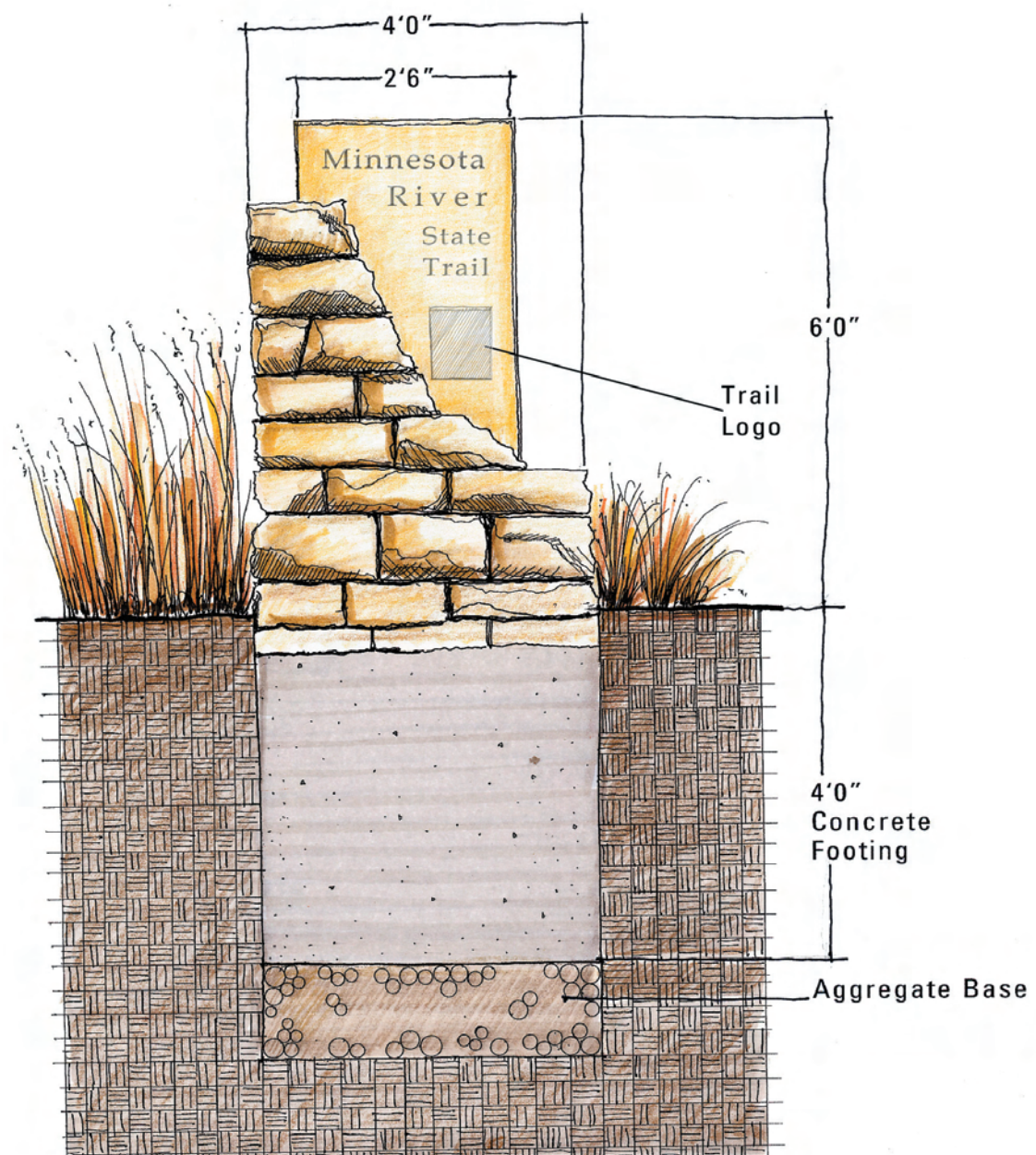
Monumental signs placed along the trail at key locations mark the Minnesota River State Trail. Rough-cut local stone are stacked at an angle to represent the bluff walls and terraces of the Minnesota River Valley. The trail's name and logo would be cast into the cast stone that appears to emerge from the rough-cut stone.

As stated previously, because the Valley has many different kinds of stone, the stone used in the kiosk would change according to the local stone of the area. This example illustrates trail signage built from Kasota stone.

Plan



Section Elevation

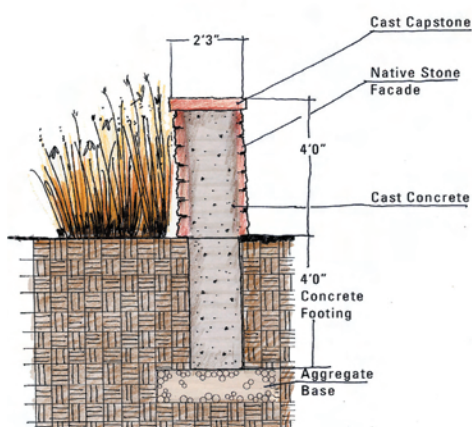


MINNESOTA RIVER STATE TRAIL KIOSK

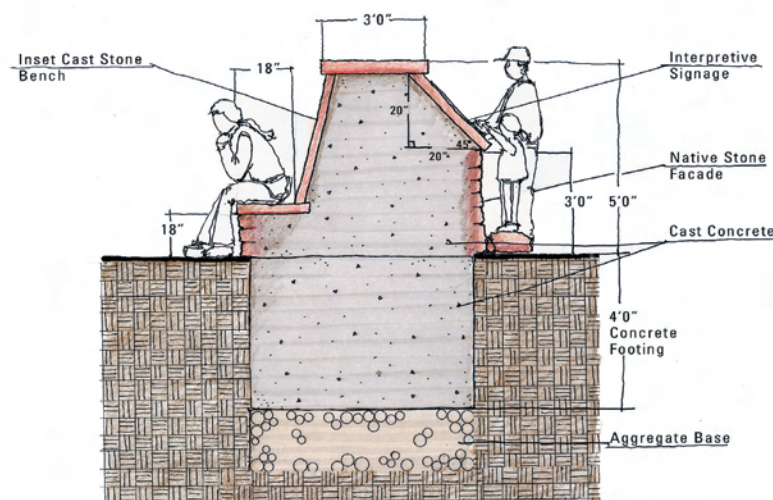
The Minnesota River State Trail's horizontal stonewall kiosk is inspired by the prairie landscape of the Minnesota River Valley. The kiosk is to be sited slightly off the side of the trail on a compacted gravel or cinder base. Local plants and stone are to be used for the kiosk, and it is to be fabricated in the region. Because the Valley has many different kinds of stone, the stone used in the kiosk would change according to the local stone of the area: granite in the Redwood Falls area, Kasota Stone in the Saint Peter area, and quartzite in the New Ulm area. This example illustrates a kiosk built out of quartzite.

The kiosk is both a place for information and a place for rest. Illustrations, maps, and narrative boards are applied directly to the kiosk's sloping surfaces. Benches are integrated into the wall itself. The wall's height provides generous surfaces for interpretive material and creates a windbreak for people resting on the benches.

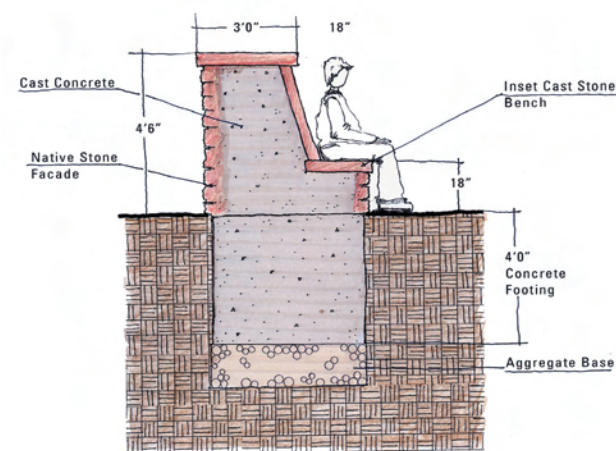
Section A



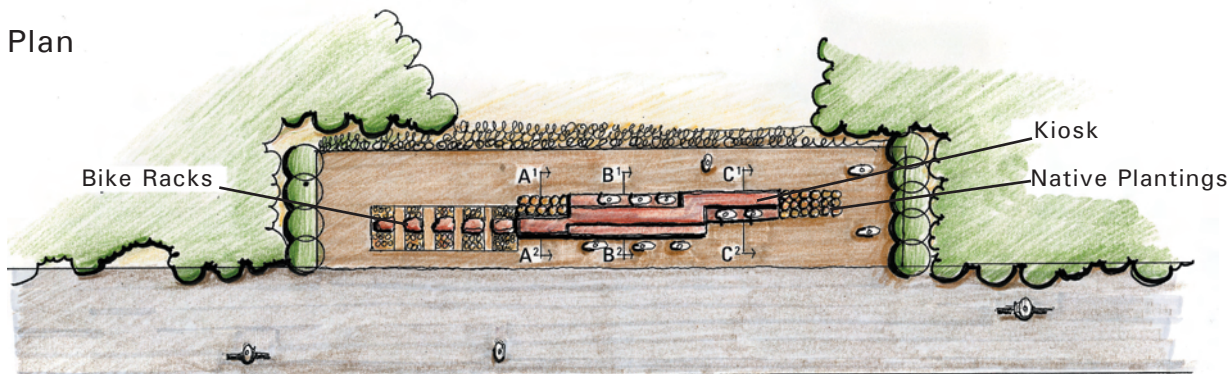
Section B



Section C

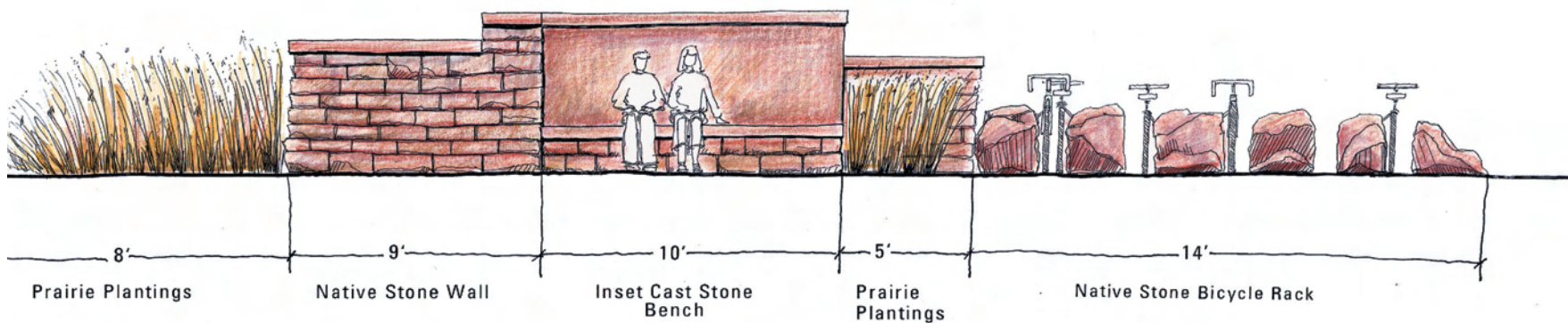


Plan

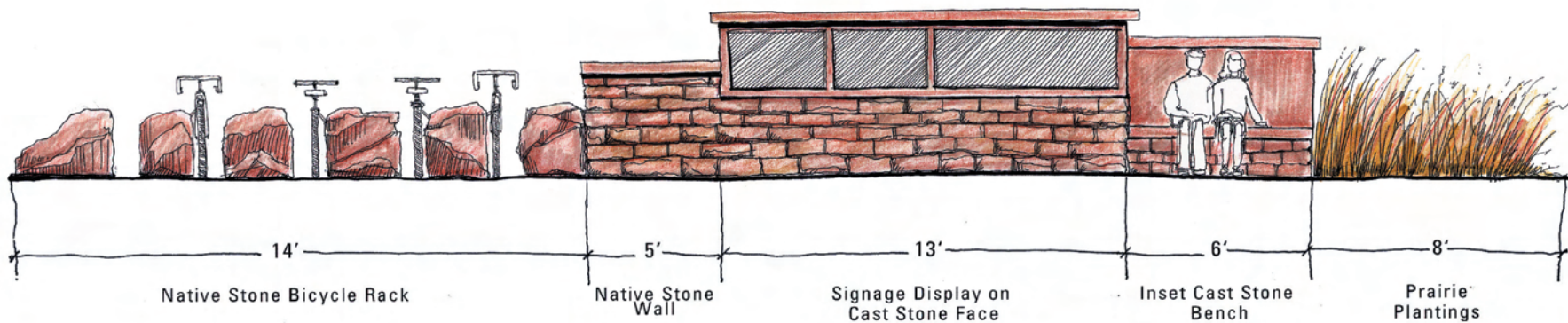


N

North Elevation



South Elevation

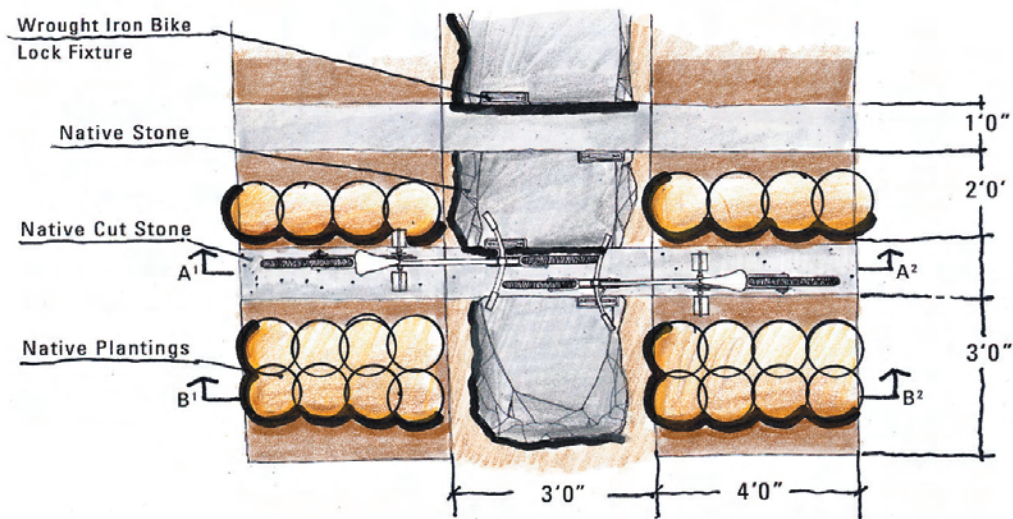




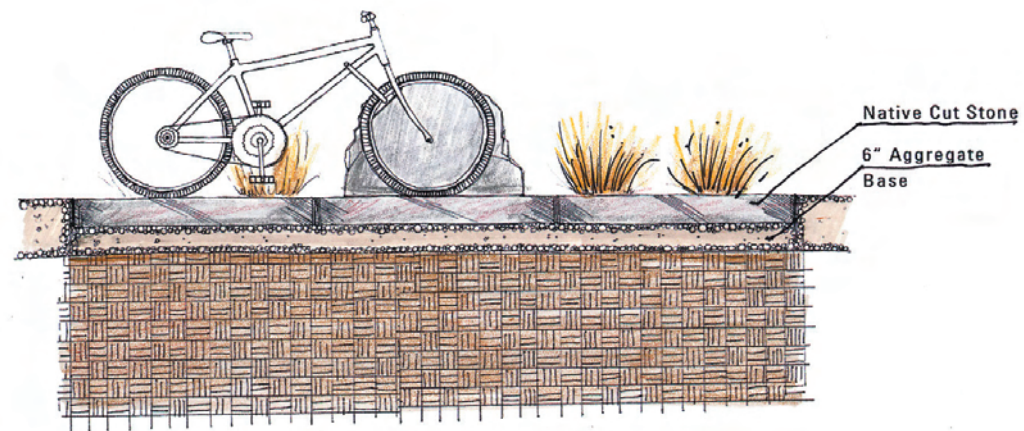
MINNESOTA RIVER STATE TRAIL BICYCLE RACKS

Bike racks of stone and wrought iron are placed at the end of the kiosk extending the horizontal line of the kiosk. Native plantings edge the kiosk and the bike racks. Large pieces of local stone are placed a foot apart to create wide slots that accommodate two bicycles. This example illustrates bike racks built from granite. A wrought iron plate and bar are welded together to create a bike lock fixture. This fixture is recessed into the stone for locking the bike frame and the front wheel.

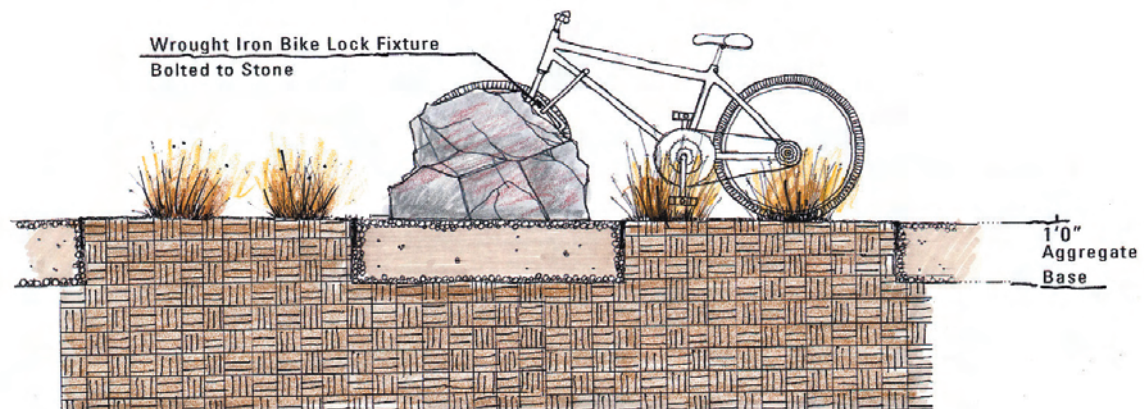
Plan



Section A



Section B

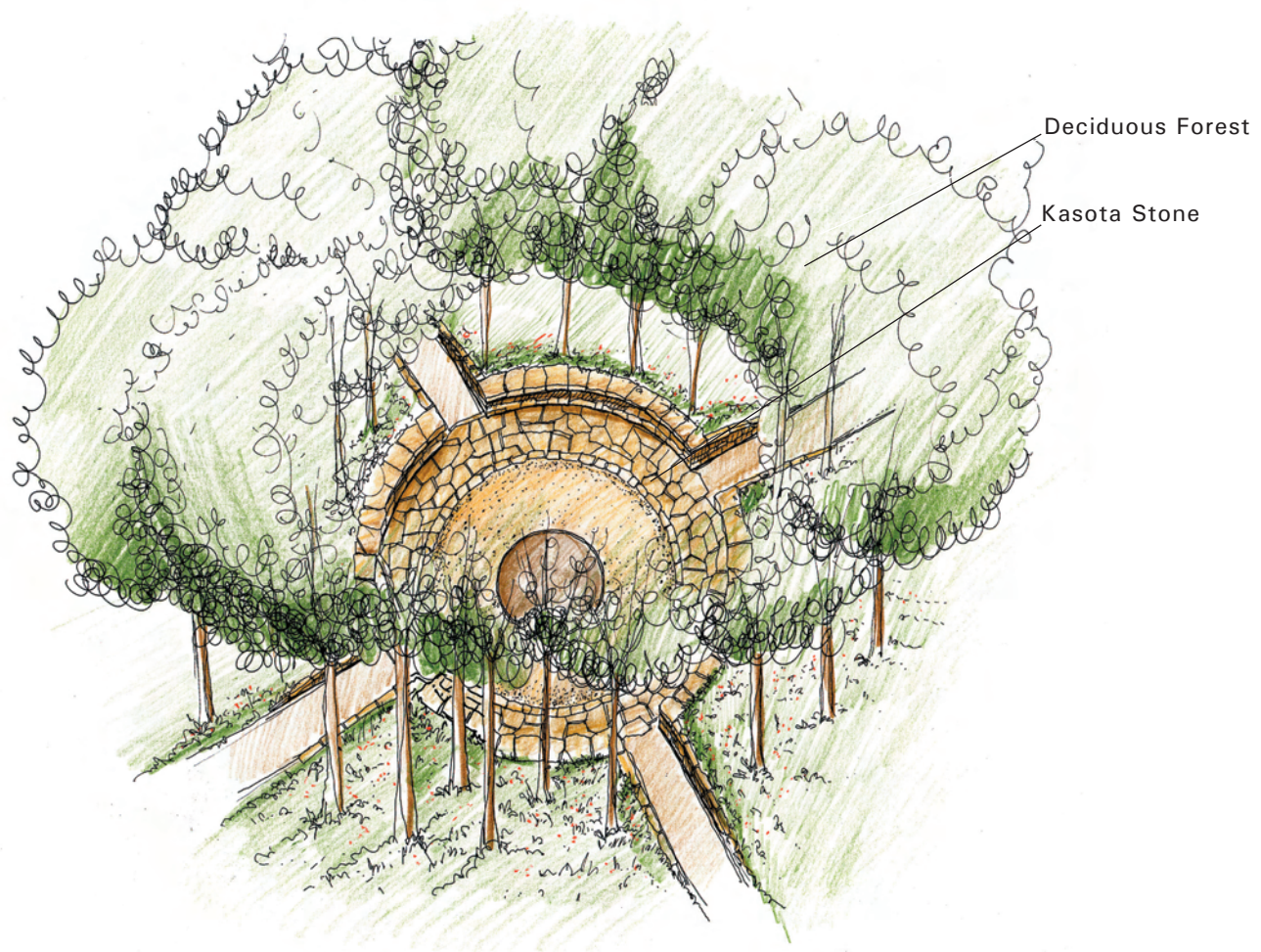


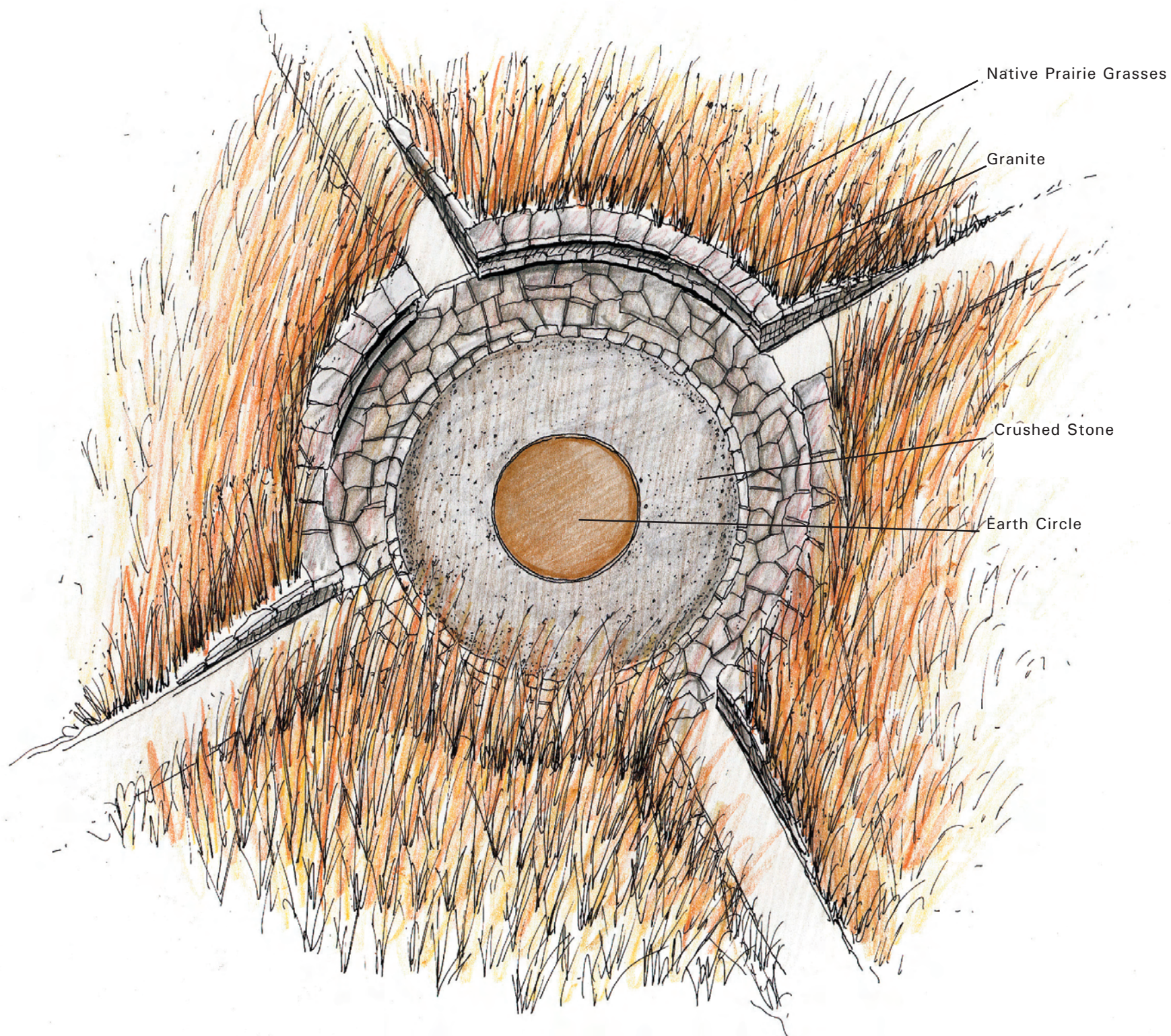
REST AREA: Dakota Culture Interpretive Design

The Dakota Culture is an important part of the story of the Minnesota River Valley. To honor the Dakota presence, a contemplative/rest space is designed for the trail. This space is to be sited along the trail at places celebrating the Dakota in the Valley.

The design is based on the sacred circle and is open to the four directions. As you walk into the space, the earth rises up to a stone seat wall. Local stone is used for the circle. Near Morton and the Lower Sioux Reservation granite is used, near New Ulm quartzite is used, and near St. Peter Kasota stone is used. Within the circle the cut stone changes to crushed stone to create the floor plane of the enclosed circle. In the very center of the circle a disk of compacted earth is exposed.

The vegetation surrounding the space is also native and reflects pre-European settlement vegetation. In the uplands by the Lower Sioux Community tall-grass prairie is used, in the river bottoms, riparian plants are used, near Saint Peter the plantings are inspired by the Big Woods, etc. Native plants that turn red in the fall or bloom red are used where possible.





STUDY AREAS

The Redwood Falls Area:

Cedar Rock and Cedar Mountain are natural ending points for the Redwood Falls Area. These two major landforms are sacred to the Dakota and are spiritual sites for the Lower Sioux Community. Cedar Rock is a WMA and Cedar Mountain is a recently acquired SNA. Both sights are high in biodiversity and are highly valued by the adjacent communities for their beauty. Redwood Falls, Morton, Lower Sioux Community, and Franklin are all in the area between Cedar Rock and Cedar Mountain. These two sites are also adjacent to bridges crossing the Minnesota River.

Based on a landscape character analysis, this area was divided into experiential segments. Different combinations of landform and land cover define its landscape character. These segments are: the Valley Outcrops, the River Warren Vistas, the Tributary Community, Dakota Culture, the Valley Plains, the Uplands, and the River Warren Bottoms.

The New Ulm Study Area:

The New Ulm Study Area stretches from the Redwood Falls Study Area's eastern edge at Fort Ridgely State Park to Minneopa State Park. The Swan Lake wetland complex is also in this area. This complex has high level of biological diversity and is one of the largest remaining prairie pothole complexes in the country.

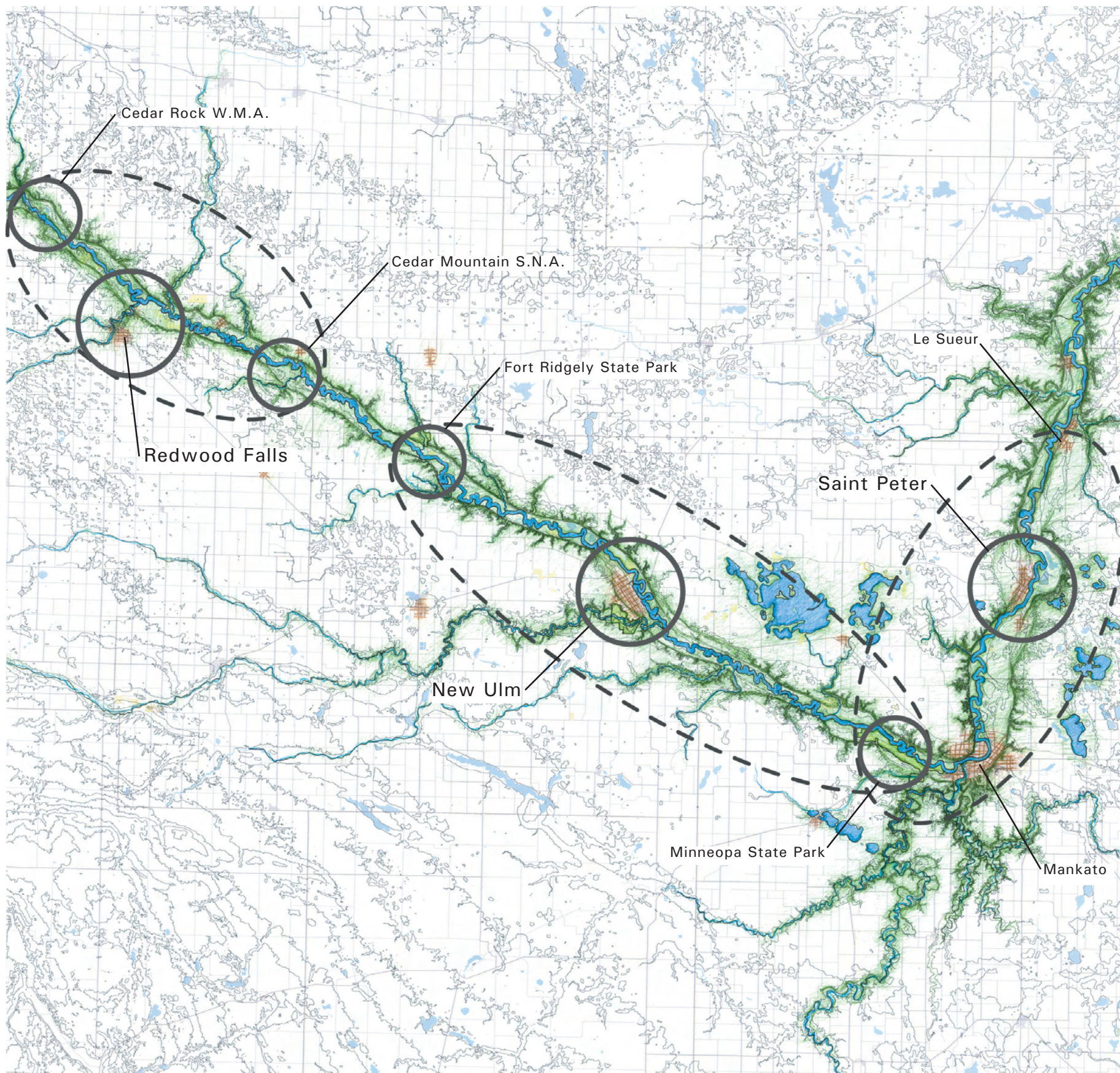
This area was divided into experiential segments based on a landscape character. Different combinations of landform, land cover and historic and

cultural features define its landscape character. The segments are: West Newton, Golden Gate, Terrace Community, Prairie Pothole Landscape, Cottonwood River Gorge, Prairie Bluffs, Cambrian landscape, and River Warren Views.

The Saint Peter Area:

The Saint Peter Area stretches from Minneopa State Park through Mankato and Saint Peter to Le Sueur. East of Minneopa State Park, the proposed state trail options link to the City of Mankato's trail system. Legislation for the Minnesota River State Trail ends the trail in Le Sueur where it connects to the Minnesota Valley State Trail.

This area was divided into experiential segments based on a landscape character analysis. Different combinations of landform and land cover define the landscape character. Segment names are inspired by these landscape characteristics or the historical and cultural significance of the area. The sections are: River Warren Views, River Bend, Sandstone Hills, Glacial Lakes, Kasota Prairie, Historic Valley Community, and Ottawa Bluffs.





VALLEY OUTCROPS

Ridges of bedrock outcroppings that undulate from the river bottom define this area north of the Minnesota River. Included in this segment are views of the Cedar Rock landform on the south side of the river. Vegetation in this area contains forest and grasslands. The land rises and falls on the ancient terraces of the Glacial River Warren to provide area views.



RIVER WARREN BOTTOMS

Visual and physical access to the Minnesota River defines this segment because the expansive valley floor is dominant. The valley floor environment contains many parcels of RIM, CREP, and WMA conservation lands. Experientially the bottoms feel completely separate from the surrounding landscape. The land cover is a prairie bedrock outcrop type spotted with invasive cedar growth, marsh areas, and a few small lakes. One can imagine what the land could have looked like long ago, and can start to realize how wide the Glacial River Warren was when it carved this landscape.



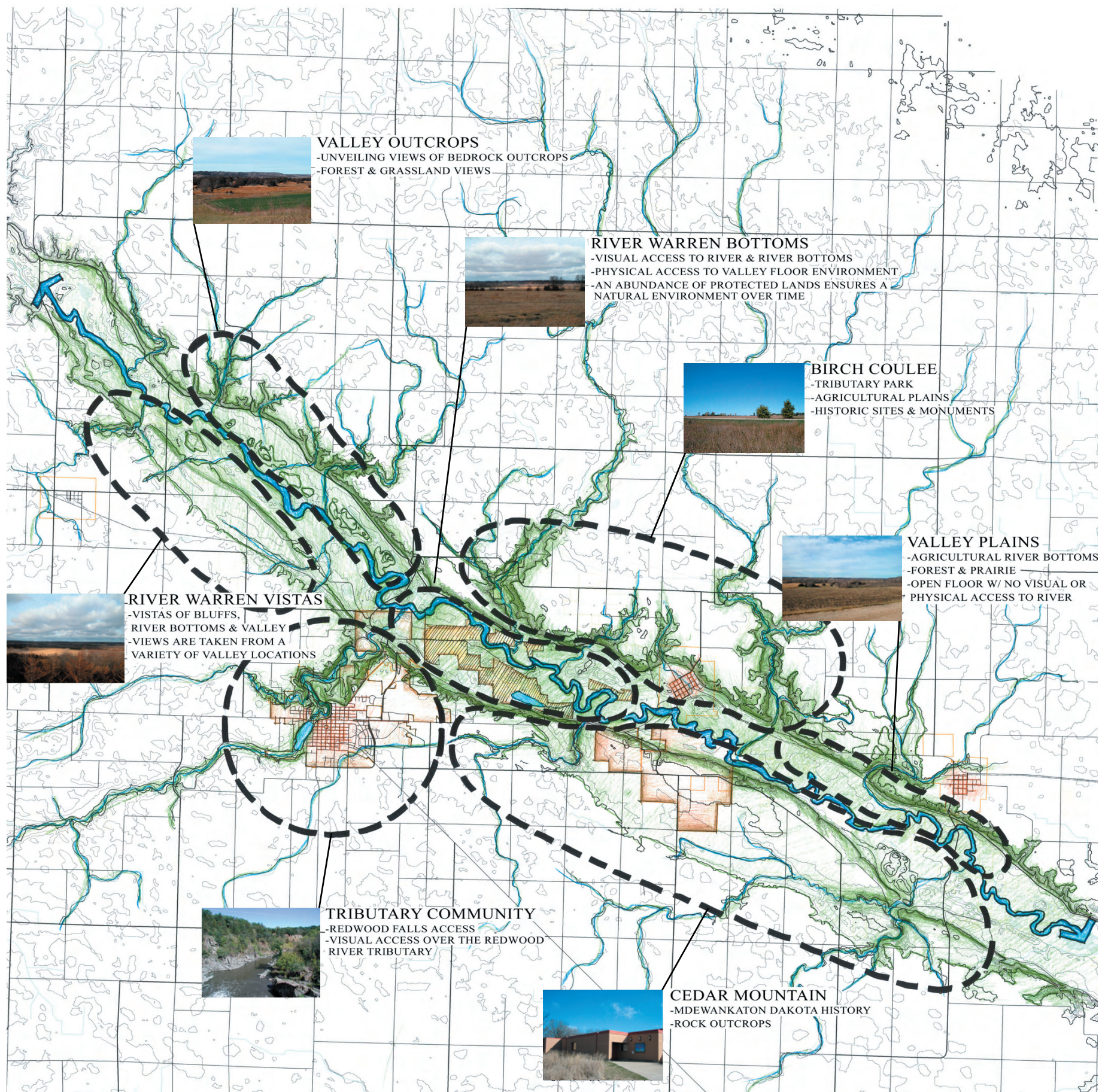
BIRCH COULEE

Open sky, the rhythm of large fields of row crops, and county roads characterize this section. Many patches of conservation land planted with prairie provide a contrast to the farm fields. Large tributaries cut through the uplands to create ravines whose steep topography, hardwood vegetation, and moist, cool microclimate provide refuge from the heat and wind of the upland fields.



VALLEY PLAINS

Agricultural fields that limit physical access to the river dominate this river bottom segment. Tall deciduous vegetation growing along the river's edge blocks visual access to the water. The steep wooded bluff at the plains' edges is a strong contrast to the open valley plains.





RIVER WARREN VISTAS

On the uplands of this segment one can access the brow of the bluff for miles. The hardwood forest is relatively low on the edge of the brow providing dramatic vistas of the valley created by Glacial River Warren. From this vantage point all components of the Glacial River Warren can be viewed. Light and shadow patterns move across the valley floor, 240 foot high valley walls define the massive space, the ancient river terraces rise above the floodplain, and tributaries, with their dense vegetation, cut deep ravines into the bluffs on their journey to join the meandering Minnesota River.



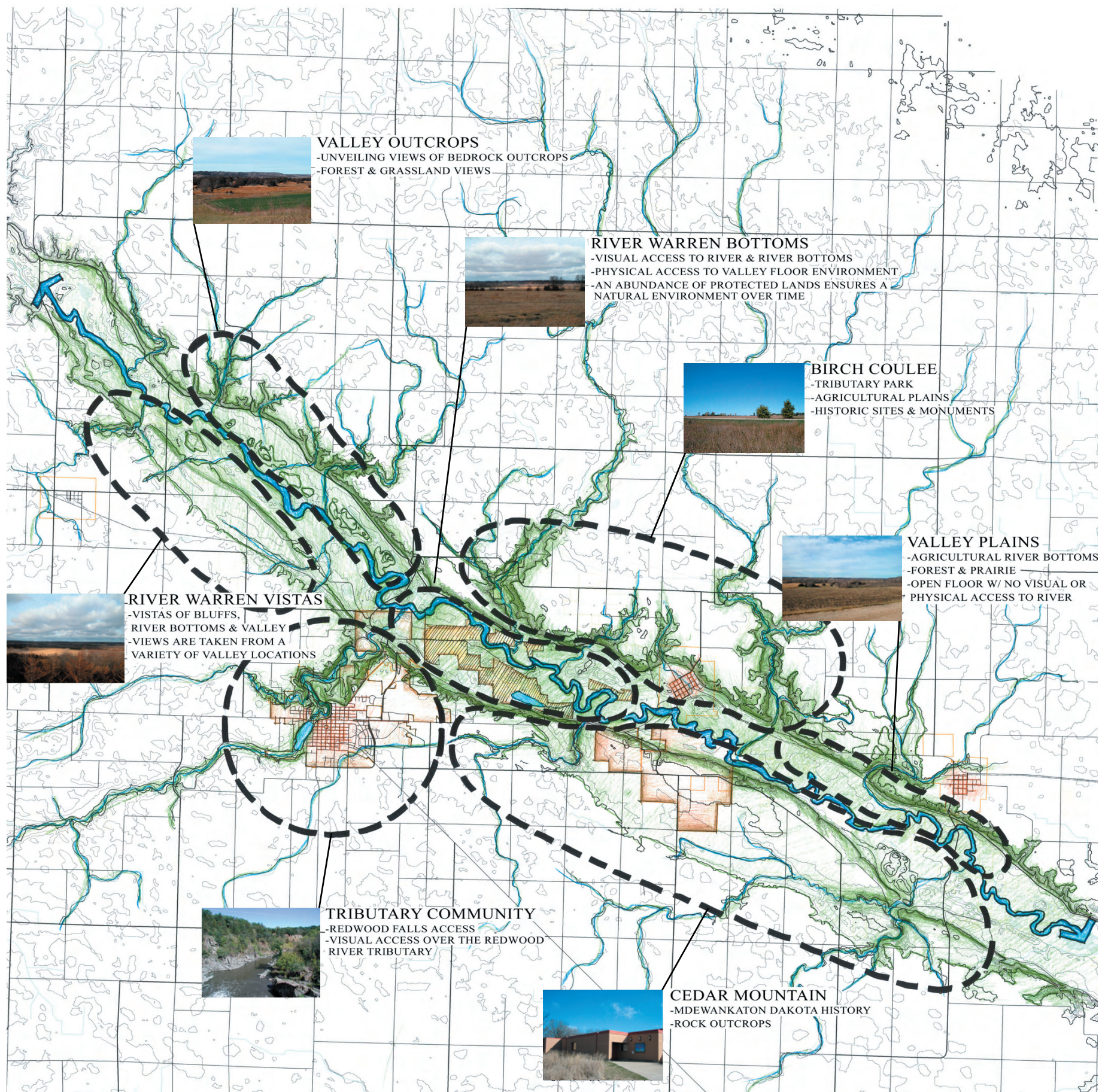
TRIBUTARY COMMUNITY

This segment provides a Glacial River Warren tributary experience along the Minnesota River Trail. The Redwood River is a remnant of one of the many outwash streams of the glacial river. The community of Redwood Falls is centered on the river. Very steep topography, wooded stone bluffs, dramatic gorge views, and a beautiful falls characterize this tributary landscape. It contrasts both visually and physically to the uplands that dominate much of the landscape. The falls have been an historic and current source of power and energy.



CEDAR MOUNTAIN

The rich culture of the Mdewankaton Dakota, past and present, define this segment. This area once housed the villages of Big Eagle, Little Crow, and Wabasha. Historical structures dot the landscape that date to before the conflict of 1862. This area saw the beginning of the 1862 war and now is the starting point for the Dakota Commemorative March to Fort Snelling and the commemorative horseback ride to Mankato in honor of the 38 Dakota who were executed. This stretch also contains some of the largest rock outcrops along the Minnesota River Valley.





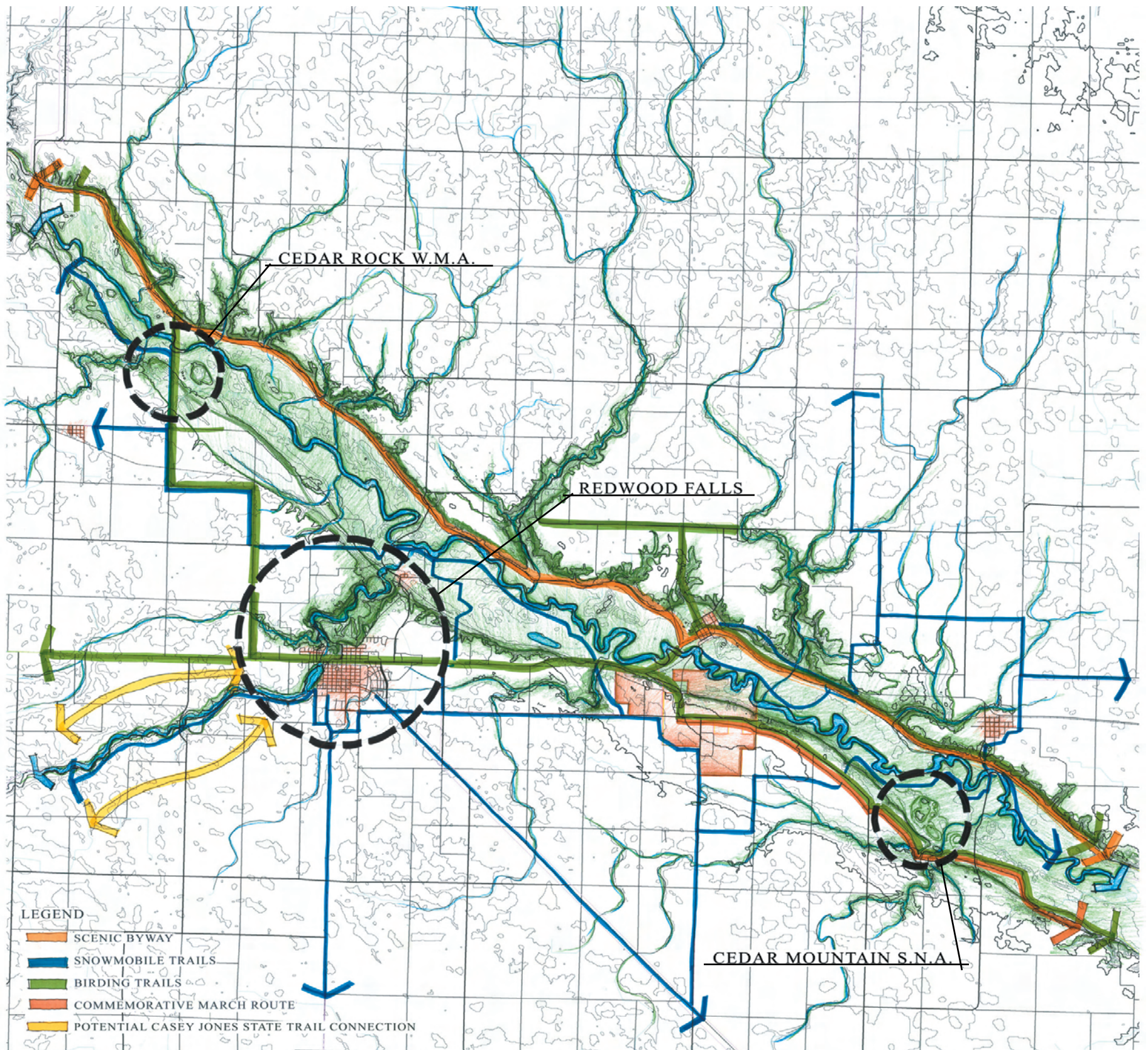
CONNECTIONS TO EXISTING SYSTEMS

The Scenic Byway follows County Road 21 on the north side of the river and has an alternate route that are not shown on the map that connects to Alexander Ramsey Park in Redwood Falls via Highway 19/71.

This area is also part of the Falls Region of the Minnesota River Valley Birding Trail. The Falls Region extends from Upper Sioux Agency State Park to Fort Ridgely State Park. Area snowmobile trails are located in road right-of-ways and cut through farm fields. Because signs and temporary bridges only mark these seasonal trails, private landowners are often more willing to allow them on their property. Many of the trails are found in the floodplain near the Redwood River.

The Lower Sioux Community leads the Commemorative March in the first week in November of even numbered years. This march is held in memory of the Dakota women and children who were forced to march from the area that is now the Lower Sioux Reservation to an internment camp at Fort Snelling in the fall of 1862. Although the exact route is unknown, marchers follow a route similar to the one that the Dakota were forced to take. Dakota March leaders and organizers have expressed interest in using portions of the state trail as they march to Fort Snelling.

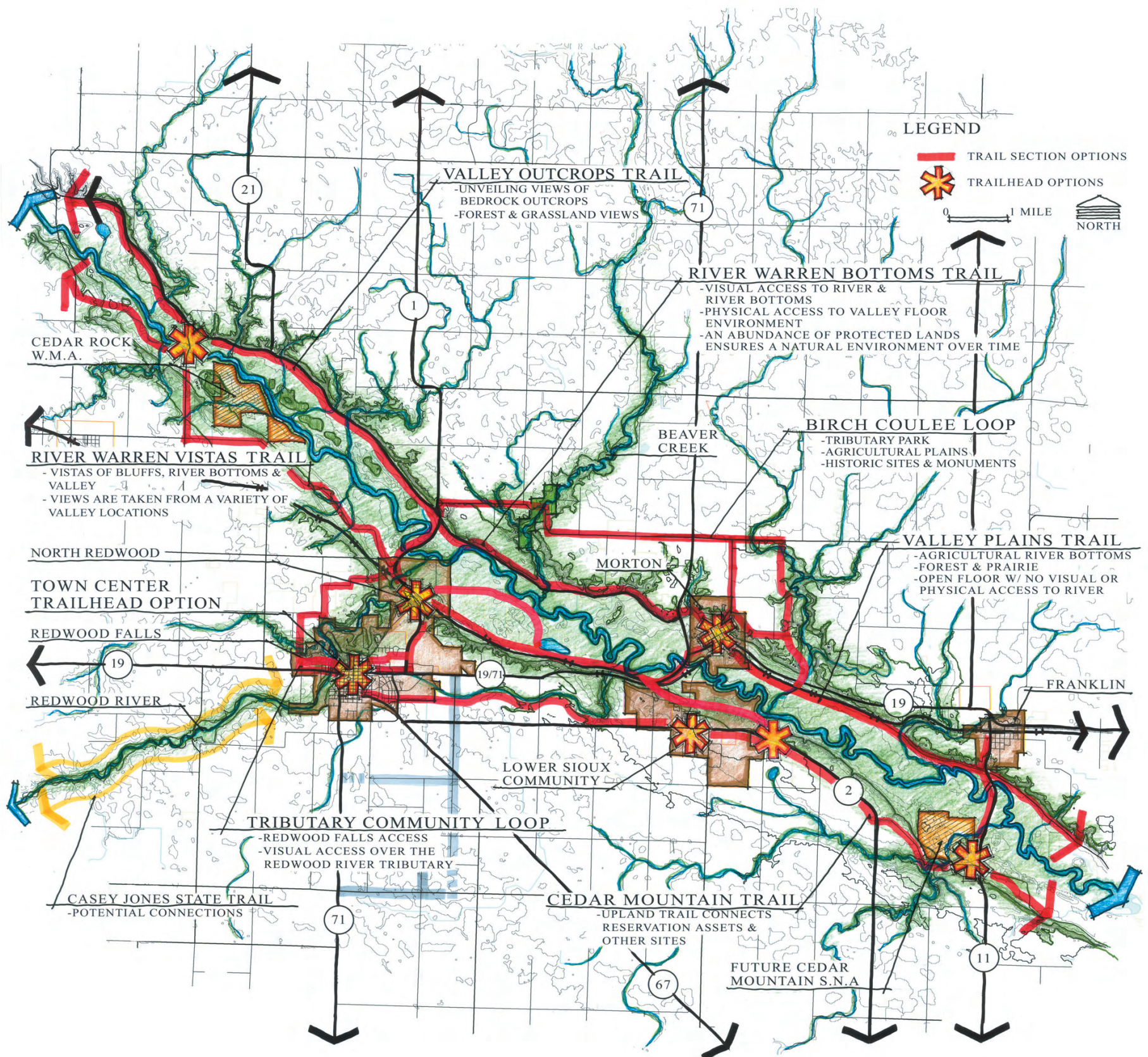
The Casey Jones State Trail is presently planned to run from Split Rock Creek State Park near Pipestone to Walnut Grove. The Redwood Falls community is extremely interested in a connection to the Casey Jones State Trail. The state has not yet appropriated funding to extend the Casey Jones Trail to Redwood Falls from Walnut Grove, nor has the exact route been determined. In this design project, it is suggested that the Casey Jones State Trail enter Redwood Falls from the west following the Redwood River.





REGIONAL TRAIL OPTIONS

A system of trail loops provides a wide variety of experiences on both the northern and southern sides of the Minnesota River. Redwood Falls, Morton, Franklin, and the Lower Sioux Community are connected by the trail options. The large number of high quality natural and historical amenities guided the alignment of the trail loop options.





CEDAR ROCK TO NORTH REDWOOD

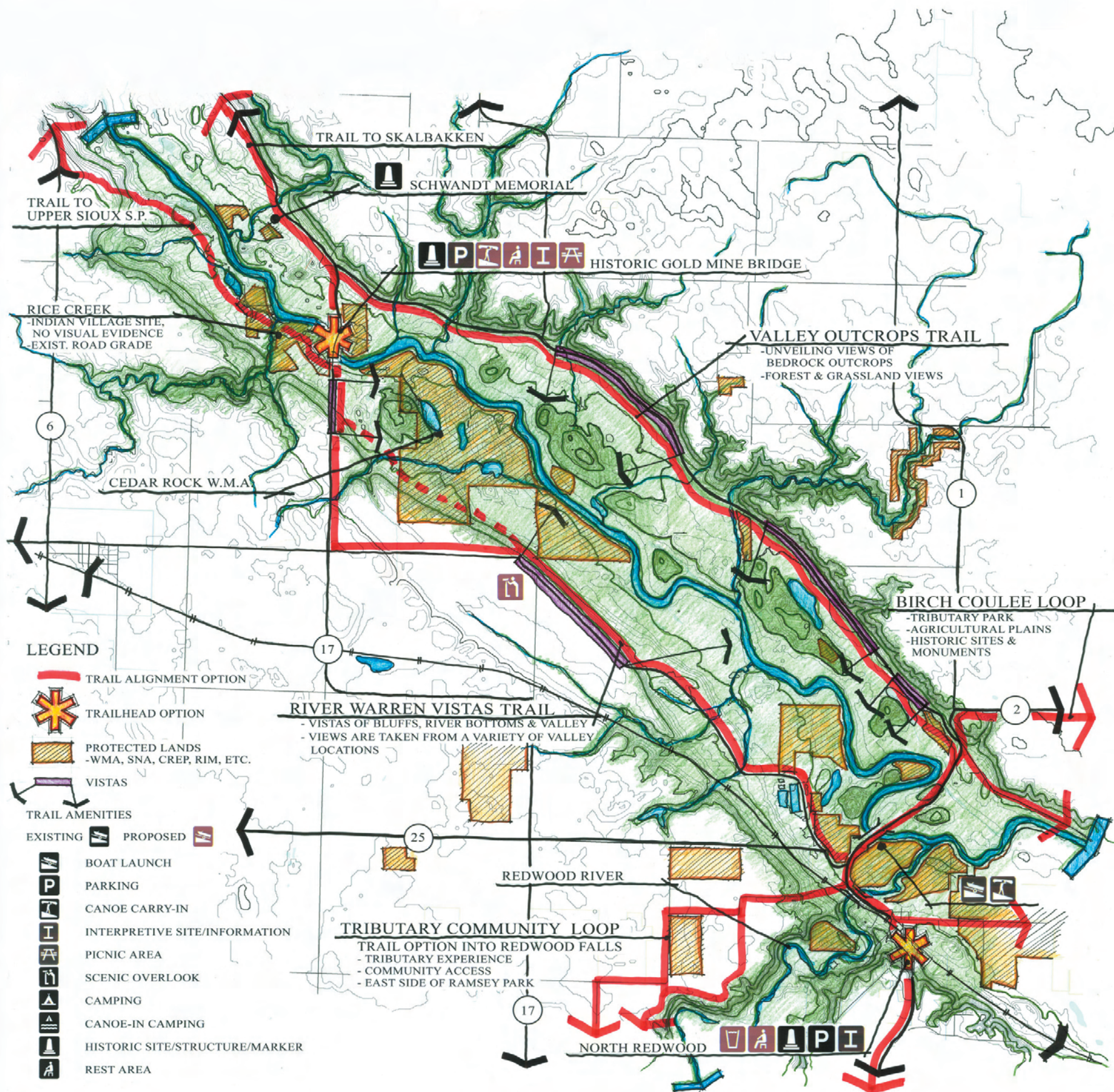
The **Valley Outcrops Trail** option comes from Skalbakken County Park, Renville County Park 1, from the west and passes the Schwandt Memorial with the option to cross the river at the Gold Mine Bridge at Highway 17.

Continuing on the north side, the trail parallels the scenic byway. The north side of the road has a heavily vegetated bluff, and the south side drops off with steep grades. With these conditions, a terrace for the trail and a guardrail are necessary for the safe trail use. Many farms and residences on the south side of the byway are impacted by this trail alignment.

The trail turns south to cross the river on the Highway 101 Bridge. Although this bridge is quite busy with traffic, this route is desirable because it connects the trail with the public water access and the canoe carry-in point located directly south of the bridge.

The **River Warren Vistas Trail** option on the south connects to the Upper Sioux State Park to the west. Following a minimum maintenance road, the trail is very close to the river and crosses Rice Creek, a location for historic interpretation. Rice Creek was the site of one or two Dakota villages before 1862, but there is no current visual evidence of this history. From Rice Creek the trail has the option of crossing the river at the historic Gold Mine Bridge. There is a high water marker on the bridge from past floods making this a good place to interpret the floodplain and the meandering and changing Minnesota River. This trailhead site is also a good place to interpret the stories of the pioneers and the former gold mine that once was nearby. Proposed amenities include a public water access, a canoe carry-in point, expanded parking, picnic tables, and a rest area.

From the bridge the trail follows Highway 17 passing Cedar Rock Wildlife Management Area and heads to the top of the bluff where there are amazing vistas of the River Warren landscape. If ever possible, a route near or through the Cedar Rock WMA would be ideal because of its scenic beauty and cultural significance. Presently trails through WMAs are prohibited and the land surrounding Cedar Rock is privately owned. Because a trail is not currently feasible through the WMA, the trail follows Highway 17 out of the valley, then turns east on River Road also known as Highway 9, and passes near the Camp Pope site into North Redwood.





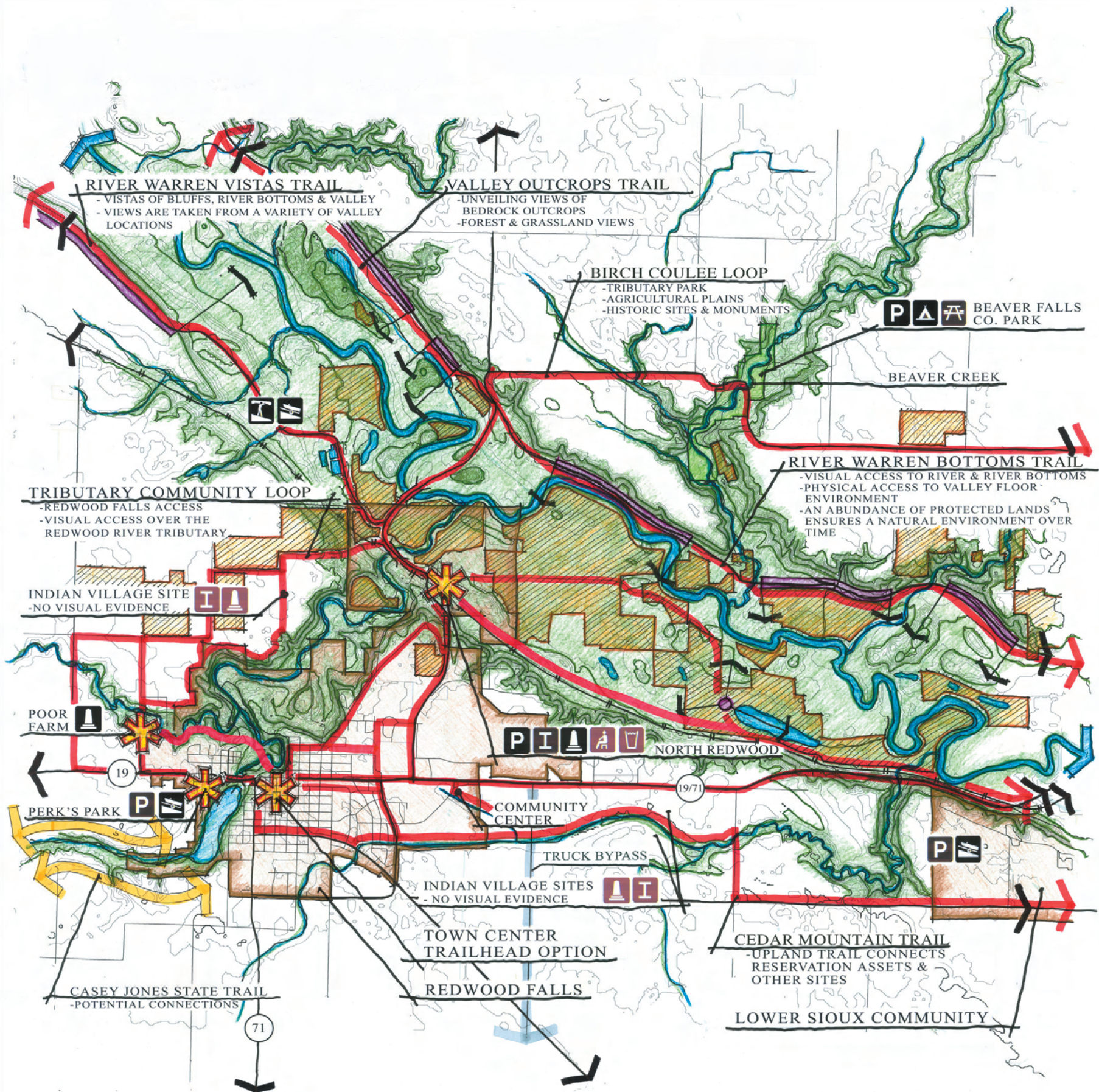
REDWOOD FALLS AREA

The **Tributary Community Trail** options focus on providing dramatic vistas over the wooded gorge of the Redwood River while connecting the user to the community and amenities in Redwood Falls.

From the North Redwood Area the trail follows a gravel road to the west that leads into several large patches of RIM and CREP land planted with tall grass prairie species. Several options are provided to reach the town center trailhead overlooking the Redwood River. One alignment moves around the gorge; the other comes right through Alexander Ramsey Park. From the trailhead the Minnesota River Trail joins a community trail along Highway 101 that leads into North Redwood and the River Warren Bottoms trail option. The other eastward options include either following the upland segment and the River Warren bottoms segment or following a potential community trail alongside a drainage ditch to connect to the Cedar Mountain trail.

The **River Warren Bottoms Trail** has two trail options. One follows the scenic byway to the north and connects the Valley Outcrops section with the community of Morton. The other option leaves North Redwood and follows an existing road grade through a concentration of conservation lands to the Tiger Lake WMA. At Tiger Lake the trail skirts the edge of the WMA on the south by using an existing road grade. At the railroad tracks the trail is on railroad land. An easement from the railroad is required to connect to the public water access point near Morton. In order for this trail option to enter Morton, the Highway 19/71 Bridge would need to be retrofitted for the trail or a new pedestrian bridge across the Minnesota River would have to be built.

The **Birch Coulee Loop** turns off of the Valley Outcrops trail or the River Warren Bottoms trail and climbs out of the valley. The loop follows a county road that is part of the birding trail, passes by many farm fields, and then travels down a wooded slope to the entrance of Beaver Falls County Park. Beaver Falls County Park, Renville County Park 4, has 302 acres along the wooded Beaver Creek that include grasslands and riparian habitat. Its existing amenities include trails, camping, a picnic area, and restrooms that make it a desirable resting place along the trail. Coming out of the tributary area, the trail passes the Beaver Falls WMA. This conservation land is planted with native tall grass prairie that provides a sharp contrast to the surrounding landscape of vast farm fields. This area could be used to interpret conservation land efforts in this agricultural landscape. From Beaver Falls WMA, the trail continues on County Road 2 to the Birch Coulee Battlefield Historical Site.





REDWOOD FALLS TO CEDAR MOUNTAIN

The **Birch Coulee Loop** continues from Beaver Falls WMA to Birch Coulee Battlefield. Birch Coulee Battlefield is the site of a major battle between the United States soldiers and the Dakota people in 1862. It is now an interpretive site planted with native prairie and run by the Minnesota Historical Society. Amenities include parking, interpretive panels, and a rest area.

From this site the trail passes Birch Coulee County Park. This 25-acre park, Renville County Park 5, is heavily wooded and contains Works Progress Administration structures. Contingent on permission from property owners, the trail follows the edge of the Birch Coulee Tributary to the Morton Monuments.

The first monument was built by the legislature in 1893 in honor of the U.S. soldiers who died in the battle of Birch Coulee. In 1899, the Minnesota Historical Society erected another monument to honor the Dakota who helped save the lives of the European settlers during the U.S./ Dakota war. This site is now a bur oak grove that overlooks the river valley. The other trail option from the Birch Coulee Battlefield follows County Road 18 into Morton with a spur trail to the monuments.

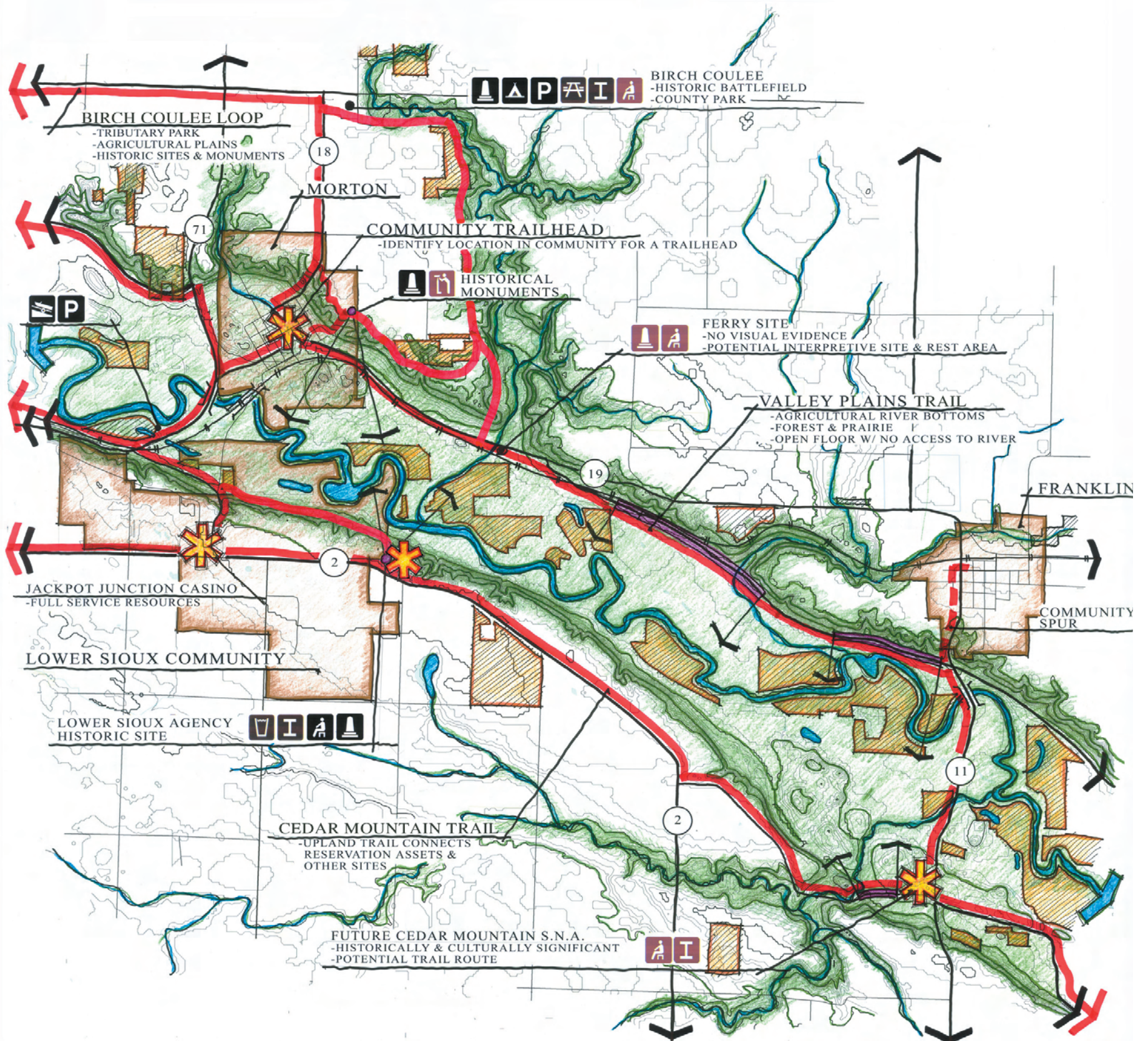
Whether or not the **Cedar Mountain Trail** option is allowed to cross the reservation is for the Lower Sioux Community to decide. However, this project researched the potentials in this area and has mapped several trail options. The trail could provide opportunities for the Dakota to share the story of their ancestors, interpret the Dakota perspective of the 1862 war, and showcase their contemporary culture. This area is already is a major draw for tourists because of the Jackpot Junction Casino. The casino features a hotel, gallery, and several restaurants. These amenities are compatible with a trailhead. This area could be connected to Redwood Falls with a trail along the county ditch right-of-way or from Morton with a trail alongside Highway 2.

Another trailhead option is the Lower Sioux interpretive site run by the Minnesota Historical Society. There is an existing trail from this site down to the river bottoms where it could follow an old Civilian Conservation Corps (CCC) road. Since this trail option is next to the river, it provides a connection to the Minnesota River Canoe Trail.

From the Lower Sioux Community the trail continues to the Cedar Mountain Scientific and Natural Area, a traditional Dakota spiritual site. Recently this land was acquired by the Department of Natural Resources because of its outstanding biodiversity. The DNR contract permits spiritual ceremonies, bow hunting, and a trail. Cedar Mountain, a major landform, is perhaps the largest known outcrop of Morton Gneiss in the Minnesota River Valley. This site is an ideal location for a low-impact interpretive place/rest area along the trail.

The **Valley Plains Trail** option follows Highway 19 out of Morton pass the granite “kame” to the confluence of Birch Coulee Creek and the Minnesota River. If property owner approval is given, the trail connects to the Morton Monuments and the Birch Coulee Battlefield. Continuing on Highway 19, the trail passes the Redwood Ferry Historic Site. The Redwood Ferry site is the crossing where the old government road from Fort Ridgely crossed to connect to the Redwood Agency, the present day Lower Sioux Community south of the river. This area became a battleground during the beginning of the 1862 war. (Anderson)

The trail parallels the Minnesota River Scenic Byway on County Road 21. Because of the changes in grade, this trail alignment would require making a terrace that is lower than the road grade in certain areas. Residences on the south side of the road make siting this trail difficult in some areas also. A spur trail connects the community of Franklin with the Minnesota River Trail. The Valley Plains trail segment either continues on towards Fort Ridgely or crosses the river to go south to connect to Cedar Mountain.





REDWOOD FALLS: THE TRIBUTARY COMMUNITY

HISTORY

The City of Redwood Falls is located one mile south of the Minnesota River on the high banks of the Redwood River. Known for its picturesque river bluffs and wooded gorges, Redwood Falls is sometimes referred to as the “Scenic City.” Once the site Shakopee’s village, this area was known to the Dakota as ‘Cansa’yapi’ or where they marked the trees red. (Durand 1994) Redwood Falls is also named after the falls of Ramsey Creek. The first European settlers were drawn to the Redwood Falls area because of this waterpower potential. Early surveyors’ maps show a government sawmill and a gristmill in this area. After the U.S./Dakota War of 1862, the area now known as Redwood Falls ceased being part of the Dakota reservation and was opened up to European settlers. Colonel Sam McPhail had taken notice of the land when he was leading troops in the war. Once the land was open for settlement, he purchased the land that would become Redwood Falls. In 1864 MacPhail returned with a small group to start building a stockade and a cabin. John St. George Honner soon joined MacPhail with his family. He purchased the land north of Redwood Falls that later would become North Redwood.

Redwood Falls soon became a hub for production and transportation. The Minnesota Valley Railroad made its first commercial run in 1878. The Minneapolis and St. Louis Railroad came through North Redwood in 1884. The first depot agent for North Redwood was Richard W. Sears, the future founder of the Sears and Roebuck Company.

In 1889 A.C. Burmeister, a German immigrant who had learned the milling trade, came to Redwood Falls. He soon purchased the old mill and installed an electric light system in 1898. In 1903 Lake Redwood was created after Burmeister dammed the Redwood River for more power.

Today Redwood Falls has the opportunity to become a major recreational hub. Lake Redwood and Alexander Ramsey Park are important amenities. The falls are one of the few falls in the Minnesota Valley. Close to this junction of natural resources lies the historic town center.

*paraphrased from “Early History of Redwood Falls”,
City of Redwood Falls*



Lake Redwood 1909
MHS Visual Resources Database



Washington Street 1940
MHS Visual Resources Database



Redwood River & Mill 1925
MHS Visual Resources Database



REDWOOD FALLS: THE TRIBUTARY COMMUNITY

CHARACTER ANALYSIS

Not only will the Minnesota River Trail be an amenity to Redwood Falls, but also Redwood Falls will add much to the trail. Natural and recreational amenities converge in Redwood Falls.

The sway back bridge built by the WPA is in Alexander Ramsey Park, the largest municipal park in the state. It is one of the many WPA structures in the city. There are many opportunities for recreation within the park including scenic hiking trails.

Lake Redwood is a recreational lake created by the dam on the Redwood River.

Many conservation lands including a large number of Wildlife Management Areas surround the city.

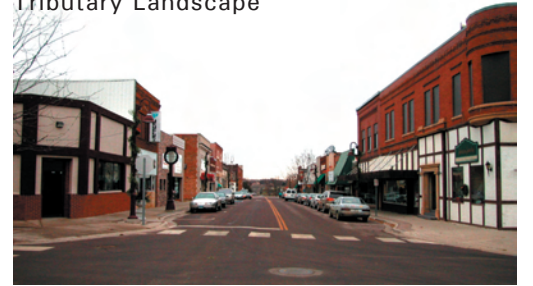
The river gorge topography creates some of the most scenic areas and scenic overlooks in the whole Minnesota River Valley.

Because Redwood Falls has been a transportation center surrounded by fertile agricultural land, agricultural related activities such as grain elevators are important parts of the city's economic base.

The historic downtown with its historic buildings still retains the ambience of a late 19th century, early 20th century rural county seat.



Tributary Landscape



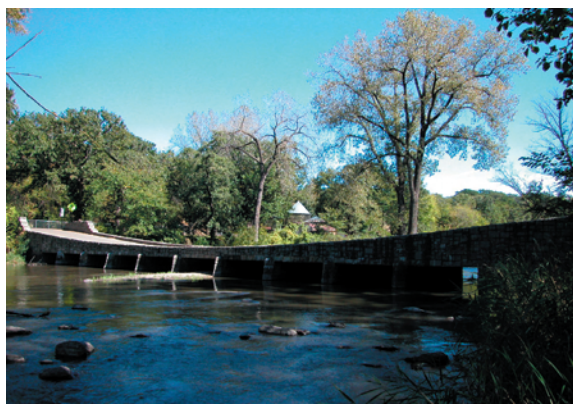
Historic Downtown



Transportation Hub



Lake Redwood



W.P.A. Architecture



Recreation



Historic Architecture



Conservation Lands



REDWOOD FALLS: THE TRIBUTARY COMMUNITY

COMMUNITY ANALYSIS

The city's cultural and natural assets make it an important part of the Minnesota River Valley. Because Redwood Falls is located on the scenic gorge of the Redwood River, not on the Minnesota River, it is the best example of a community that was sited on a major tributary and a good place to interpret the "tributary community experience."

Recreational Resources:

The rugged topography of the river gorge lends itself to beautiful views of the scenic valley and the falls. Alexander Ramsey Park includes much of the river gorge and has many recreational facilities. Lake Redwood and Westside Park on its shore are recreational resources.

Land Use:

The main entry into town is a large commercial strip along Highway 19/71. This area is busy with traffic, visitors, hotels, bars, and restaurants. The strip draws activity away from the historic downtown. Recreational parks and civic spaces are located throughout town but are not well connected to each other.

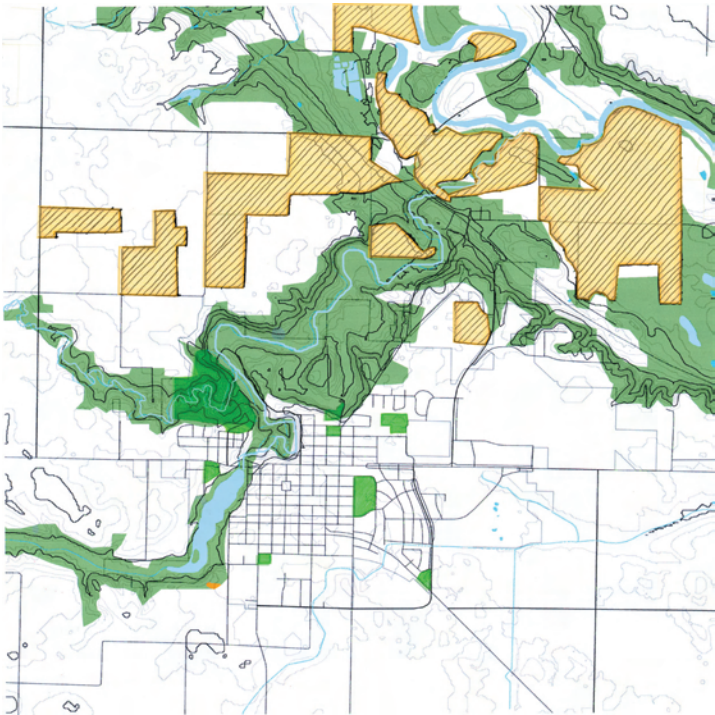
Circulation:

Bridge Street is also Highway 19/71. It is both a busy thoroughfare filled with semi truck traffic and the main commercial strip in town. Highways 19 and 71 join together in downtown Redwood Falls at a very busy intersection where there is a lack of signage and no traffic light. Highway 101 connects Redwood Falls to North Redwood. Bluffs frame the highway as it drops down to the Minnesota River. The trail could be sited on existing bluff terraces. When it is finished, the Casey Jones State Trail will terminate in Redwood Falls, which provides an opportunity to create a regional trail center by linking the two trail systems at a shared trailhead.

Points of Interest:

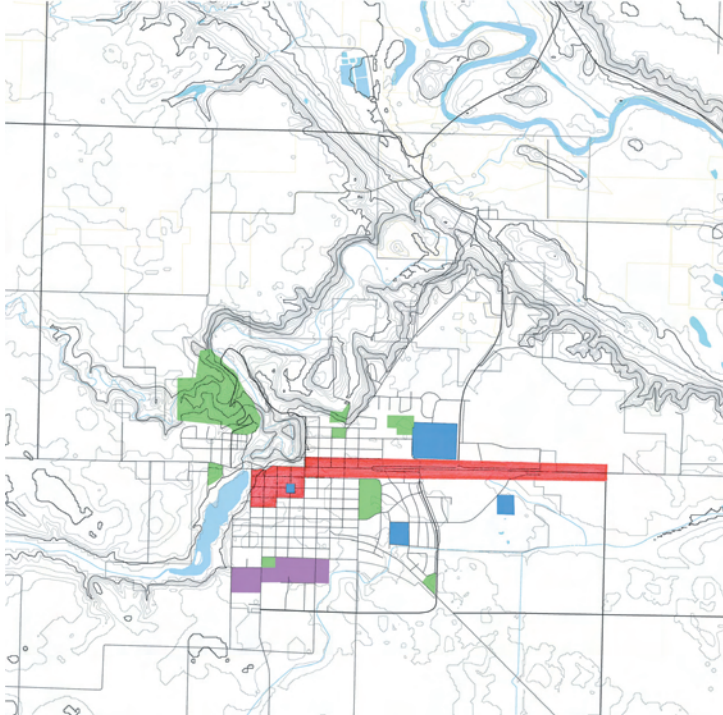
The majority of cultural and historical areas of interest are concentrated in the downtown or near it and in Alexander Ramsey Park. The park's main attractions are Ramsey Falls, the historic WPA-built swayback bridge that spans the Redwood River, and its recreational resources. The city's other points of interest include Sears Park in North Redwood, Westside Park, the Community Center, the Redwood Poor Farm Museum, and Minnesota Inventor's Museum.

Recreational Resources



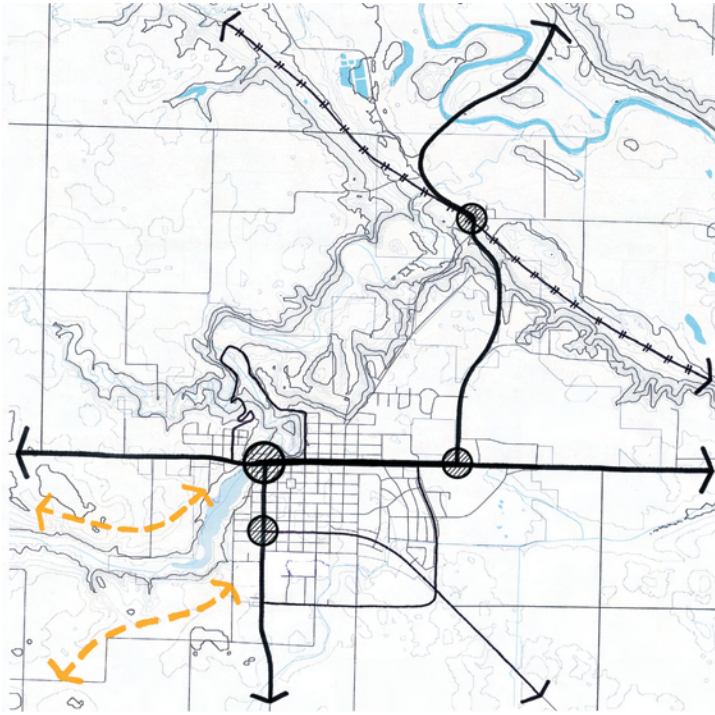
- Parks
- Conservation Lands
- Forest and Prairie Lands

Land Use



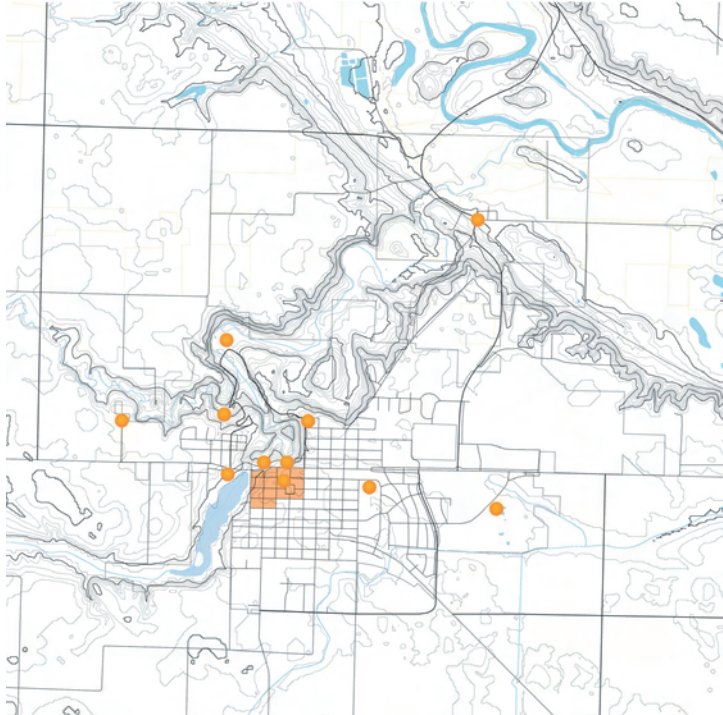
- Commercial
- Industry
- Schools/Civic
- Parks

Circulation



- Proposed Future Trail
- Arterial Roads
- Railroad
- Critical Intersection

Points of Interest



- Historical Downtown
- Historical/Cultural Points of Interest

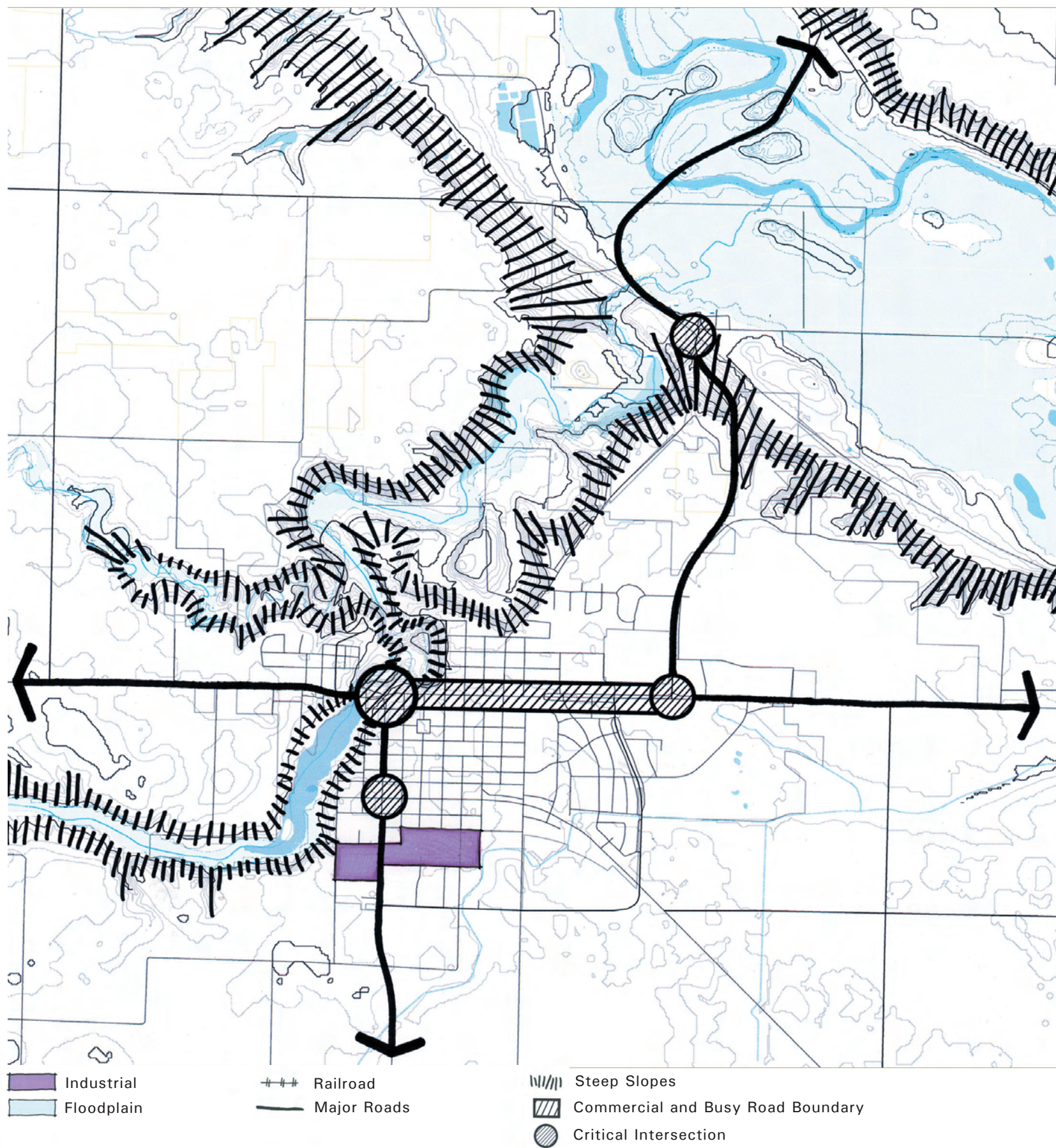


REDWOOD FALLS: THE TRIBUTARY COMMUNITY

COMMUNITY ANALYSIS: TRAIL CONSTRAINTS

The steep wooded bluffs of the Redwood River gorge create constraints to trail design and to trail connections to Alexander Ramsey Park. The topography of the Minnesota River Valley separates Redwood Falls from North Redwood visually and physically. Because both rivers meander through flat river bottoms, they are prone to flooding.

Highway 19/71 (Bridge Street) with its heavy traffic is a safety hazard and barrier for pedestrians and trail users.





REDWOOD FALLS: THE TRIBUTARY COMMUNITY

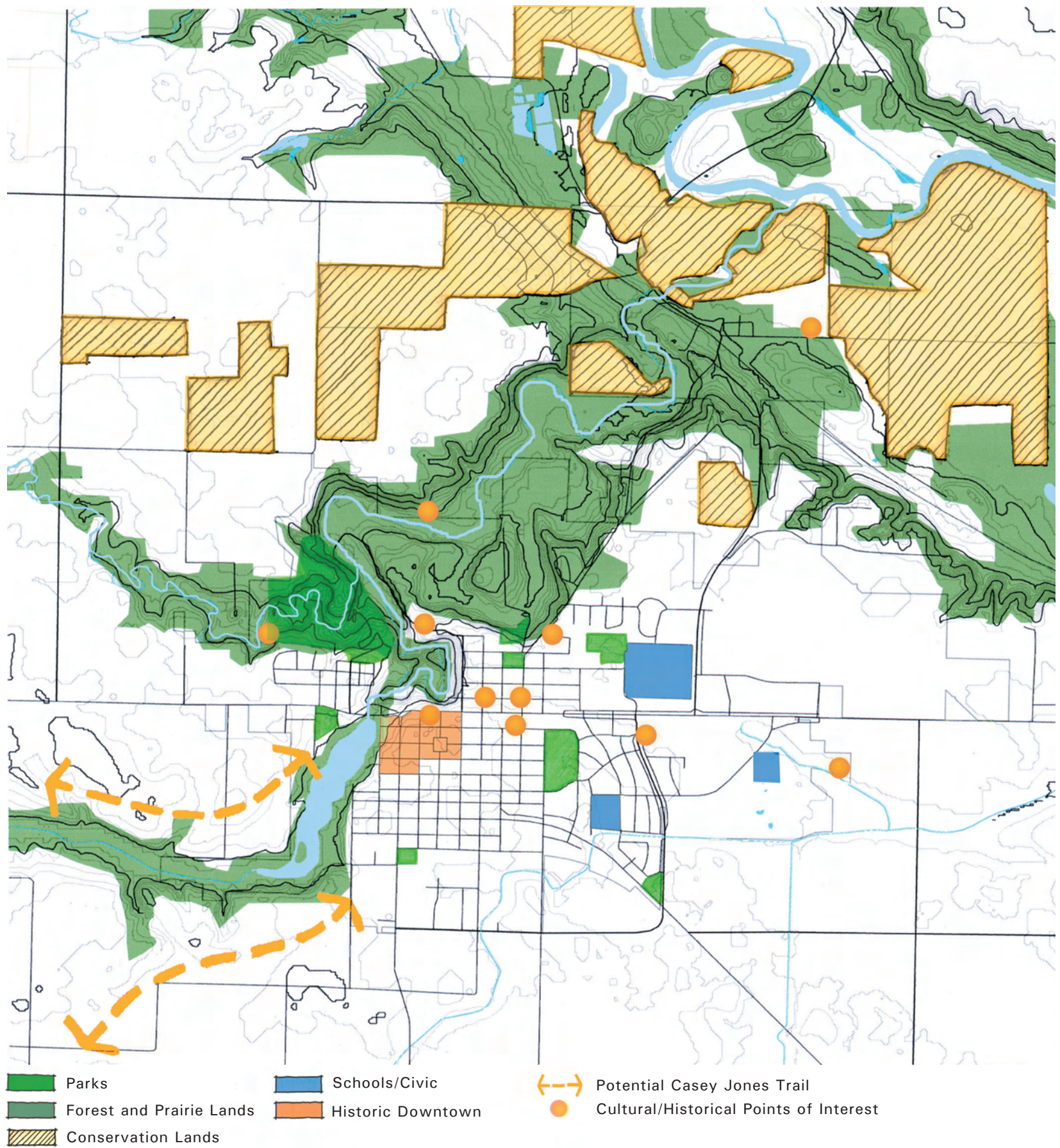
COMMUNITY ANALYSIS: TRAIL OPPORTUNITIES

Cultural, historical, recreational resources are concentrated in the historic downtown center in Redwood Falls creating opportunities for a trailhead location and strengthening connections between the town and the Redwood River Gorge, Lake Redwood, and Alexander Ramsey Park.

The area's large number of conservation lands provides opportunities for education and interpretation.

The future Casey Jones State Trail terminus in Redwood Falls provides an opportunity for a connection to the Minnesota River State Trail at a shared trailhead in Redwood Falls. Because the exact route has not been determined, options are shown. One option brings the trail into the historic downtown. The second option crosses the Redwood River west of the Lake Redwood and follows the lake into Westside Park.

Currently there is no local trail system that links the neighborhood parks to each other. Linking local parks together in a local system that links to the state trails will greatly expand trail access for locals and visitors.





REDWOOD FALLS: THE TRIBUTARY COMMUNITY

COMMUNITY TRAIL OPTIONS

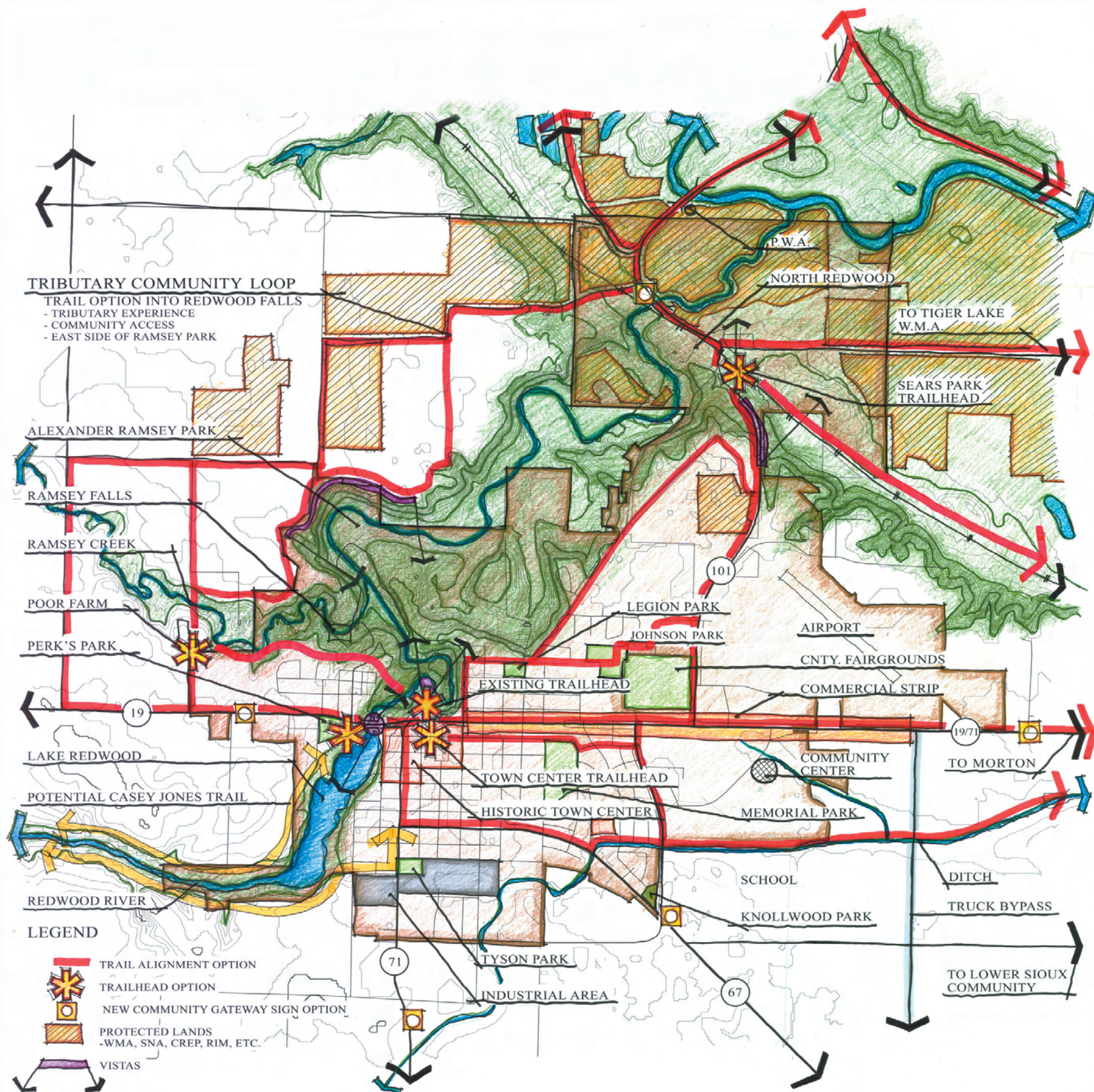
While North Redwood is located within the Valley's river bottoms, the majority of Redwood Falls, including the historic downtown, is centered on the hydrological features of the Redwood River, Ramsey Creek, and Lake Redwood. There are a large percentage of conservation lands in this area that could be interpreted as the trail comes up from the river bottoms. When possible, several alignment options are available for the trail. These range from following the road right-of-way only to crossing private property to provide the greatest flexibility for community access.

The old Redwood County Poor Farm, a proposed trailhead, was built in 1908 and now is the Redwood Poor Farm Museum and Minnesota Inventor's Museum. Setback from the road, it overlooks Ramsey Creek. The grounds are large enough for the establishment of a campground on this site.

Alexander Ramsey Park, once a state park, at 217 acres is the largest municipal park in the state. Besides its miles of hiking trails, it has campgrounds, picnic areas, a zoo, playgrounds, and scenic overlooks. The best route to highlight the tributary experience of the Minnesota River Trail would be for the trail to come through Ramsey Park past the falls and through the beautiful wooded valley. However, the hiking trails and the pedestrian bridges are very steep; they do not meet state trail accessibility standards. An engineering study is needed to evaluate the feasibility of this very desirable option.

Westside Park or Perk's Park is a potential trailhead site where the Casey Jones and the Minnesota River Trails could meet. This park includes a baseball field with terraced seating, a band shell, a rest area, and a public water access to Lake Redwood. If Westside Park becomes the trailhead, the public water access should be expanded in a sustainable way that is compatible with the reclamation of Lake Redwood.

The very active Redwood Falls community is in the process of planning and securing funding for community trails. One of the first trails to be built will follow Highway 101 between Redwood Falls and North Redwood. The Minnesota River trail could join this trail going down the bluff into North Redwood to meet the River Warren Bottoms trail segment. Sears Park is located in North Redwood along the railroad tracks across from the grain elevators at the site of the old depot. A trailhead at this site functions as a gateway into the Redwood Falls community. Interpretation of the railroad, industry, and Richard Sears could be part of a new site design for the park. Expanded parking and a new building with rest areas would enhance this area.





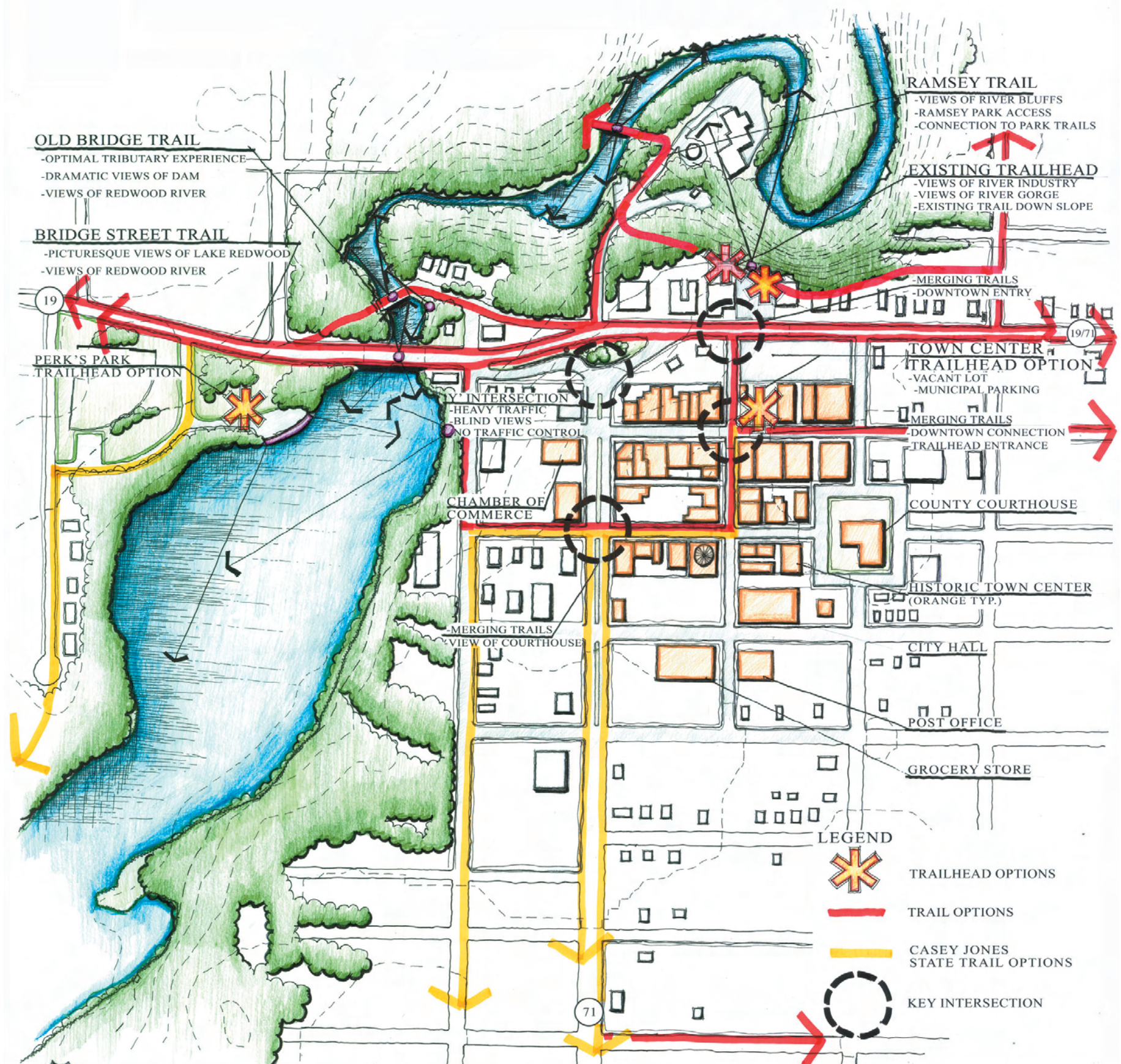
REDWOOD FALLS: THE TRIBUTARY COMMUNITY

TOWN CENTER ANALYSIS & TRAIL OPTIONS

The busy traffic on Bridge Street/ Highway 19/Highway 71 provides design challenges for bringing the trail into downtown Redwood Falls. A grade separated trail with expansion to the north could be sited alongside the road. Many curb cuts provide access to the number of commercial and residential properties along this side of the road. Bringing the trail on a route built over the old Highway 19/71 Bridge would solve some of the curb cut/trail conflicts. This bridge now is used for infrastructure. If the trail were to be built over it, the falls of the dam that are otherwise hidden underneath the new Highway 19/71 Bridge would be seen. Revealing these falls through this trail alignment or by making a new viewing promontory that overlooks the falls is desirable.

The Casey Jones State Trail will eventually terminate in Redwood Falls. Since the route has not been determined, options for connecting it to the Minnesota River Trail at a regional trailhead hub are shown. One option connects to the Casey Jones to the Minnesota River Trail at a trailhead at Westside Park. The other options bring the Casey Jones Trail into downtown either on Minnesota Street or Mill Street. In downtown the trail turns down Third Street, providing a framed view of the Redwood County Courthouse, and turns again on Washington Street to meet the Minnesota River Trail at a shared trailhead.

Currently Redwood Falls has a trailhead that overlooks the Redwood River. It is located north of Bridge Street across from the historic town center. This deck structure is located behind the Lutheran Services building that makes it hard to see by the visiting public. An existing trail from the trailhead goes down the bluff at a steep grade and ends at a gravel road close to the power plant and the bridge entrance to Ramsey Park. With the view to the river, the access into Ramsey Park, and the proximity to the town center there is great potential for trailhead expansion at this location. Another option for a trailhead site is the vacant lot on the corner of Second Street and Washington Street that is adjacent to a large municipal parking lot. This site provides an opportunity to bring trail users closer to downtown stores and could also serve as a space for other civic events such as art and craft fairs, farmers' market, etc.





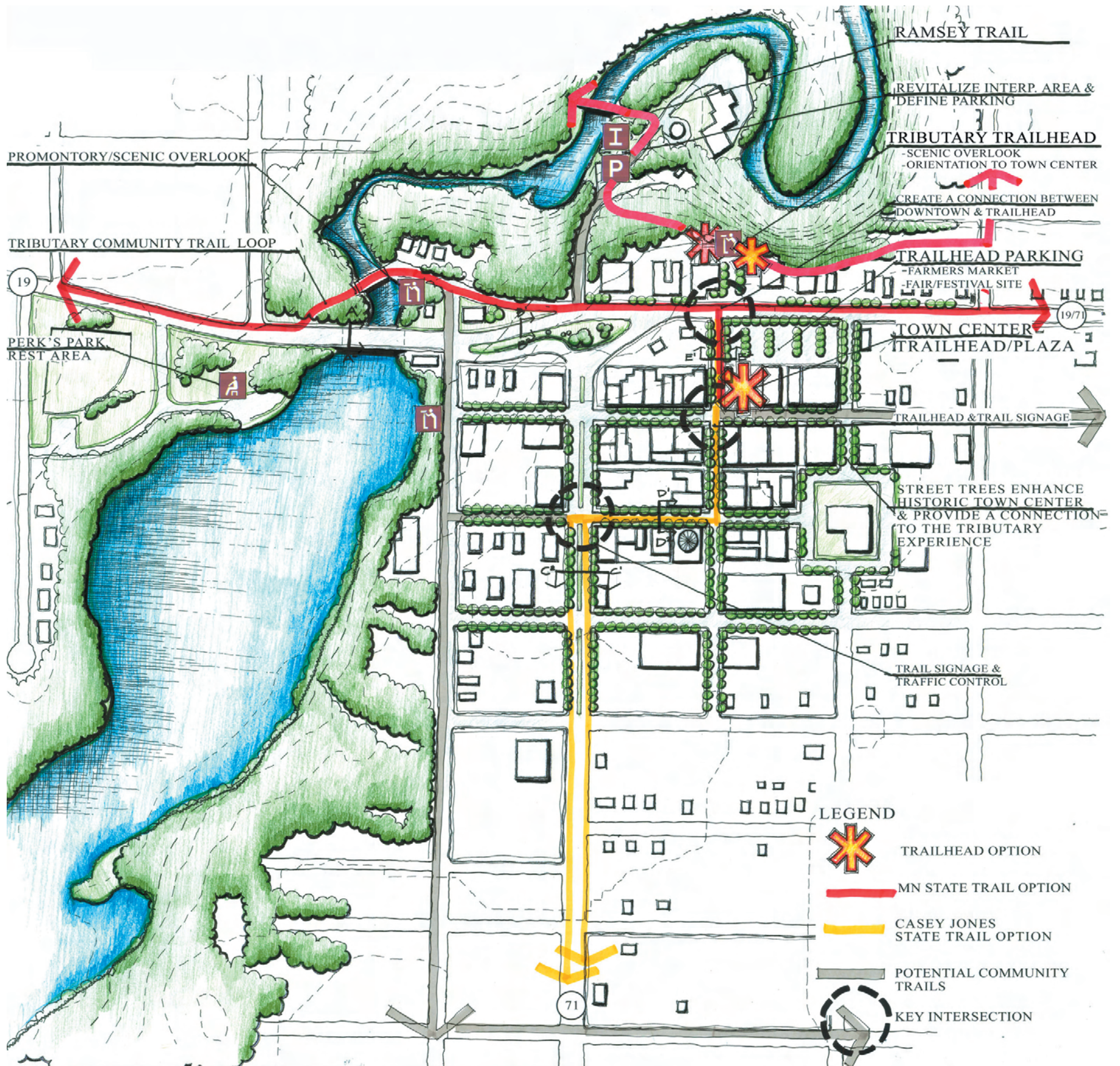
REDWOOD FALLS: THE TRIBUTARY COMMUNITY

PROPOSED TOWN CENTER & TRAIL DESIGN

The proposed Redwood Falls trail network focuses on strengthening the tributary community experience by connecting trails to the town center and siting a trailhead there. Two trail alignment options were chosen for study. One option follows Bridge Street to cross the Redwood River over the old Highway 19/71 Bridge. The second option winds its way through Ramsey Park, crosses an expanded pedestrian bridge near the old mill interpretive site, and follows an improved, terraced trail up the bluff to connect to the new trailhead.

New scenic overlook/promontory sites are proposed for viewing Lake Redwood and the Redwood River dam and falls. Street tree plantings are added to extend the river gorge vegetation into town. The Casey Jones State Trail would be located on new Mill Street bike lanes. This trail turns down Third Street providing the user with a framed view of the Redwood County Courthouse and then turns on Washington Street to meet the Minnesota River Trail at a shared trailhead.

A network of new community trails connects existing community trails to the two state trails. The trails connections occur on Minnesota Street, Broadway, and Second Street.





REDWOOD FALLS: THE TRIBUTARY COMMUNITY

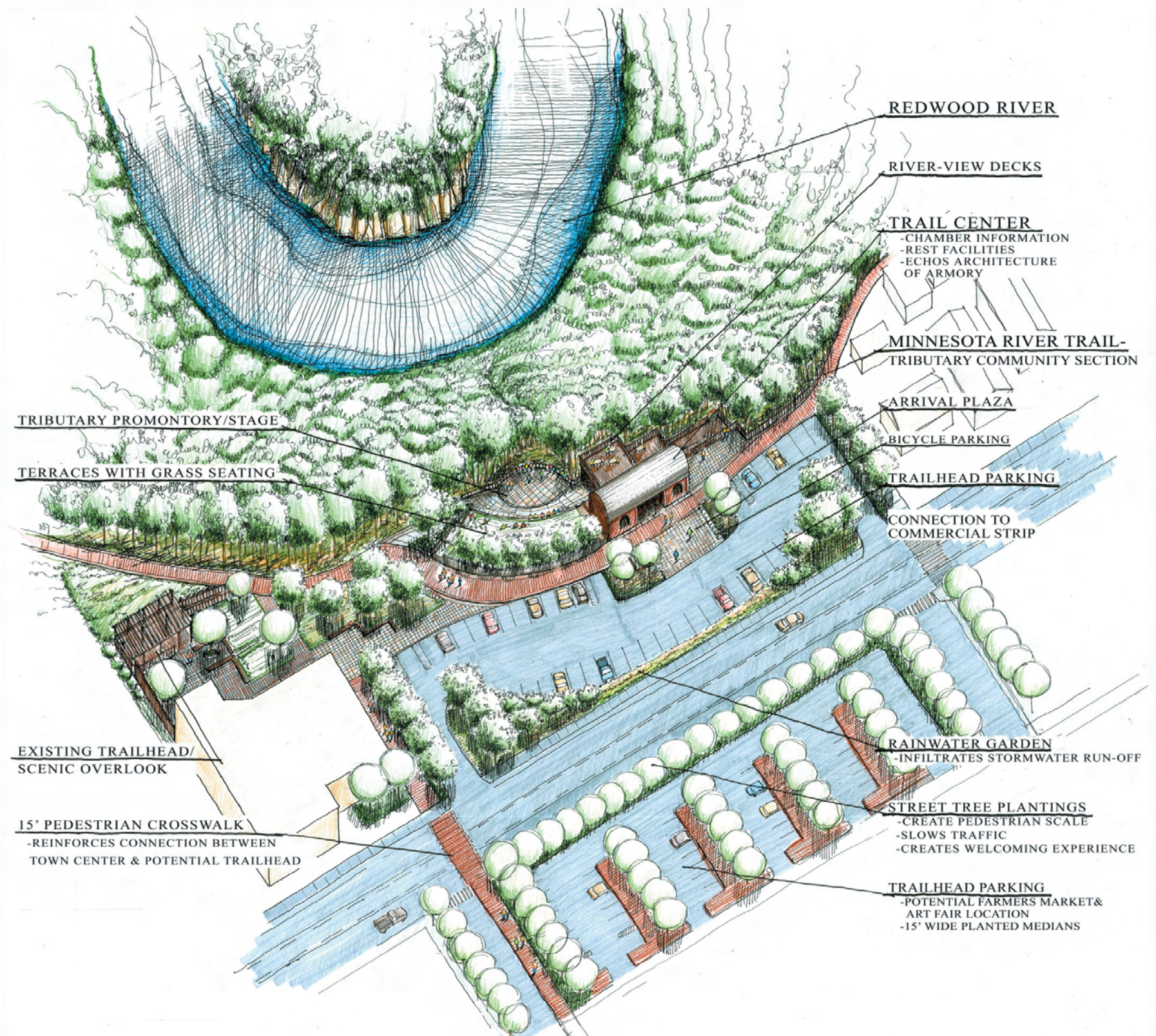
TRIBUTARY TRAILHEAD DESIGNS

Two trailhead options are provided for Redwood Falls so the community can choose the one that best suits its needs. Both trailhead options focus on connecting to the historic town center and celebrating and interpreting the city's location on a major tributary. The first option expands the existing trailhead that overlooks the Redwood River to link the river and the town center more closely. The municipal parking lot across the street provides additional parking for the trailhead and could be used for a farmers' market and art and craft fairs.

The second option utilizes the empty lot on the corner of Washington Street and Second Street to build a trailhead right in the town center. This site is separated from the municipal parking lot by an alley. This contiguous parking space could function as over-flow space for the trailhead. Like in the first option, the parking lot could also be used for markets and fairs.

Overlook Trailhead Design:

This design celebrates the Redwood River and its wooded gorge. Terraces and their retaining walls support the structure and the erodable bluff. A visitor information center and potentially the Chamber of Commerce are housed in a new building with public restrooms and perhaps a small coffee shop or café. Terraced viewing decks with tables and chairs extend off the back of the structure. To the west, a grass-terraced amphitheatre provides seating with views of the stage area/viewing platform and the river. This whole space is an extension and enhancement of the existing trailhead. Terracing to prevent erosion and enable the state trail to climb the steep bluff at a safe grade is needed. Plenty of parking, including handicap parking, serves this area as well as the Lutheran Services building. Fifteen-foot wide walkways connect the trail to the pedestrian crosswalks enabling visitors to make their way into the historic town center of Redwood Falls. Extra parking for the trailhead on the south side of Bridge Street provides an additional link between the downtown and the trailhead space. This lot is large enough to host festivals and a farmers' market. By bringing more trees into this area, a welcoming pedestrian realm is created. The progression of these spaces, vegetation, and walkways connect the Redwood River Gorge to the town center.



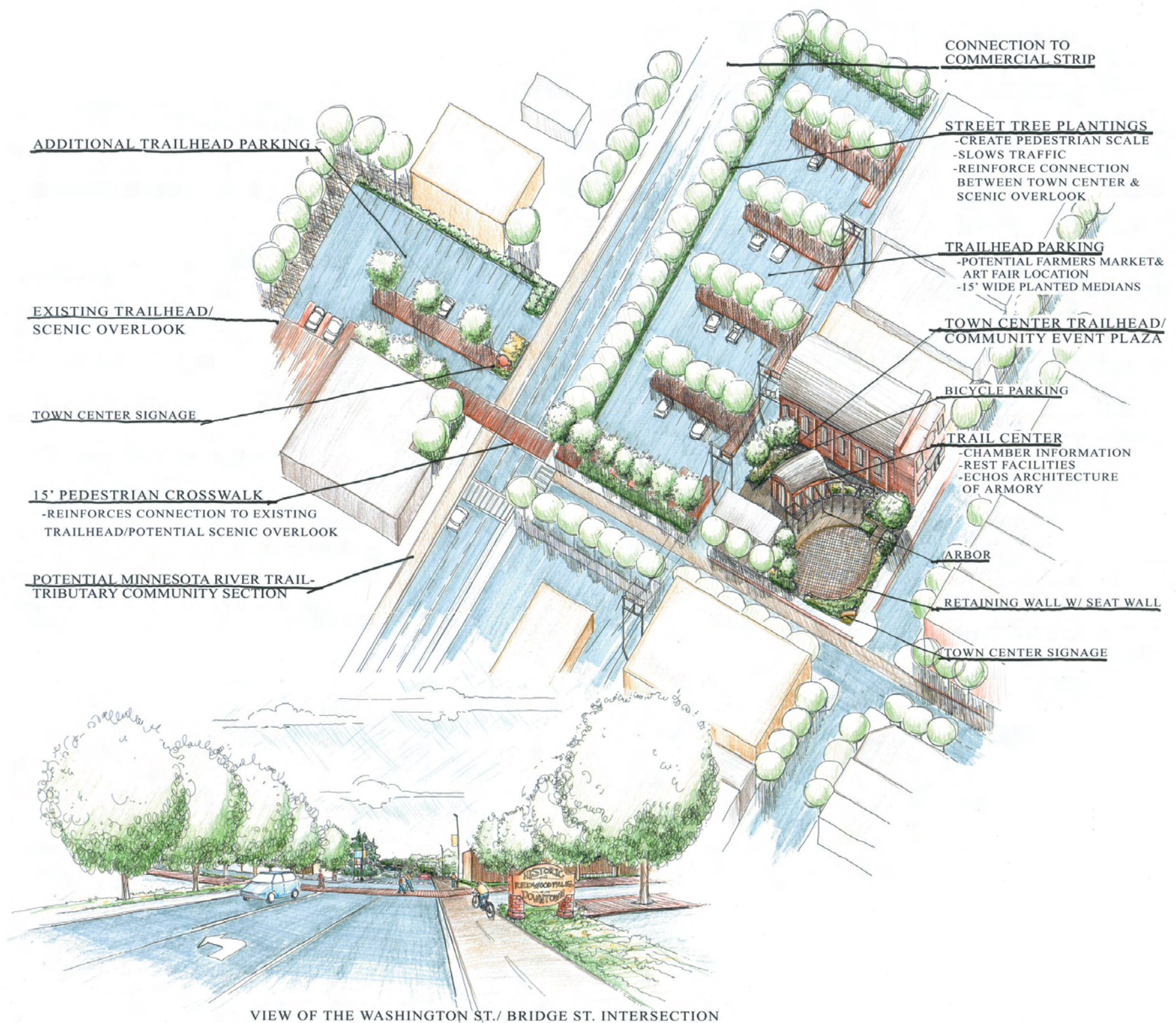


REDWOOD FALLS: THE TRIBUTARY COMMUNITY

TRIBUTARY TRAILHEAD DESIGNS

Town Center Trailhead Design:

This design supports the town center while providing a strengthened connection to the Redwood River Gorge. Located on the corner of Washington Street and 2nd Street, the trailhead also provides a community gathering place/plaza within the town center. The oval-shaped plaza is framed with a seat wall, benches, and plantings. The rounded form of the new trail center references the architecture of the old armory building. This trail center would have the Chamber of Commerce, tourist information, and restrooms. A curved arbor acts as a screen between the plaza and the trail center. Bicycle parking is incorporated into the design. The municipal parking lot would provide parking for trailhead users and is large enough for festivals and a farmers' market. Overflow parking is located across Bridge Street next to the existing trailhead structure. A 15-foot walkway extends from the trailhead and runs alongside the main trailhead parking lot. At Bridge Street, the 15-foot walkway becomes a 15-foot crosswalk paved with the walkway pavers. The contrast in color and texture from the road surface adds to pedestrian safety and contributes to the visual connection between the town center and the Redwood River scenic overlook. Street tree plantings are added on Bridge Street and Washington Street to bring the vegetation found along the river into the town center. In this design the Minnesota River Trail would be located alongside Bridge Street and the Casey Jones Trail would be located on Washington Street. They would meet at the trailhead.





WEST NEWTON

The area north of the Minnesota River between Fort Ridgely and New Ulm includes a beautiful steep bluff line, many farmsteads, and the Harkin Store, a nineteenth century store museum operated by the Nicollet County Historical Society.



GOLDEN GATE

The Golden Gate area is a coulee landscape comprised of numerous wetlands. Its quiet country roads south of the Minnesota River pass numerous natural and historic places. Many nationally registered historic sites and other historic sites involving the area's Dakota and European settlement history dot the landscape.



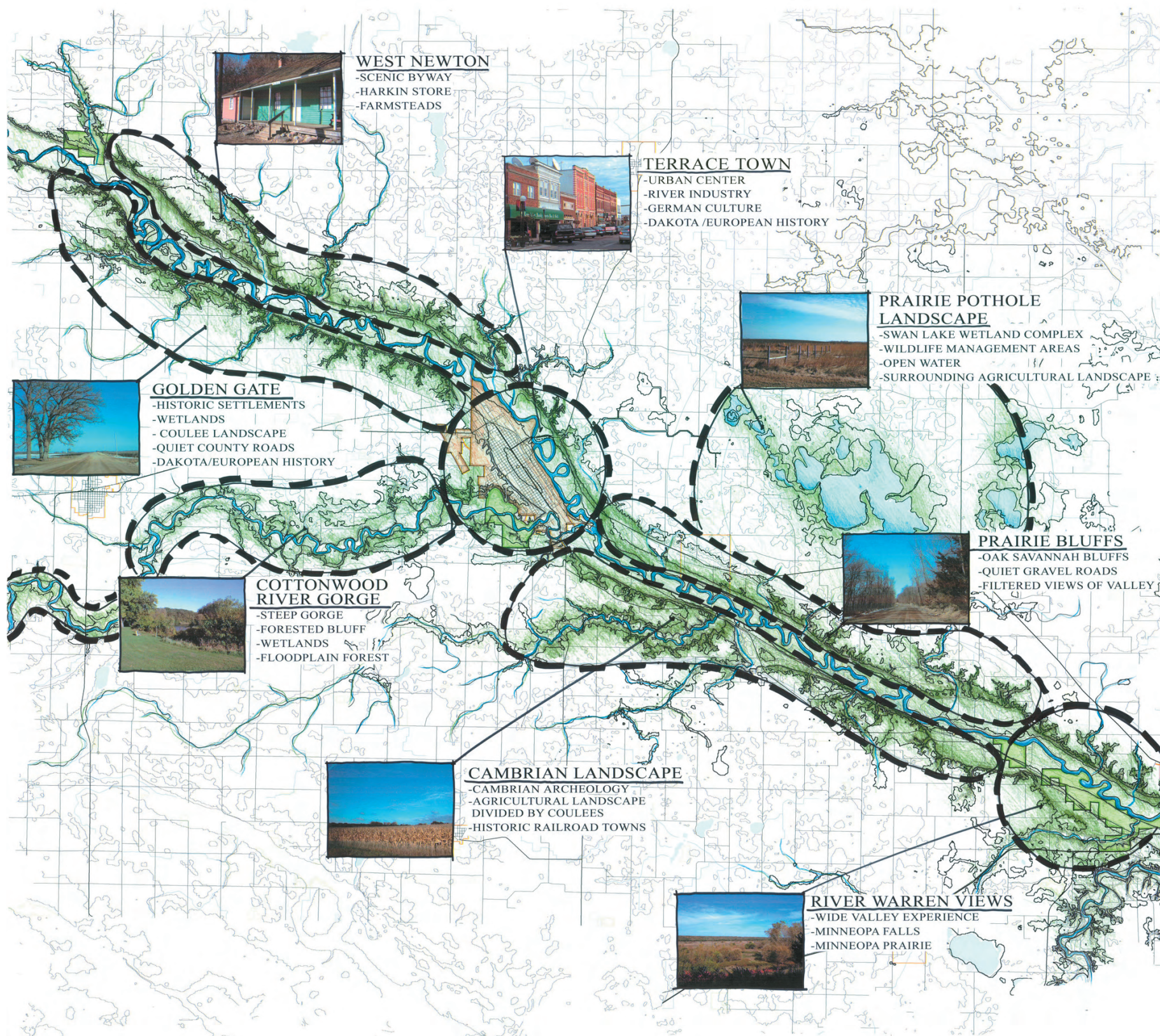
TERRACE TOWN

New Ulm is a river terrace town located on the upper, middle, and lower terraces shaped by the glacial River Warren. It is a historic center for farming and river-related industrial development. It is a community proud of its German-American culture and was the site of a major conflict of the Dakota War of 1862. Flandrau State Park has many cultural and natural features that include memorable Works Progress Administration buildings, remnants of a World War II Prisoner-of-War Camp for German prisoners, a sand bottom swimming pool, numerous trails, campsites, and picnic areas.



COTTONWOOD RIVER GORGE

Forested bluffs, wetlands, and floodplain forests are dispersed in the large expanse of agricultural land. The steep, scenic bluffs along the Cottonwood River although beautiful, present challenges to siting a cycling trail along this Minnesota River tributary.





TRAIL EXPERIENCE



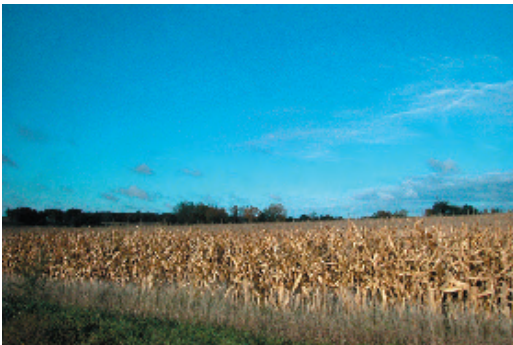
PRAIRIE POTHOLE LANDSCAPE

The unique Swan Lake wetland complex is the largest natural feature in this largely agricultural region of the state. The complex includes open water areas as well as numerous conservation lands (RIM, CREP, WMA).



PRAIRIE BLUFFS

North of the Minnesota River the segment from New Ulm to Mankato includes quiet gravel roads that pass through patches of unplowed oak savannas with filtered views of the river.



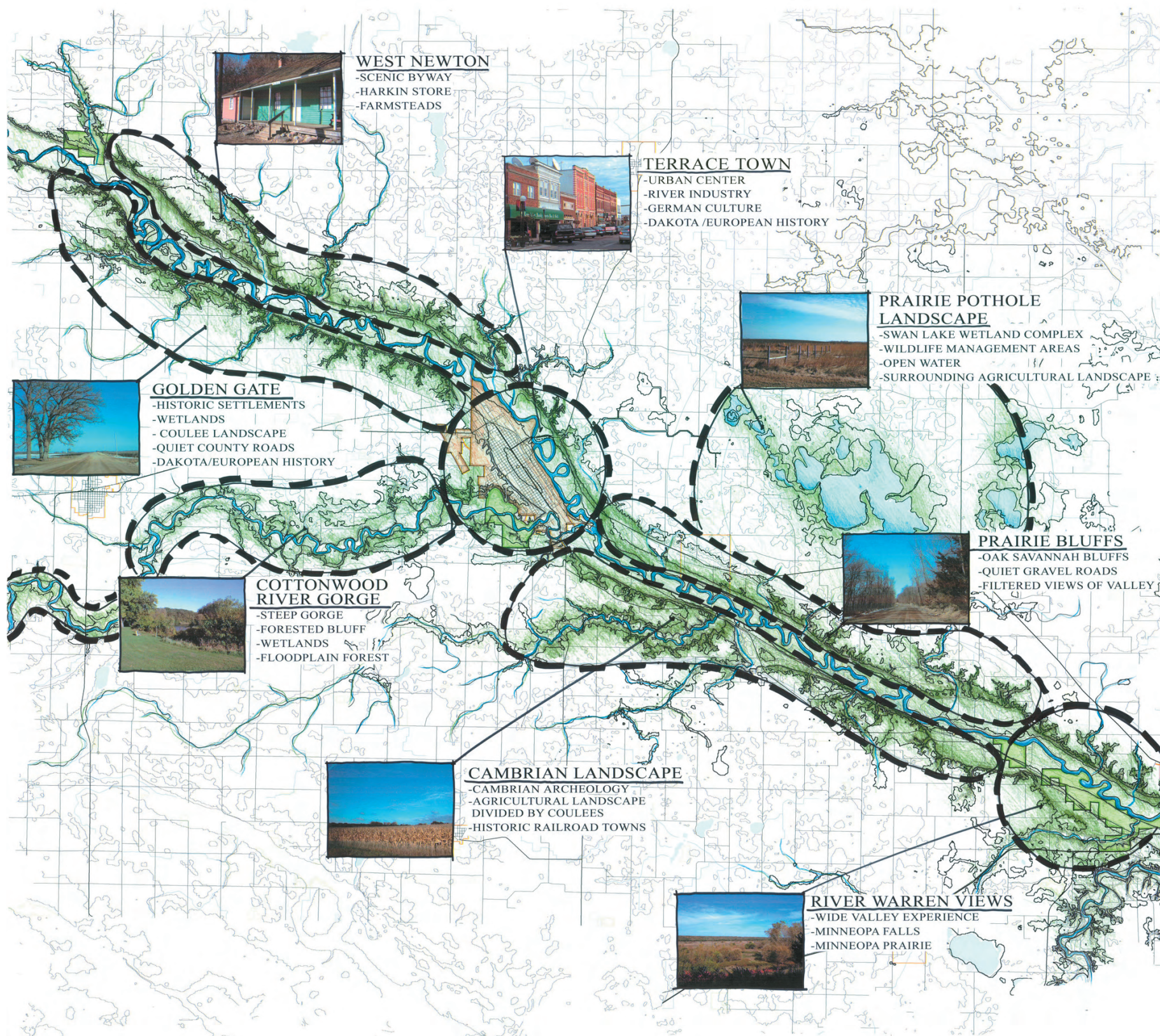
CAMBRIAN LANDSCAPE

Numerous archeological points of interest are found south of the Minnesota River from New Ulm to Minneopa State Park. The small historic railroad towns and numerous lush coulees that penetrate the dominant agricultural fields provide variety in this landscape.



RIVER WARREN VIEWS

Minneopa State Park is the main natural amenity in this section. The park has two different characters. An intimate, forested area surrounding the very beautiful Minneopa Falls has several WPA structures, a picnic area, and a trail system. The Minneopa Prairie provides views of the River Warren Valley and a historic mill atop a bluff. The Minnemishinona Falls, a smaller falls area not connected to the park, is located along a quiet road that hugs the bluff line north of the Minnesota River. The site includes a small visitors area.





EXISTING TRAILS

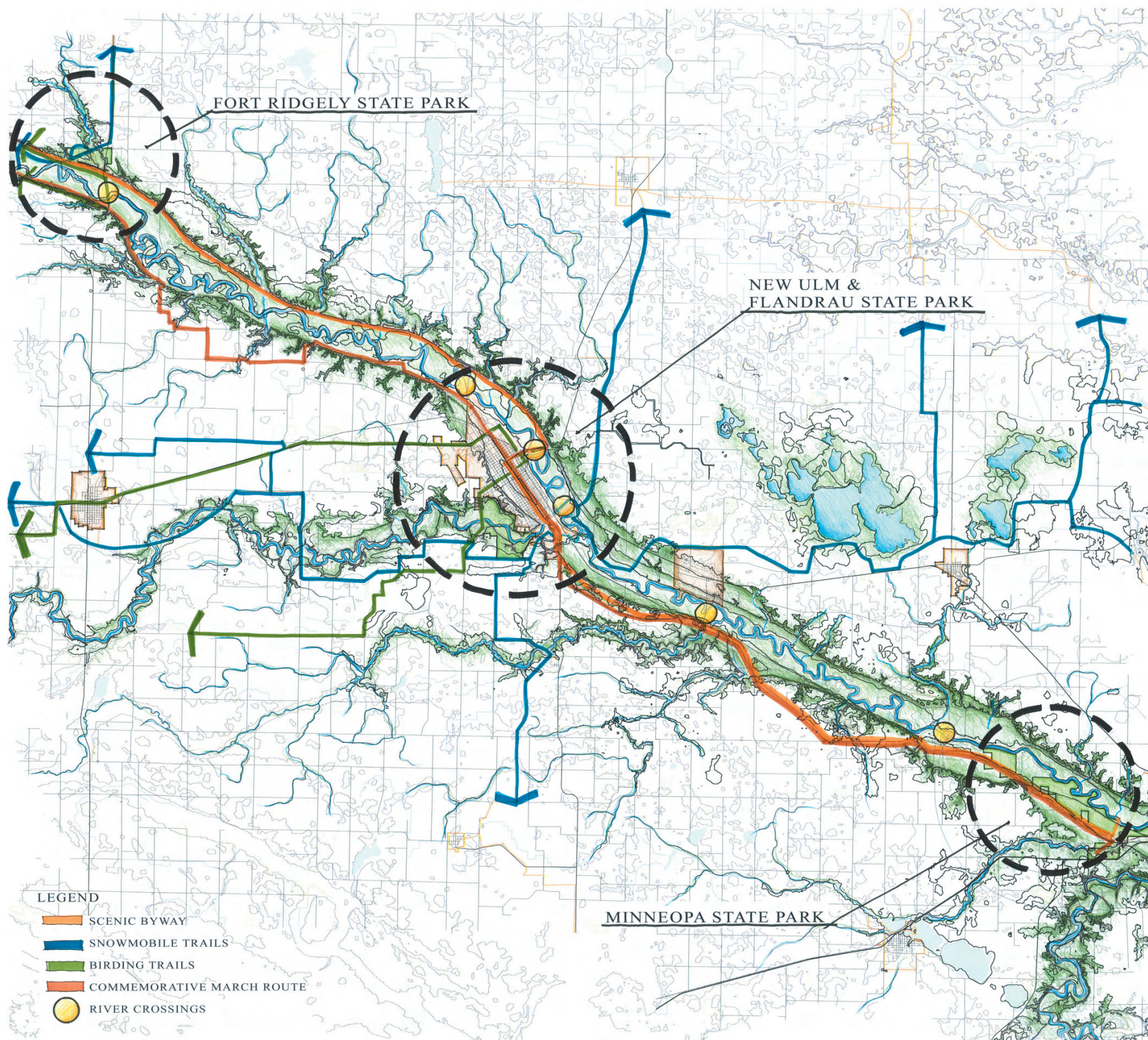
CONNECTIONS TO EXISTING SYSTEMS

The Minnesota River Scenic Byway follows County Road 21 on the north side of the river, enters New Ulm on Highway 14/15, leaves New Ulm along Highway 15, and follows Highway 68 on the south side of the river.

This Cottonwood River Region is part of the Minnesota River Valley Birding Trail. This loop extends from New Ulm and Flandrau State Park to the Jeffers Petroglyphs historic site.

Area snowmobile trails are located in road right-of-ways and cut through farm fields. Because signs and temporary bridges only mark these seasonal trails, private landowners are often more willing to allow them on their property. Many of the trails are found in the floodplain and near wildlife management areas.

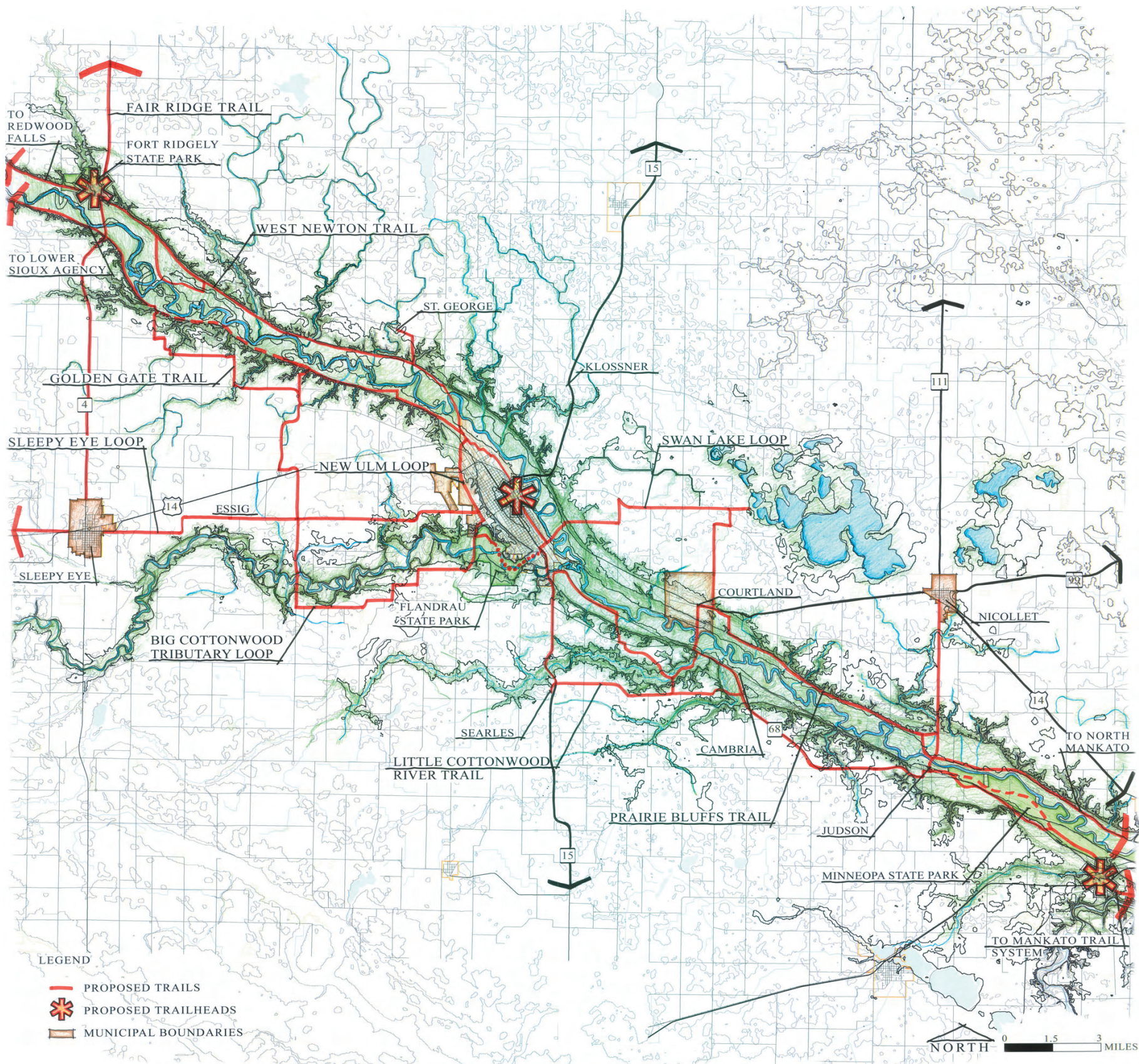
The Lower Sioux Community leads the Commemorative March in the first week in November of even numbered years. This march is held in memory of the Dakota women and children who were forced to march from the current site of the Lower Sioux Reservation to an internment camp at Fort Snelling in the fall of 1862. Although the exact route is unknown, the Dakota oral accounts relate that the march went through New Ulm.





REGIONAL TRAIL OPTIONS

A system of trail loops and spurs provides a wide variety of experiences on both the north and south sides of the Minnesota River. The options connect the communities of Cambria, Courtland, Essig, New Ulm, Nicollet, Judson, Searles, Sleepy Eye, and Saint George. All but one of the existing road crossings of the Minnesota River is used.





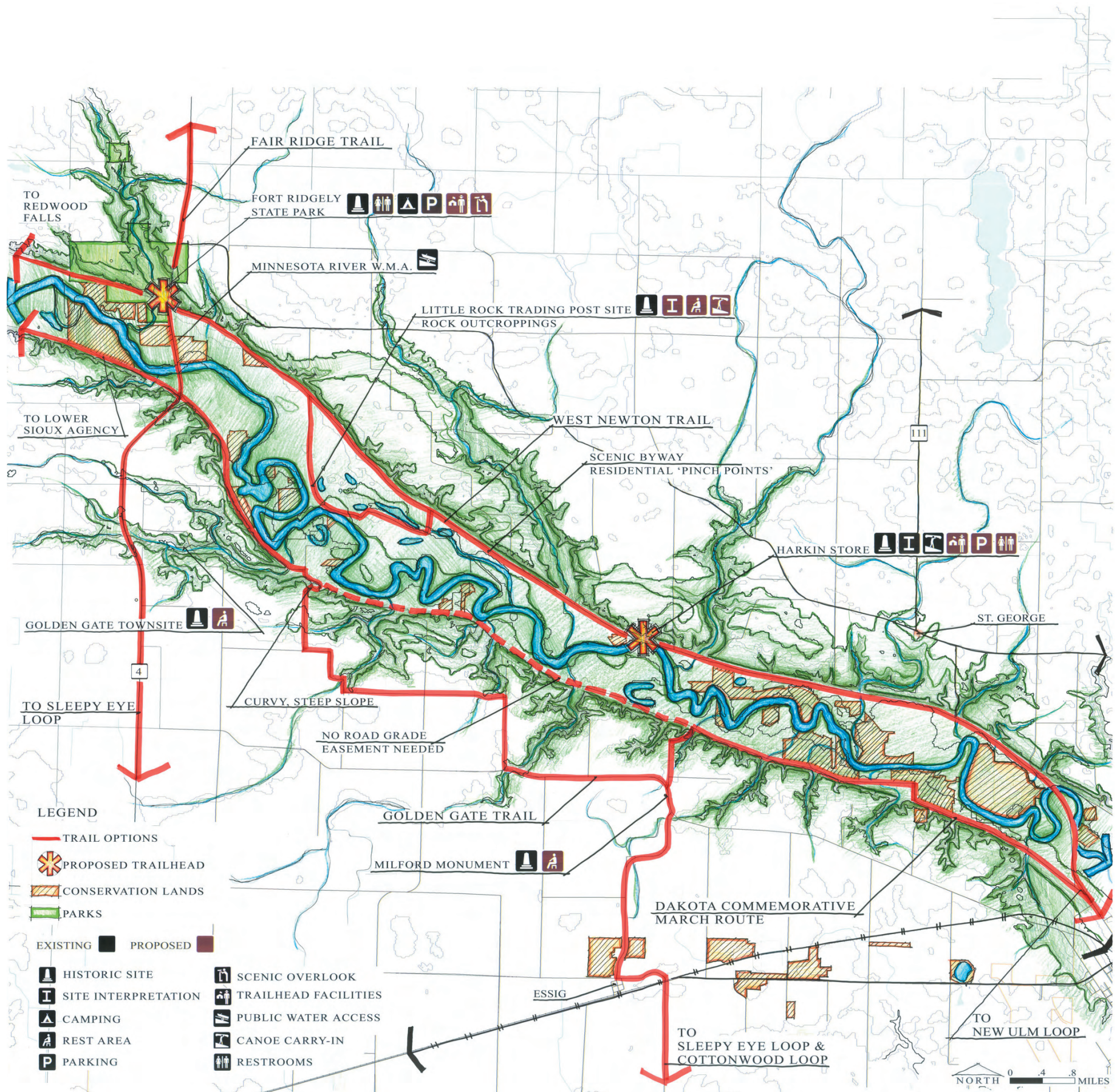
FORT RIDGELY TO NEW ULM

This north-side trail option, the **West Newton Trail**, leaves Fort Ridgely State Park to parallel the scenic byway route along County Road 21. A small loop follows 701st Ave to link to the rock outcroppings and the Little Rock Trading Post site. This route is partially within the floodplain; it can be bypassed by staying along the scenic byway route. Across the road from the historic Harkin Store there is a canoe carry-in access on the Minnesota River. County Road 56 and the Old Fort Road connect Saint George to the trail system. The trail crosses into New Ulm parallel to County Road 13. Because of the proximity of housing to the road, this route has issues with land ownership and impacts on private residences. There are many pinch points with little room for a trail along the road.

The **Golden Gate Trail** option connects Fort Ridgely to New Ulm. From Fort Ridgely the trail crosses the river on Highway 4 and follows along the foot of the bluff line beside County Road 10. In order to avoid potential conflicts with private landowners, it comes up and out of the valley, twisting and turning along quiet gravel roads until it reaches County Road 29. This road takes the trail past the Milford Monument, the monument built in remembrance of the 52 members of the Milford Township who died in the Dakota Conflict of 1862. The trail follows County Road 11 south through Essig to link up with the Sleepy Eye and Cottonwood Loops. Large expanses of agriculture surround the trail in this open landscape.

The other Golden Gate Trail option heads north from the Morton Monument, enters the valley again, follows along 210th Avenue, and connects to the KC Road. This option leads trail users into New Ulm and connects to the New Ulm Loop.

The **Sleepy Eye Loop** option connects Fort Ridgely to New Ulm by going through Sleepy Eye. From Fort Ridgely it follows Highway 4 straight south to Sleepy Eye where it meets the Sleepy Eye Spur to Redwood Falls. In Sleepy Eye, the trail connects to the Chief Sleepy Eye Monument, the historical society in the old railroad depot, and Lake Sleepy Eye. The Sleepy Eye Loop trail option heads towards New Ulm along County Road 27. The Sleepy Eye Loop is a very flat route that is almost entirely within the road right-of-way. It passes the historic Golden Gate Town site and crosses the Cottonwood River.





NEW ULM AREA

The **New Ulm Loop** encircles the city by utilizing the existing bike trail and the separate bike path in the right-of-way of the Highland Avenue Extension. Bringing the trail through Flandrau State Park is a challenge because the banks of the Cottonwood River and the topography make siting a trail very difficult. Some areas require extensive bank stabilization because of erosion and the cutting action of the Cottonwood River. If this preferred route through the park is not possible, to complete a loop of the town, an alternate trail that crosses back and forth through southeastern New Ulm may be necessary.

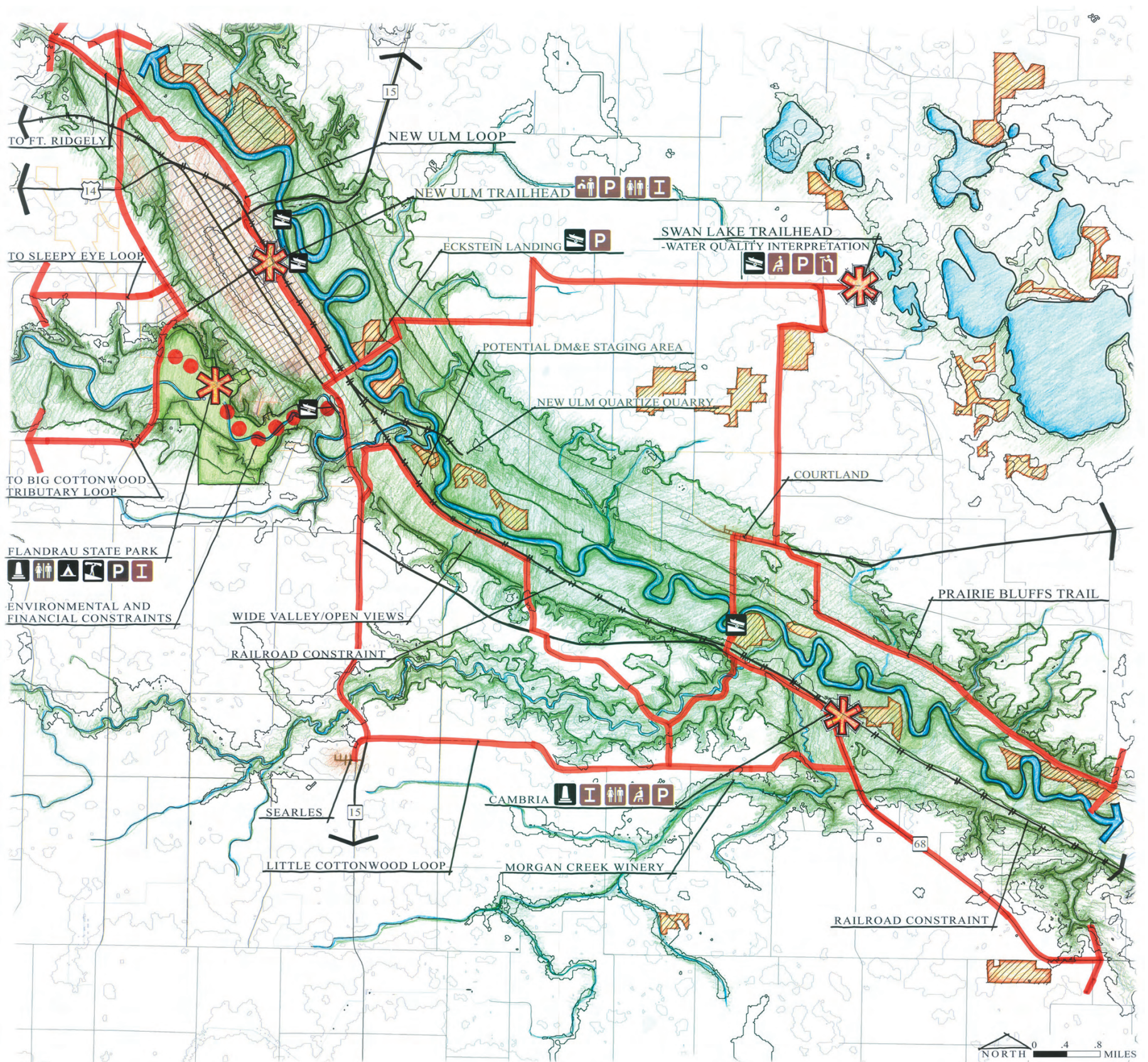
Big Cottonwood Tributary Loop option crosses the Cottonwood River twice. It exits New Ulm along the Flandrau Park boundary at County Road 13 and heads west along 220th to 215th and then to County Road 25 before heading north along County Road 11 across the Cottonwood River. It joins with the Sleepy Eye Loop along County Road 27 and returns to New Ulm.

The **Little Cottonwood Loop** option leaves New Ulm along Broadway/ County Road 15 and crosses the Cottonwood River and the Little Cottonwood River on its way to Searles. Leaving Searles it heads east on County Road 41 past the Morgan Creek Vineyards just off of County Road 101 South. The vineyard provides year round activities that include wine tasting, cooking classes, and a monthly jazz night. By the vineyard, there are two options: doubling back and taking a shortcut back to New Ulm, or continuing on to Cambria, a small historic community located between the railroad tracks and the Minnesota River. Cambria is a potential trailhead site. From Cambria, the trail continues to the northwest along Highway 68

to Township Road 234, a beautiful route along the Little Cottonwood River, until it turns onto County Road 101 North and meets the shortcut from the vineyard. After crossing Highway 68 it continues along Township 97/110th Avenue until it reaches Shag Road that parallels the railroad tracks towards New Ulm. Just before entering the town, the road switches back before again joining Highway 68/15. Before reaching Cambria, this loop forks to scenic Highway 68 to the southeast.

The **Swan Lake Loop** option leaves New Ulm along 37 and winds its way to the western edge of the Swan Lake Complex following Township Road 92 to Township Road 150 and finally to County Road 21. The public water access point is a potential trailhead site. The trail turns south to Courtland along County Road 11 and Township Road 91 where it links up to the Prairie Bluffs Trail. After passing through Courtland and crossing the Minnesota River, it links to the Little Cottonwood Loop option where trail users could head back to New Ulm or continue southeast to Minneopa State Park.

Prairie Bluffs Trail option begins in Courtland, and after briefly following Highway 14 it follows County Road 21 to Township 109. This road runs along the base of the bluff line and is separated from the Minnesota River by farm fields along most of the length of the trail on this map.



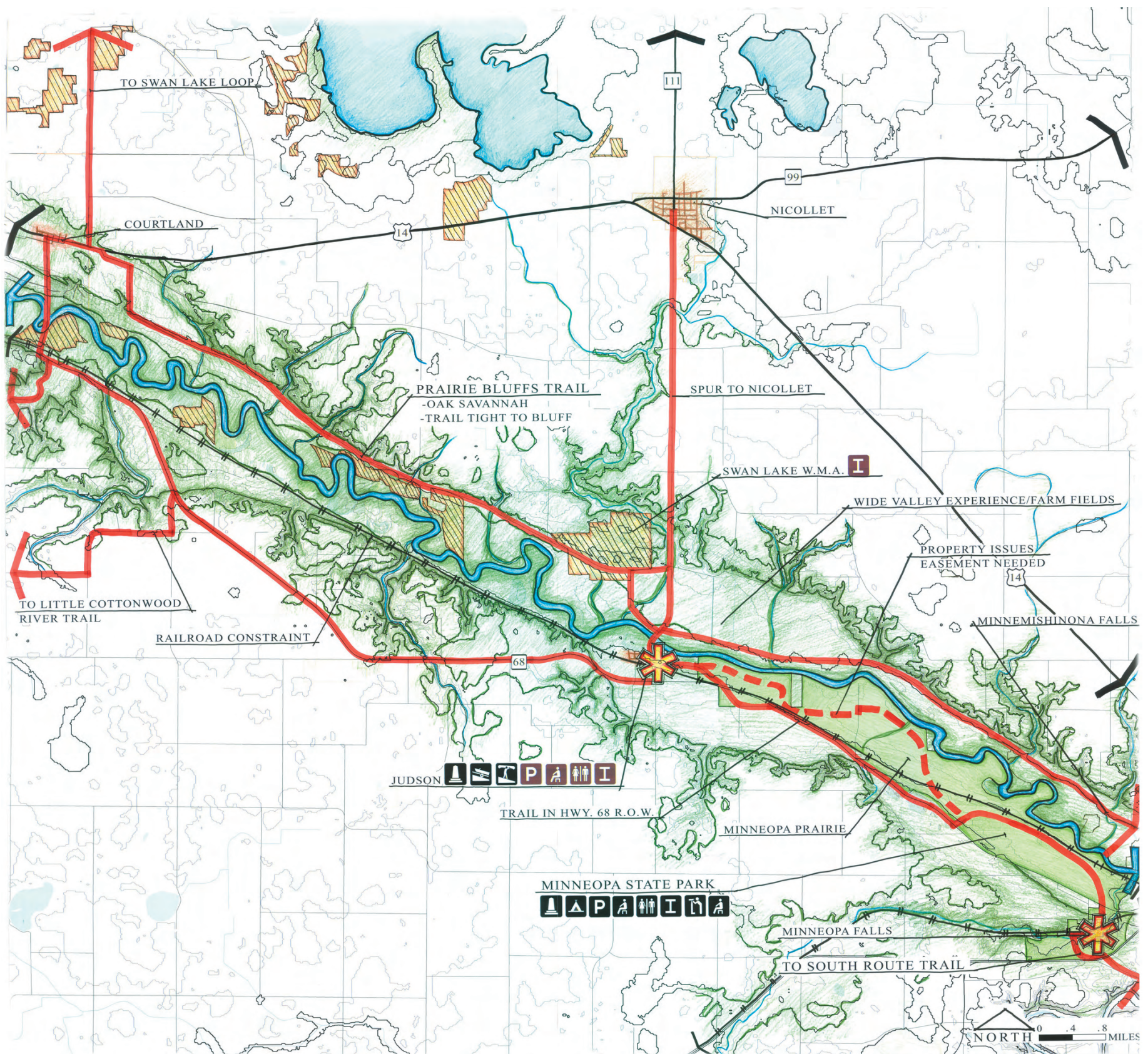


NEW ULM TO MINNEOPA

This **Prairie Bluffs Trail** section closely follows the lower edge of the Minnesota River bluff line from Courtland to Judson. Leaving Courtland along Highway 14, it meets and follows Township 109, which eventually becomes County Road 62. Just before Judson, the trail runs through the Swan Lake WMA (North Star Supplement) before crossing the river on County Road 23 into Judson. This trail continues by following County Road 41. The trail begins in a very wide valley, but becomes a very tight path as it comes closer to Mankato. Siting a trail may be very challenging in some areas just outside of Mankato because of the river's proximity to the bluff edge. The Minnesota River is cutting into the bank and may eventually wash out the existing road. If a trail were to be added, bank stabilization will be necessary. County Road 41 is a quiet, paved road that passes the Minnemishinona Falls. The falls are located just outside of Mankato with the top of the falls visible from the road.

A **Spur To Nicollet** option is shown from Judson heading north along County Road 23 connecting Nicollet to the Minnesota River Trail system. Rich agricultural lands that have been drained to increase their productivity surround this flat road. There is the potential to add a trail link from Nicollet to Swan Lake and another along the Old Fort Road to Saint Peter.

Two options connect to and through Minneopa State Park; one involves private land, the other public land. From Judson, the Judson Fort Road reaches the boundary of the park. With landowners' permission, the trail could follow farm field roads and other maintenance roads until it links to the state park's trails. If this is not possible, the other option is to run the trail along Highway 68 until it connects to the existing park trails. The park is working to build an alternate connection from this northern park area to the Minneopa Falls area. Currently the only connection is on the roadway, but a new pedestrian path with overpasses is planned. The Minneopa State Park has numerous trailhead amenities and this area of the park is linked to the Mankato Trail system by the South Route bike trail.



NEW ULM: THE TERRACE COMMUNITY

HISTORY

The City of New Ulm is located on the Minnesota River at the confluence of the Cottonwood River and the Minnesota River. In 1854, the Chicago Land Company sent a few settlers out to find land to start a new city. They traveled from Iowa to Michigan and eventually into Minnesota (Hoisington 12,13). With the help of settlers and traders near Swan Lake, these men from Chicago were eventually directed to the area that is currently New Ulm. The city was named after Ulm, Germany, and it is known for its German heritage. Many of the city's settlers were originally from Germany. These settlers were proud of their German culture and sought to preserve it. In 1858, Christian Prignitz was hired under the direction of the Turner Society to create the new plat for New Ulm (Hoisington 14). The plat is very formal and symmetrical. The very wide main streets were sited parallel to the river; the intersecting streets, though generous, were not as wide. The river provided the main form of transportation as well as an economic base for New Ulm. Milling and brewing were the two major industries in New Ulm in the early days. August Schell opened his brewery in 1861, but the first local beer was brewed in March 1858. A distillery was also active from 1859 to 1862, producing "'unbeatable" whiskey, bitters, and punch extract' (Hoisington 17).

With the breakout of the Civil War in 1861, New Ulm showed its patriotism by forming a local volunteer company that trained within the city before enlisting at Fort Snelling (Hoisington 24). During the Civil War another war began in New Ulm in 1862. Broken promises made to the Dakota erupted into an armed conflict when the starving Dakota attacked settlers. Farm families fled into the town for safety, while the Dakota raided the abandoned farmsteads. Women and children found shelter in the Dacotah House and other nearby buildings. The first battle occurred on August 12, 1862, with a second attack by the Dakota on the 23rd. In the second battle, the Dakota moved through the city by hiding behind houses. In order to open up lines of fire and eliminate hiding places for snipers, the settlers set the houses on fire. Thirty-four settlers died and 60 were wounded that day. The next day, the Dakota retreated, looting as they went. About 2,000 settlers from the New Ulm area retreated to Mankato, just as a company of 100 men arrived to help in the battle. One hundred and fifty-three wagons were used to remove the women, children, the sick, and the wounded (Hoisington 38). Two days later a group of settlers returned to the city to find most of the buildings burned to the ground, streets littered with animal carcasses, and shallow graves with small earthen mounds.

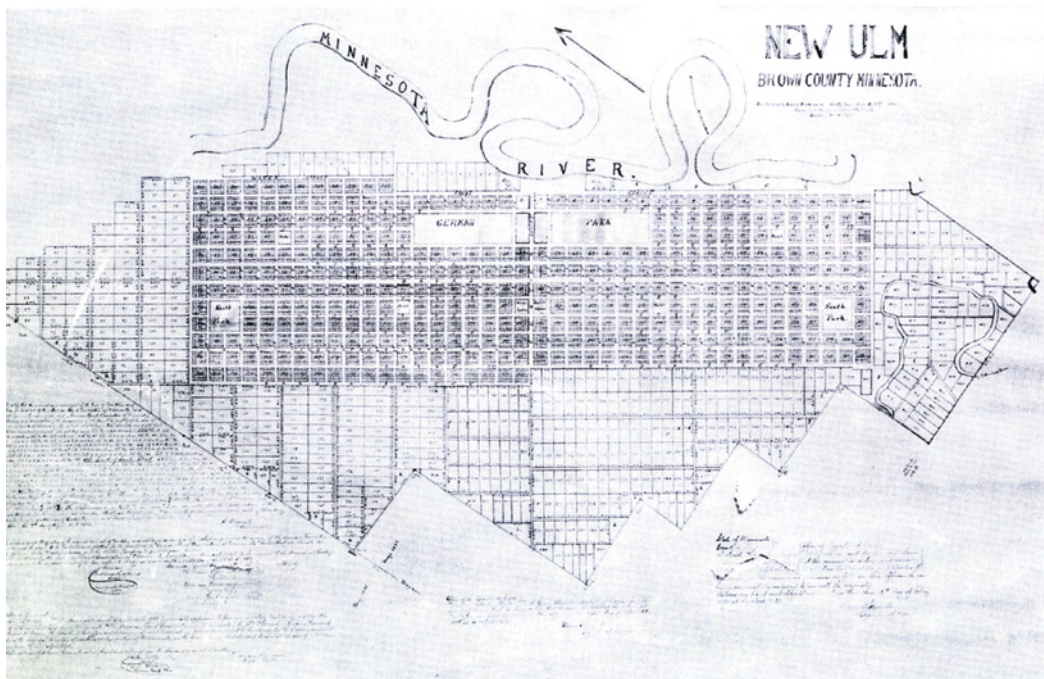
After a few additional battles the Dakota surrendered on September 26, 1862. Many Indians were tried and executed (Hoisington 40). Within weeks people began rebuilding New Ulm. A new school was one of the town's priorities.

From the town's beginning, river industry has played an important role in the development of New Ulm. After the civil war, the river was still the primary means of shipping goods to and from the town. Many dry seasons in the 1860's made the Minnesota River level too low for the shipment of goods, so New Ulm sought a railroad. In 1872, the Winona & St. Peter Company Railroad completed a link to New Ulm (Hoisington 49). Starting in the 1870's, milling, brewing, tobacco processing, and brick making industries dominated the local economy for nearly fifty years. From World War I through World War II, the Staffert Cement Construction Company became a prominent industry. Though it changed its name many times, eventually becoming American Artstone, its leadership and innovative designs for machines and masonry products helped the company thrive. Eagle Mill, another important city industry, concentrated on flour, but expanded to other products that included cereal, rye, and corn.

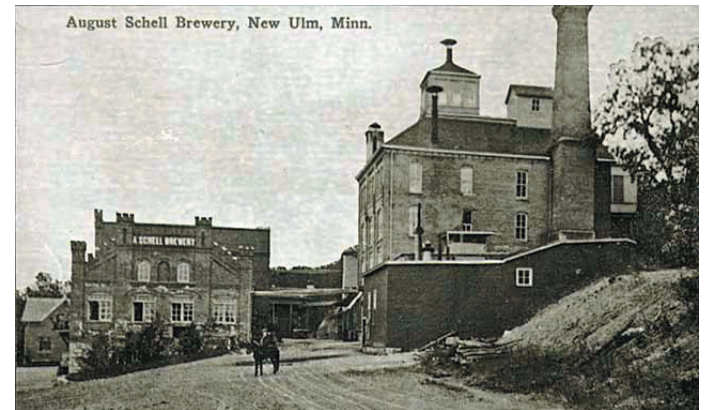
Before the United States entered the First World War, many people of New Ulm supported the nation's decision to be neutral during the initial war years. When the United States entered the war, articles written in opposition to the French and English were no longer allowed in the local paper, and New Ulm men were sent off to war. Because of their German heritage, it was not uncommon for New Ulm families to have their European German relatives fighting on the other side. Because many fellow Minnesotans questioned the loyalty of many of New Ulm's citizens during this war, the town was open to having a prisoner of war camp during the Second World War. It was located within the boundaries of the current Flandrau State Park (Buck).



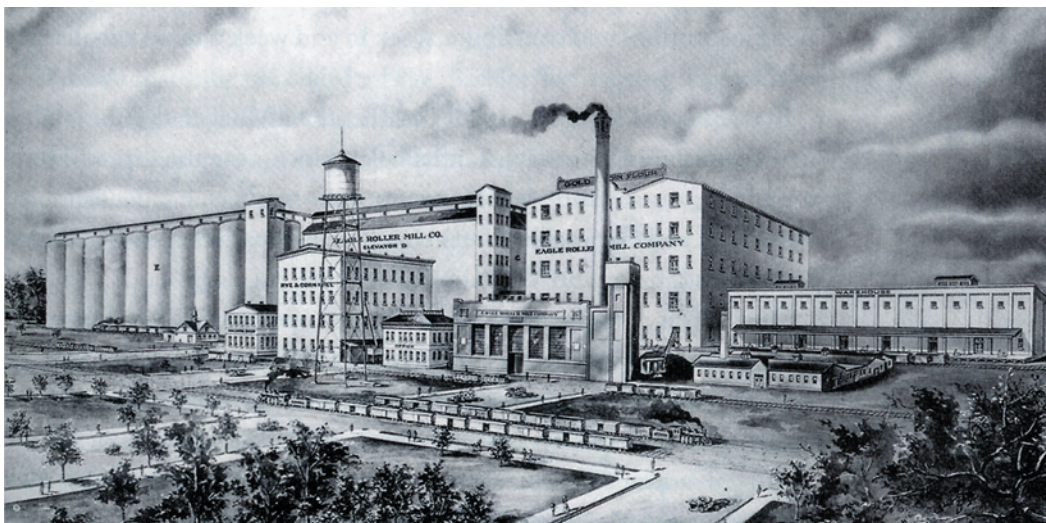
Parade July 4th, 1910
MHS Visual Resources Database



New Ulm Plat 1858
Brown County (Hoisington, p. 14)



Schell's Brewery 1910's
MHS Visual Resources Database



Eagle Roller Mill 1906
Brown County Historical Society (Hoisington, p. 97)



Turner Hall 1890's
MHS Visual Resources Database



Chicago and Northwestern Railroad Depot 1895
Brown County Historical Society (Hoisington, p. 80)



POW camp buildings in Flandrau State Park
Brown County Historical Society (Buck, p. 2)



NEW ULM: THE TERRACE COMMUNITY

CHARACTER ANALYSIS

Even though New Ulm is an agricultural center in the fertile and productive southwestern agricultural region of Minnesota, ever since the town's founding, industry has had a major role in New Ulm's development. Today industry still has a vital presence along the river.

New Ulm is built on river terraces and has a number of natural amenities. The Cottonwood River winds its way through Flandrau State Park. The banks of the Minnesota River form the town's northern boundary. The community's many cultural amenities reflect its German heritage. Small shops, cafes, and bars in historic buildings fill the downtown, a popular tourist destination. Additional points of interest for tourists are the historic Schell's Brewery and museum and the city's many historic residential, civic, and commercial buildings.



AGRICULTURE



TERRACES



RIVER INDUSTRY



NATURAL AMENITIES



HISTORIC DOWNTOWN



GERMAN CULTURE



TOURISM



HISTORIC ARCHITECTURE



NEW ULM: THE TERRACE COMMUNITY

A TERRACE TOWN

New Ulm is built upon three river terraces. A slight hill separates the lowest terrace from the middle one, and a vegetated bluff line defines the edge between the upper and middle terraces. The great glacial River Warren carved these terraces centuries ago in an otherwise flat landscape. Each terrace has a distinct character. The Lower Terrace is a thin strip that runs along the Minnesota River. River related industry was built on this terrace during the nineteenth century; today the majority of New Ulm's industry is still located there. The rail line is sited where the middle and lower terraces meet. The strip of industry along the lower terrace and the railroad line separate the town from the river.

Most of the town is on the middle terrace; the historic downtown, schools, churches, other civic institutions, and a number of residential neighborhoods are located there. The original grid system of parks and very wide streets organize the middle terrace. The upper terrace is separated from the rest of the town by a steep bluff. Newer houses, a city park with a monument honoring the community's German roots, and a college occupy the edge of upper terrace. The homes along the edge of the bluff look out over the River Warren Valley. The roads wind around the bluff's coulees to reach to the top. Newer housing extends to the south. Where the residential development ends, the long expanses of agriculture begin.

UPPER TERRACE
-AGRICULTURE
-NEW HOUSING
DEVELOPMENTS
-VALLEY VIEWS

MIDDLE TERRACE
-URBAN GRID
-HISTORICAL SITES
-CIVIC CENTERS

LOWER TERRACE
-RIVER INDUSTRY &
TRANSPORTATION
-RIVER/CITY HISTORY





NEW ULM: THE TERRACE COMMUNITY

COMMUNITY ANALYSIS

Land Form:

New Ulm's landforms define distinct areas and provide some magnificent views of the town and the River Warren Valley; however this change in topography also presents challenges for siting a bicycle trail. The diagram shows how the steep bluff separates the upper terrace from the rest of the community and creates challenges in bringing a trail through the state park. Going up and down the steep bluffs safely and comfortably is problematic.

Siting trails on certain landforms can also create environmental concerns. Trails cannot be built in some areas of Flandrau State Park because of some of the bluffs that overlook the Cottonwood River. As the dark green in the diagram indicates, steep bluffs are barriers to entering and exiting the park from most directions. Some bluffs are too steep to create environmentally sensitive bike paths. Shown in the diagram are the major trail pinch points where the river is close to the base of the bluff and the areas where a siting a trail is a challenge because of erosion concerns.

Land Use:

The land use map shows the concentration of parks, schools, and other community buildings on the middle terrace, and the barrier that industry creates between the river and the downtown. Some of the parks, schools, and civic buildings are dispersed and separated by busy streets.

Circulation:

Broadway is the main road that runs northwest to southeast through town. It acts as a barrier to pedestrian traffic because this wide road is busy with many cars and large trucks. Central Street is a monumental civic street that connects all three terraces; it runs from the river to the Hermann Monument Park on the upper terrace and beyond. Center Street and 7th Street North are the city's other main entrance roads. The busy railroad corridor that separates the middle and lower terrace is a barrier to pedestrian and vehicular traffic. Not all the streets cross the tracks, and all but three road/pedestrian crossings are at the same grade as the

railroad. The lack of grade-separated crossings will create more issues in the future if the DM&E line is expanded as planned. With the expansion, coal trains from Wyoming will be longer and run more frequently causing more interruptions to pedestrian and vehicular traffic.

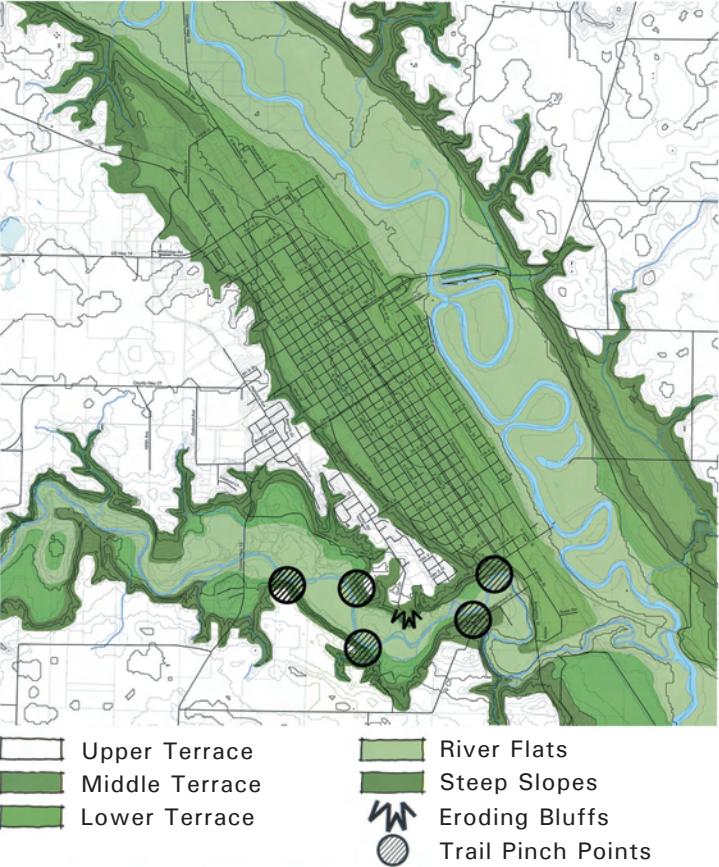
A steep bluff separates the middle and upper terraces from each other. Fifth North Street is the least steep of the few roads that lead up to the upper terrace area while 10th South Street and Central Street are the steepest.

Flandrau State Park contains many unpaved hiking trails, but almost all of them are located north of the Cottonwood River. A popular paved bike trail runs from one end of town to another. The citizens of New Ulm are very proud of this trail and their plan is to expand this trail until it eventually circles the city. Adding a trail along the future Highland Avenue Extension is a part of this plan.

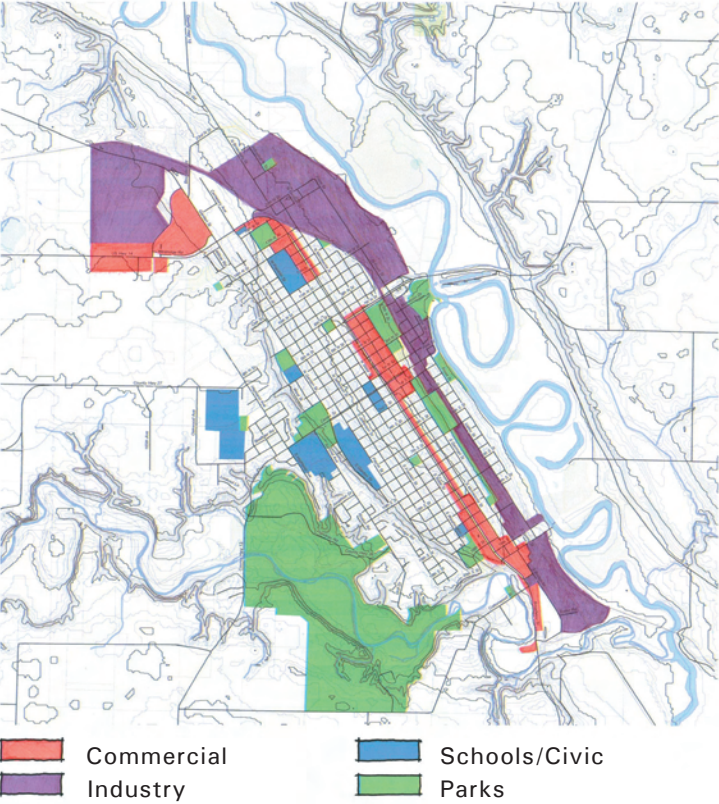
Points of Interest:

Clusters of buildings and monuments found on the National Register of Historic Places are located in and around the downtown area, but not all of the important historic places of interest are there. They are spread throughout the town. Examples of historic sites outside the core include the Schell Brewery, Hermann Monument, and World War II Prisoner-of-War Camp. Historic industry is located along the Minnesota River.

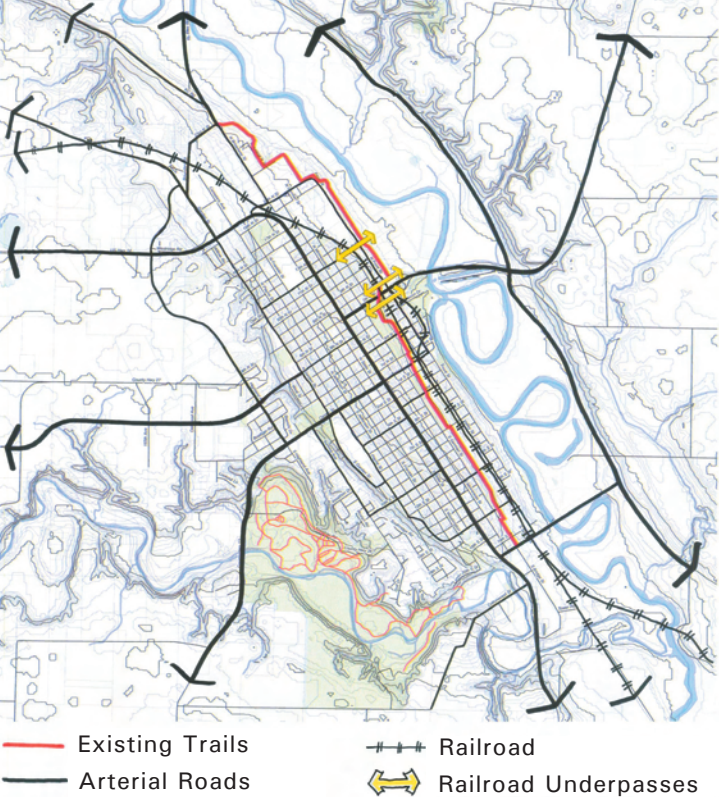
Landform



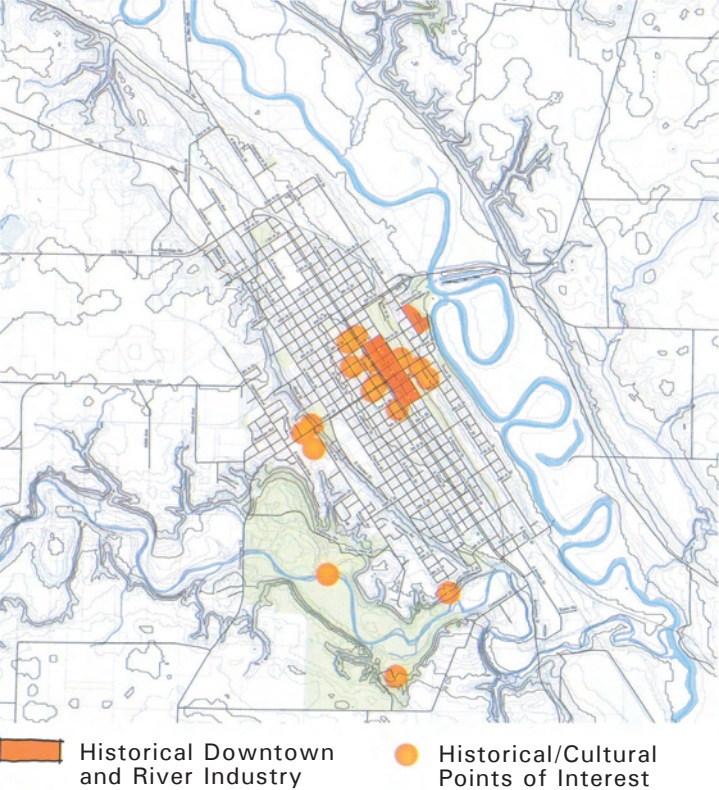
Land Use



Circulation



Points of Interest





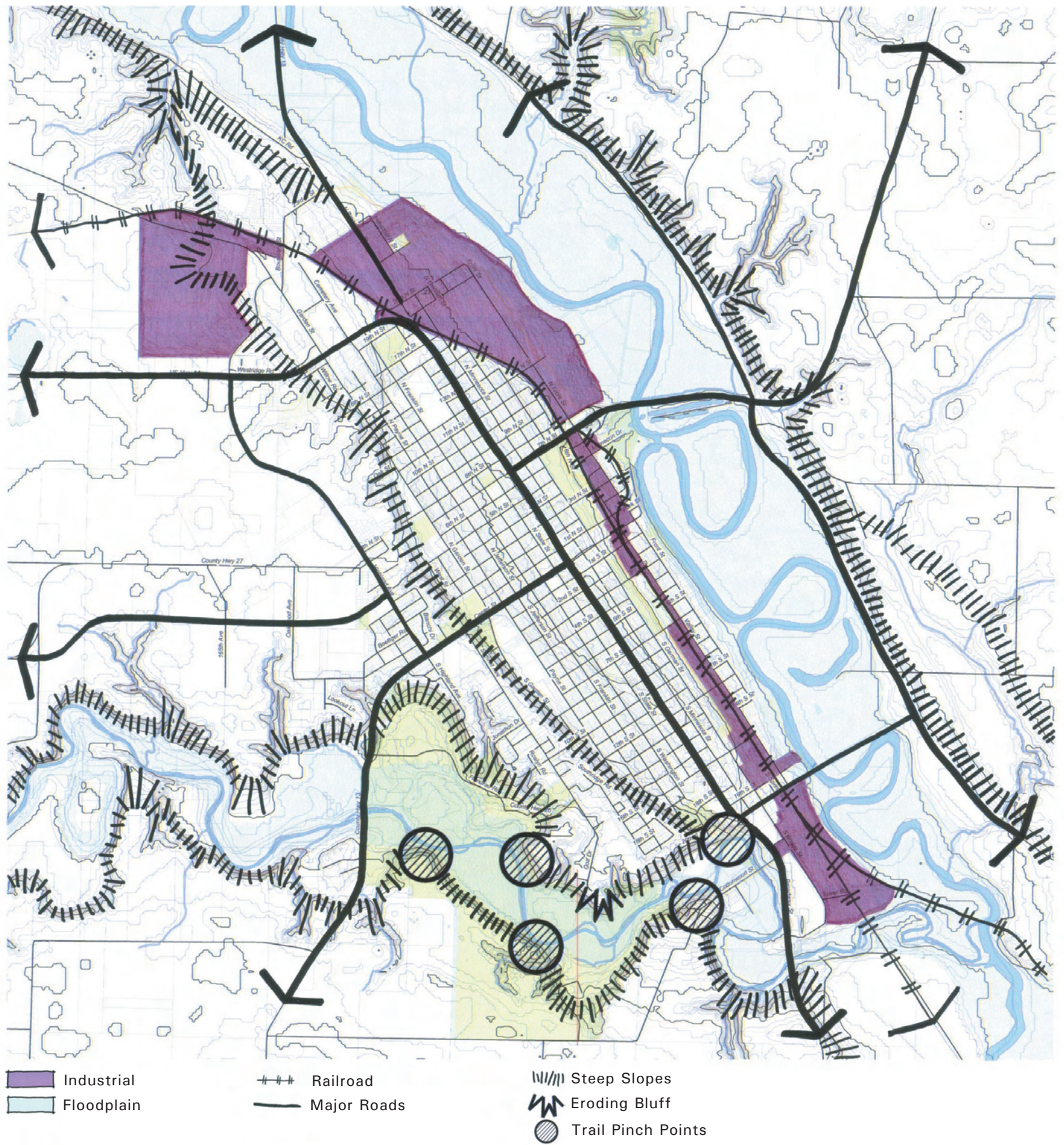
NEW ULM: THE TERRACE COMMUNITY

COMMUNITY ANALYSIS: TRAIL CONSTRAINTS

Bluff Lines created by both the River Warren and the Cottonwood River are major constraints to trail design because the changes in topography make it difficult to cycle up the steep grades. The nature of the Cottonwood and Minnesota Rivers and their banks also create constraints to trail design. Because both rivers meander through flat river bottoms, are prone to flooding, and have soft, easily eroded banks. These characteristics make it a challenge to site trails close to the river. This challenge is very evident in Flaudrau State Park where several pinch points are created where the Cottonwood meanders close to the base of the bluffs.

The industrial development along the river, the railroad track, and the major roadways are all barriers to easy pedestrian and bicycle movement through town and constraints to connecting downtown and the neighborhoods to the river. Much of the waterfront in New Ulm is occupied by industry. In other areas industrial uses along the rail line separate the parks along the river and the Goose Town neighborhood from the rest of the city. The busy rail line that is planned to get busier is a safety hazard for pedestrian, bicycle, and vehicular traffic because most crossings are at grade. The three crossings that are not at grade are concentrated in one area. Broadway, the main road through town, is a busy street that is difficult to cross.

The large Marketplatz shopping center and parking ramp blocks the view from downtown to the river.

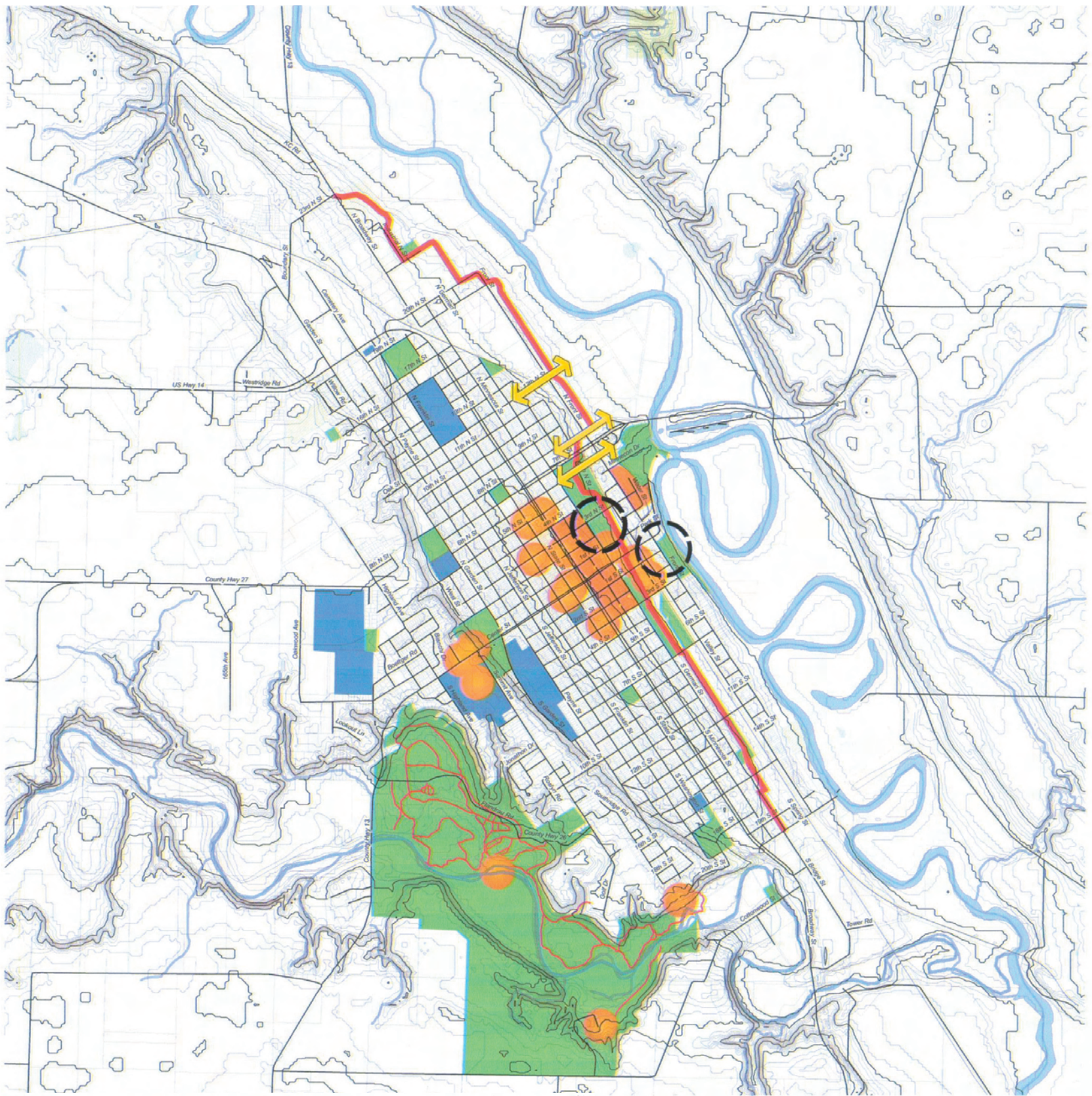











NEW ULM: THE TERRACE COMMUNITY

COMMUNITY ANALYSIS: TRAIL OPPORTUNITIES

Because New Ulm has many parks, community centers, historic buildings, natural features, a vibrant historic downtown, and a popular trail between the downtown and the river, routing the state trail through the town is very desirable. Most of the historic buildings are clustered together making them easily accessible from the downtown. However, some very important sites such as Schell's Brewery, the Hermann Monument, and Flandrau State Park are not close to downtown. Currently there is no local trail system that links the neighborhood amenities to each other. It is desirable to make a neighborhood trail system that links to the state trail in order to greatly increase opportunities for trail use by providing local access to local amenities and the state trail. The many amenities that New Ulm offers add greatly to the state trail's value as a recreational asset.



- | | | |
|--|--|--|
|  Parks |  Railroad Underpass |  Ideal Trailhead Locations |
|  Schools/Civic |  Existing Trails |  Cultural/Historical Points of Interest |
|  Historic Downtown and River Industry | | |



NEW ULM: THE TERRACE COMMUNITY

COMMUNITY TRAIL OPTIONS

A loop trail system that connects the town to its amenities is suggested. The existing bike trail and the planned trail by the Highland Extension are part of this loop. Most of the suggested local trail system's routes are made up of a series of striped lanes on street rights-of-ways. The trails are sited to connect most of the parks, schools, and community facilities to each other. Most of the community's residents will only be two or three blocks away from them. A small loop option connects the historic downtown to the Minnesota River. Most of these trail options provide community access to the state trail.

FLANDRAU STATE PARK TRAIL OPTIONS

Flandrau State Park with its swimming pool, historic Works Progress Administration buildings, campsites, picnic areas, and trails along the Cottonwood River is a state and community asset visited by 250,000 people each year. It could be a camping destination along the state trail, a trailhead location, and/or a place to stop, rest, and swim. This wonderful park has some shortcomings that offer some challenges to state trail design.

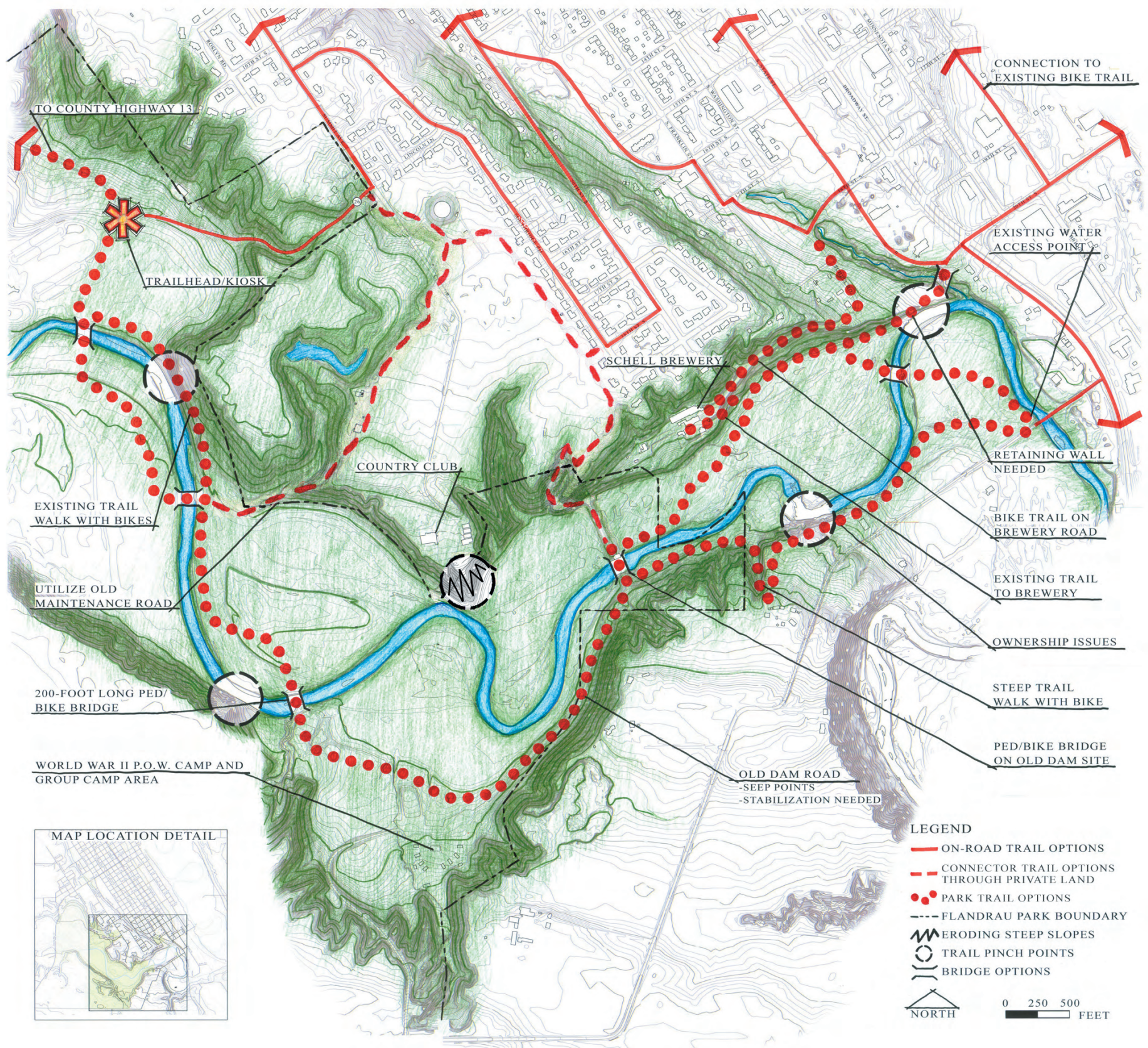
Currently the park is bifurcated by the Cottonwood River, which separates the group camp at the site of the World War II prisoner-of-war camp from the pool and the other park amenities. Reaching and using these facilities by group campers requires a trip that is 5 miles long.

Siting trails within the park or along its edges is challenging. Although the park has a trail system, some trail segments along the Cottonwood River are threatened by the river's eroding action on its banks. Grade changes offer challenges. One segment of the existing trail has 100 steps. The Cottonwood River meanders from side to side through the flood plain creating a number of pinch points between the steep bluffs and the riverbank.

Although the park is in New Ulm, it is separated from the community. The park entrance is down a long, beautiful, steep, and narrow road that is not bicycle friendly. Community members have expressed a strong desire for a safe and easily accessible trail connection from this popular park to New Ulm's downtown.

Four trail alignment options were identified that address these challenges. All four suggest two trail bridges across the river in order to avoid the hundred steps on the current trail. If these two bridges were not built and this existing trail were to be a part of the state trail, a bike wheel track could assist cyclists as they walk their bikes up and down the grade. The composite drawing on the next page shows all the options. Each option is described separately on the following page.







NEW ULM: THE TERRACE COMMUNITY

FLANDRAU STATE PARK TRAIL OPTIONS

There are several trail alignment options through Flandrau Park that connect to downtown New Ulm. Bridges permit the trail to avoid the pinch points created by the closeness of the river to the steep bluffs. Siting two bridges near the main park area to avoid a major pinch point and change in grade is very desirable because it avoids using the segment of the existing hiking trail that has stairs with over a hundred steps. Users would have to walk their bikes up and down the grade on a bike wheel track if this existing trail segment were not bypassed. The two bridges are shown with each option along with the route that includes the stairs if the bridges were not built.

The Brewery Route: 2+2 Bridges

The Brewery Route alignment improves the park considerably because it connects the main park area to the former location of the World War II Prisoner of War Camp that is now the group camping area. Because the park has two parts that are separated by the river, group campers must leave the park and drive miles to reach the main park area with the swimming pool. From the group camping area the trail continues on to the old dam site on the maintenance road. The bluff's seep points and the cutting action of the river need to be stabilized if the old dam maintenance road is used for the trail. The trail crosses the river on a bridge at the old dam site to follow the existing hiking trail up to Schell's Brewery where it follows Schell's Road to Cartway and 18th South Street to connect with the on-road bike trails. The narrowness of Schell's Road makes siting a bike trail along its right-of-way very problematic.

The Short Valley Route: 2+3 Bridges

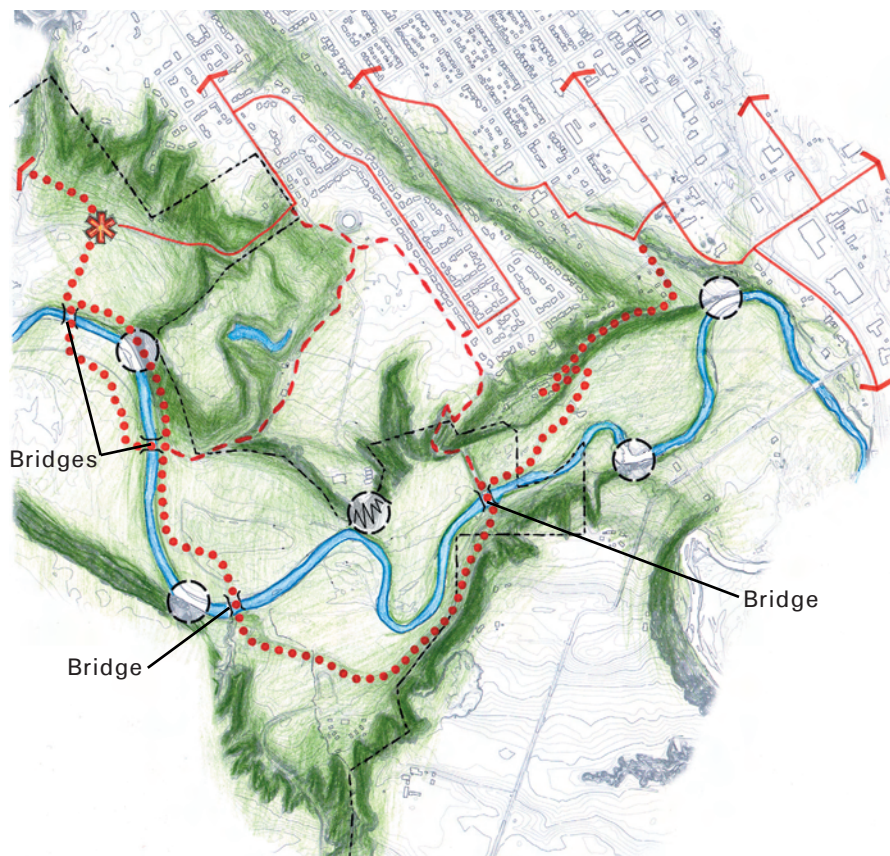
The Short Valley Route has the same alignment near the main park and the group campground as does the Brewery Route, but it does not use Schell's Road to leave the park. It passes the existing spur to Shell's Brewery, continues along the base of the bluff, and crosses the small creek below Junior Pioneer Park on a new bridge to connect to the on-road trail system. A retaining wall is needed for one section of the trail where the bluff is very steep.

The Long Valley Route: 2+3 Bridges

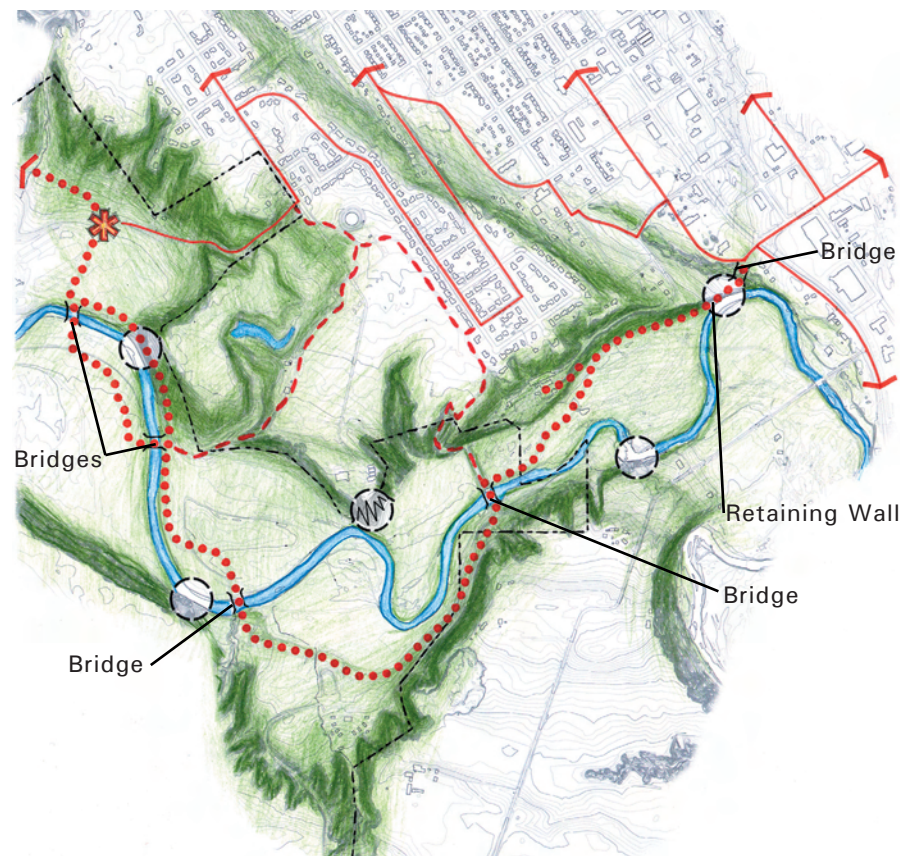
The Long Valley Route is similar to the Short Valley Route, but instead of crossing the creek below the Junior Pioneer Park, the trail crosses the Cottonwood River on a new bridge, and crosses it again on the Cottonwood Street Bridge to link to the on-road trail system on Broadway.

The South Route: 2+1 Bridges

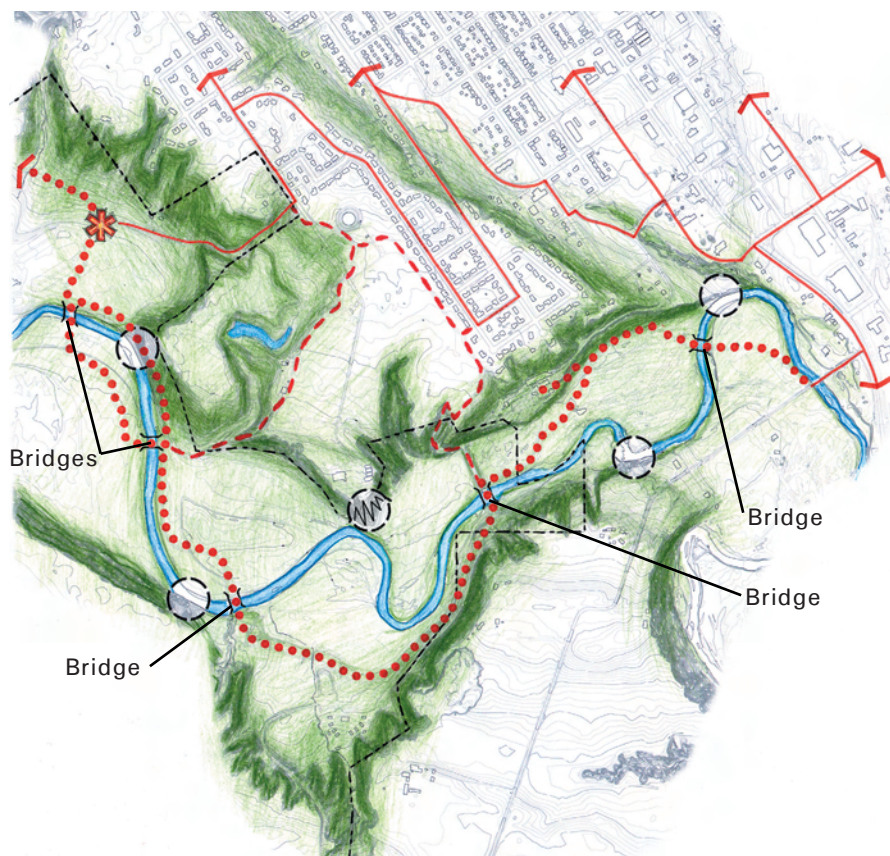
The South Route stays on the south side of the Cottonwood River after crossing the river on a bridge by the campgrounds. It follows the maintenance road to the old dam site and continues along the bottom of the bluff until it climbs up a steep coulee to the top of the hill that has grand views. The trail then follows the ridgeline down to the water access point. The change in grade may require stairs, and there are private land ownership issues.



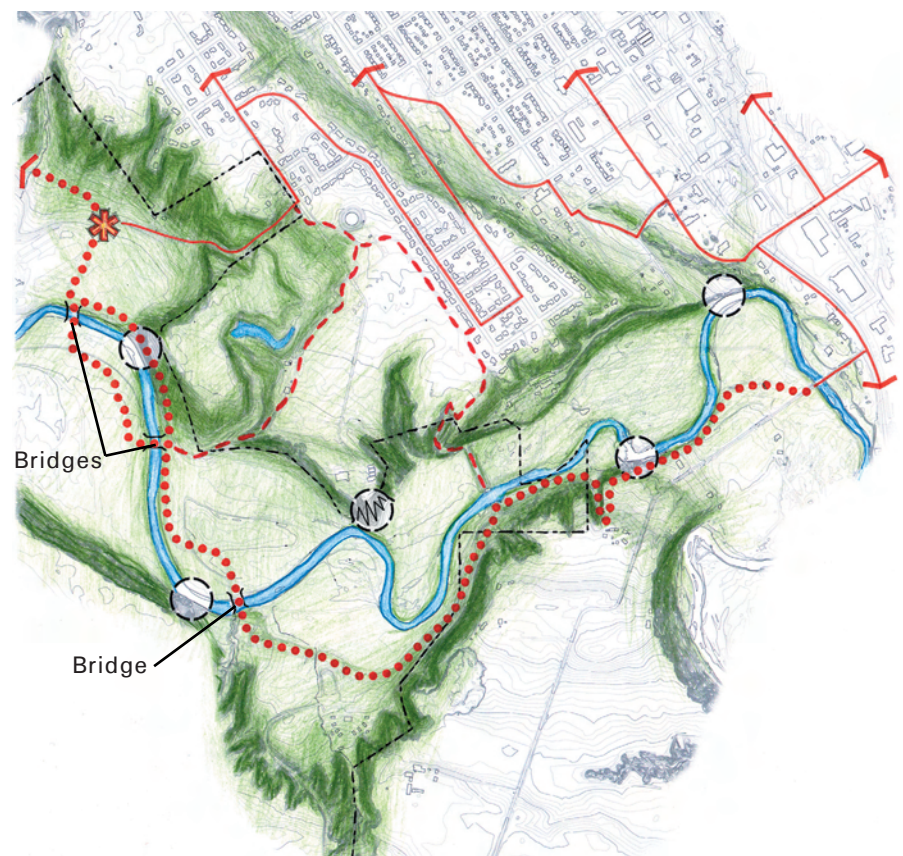
Brewery Route (4 Bridges)



Short Valley Route (5 Bridges and Retaining Wall)



Long Valley Route (5 Bridges)



South Route (3 Bridges)

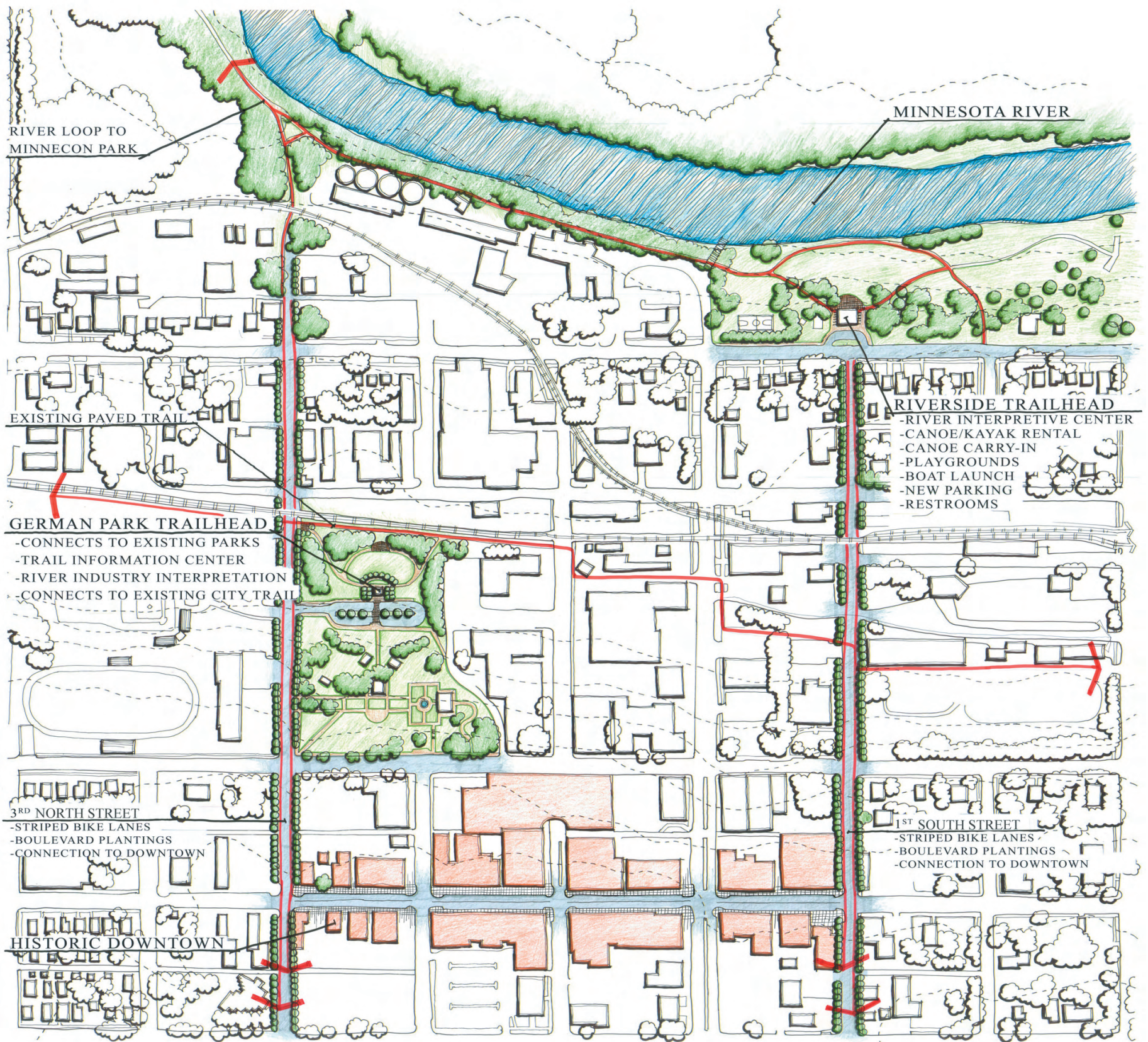


NEW ULM: THE TERRACE COMMUNITY

CONNECTING THE DOWNTOWN TO THE MINNESOTA RIVER

Since the railroad tracks and the river industry are currently barriers between the historic downtown and the river, improvements are suggested to create a more defined connection between the two. The streets are redesigned as boulevards, making them more bicycle and pedestrian friendly and elevating their civic importance. On-street bike lanes and boulevard trees define the pedestrian, bicycle, and automobile spaces and define the street as an important civic armature.

If German Park were to be selected as the site for a trailhead, Third North Street will be the boulevard connecting the downtown to the river. If Riverside Park is selected as the trailhead location, First South Street will be the boulevard. If both streets were to be made boulevards with designated bicycle lanes, a loop connection from downtown to the river would be created.





NEW ULM: THE TERRACE COMMUNITY

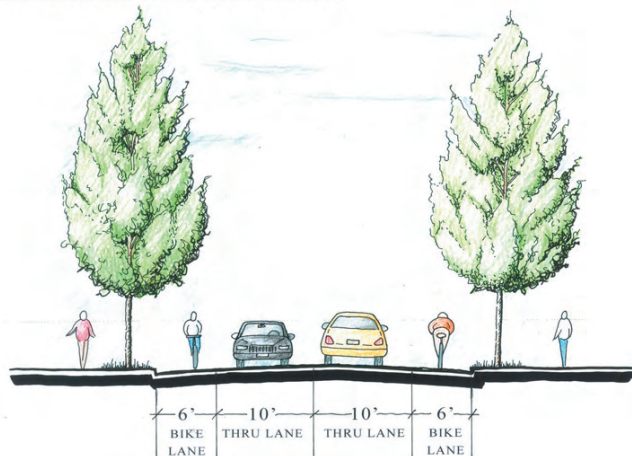
DEFINING THE TERRACES

New Ulm is sited on three river terraces. Because each of the terraces is a different landscape type, street trees are chosen that are appropriate for each landscape type to give each terrace a recognizable identity. The section drawings show the tree species that are recommended for each terrace. These species reflect pre-settlement vegetation based on topography, soil conditions, and proximity to water. The suggested species can be used to fill in the open areas and added slowly as other street trees die along the bike routes. Trees will add cooling during the hot summer months when the trail will have its greatest use. Oak trees are used on the upper terrace because it is an oak savanna. The middle terrace is upland; it is planted with maple and linden trees. The lower terrace is a riparian landscape, so poplar trees are used.

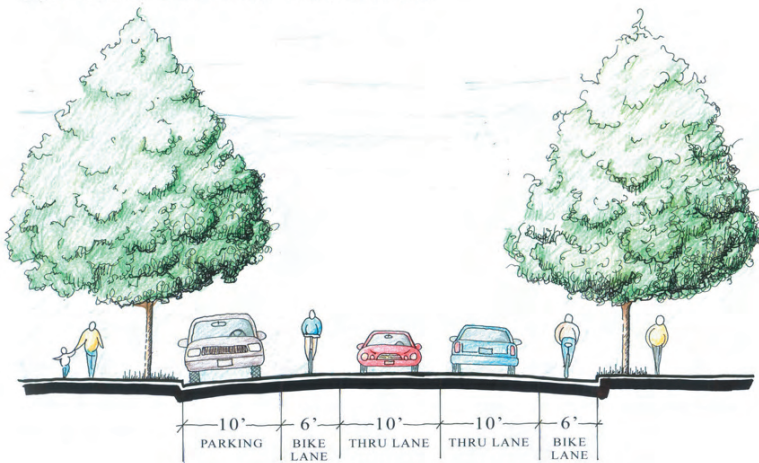
Striped Bike Lanes:

Most of the roads in New Ulm are wide enough to allow for striped, on-street bike lanes as well as parking on both sides of the street. Parking may need to be removed on one side of the street to allow for bike lanes on narrower streets when a trail is needed on them. Designated bike trails defined by striped lanes are safer than unmarked lanes for bike use by residents and visitors. Stop signs at some intersections may need to be added to control traffic and increase safety.

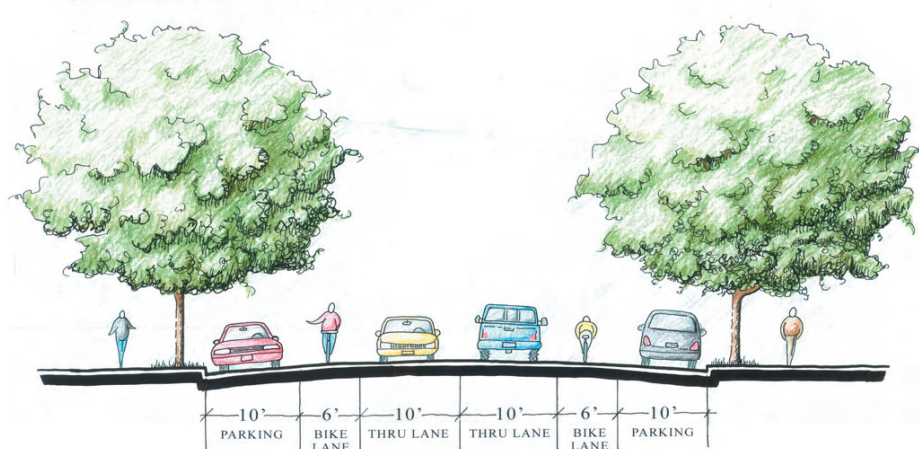
32' ROADWAY WITH BIKE LANES
 -NO PARKING
 -LOWER TERRACE WITH POPLAR TREES



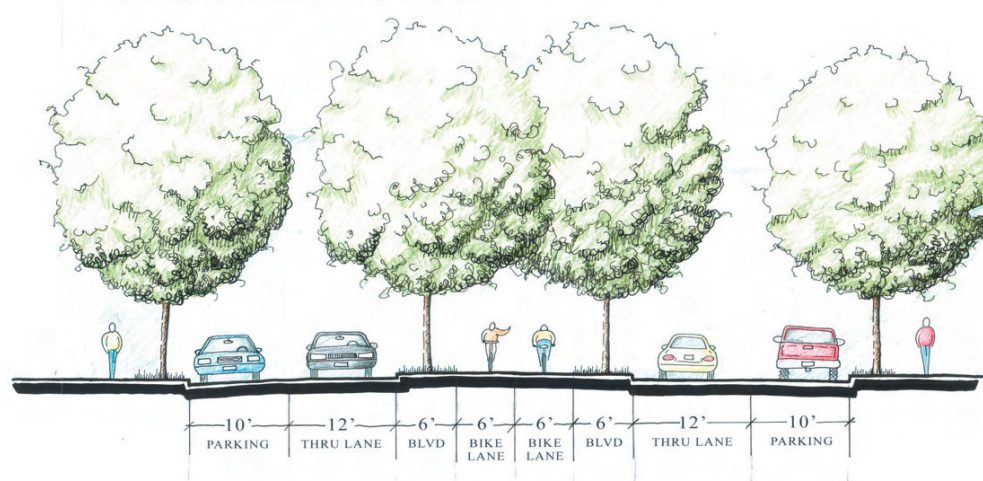
42' ROADWAY WITH BIKE LANES
 -PARKING ON ONE SIDE
 -MIDDLE TERRACE WITH LINDEN TREES



52' ROADWAY WITH BIKE LANES
 -PARKING ON BOTH SIDES
 -UPPER TERRACE WITH OAK TREES



68' ROADWAY WITH BIKE LANES IN BOULEVARD
 -PARKING ON BOTH SIDES
 -MIDDLE TERRACE WITH MAPLE TREES



PRECEDENTS



SUMMIT AVENUE, ST. PAUL, MN
 -BIKE LANES
 -NO PARKING



SUMMIT AVENUE, ST. PAUL, MN
 -BIKE LANES
 -PARKING ON BOTH SIDES



SUMMIT AVENUE, ST. PAUL, MN
 -BIKE LANES
 -PARKING
 -CENTRAL BOULEVARD



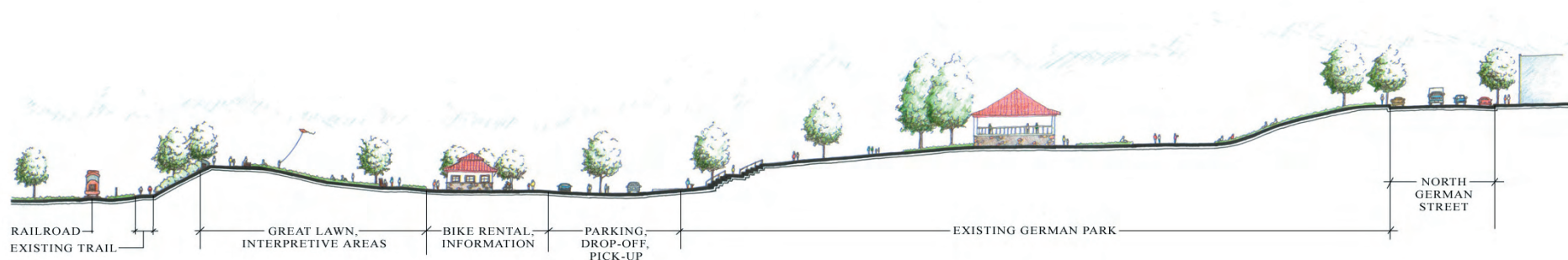
VICTORY MEMORIAL PARKWAY,
 MINNEAPOLIS, MN
 -BIKE LANES
 -WALKING LANE
 -LANES LOCATED WITHIN CENTRAL
 BOULEVARD

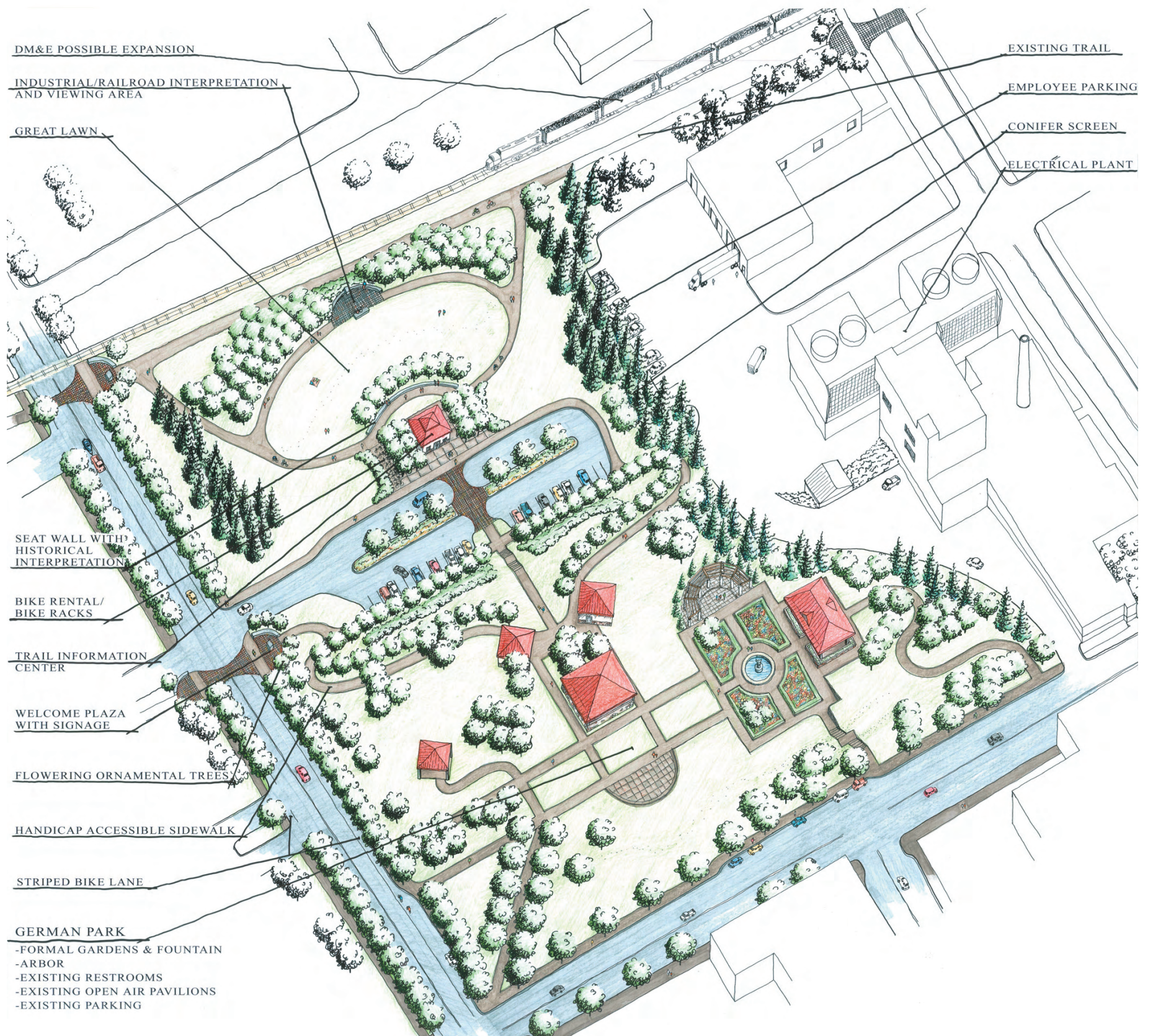
GERMAN PARK TRAILHEAD OPTION

The existing German Park is expanded in this design to create a trailhead. The park is formal, like the rest of the town. Creating a trailhead at German Park leaves the existing park area mostly as it is while making it larger by expanding it into the adjacent vacant area towards the river. The park is located a block from downtown and a few blocks away from the river within the same block as the town's electrical plant, the existing bike trail, and the railroad tracks. If the trailhead were located in German Park, many existing park amenities could be used and enjoyed by trail users. These include restrooms, an arbor, small play structure, open-air pavilions, a fountain, formal gardens, and a parking lot.

There are only two changes to the existing German Park in this design. The first one is the addition of two handicap accessible sidewalks leading from the parking lot up to the main park area. Currently the only wheelchair access is on the sidewalk along the Third North Street. The other change involves the addition of vegetation. Trees and shrubs are added along the proposed sidewalks. In addition, many conifers are added along the edge of the park that borders the electrical plant. This screen continues from North German Street down to the bike trail. The conifer screen closes off the current connection between the park parking lot and the parking and service area for the industrial buildings for safety and visual reasons.

The new trailhead is in the vacant lot. A small plaza area has a building for bike rentals and trail information. A wall of New Ulm and Minnesota River history also serves as a seat wall. A viewing platform and interpretive area for the railroad and river industry is located on a new mounded landform. A large open green space on the mound is between the interpretive area and the information building. Multiple welcome plazas provide spaces for posting trail information. Seating is provided beneath flowering trees.



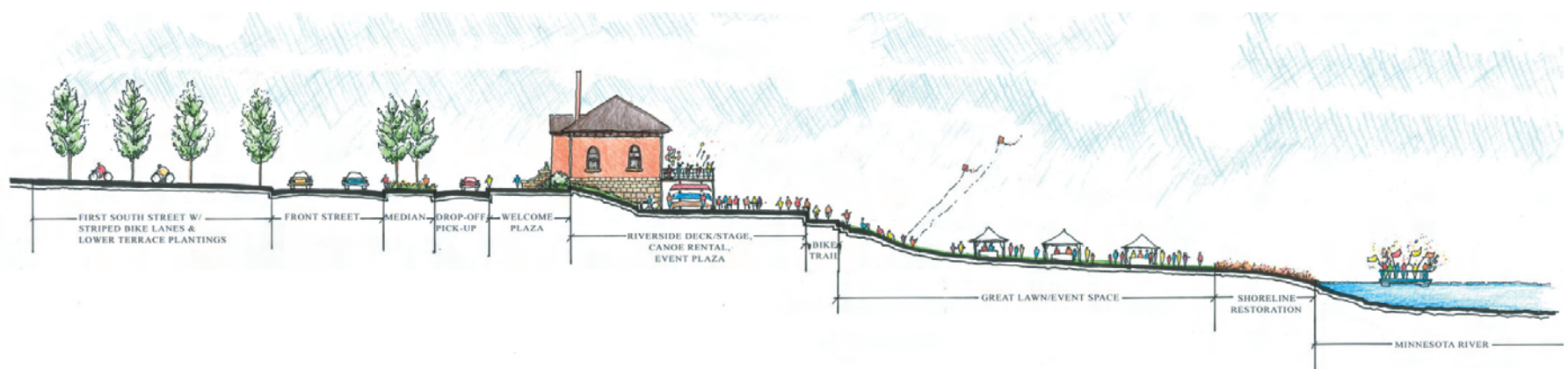


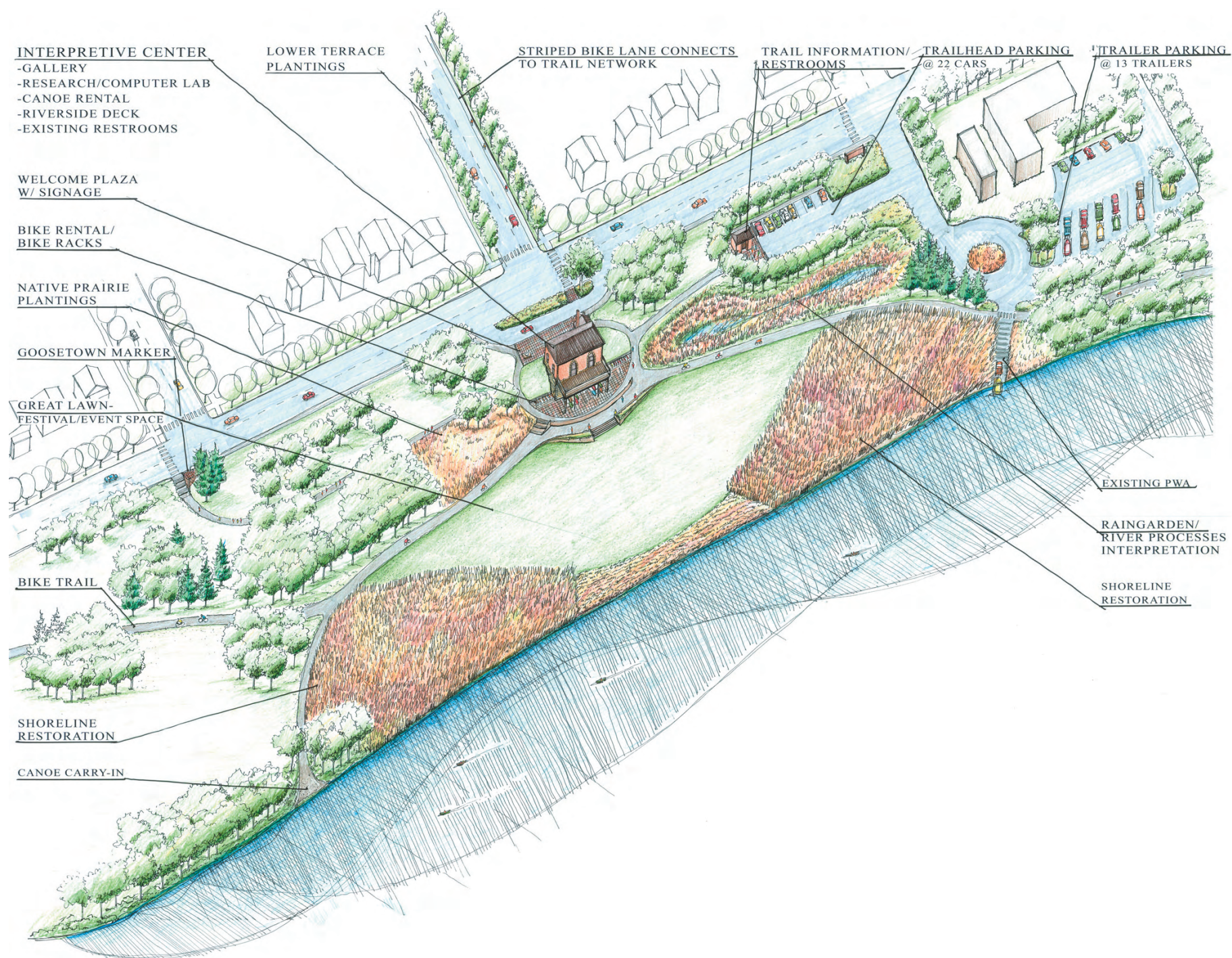
RIVERSIDE PARK TRAILHEAD OPTION

The design of a trailhead within Riverside Park creates a strong tie to the Minnesota River. The existing historic school building and water access ramp add to its potential as a major community–river site along the trail. Currently the park is very informally structured. Users park vehicles and set up tents anywhere. The new design includes more uses for more users. The bike trail is sited along the river and has two connections to the historic downtown. Bike racks and trail information are provided. The existing boat launch is retained, but the playground and basketball court are removed to accommodate a new parking lot and gardens. In order to prevent pollutants from entering the river, a small rainwater garden is created to catch and treat most of the water from the parking lot. A picnic pavilion is added.

This trailhead option utilizes the historic Franklin School building that is being converted into a river research and interpretive center that will rent canoes and rent fishing supplies. This facility also has the potential for bike rentals. Because there is only one single toilet in this building, a new restroom building is placed near the new parking lot. A deck and patio are added to the riverside of the Franklin School building to provide good views of the park and the river. The deck can also serve as a stage with the building as a backdrop for riverfront concerts. River interpretive exhibits

will be displayed on the first floor while the fishing and boating rentals will be in the walkout basement level. Additional canoe and kayak storage racks are below the deck on this level. Riverside Park is largely located within the floodplain, so most of the space must be left undeveloped for environmental and maintenance reasons. Dense planting near the water's edge stabilizes the shoreline. The short plants do not obstruct views of the river from the interpretive center. A canoe and kayak water access point is added to provide safer entry for non-power boaters. A large expanse of grass creates The Great Lawn, a civic space for river festivals and other events. No mow turf is proposed in this area to reduce maintenance costs.







SAINT PETER

TRAIL EXPERIENCE



EXISTING TRAILS



TRAIL OPTIONS



HISTORIC VALLEY COMMUNITY



TRAIL EXPERIENCE



HISTORIC VALLEY COMMUNITY

Although it does not have a major tributary, the Saint Peter landscape contains many of the components of the Glacial River Warren landscape. The community is framed by bluffs, is laid out on a large terrace, and has an extensive river floodplain. Saint Peter is one of the oldest cities in Minnesota and has over forty sites on the National Registry. A three block area of the downtown is a designated National Historic District.



SANDSTONE HILLS

In this corridor Kasota stone (Jordan sandstone) bluffs are the dominant feature. These beautiful, steep, and easily eroded bluffs provide challenges for siting a trail. Opportunities exist for interpreting the river's geology in the nearby Seven Mile Creek County Park.



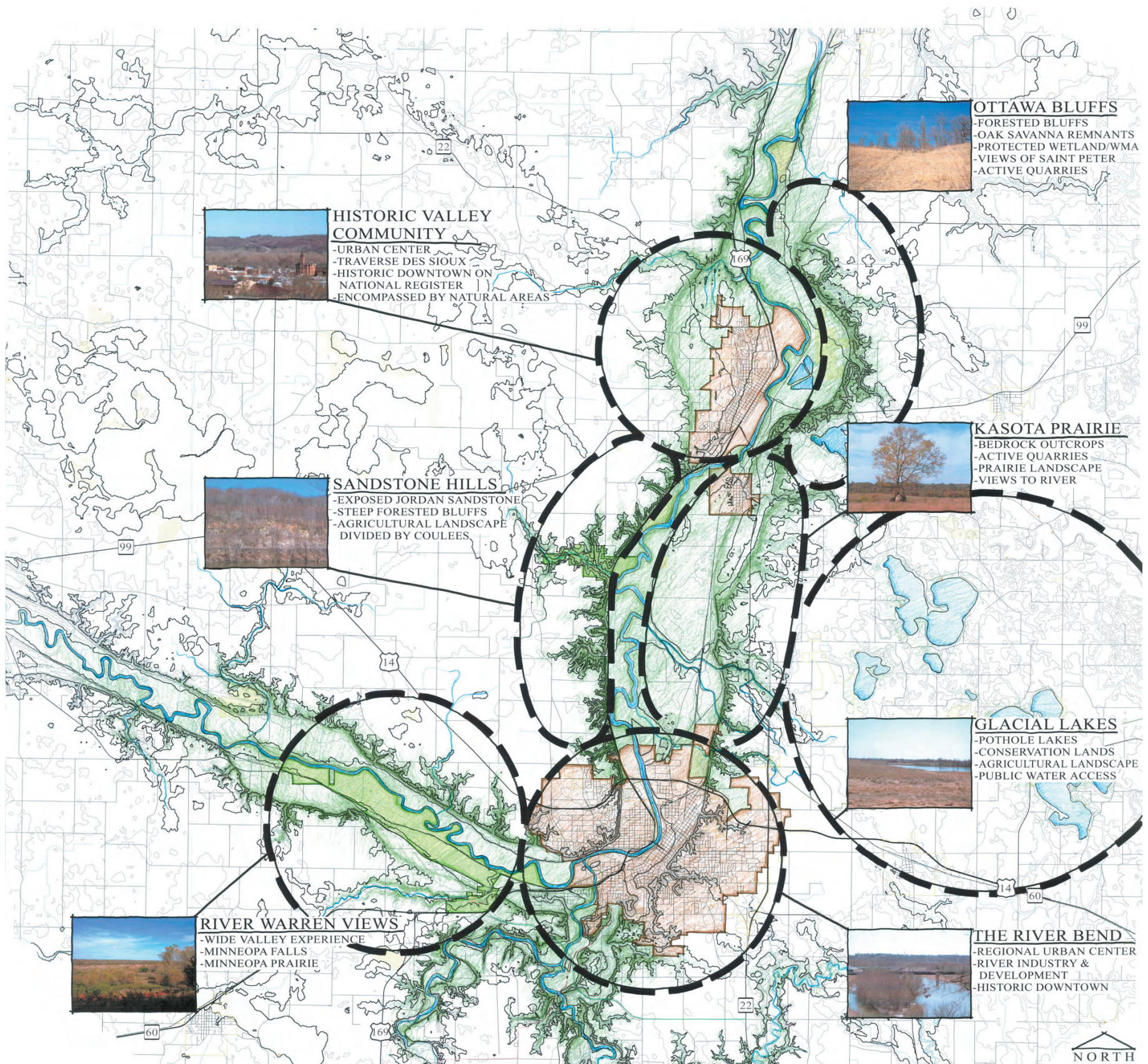
RIVER WARREN VIEWS

An intimate, forested area surrounding the very beautiful Minneopa Falls has several Works Progress Administration structures built in the 1930s, a picnic area, and a trail system. The Minneopa Prairie provides views of the River Warren Valley and a historic mill atop a bluff. The Minnemishinona Falls, a smaller falls area not connected to the park, is located along a quiet road that hugs the bluff line north of the Minnesota River. It has a small visitors area.



THE RIVER BEND

The regional urban center of Mankato is located where the river bends north. The Blue Earth River and the LeSeuer River converge on the Minnesota River at this bend. Numerous bluffs and steep topography define and distinguish this area. Several trails have already been built in and around Mankato.





TRAIL EXPERIENCE



GLACIAL LAKES

Numerous pothole lakes dot the farm fields and prairie expanses in this prairie pothole landscape. Deposits of ice trapped by stagnation moraines formed these lakes. The surficial geology map on page 12 shows the stagnation moraine in this area.



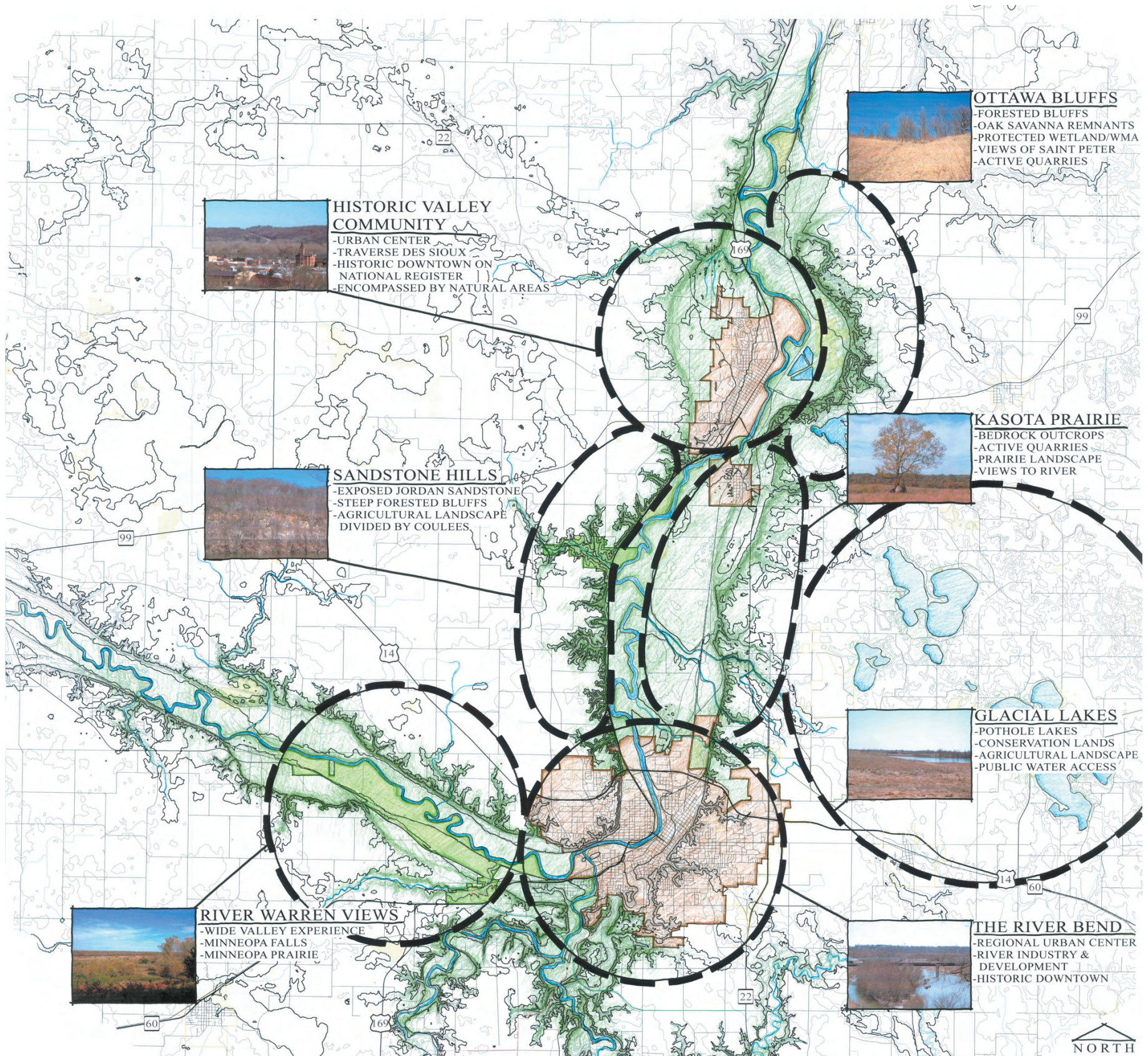
KASOTA PRAIRIE

The Kasota Prairie has both natural and cultural features. One of the last prairie remnants of high biodiversity is located in the corridor. Several active quarries produce the famous architectural Kasota stone. The historic town of Kasota is sited in the midst of mines and prairie.



OTTAWA BLUFFS

Steep forested bluffs with remnants of oak savanna provide views over the floodplain/wetland landscape and the City of Saint Peter. The small town of Ottawa contains seven Kasota stone buildings dating back to 1869 that are all on the National Registry of Historic Places.





CONNECTIONS TO EXISTING SYSTEMS

The Minnesota River Scenic Byway follows Highway 68 to Mankato where it goes through 'old town,' joins Highway 22 on the east side of the river, and continues on to Saint Peter. From Saint Peter the byway follows Highway 99 to Ottawa and Le Sueur.

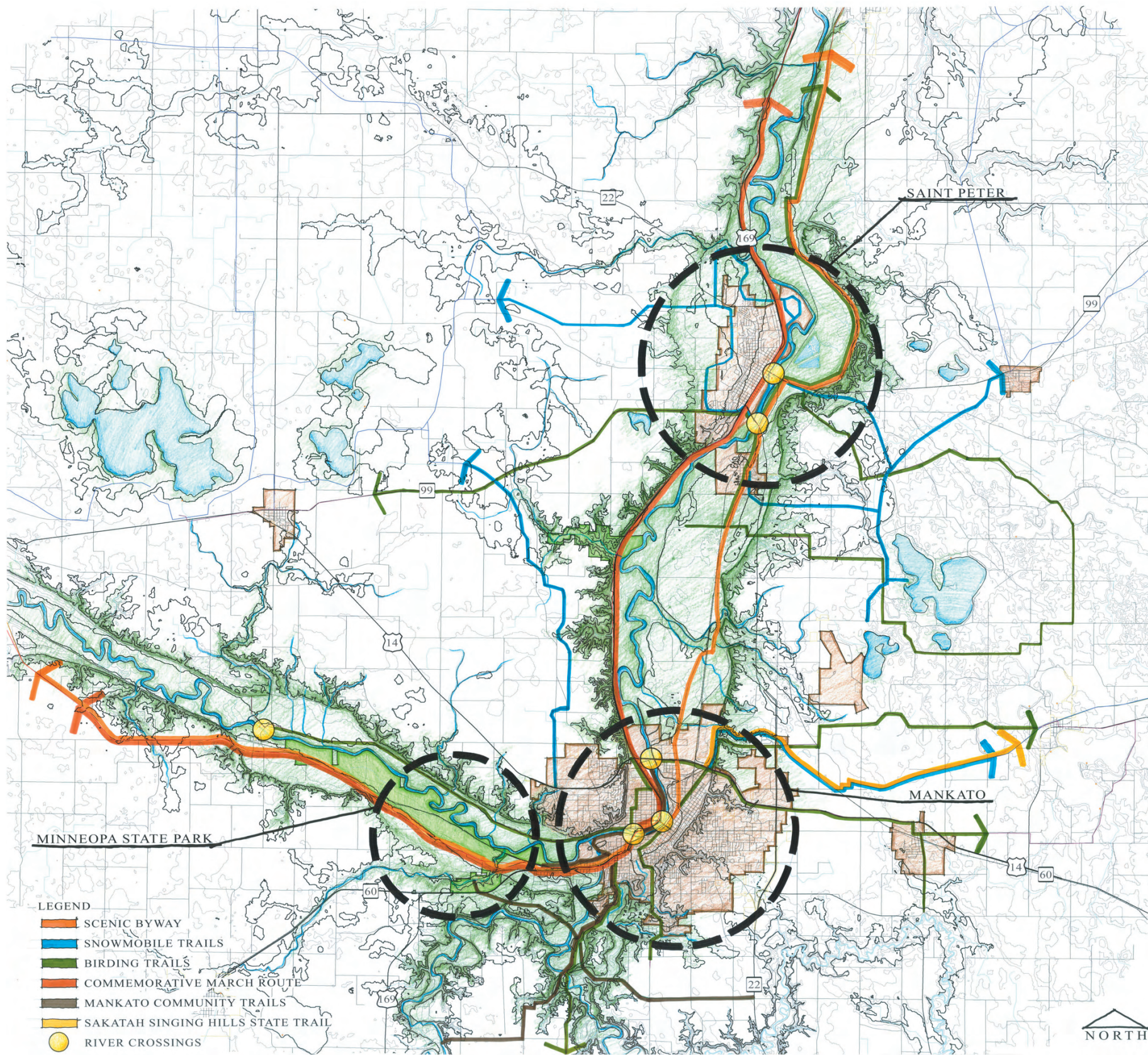
Minnesota River Valley Birding Trail goes through both the Bend of the River and Kasota regions. The Bend of the River Region extends from Swan Lake WMA North Star Unit in the west, through Mankato to Eagle Lake Park and Gillfillian WMA in the east, and south to Red Jacket County Park. The Kasota Region south loop starts at the Kasota Prairie, loops out to Lake Washington County Park in the east, and extends west of Saint Peter to Oakleaf Lake and the Swan Lake Wildlife Management Area.

Snowmobile trails in the area are in road right-of-ways and cut through farm fields. Because signs and temporary bridges only mark these seasonal trails, private landowners are often more willing to allow them on their property. Many of the trails are on the bluff tops and the uplands.

The Lower Sioux Community leads the Commemorative March in the first week in November of even-numbered years. This march is held in memory of the Dakota women and children who were forced to march from the area that is now the Lower Sioux Reservation to an internment camp at Fort Snelling in the fall of 1862. Although the exact route is unknown, the Dakota oral accounts relate that it went through New Ulm and Henderson, so the commemorative march follows the river on Highway 169 through Mankato and Saint Peter.

The Mankato regional trails include the South Route trail and the Red Jacket Trail. The South Route trail connects to Minneopa State Park and follows County Road 90 to Highway 22. The Red Jacket Trail starts near downtown Mankato, follows the Le Sueur River and its bluffs south to Red Jacket County Park, and continues to Rapidan.

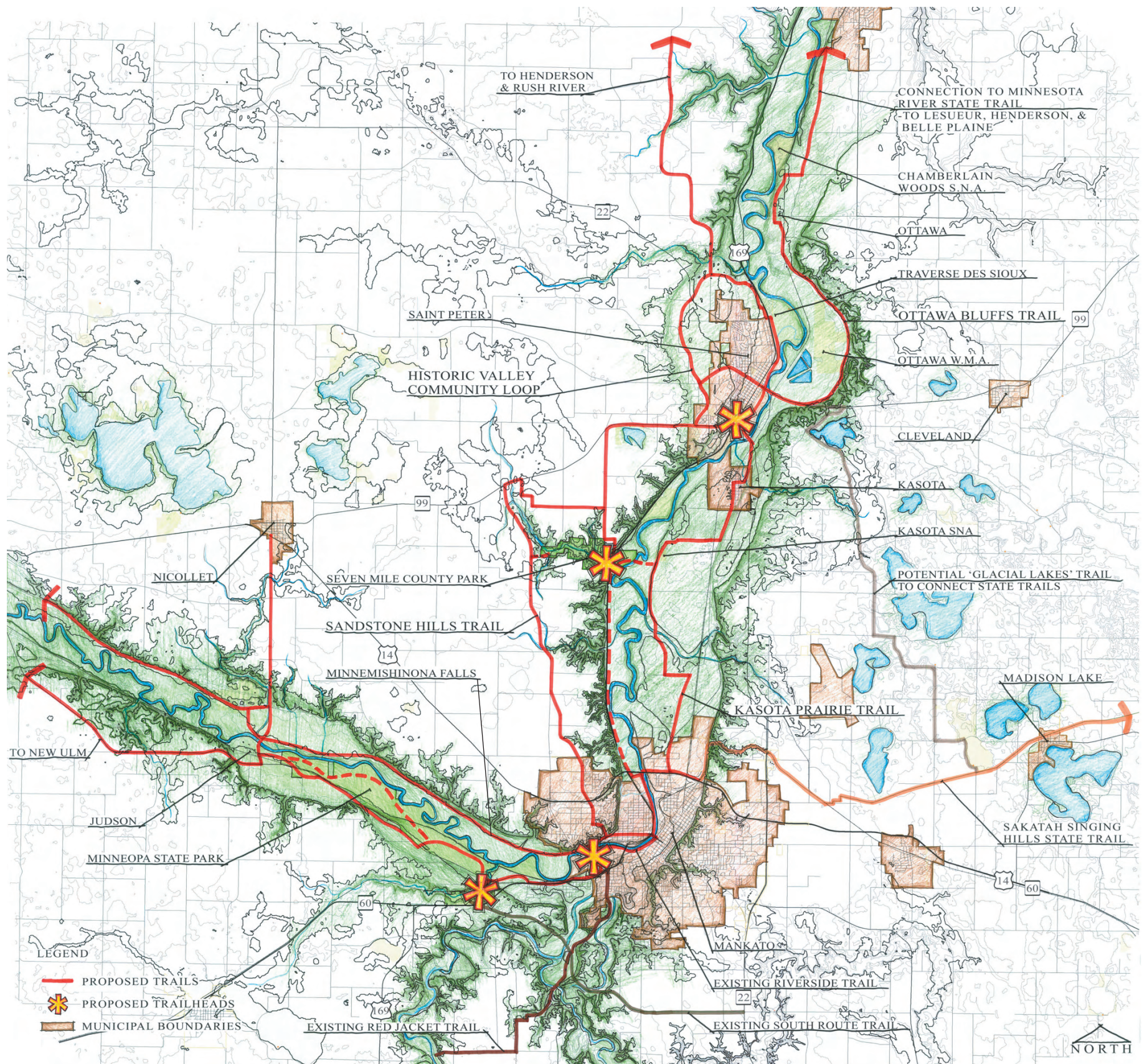
The Sakatah Singing Hills State Trail starts at Lime Valley Road just north of Mankato. It extends to the east through the lakes region to Fairbault.





REGIONAL TRAIL OPTIONS

A system of trail loops provides a wide variety of experiences on both the western and eastern sides of the Minnesota River. Mankato, Saint Peter, Kasota, and Ottawa are connected by the trail options. The large number of high quality natural amenities guided the alignment of the trail loop options.





MINNEOPA TO KASOTA

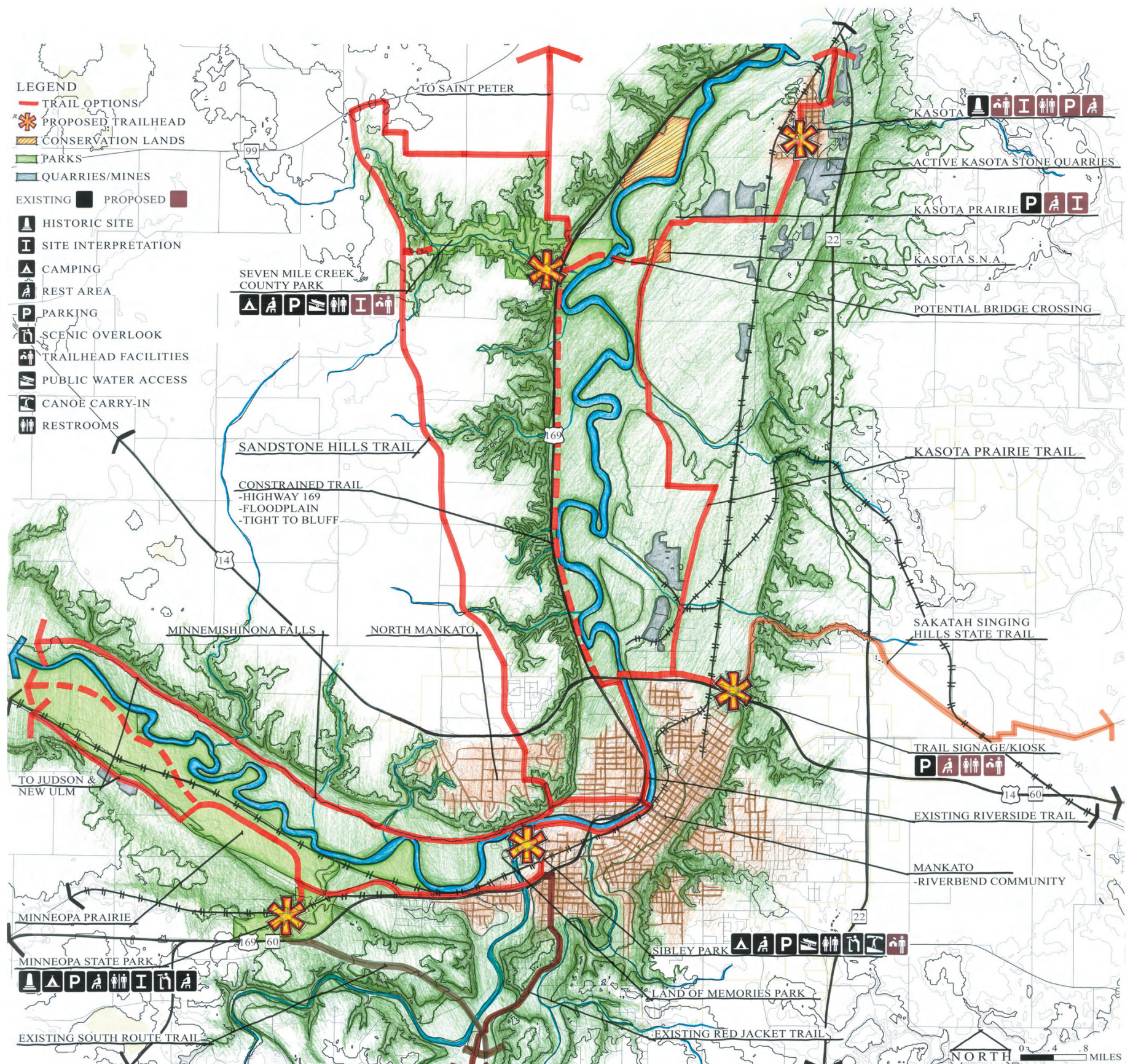
Continuing from New Ulm, the trail goes through Minneopa State Park connecting to the South Route trail where the Red Jacket Trail goes north back to into the city to connect to the Riverside Trail, or the trail follows the railroad right of way to connect to the existing Riverside Trail that goes to Sibley Park. Located at the confluence of the Minnesota and Blue Earth rivers, Sibley Park is a large park with picnic areas, overlooks, baseballs fields, gardens, a petting zoo, and a water access. A new trail bridge would connect Sibley Park to the Land of Memories Park and the campsite located on the other side of the Blue Earth River. All the amenities needed for a major trailhead are in these two parks.

Riverside Trail is very close to the river and the downtown and currently ends at Mankato's north end near Highway 14. If it were to be extended to the Lime Valley Road to join the Sakatah Singing Hills State Trail, the junction of the two trails would make a logical trailhead site.

The **Sandstone Hills Trail** travels through North Mankato up the bluff past farmsteads to Seven Mile Creek. The trail is aligned so that the user could bring their bikes down to the park's existing hiking trails. A Seven Mile Creek County Park trailhead takes advantage of the park's existing campsites, trails, and water access. Because of the park's bluffs and scenic beauty, it is a good place to interpret the region's geology. State Highway 169 divides the park in two visually, but a highway underpass connects the park's two sections physically so the trail goes under the highway. If a bridge were built over the Minnesota River, the trail could connect directly to the Kasota Prairie Trail. If not, the trail continues along the bluff's edge to Oakleaf Park and Saint Peter.

An additional option in this corridor is siting the trail in the Highway 169 right-of way. The limited room between the river, highway, and steep limestone bluffs and property ownership issues limit this option.

The **Kasota Prairie Trail** is alongside Highway 22 for a short distance before moving towards the river along quiet gravel roads. Ranches and prairies are prevalent along this route as are filtered views of the river valley below. The trail passes the Kasota Prairie SNA, a Minnesota DNR managed site, and the 90-acre Kasota Prairie with hiking trails that managed by a non-profit organization. The trail travels through the area of many active stone quarries to the small historic town of Kasota, which is named for the beautiful architectural limestone quarried in this region.





KASOTA TO LE SUEUR

From Kasota the trail joins an existing trail along Highway 22 and continues through Riverside Nature Park to Mill Pond Park and Saint Peter's Chamber of Commerce. The trail crosses the historic Highway 99 Bridge to the Ottawa Bluffs trail.

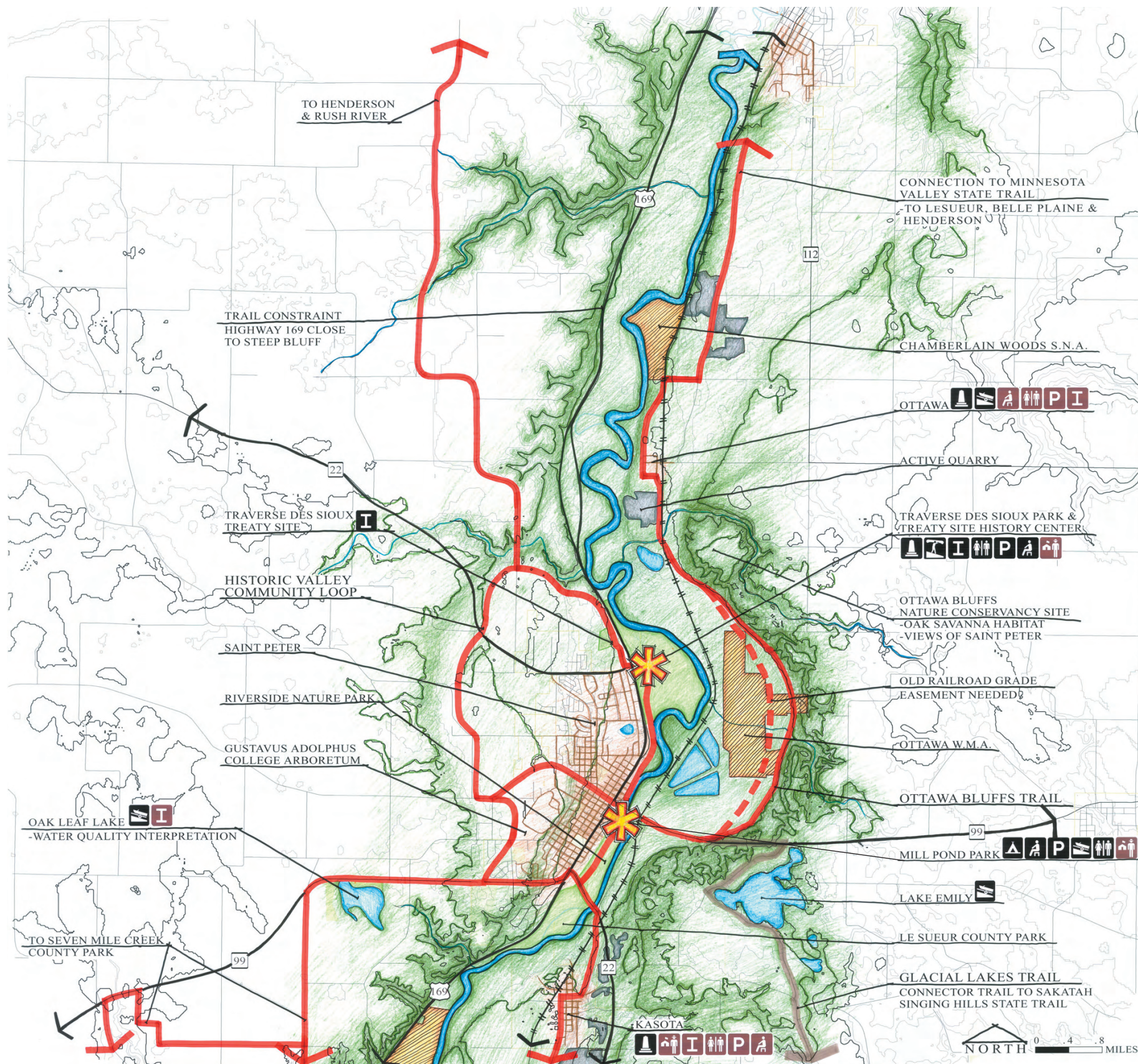
The **Ottawa Bluffs Trail** follows the road right-of-way but it is constrained by private properties and the bluffs to the east and a substantial grade change to the west. The other option is shown in a dashed line. It follows an old railroad bed through the Ottawa WMA. Presently trails are not allowed through WMAs, but if the railroad still owns some right-of-way perhaps there is room for the trail. By staying on the bluff near the road, there are beautiful views of the wetlands and Saint Peter. The trail passes Ottawa Bluffs, an oak savanna habitat managed by the Nature Conservancy, continues through mining landscapes to the town of Ottawa, passes the Chamberlain Woods SNA and ends at LeSueur.

The **Glacial Lakes Trail** connects two state trails. This trail as shown in grey splits from the Ottawa Bluffs Trail, heads south through the unique lakes region, and connects to the Sakatah Singing Hills State Trail.

On the west side of the river, the Sandstone Hills Trail continues to Oakleaf Lake past water quality interpretative site to meet the Historic Valley Community Loop.

The **Historic Valley Community Loop** is based on the Saint Peter's trail master plan. This larger loop concept extends out to the bluff line to accommodate the future growth of the city. It heads north to Robart's Creek, passes the Traverse Des Sioux Treaty Site, crosses State Highway 169 at Dodd Road to reach the Traverse Des Sioux Treaty Center and Museum, and travels back to Riverside Nature Park. The Traverse Des Sioux Museum, a major cultural and historic asset is a potential trailhead site.

At the north end of the Historic Valley Community Loop the trail continues along the bluff's edge to Rush River and Henderson. Each of these Minnesota River State Trail options joins the Minnesota Valley Trail and the Minnesota Valley State Natural Area.





SAINT PETER: HISTORIC VALLEY COMMUNITY

HISTORY

Pre-European Settlement:

Saint Peter has long been a settlement site because it is located in the place where the prairie meets the Big Woods, and people depended on the resources from both biomes. Both Paleoindian and Archaic Native Americans have occupied this area. Settlements have been dated to 10,000 years ago. (Granger)

Traverse Des Sioux:

Traverse Des Sioux, a sharp bend/almost loop in the river, was an important Dakota crossing. Called “Oiyuwega” or “The Crossing” by the Dakota, it was named Traverse Des Sioux by the French explorers. This was the location of a Sisseton Dakota Band village. Red Iron was the band’s chief. When it became a popular crossing for French explorers and fur traders, it became a trading post as well as a Dakota village. In 1851 the United States and the Dakotas signed the Treaty of Traverse Des Sioux. With the treaty the Dakota ceded all of their land to the south except for a 10-mile strip on either side of the river from the South Dakota border to just up river from New Ulm. After the treaty was signed, European settlers came into this new territory almost immediately, and the Traverse Des Sioux site became a settlement in 1852. Its key location on the river made the new settlement prosperous, and soon it became the county seat. (Granger)

Saint Peter’s Founding:

In 1853 Captain Dodd claimed land just up stream from Traverse Des Sioux and named the town site Rockbend. In 1854-1855 the St. Peter Company was formed. Its influential business and political members wanted to promote this new village. It was platted in relation to the river so that all of the very wide streets are either parallel or perpendicular to the river. Over 200 blocks were platted. The company re-named Rockbend Saint Peter and began advertising offering free lots to business owners. Soon the community of Traverse Des Sioux could not compete because many of its settlers moved to Saint Peter. The Saint Peter Company unsuccessfully lobbied to move the new state capitol from Saint Paul to Saint Peter. In 1858 the county seat moved from Traverse Des Sioux to Saint Peter. (Granger) In 1874, Saint Peter’s bid for Gustavus Adolphus College was accepted. The college saw its first academic year in Saint Peter in 1876. (Waldhauser)

Transportation, Agriculture, and Industry:

Transportation was extremely important for this new frontier town. The ferries came first. The natural landing at the end of Broadway provided an ideal spot for crossing the river.

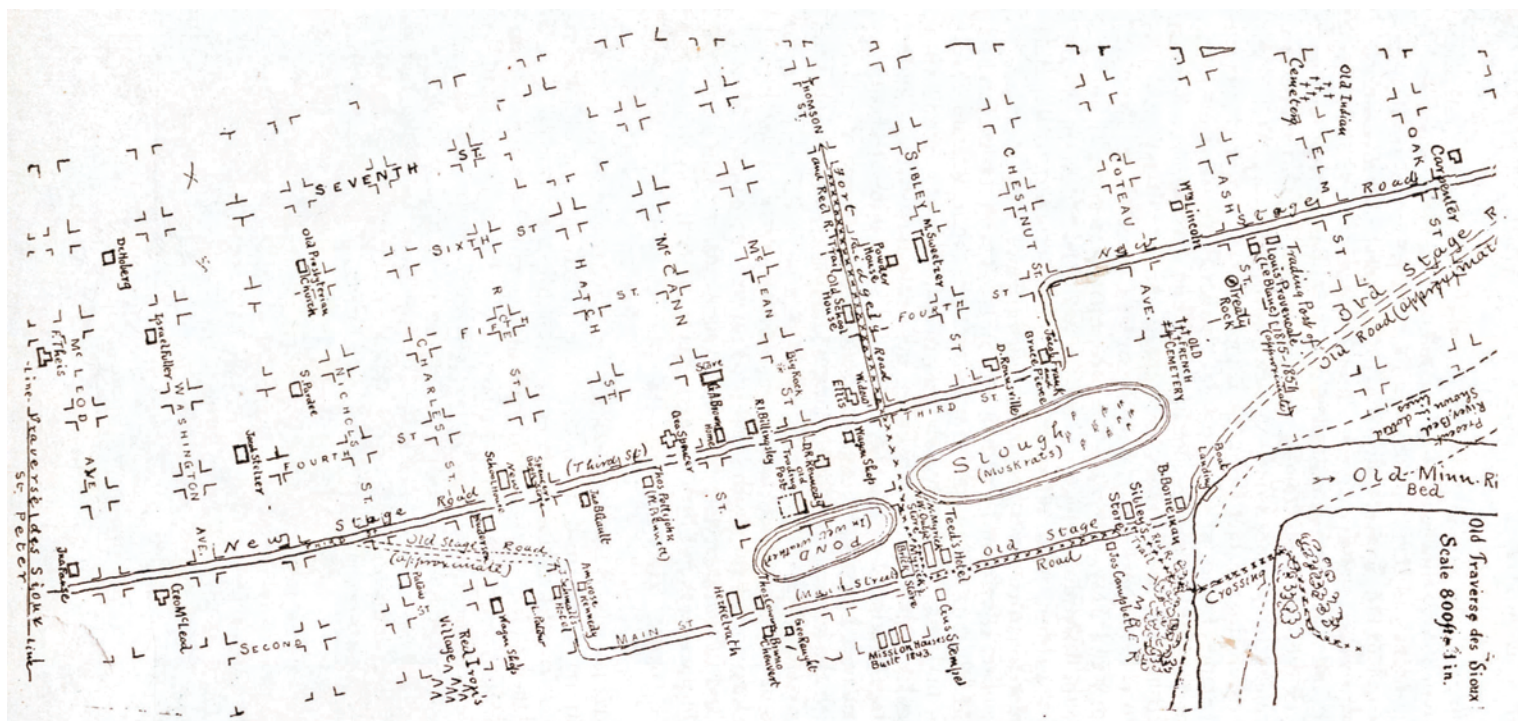
When the lobbying efforts to get a railroad were successful and the line was built, the railroad completely changed the city. Farmers were drawn into the region because its fertile soils and the railroad made it possible

to ship produce to outside markets making Saint Peter a huge exporter of grain. Farming supplies and other retailing flourished because of the farmer customers in the area. Front Street became the city’s main commercial street. The city also experienced industrial growth. Industries based on agriculture such as dairies, Engesser Brewing Co., and Saint Peter Woolen Mill, and other industries such as Johnson and Company clothing, cigar factories, and furniture factories were started. Local stone was and still is an extremely important resource for quarry mining in this area. One of the first quarries started in 1872. (Granger)

Current Conditions:

Presently, retail activity has moved from its original location facing the river on Front Street to a strip along Minnesota Avenue. Three blocks of the commercial heart of Saint Peter is designated as a historic district by the National Registry of Historic Places. Over 40 individual sites within the district and many that are very close to it are also on the registry.

In 1998, a tornado struck the town and caused an extreme amount of damage to the city and the college. Many properties were damaged, some beyond repair and had to be razed, but others have been saved and repaired. Although many of the city’s mature trees were destroyed, an aggressive replanting program has replaced many with new, young trees. These new trees can be seen throughout Saint Peter.



Plat of Traverse Des Sioux
Hughes, Old Traverse Des Sioux



Early downtown St. Peter
Reflections of the Minnesota River Valley



1870's lithograph of St. Peter
Reflections of the Minnesota River Valley



SAINT PETER: HISTORIC VALLEY COMMUNITY

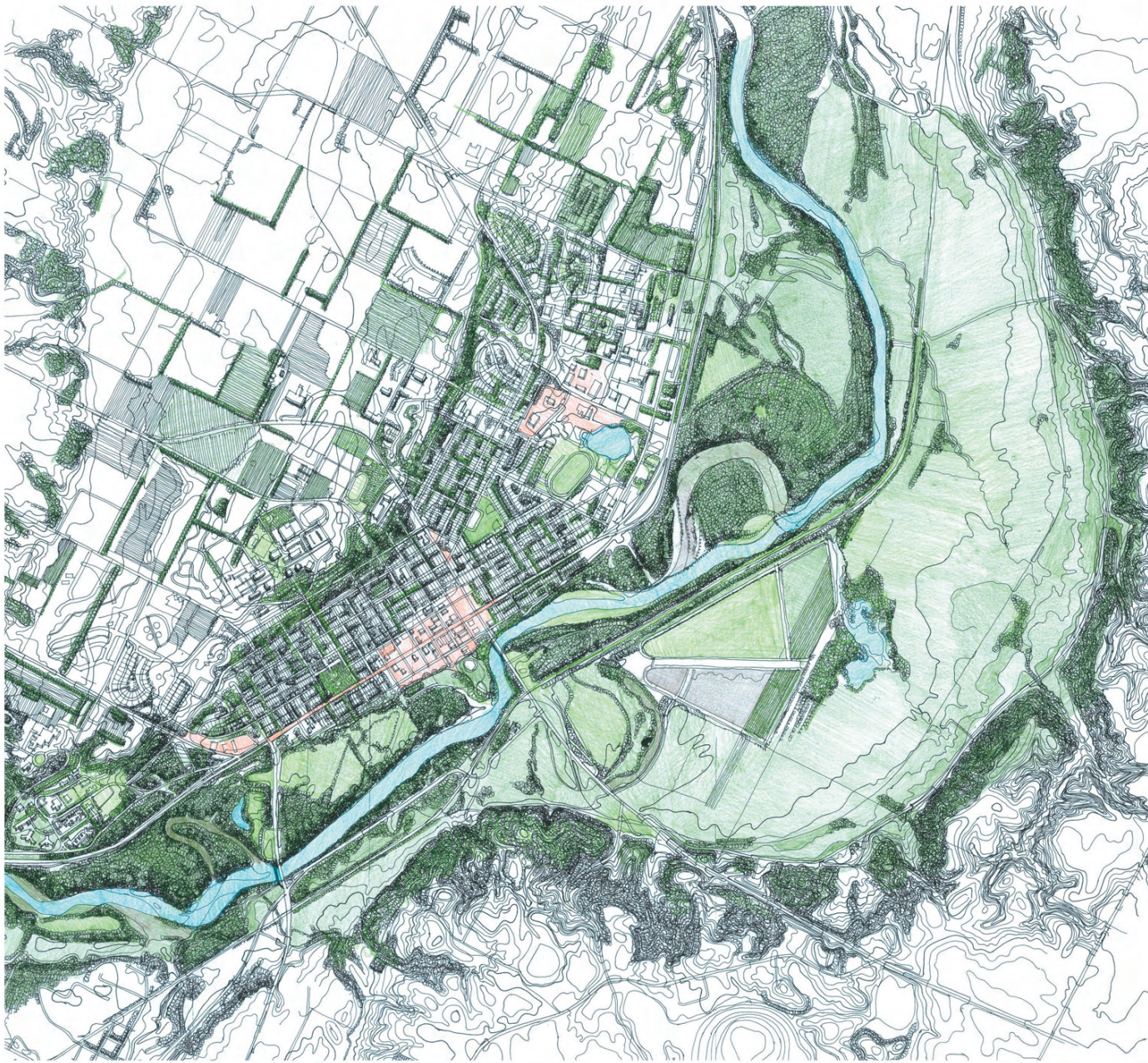
CHARACTER ANALYSIS

Because Saint Peter is located in a bowl that is bifurcated by the Minnesota River, changes in topography create views of the city from across the valley.

The city has historic residential, commercial, and civic buildings that date back to the nineteenth century European settlement. The city has important sites relating to Dakota culture. The Treaty of Traverse Des Sioux was signed in Saint Peter. It is also the location of a historic Dakota settlement, a traditional river crossing, and trading center. The Treaty History Center Museum is sited north of the business district between the highway and the river.

A number of natural amenities are located in and surround the city. These include Robarts Creek, the Ottawa Wildlife Management Area, the Ottawa Bluffs Nature Conservancy site, Riverside Park Natural Area, Traverse Des Sioux, Kasota Prairie, and Oakleaf Park.

Gustavus Adolphus College's buildings create a striking presence when viewed from several major streets in the community below.



NATURAL RESOURCES



RIVER ACCESS



VALLEY VIEWS



HISTORIC INTERPRETATION



HISTORIC SITES



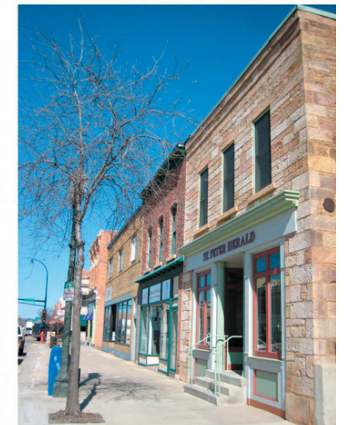
COUNTY SEAT



COLLEGE CONNECTION



HISTORIC ARCHITECTURE



HISTORIC DOWNTOWN



SAINT PETER: HISTORIC VALLEY COMMUNITY

COMMUNITY ANALYSIS

Land Form:

The City of Saint Peter is located in the base of a bowl-shaped valley formed by the River Warren. At Saint Peter the valley is nearly two miles across, a dramatic and noticeable contrast to many other much narrower areas along the Minnesota River. The western side of the river, where Saint Peter is situated, is composed of a series of terraces and is noticeably different from the steeper eastern riverside. When viewed from below, near the river, Gustavus Adolphus College appears to be on the top of the bluff but it is actually on the crest of the middle terrace. The actual top of the bluff is even farther from the historic town core. The majority of the town sits on the lower terrace below the college. Newer residential development is on the middle terrace. Because Saint Peter is platted right on the river, part of the town is located within an extensive floodplain. Many of the buildings near the river, including the Traverse des Sioux Park, are in the flood plain.

Land Use:

Pockets of commercial land use dot the town, but most commercial uses are concentrated along Minnesota Avenue which is also busy State Highway 169. Saint Peter's historic downtown is a vibrant place that could benefit from additional pedestrian and bicycle systems that support increased activity. Saint Peter's industry is concentrated in an industrial district north of downtown and west of the highway. There are plans to expand this area with additional big box commercial uses. More mines are concentrated in the landscape around Saint Peter than in other parts of the Minnesota Valley because of the short distances to bedrock in this area. Active quarries and mines can be dangerous places, but they are also interesting places to see. The famous Kasota Stone quarries located just across the river from Saint Peter are points of interest.

The community center, public library, and a large city park are located on the edge of the middle and lower terraces among residential properties. The primary schools are also found along this slope.

Saint Peter has many small neighborhood parks. Minnesota Square Park located along Highway 169 is a major civic space. Mill Pond Park, Riverside Park and Transverse de Sioux Park are located along the Minnesota River. The large Ottawa Wildlife Management Area is just across the river from Saint Peter. Because trails cannot cut through this land, the beautiful scenery can be viewed from the trails that wrap around it.

Circulation:

Saint Peter has been very active in creating a trail system plan as part of the city's comprehensive plan. Some parts of the trail system have been built, but many segments have yet to be constructed. The trail plan concentrates on the town's newer neighborhoods in the outlying areas,

and trails are not planned in older residential areas. Only a couple of trails segments bring trail users to the Minnesota River.

There is a conflict between the requirements of a major regional highway and the needs of a commercial main street in a small town. The very busy State Highway 169, the city's main street, runs through Saint Peter's linear historic downtown. The heavy traffic of numerous cars and large trucks undermines this monumental street's potential for pedestrian use and eventually may cause damage to the historic commercial, civic, and residential buildings that make up the historic district.

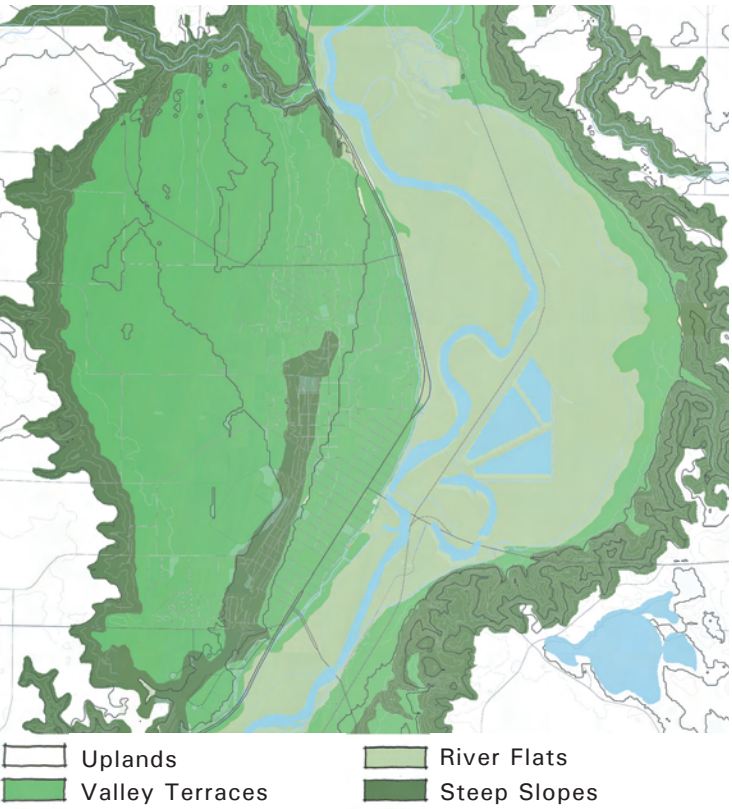
Although there are a number of sidewalks in Saint Peter, many streets are without them. The wide streets without traffic lights at intersections make crossings difficult for pedestrians. Most parks have sidewalks that lead up to them, but in the places where the roads do not have sidewalks, people have to walk on the road to reach the parks.

Points of Interest:

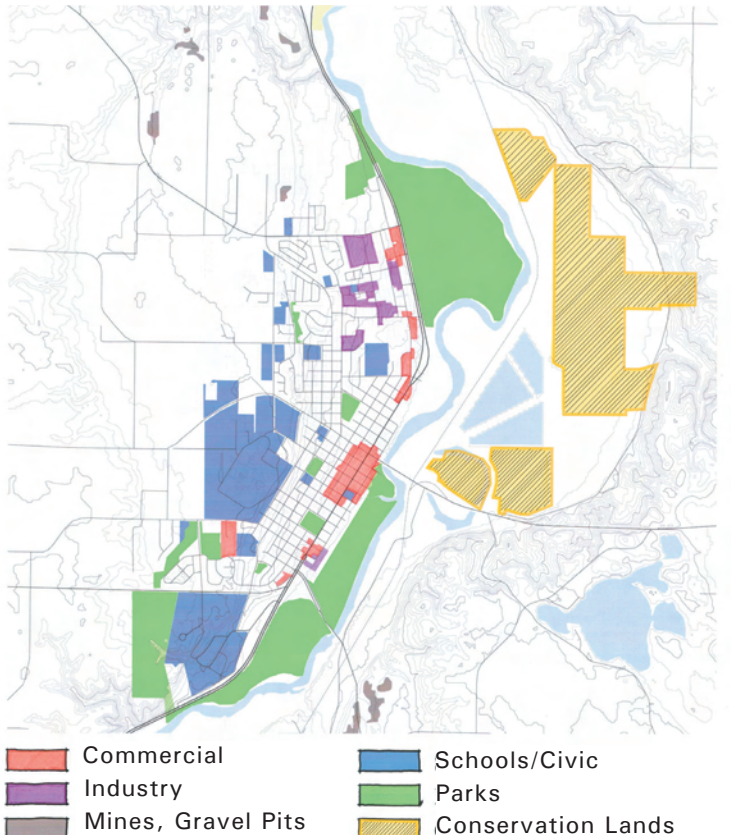
Because Saint Peter is one of the earliest European settlements in the Minnesota River Valley, it has many of the valley's oldest buildings and sites. The Traverse des Sioux Treaty was signed at a site within the town's boundaries. A historic marker marks the site. The Treaty History Center run by the Nicollet County Historical Society is located nearby. A self-guided walking tour of Saint Peter created by community organizations includes the entire historic downtown. Gustavus Adolphus College and Linneaus Arboretum, Saint Peter Regional Treatment Center and Museum, and the historic bridge are other places of interest within the town.

Many amenities are located within the city's parks. The Traverse des Sioux Park and History Center have trails, a canoe launch, restrooms, and a museum. The Mill Pond Park and Riverside Park have a boat launch, camping area, restrooms, picnic pavilion, and a play area.

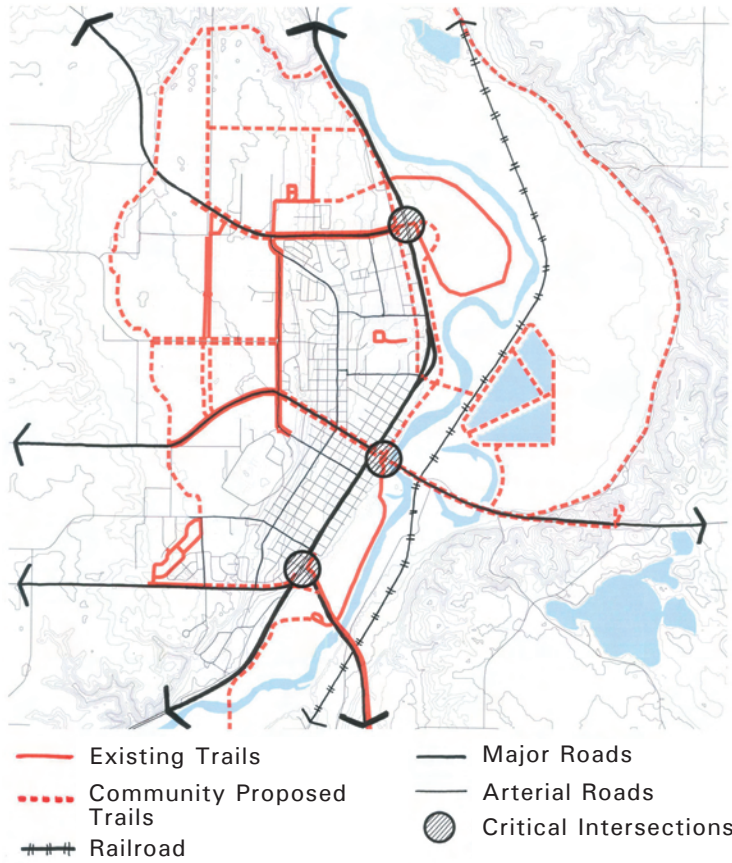
Landform



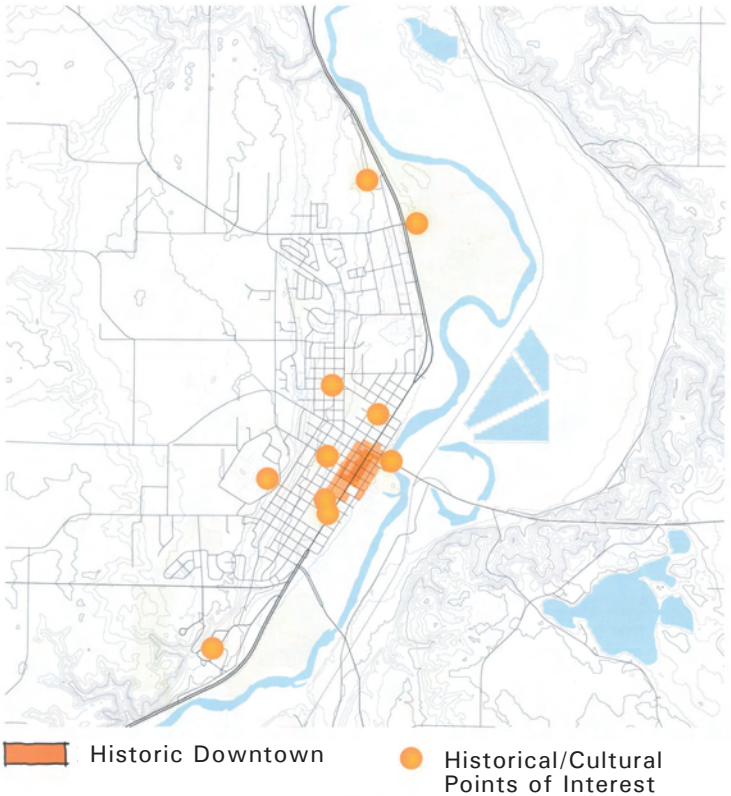
Land Use



Circulation



Points of Interest

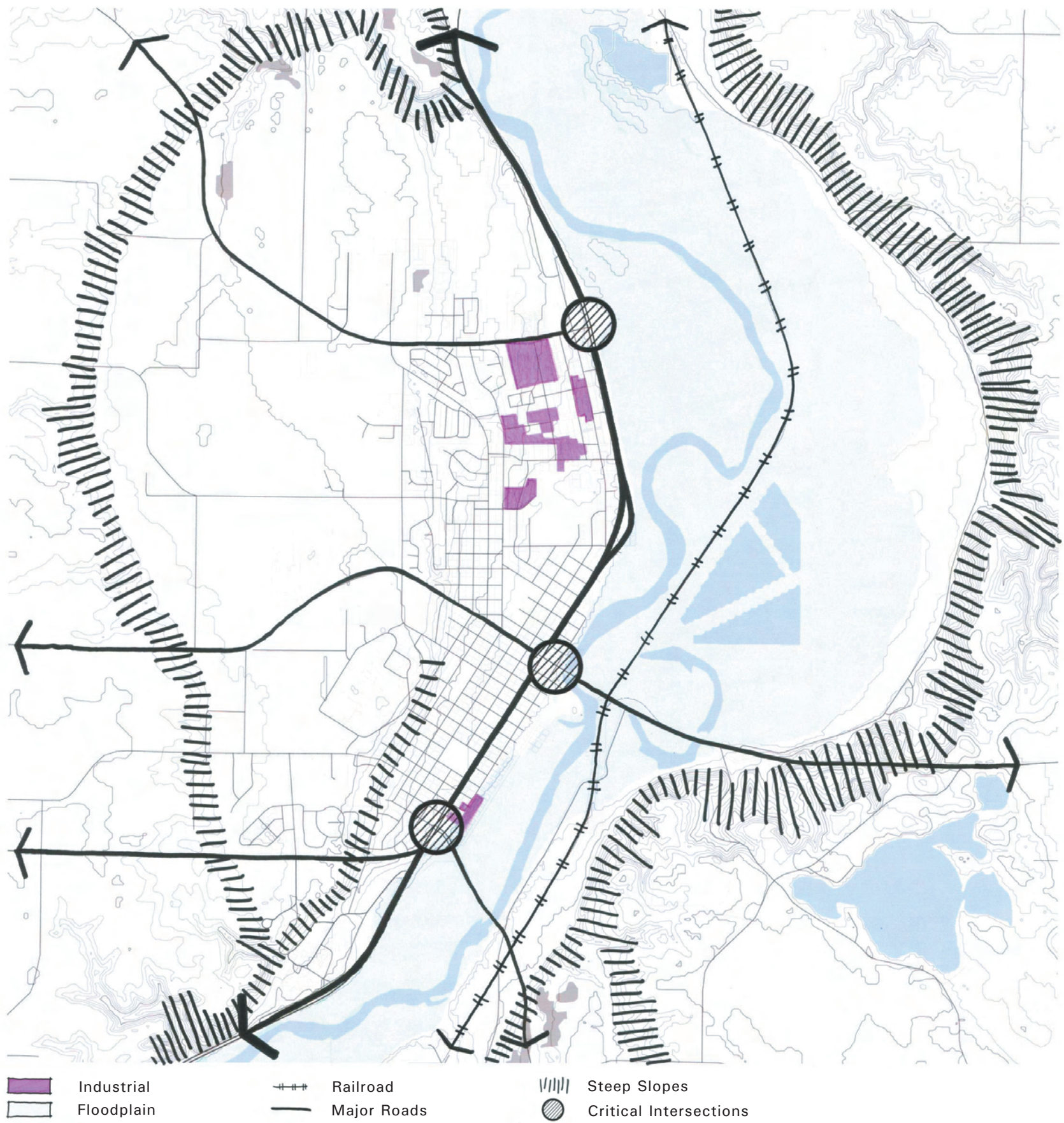




COMMUNITY ANALYSIS: TRAIL CONSTRAINTS

Saint Peter's topography creates constraints for trail design. Trail design challenges occur at both the north and south entrances to Saint Peter because there are steep slopes on all sides of the town. The valley sides at the northern and southern ends of the town create pinch points that leave little room for a trail between the river, Highway 169, and the bluff edge. A large portion of the valley floor frequently floods, making it difficult to site trails in those areas where floods may wash out the trails or leave large sediment deposits on them. The slope up to Gustavus Adolphus College has a steep grade. While there are greater difficulties in winter when roads and sidewalks are slippery, this slope is a challenge for walking and biking year round.

Siting trails along high traffic roads can make trail use unpleasant and dangerous. Crossing busy thoroughfares at intersections without traffic control lights is also undesirable and dangerous. The high water table in the downtown makes underpasses unfeasible. However, the city does not have the challenges that some cities have. Areas of industrial use are usually areas to avoid for state trails. Unlike some other Minnesota River towns, most of Saint Peter's industry is in a concentrated industrial area in the northern part of the city, so it can be easily bypassed by the state trail. The railroad does not pass through the city because the line is located east of town across the Minnesota River. If the trail or a connecting trail would go east to cross the river, it would also cross the railroad, and a safe crossing would need to be provided.

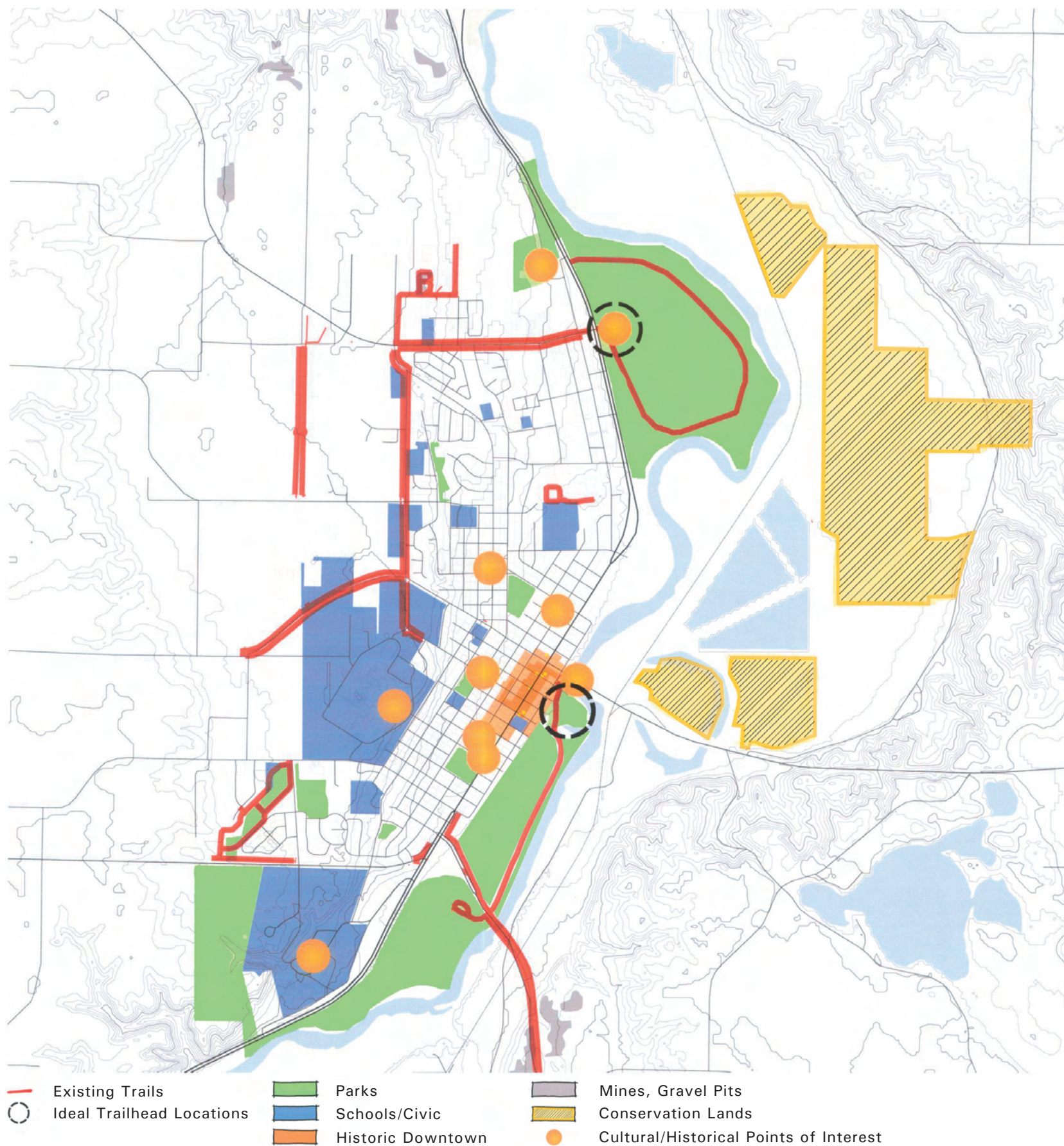




COMMUNITY ANALYSIS: TRAIL OPPORTUNITIES

There is an opportunity to build on the segments of the community system that has already been built. New trail segments can provide a direct connection from downtown to the river, and they can create pedestrian friendly paths for residents to walk and bike to downtown. They can also fill in the gaps and connect all of the important town amenities. Bike lanes can be added on the wide streets through the older residential areas to provide safe routes to and from school for K-12 students as well as college students. Besides keeping cyclists off sidewalks, marked bike lanes on roads are easy to follow routes for visitors.

Mill Pond Park/Riverside Park and Traverse Des Sioux Treaty History Center with their existing amenities are well suited for trailheads. Because a parking lot, restrooms, trails, space for kiosks, and the Center already exist at Traverse Des Sioux, little would have to be changed to make it a trailhead. Trails need to be connected to the park. Because the actual Traverse des Sioux Treaty signing site is across Highway 169 from the park and the center and crossing the highway is dangerous, the opportunities for providing a safe crossing need to be addressed. Mill Pond and Riverside Parks are adjacent to each other along the river by downtown. A heavily used site for camping, a boat launch with parking for cars with boat trailers, a trail along the river, a children's playground, restrooms, a picnic structure, and visitor parking are all currently in these parks.





SAINT PETER: HISTORIC VALLEY COMMUNITY

COMMUNITY TRAIL OPTIONS

The City of Saint Peter already has an extensive plan for community trails. This project's design/planning work builds on the community's existing plans by proposing additional trails to help build critical connections within the community and between the community and the river. New trail segments provide a direct connection from downtown to the river, and they create pedestrian friendly access to downtown. On-road designated bike lanes in the city's core knits the existing and proposed system together into a cohesive trail network. New painted bike lanes on selected wide streets through the older residential areas provide safe routes to and from school for elementary and secondary students as well as college students. Besides keeping cyclists off sidewalks, marked bike lanes on roads make routes easy to follow for visitors. The major trails that connect to the river are: Jefferson Avenue, College Avenue, Mulberry Street, Nassau Street, and Broadway Avenue. By the river these bike lanes become paved bike trails that connect to the proposed Riverside Trail. Third Street and Washington Avenue are the major north-south connections linking the

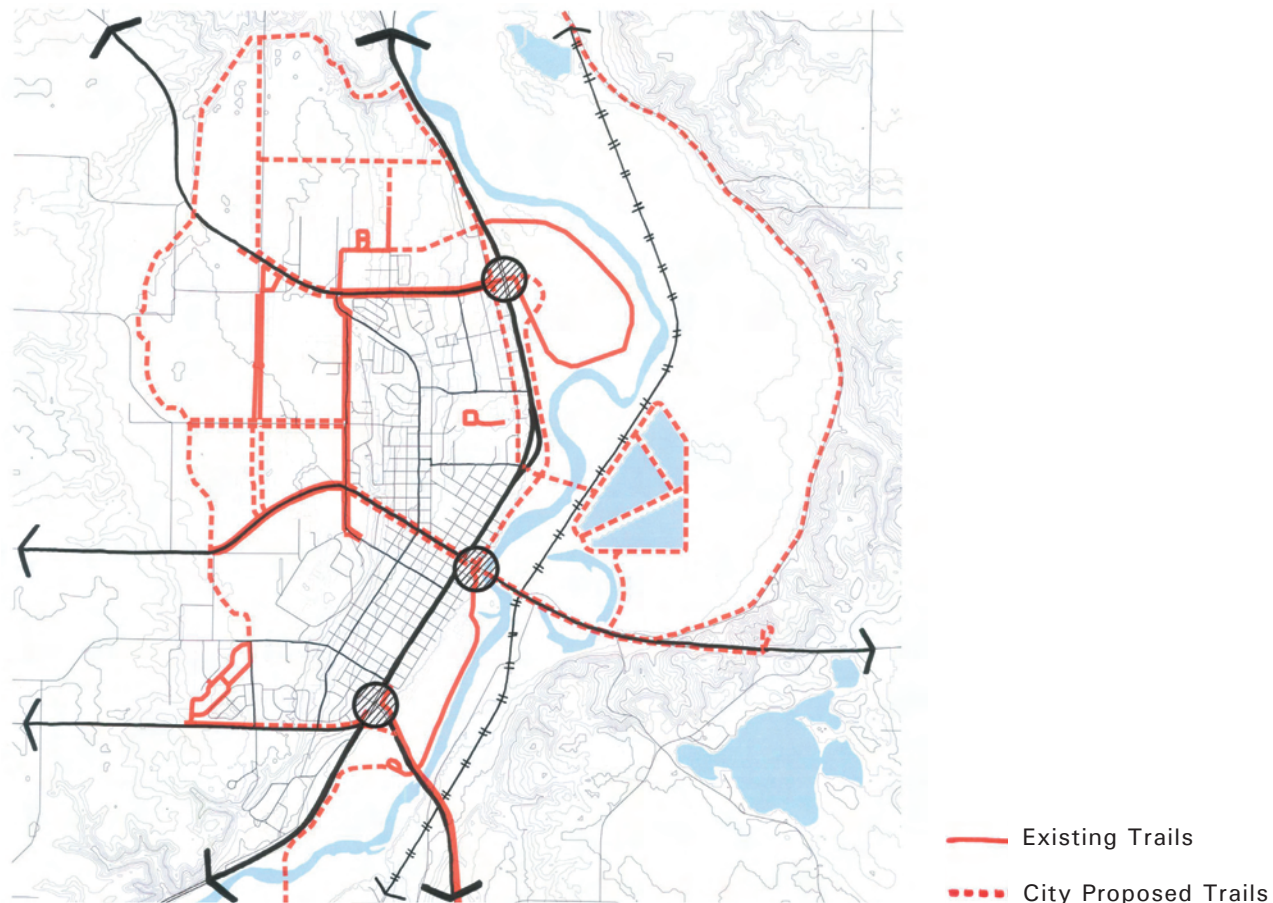
majority of the schools, civic spaces, and many historic houses.

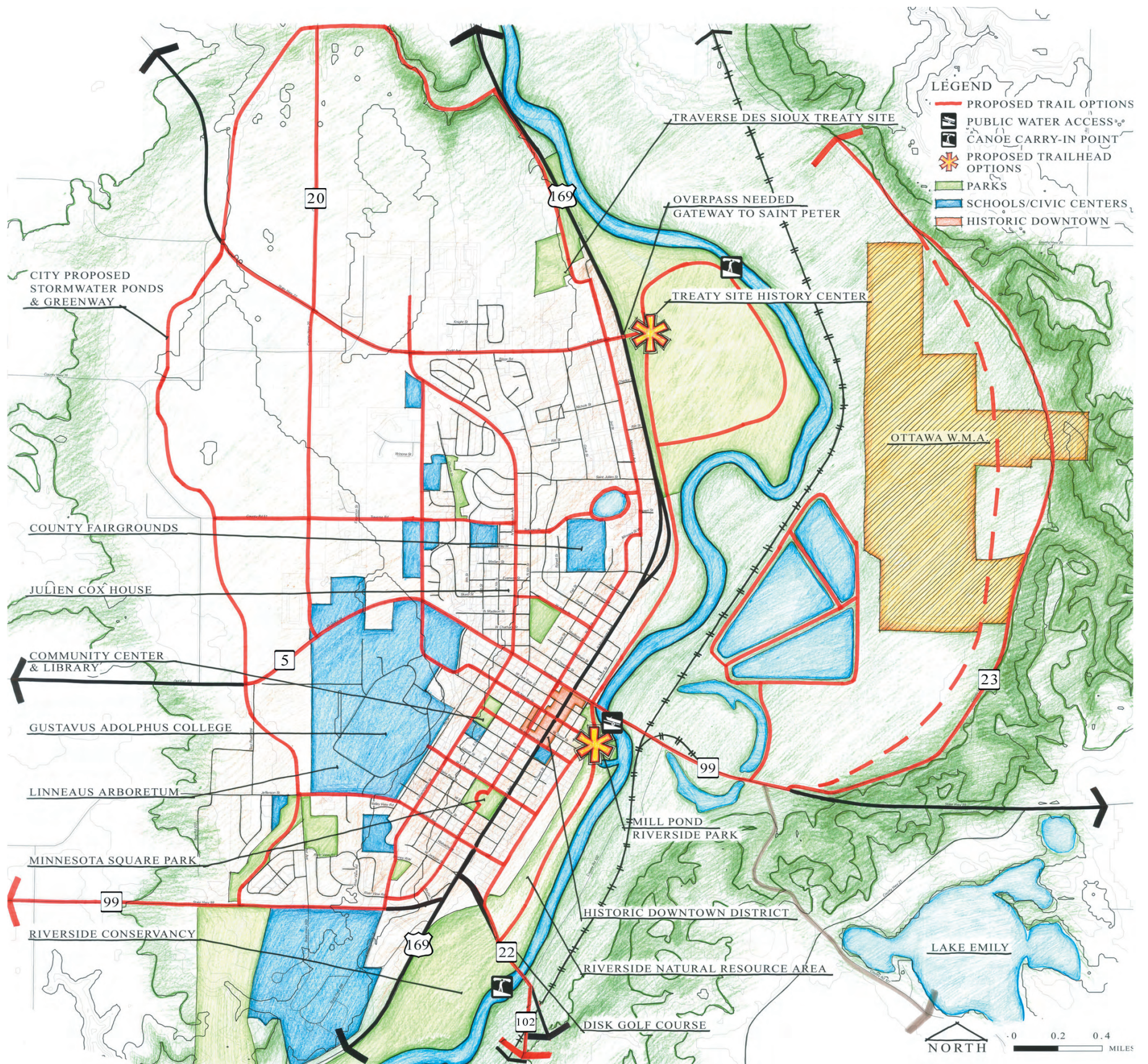
The state trail enters Saint Peter's network of trails either from Oakleaf Lake in the southwest following Highway 99, or from Kasota in the southeast following Highway 22. From Broadway Avenue the trail follows the Ottawa Road or passes Robart's Creek along county roads to go north to Henderson.

The City of St. Peter is planning to extend its future development to the western bluff line. A greenway system is planned to link this future growth to the existing city and its amenities. This study makes a large loop around the city that extends to the river and back around to Traverse Des Sioux and Robart's Creek.

Trailheads are proposed at Mill Pond Park and Traverse Des Sioux Treaty History Center.

Existing and City Proposed Community Trails







SAINT PETER: HISTORIC VALLEY COMMUNITY

RIVER CONNECTIONS & HIGHWAY 169

Because Saint Peter's grid system of streets runs parallel and perpendicular to the river, there is an opportunity for strong connections between the community and the river. Bike lanes located on Jefferson Avenue, College Avenue, Mulberry Street, Nassau Street, and Broadway Avenue go right to the river. These connecting streets were chosen based on their proximity to community civic places and amenities. Jefferson Avenue connects Gustavus Adolphus College, its arboretum, and South Elementary School to the river. College Avenue provides a direct connection between the College's main entry and historic Old Main and the river. Although bike lanes would be useful on this street, the slopes between Washington Avenue and the college are quite steep. The framed view from the river up the terrace to Old Main is powerful enough to warrant College Avenue as a major river connector. Mulberry Street connects the new community center and library, Gorman Park, and the Nicollet County Courthouse to the new main entry into Mill Pond Park/Riverside Park Trailhead. Nassau Street directly connects the Middle and High School to Mill Pond Park by passing through the downtown core. Near the Middle/High School the road ends, and the trail turns left towards Grace Street to follow the existing bike lane into the community trail system. Broadway Avenue connects the top of the bluff, future development, and the proposed greenway to the historic bridge crossing and ferry landing at Levee Park. Each of these connections would require a traffic light at their Highway 169 intersections for safe access to the river.

The Future of Highway 169/Minnesota Avenue:

"Highway 169 is a high priority interregional corridor between Mankato and the Twin Cities that carries heavy truck traffic and an increasing amount of commuter traffic. In St. Peter, Highways 22 and 99 and numerous city streets intersect Highway 169. The highway forms the city's main street through the central business district that is also a historic district. The U.S. Highway 169 Corridor Management Plan dated May 2002 identified several issues within St. Peter and along the corridor. "The combination of through traffic, local traffic and pedestrians in Saint Peter results in needs to reduce traffic, operational difficulties at some intersections, and safety problems. The pavement and municipal utilities under the highway are aging. Furthermore, the dual uses of the highway as an interregional corridor and as a main street through an historic central business district are potentially in conflict." (MNDOT Study in St. Peter)

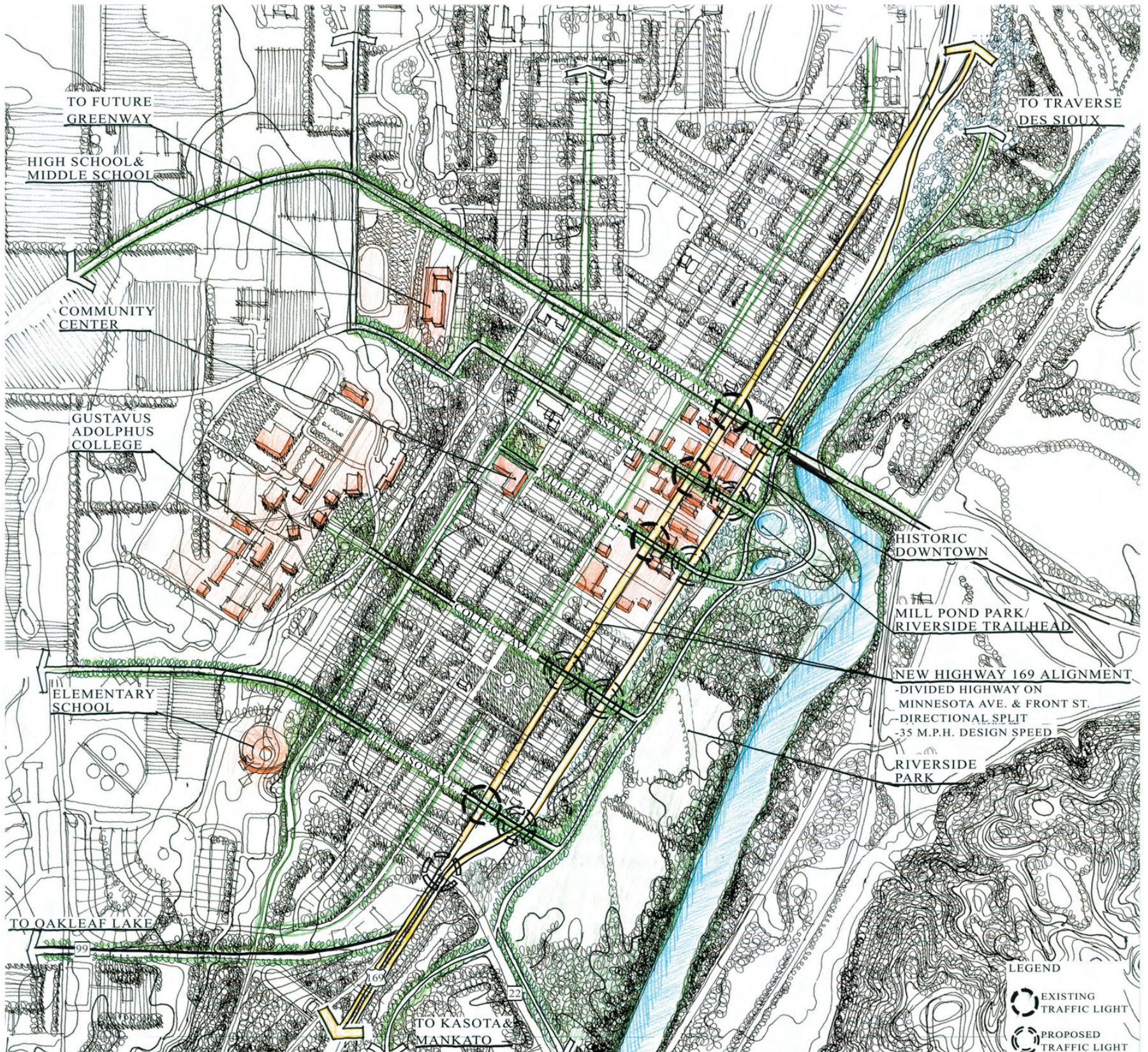
The Minnesota Department of Transportation has taken a short-term and long-term approach to their analysis of Saint Peter's transportation needs. "The Corridor Management Plan identified three potential bypass alternatives. Significant environmental and engineering studies are needed before a preferred alternative is selected. The high cost of a bypass (\$50 million) make a project unlikely within 20 years." (MNDOT Study in St. Peter)

A bypass outside of town would potentially take all traffic and economic benefit out of the downtown business district. Therefore, the City of Saint Peter has been partial to a bypass on Front Street between the river and the downtown. However, this would cut the community off from a connection to the river.

As a short-term measure, raised medians will be placed in the downtown district to "channelize traffic and improve pedestrian safety." (MNDOT Study in St. Peter) Openness and width are parts of the historic character of this street/highway. Because of this and the status of downtown as an historic district, medians and any new plantings cannot exceed thirty inches in height.

This study sought to strengthen the connections between the community, its downtown, and the river. Because the median project is to be built in 2009, this study proposes suggestions to enhance the median plan that connects the community to the downtown and the river. The study also proposes a more visionary option for the future that provides redevelopment/development opportunities in the business district.

In the future option, State Highway 169 becomes a one-way pair in the heart of Saint Peter. Near the junction of Highway 22 and Highway 169, the highway would split into two one-way roads. Front Street is widened to receive northbound traffic. Minnesota Avenue's road width is decreased to accommodate southbound traffic only. The divided highway would be easier to cross, access to the river will be provided, and traffic will still go through downtown to support local businesses.



DOWNTOWN TO THE RIVER

The drawing shows this study's proposal for the future of downtown with a divided highway. The one-way highway on Front Street provides development/redevelopment opportunities for new mixed uses that face the riverfront. Currently the city's main retail area is concentrated in a linear pattern on either side of Minnesota Avenue/Highway 169 with little room for expansion. This new highway configuration opens the way for a stronger concentration of businesses in the downtown core by reviving Front Street as an important commercial street as it once was.








Streets with bike lanes bring pedestrians and trail users into the downtown historic district. Dense street tree plantings along these "river connectors" help to define the route and provide a contrast to the openness of Minnesota Avenue/Highway 169. Mulberry Street connects to Mill Pond Park and the new Riverside Trailhead with a new formal entry into the park that passes by the courthouse. Nassau Street provides a framed view to the Mill Pond and its amenities. The Nassau Street entry into the park would be closed to vehicles becoming a wide pedestrian mall and plaza overlooking the pond and the park. Broadway Avenue provides trail users with connections to Levee Park, the Chamber of Commerce, the historic bridge crossing, and the state trail.

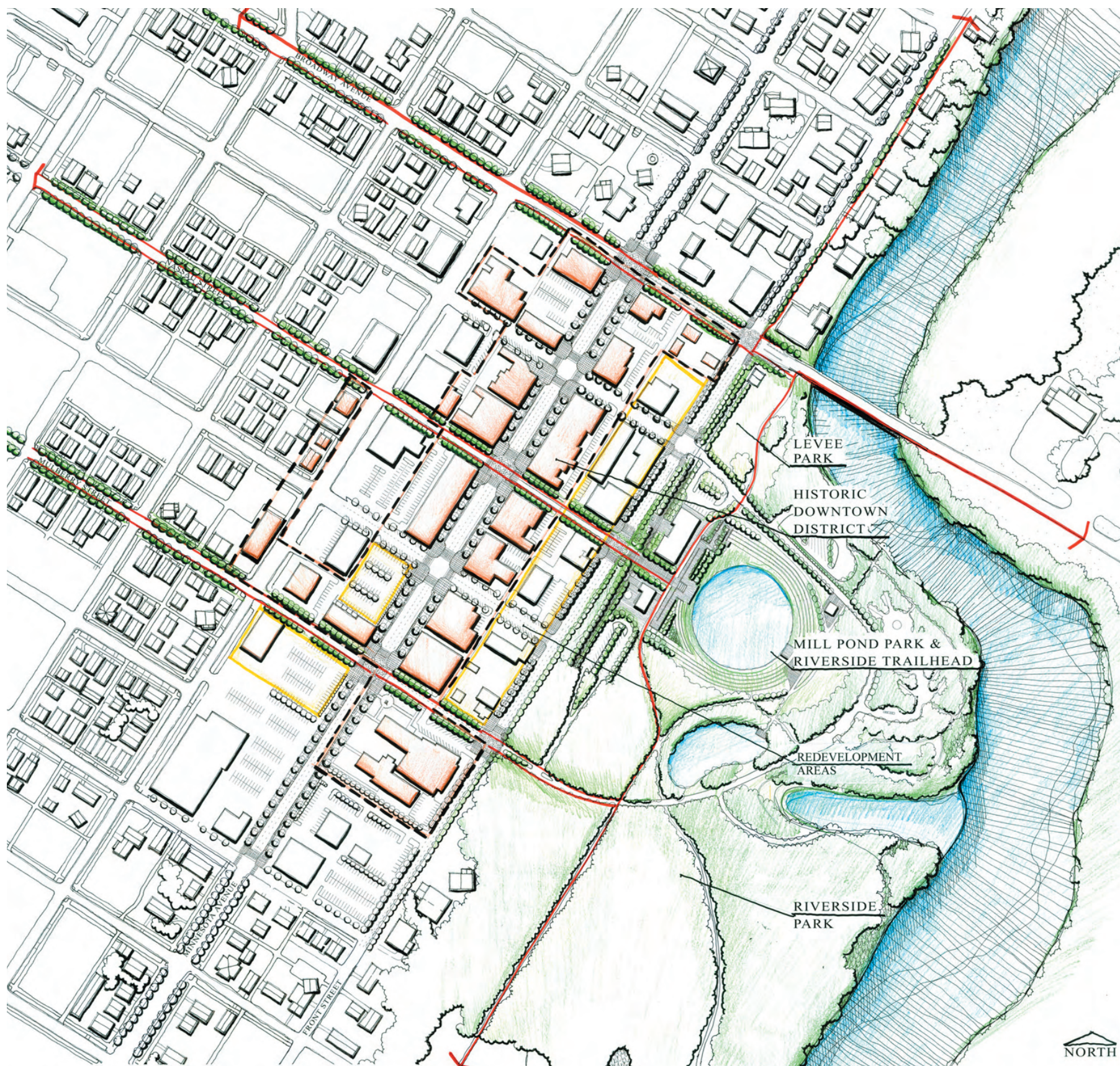
Existing Downtown Land Use



Proposed Downtown Land Use



-  Existing Commercial
-  Existing Underutilized Commercial
-  Proposed Commercial
-  Existing Institutional
-  Proposed Institutional
-  Proposed Mixed Use
-  Proposed Multi-Family





SAINT PETER: HISTORIC VALLEY COMMUNITY

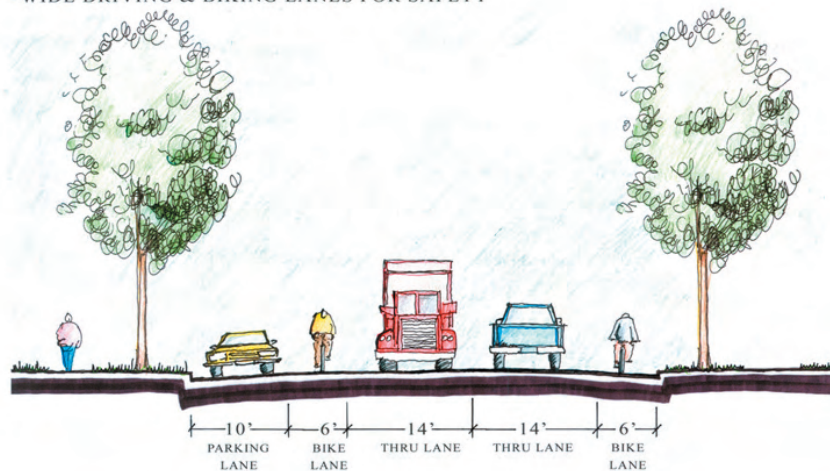
DOWNTOWN TO THE RIVER: BIKE LANE OPTIONS

The options for creating bike lanes within the city's established residential neighborhoods that connect existing bike paths, neighborhood amenities, downtown, and the river area are shown in these cross sectional drawings. As the bike lanes approach the downtown district, the sections change to respond to the downtown design options that are presented on pages 152 and 154.

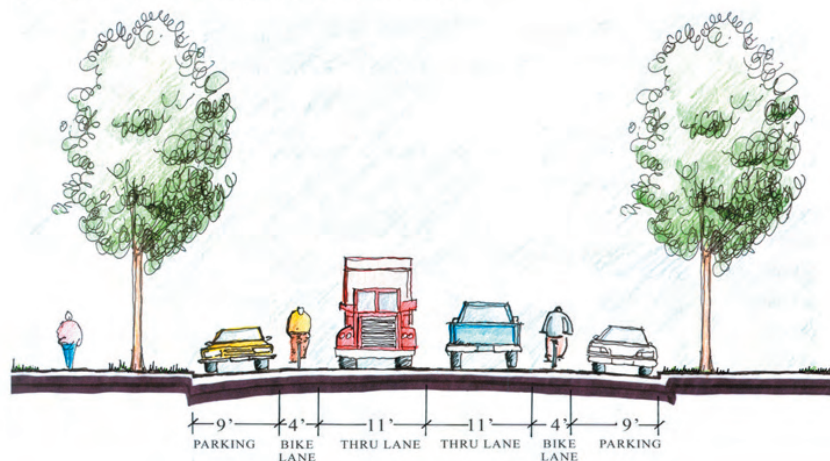
Jefferson Avenue, Washington Avenue College Avenue and Broadway Avenue are all very wide streets that have three design options. If street parking were eliminated, there would be room for an 8-foot planted median, 14-foot driving lanes, and 6-foot bike lanes. The median trees calm traffic to create a safer cycling environment. If parallel parking is kept on one side of the street, there is room for 14-foot driving lanes and 6-foot bike lanes. If parallel parking is kept on both sides of the street, the parking lane is 9 feet, bike lanes are 4 feet, and driving lanes are 11 feet.

On Nassau Street and Mulberry Street, the narrower residential streets that connect to downtown and the river, parking and bike lanes cannot co-exist. By removing on-street parking, room for 6-foot bike lanes and 12-foot driving lanes is made.

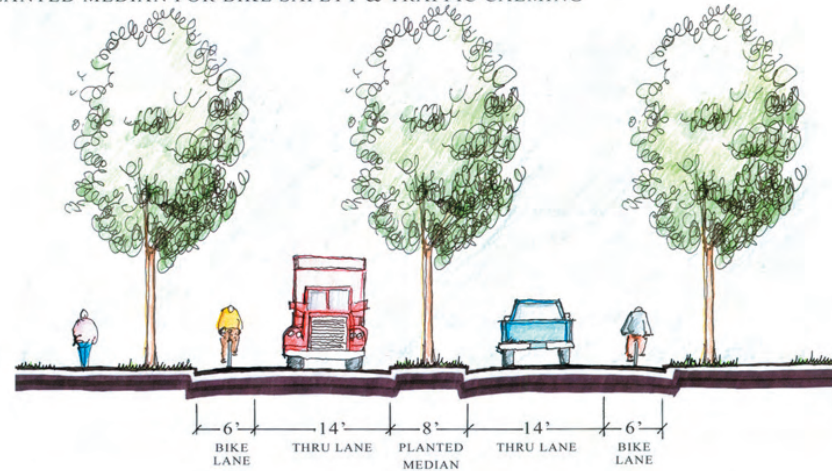
48' RESIDENTIAL ROADWAY WITH BIKE LANES
 -PARKING ON ONE SIDE ONLY
 -WIDE DRIVING & BIKING LANES FOR SAFETY



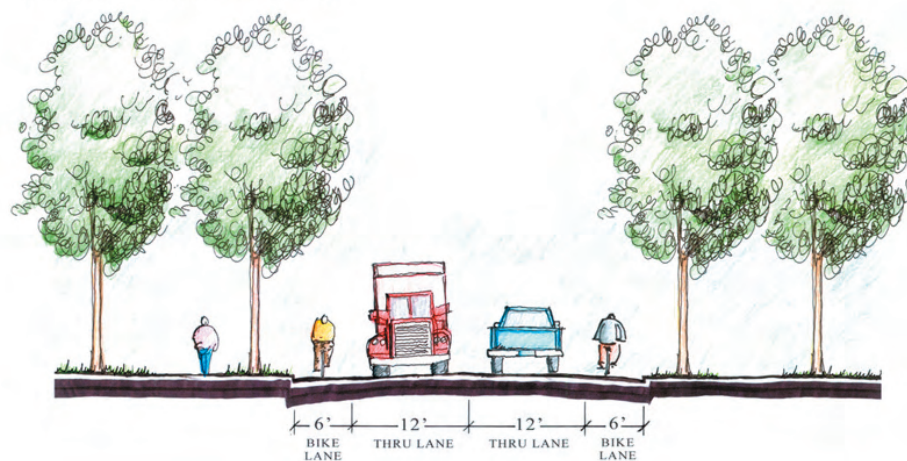
48' RESIDENTIAL ROADWAY WITH BIKE LANES
 -PARKING ON BOTH SIDES
 -NARROW DRIVING, PARKING, & BIKE LANES



48' ROADWAY WITH BIKE LANES & PLANTED MEDIAN
 -NO PARKING ON STREET
 -PLANTED MEDIAN FOR BIKE SAFETY & TRAFFIC CALMING



36' ROADWAY WITH BIKE LANES
 -NO PARKING
 -WIDE BIKE LANES FOR SAFETY



PRECEDENTS



SUMMIT AVENUE, ST. PAUL, MN
 -BIKE LANES
 -NO PARKING



SUMMIT AVENUE, ST. PAUL, MN
 -BIKE LANES
 -PARKING ON BOTH SIDES



SUMMIT AVENUE, ST. PAUL, MN
 -BIKE LANES
 -PARKING
 -CENTRAL BOULEVARD

FUTURE DOWNTOWN DESIGN OPTION: Highway 169 as One Way Pair

This design addresses the problem of having Minnesota Avenue/Highway 169 function both as Saint Peter's main street and a major regional highway simultaneously by making it into a pair of one-way roads as it goes through the heart of Saint Peter. It puts the southbound traffic on Minnesota Avenue and the northbound traffic on Front Street.

This design strategy improves the main street quality of Minnesota Avenue considerably.

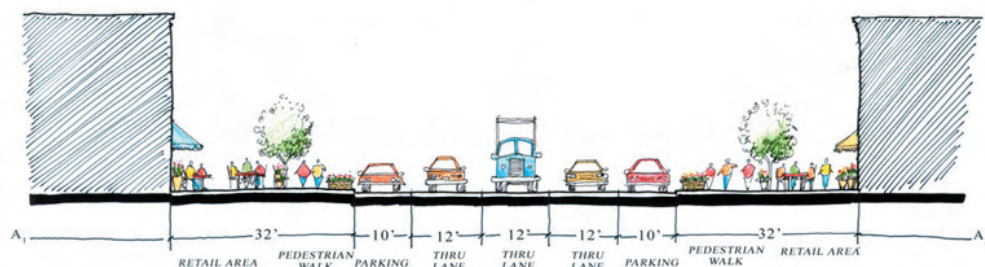
Minnesota Avenue is reduced to three traffic lanes with parallel parking on both sides of the street. Bump-outs slow traffic and create shorter, safer pedestrian crossings at intersections. In areas where they are allowed, street trees create a defined pedestrian environment to support downtown activity and vitality. In the historic blocks where street trees are not allowed, Kasota stone planters line the sidewalks to provide a planted edge that buffers pedestrians from traffic as depicted in Section A. The new wide sidewalks provide pedestrian circulation, areas for seating and displays, and the potential for sidewalk cafes and coffee shops.

The design for Front Street is similar to the Minnesota Avenue design. The street is widened to accommodate three traffic lanes and parallel parking. Because there are no historic district restrictions on street trees on Front Street, a row of street trees instead of planters define the edge between the future development, the pedestrian walkway, and highway as depicted in Section B.

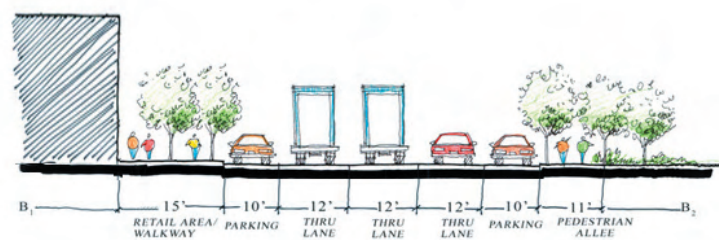
Making Front Street one half of the Highway 169 one-way pair creates opportunities for redevelopment/development. Currently the downtown is a thin linear strip on either side of 169/Minnesota Avenue. There is little room for expansion, creating concerns about new and existing commercial activity locating/relocating away from the historic core. Losing businesses downtown would lessen the downtown's vitality. Much of the land along Front Street is underutilized. Redesigning Front Street creates opportunities for mixed-use development/redevelopment. By concentrating commercial and residential uses on Front Street, downtown becomes a more active, vital place. Land becomes better utilized and more valuable, the downtown is expanded, downtown activity is increased, and the connections to the park and the river are supported. The development/redevelopment areas are highlighted in yellow.

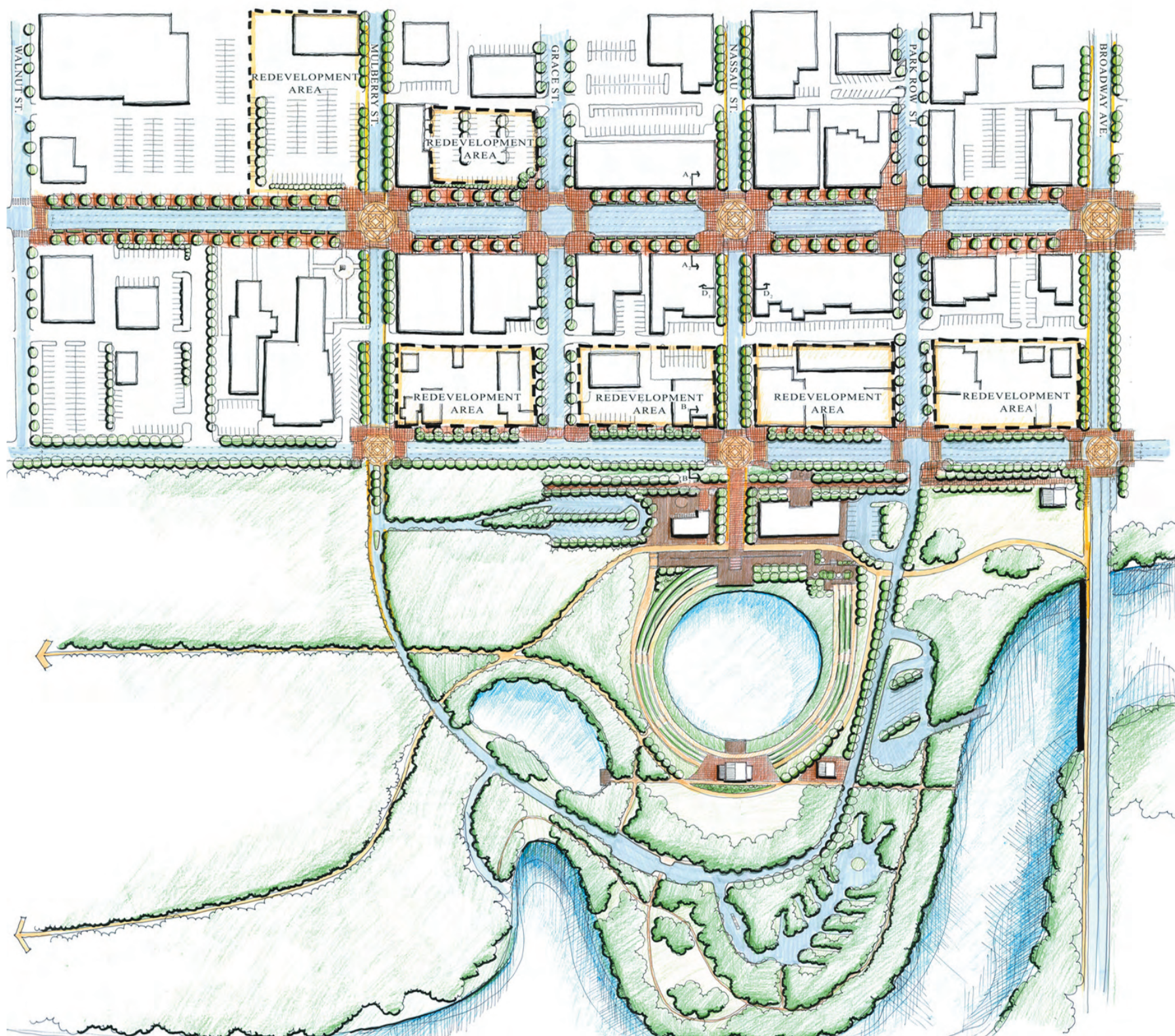
Bike lanes on Mulberry Street, Nassau Street, and Broadway Avenue connect both to downtown and the river. Dense street trees, planters, and a detailed paving pattern identify the intersections of Minnesota Avenue and Front Street. The existing angled parking on these streets is converted to parallel parking in downtown to accommodate bike lanes as shown in Section D on page 160.

SECTION A: MINNESOTA AVENUE/HIGHWAY 169



SECTION B: FRONT STREET/HIGHWAY 169



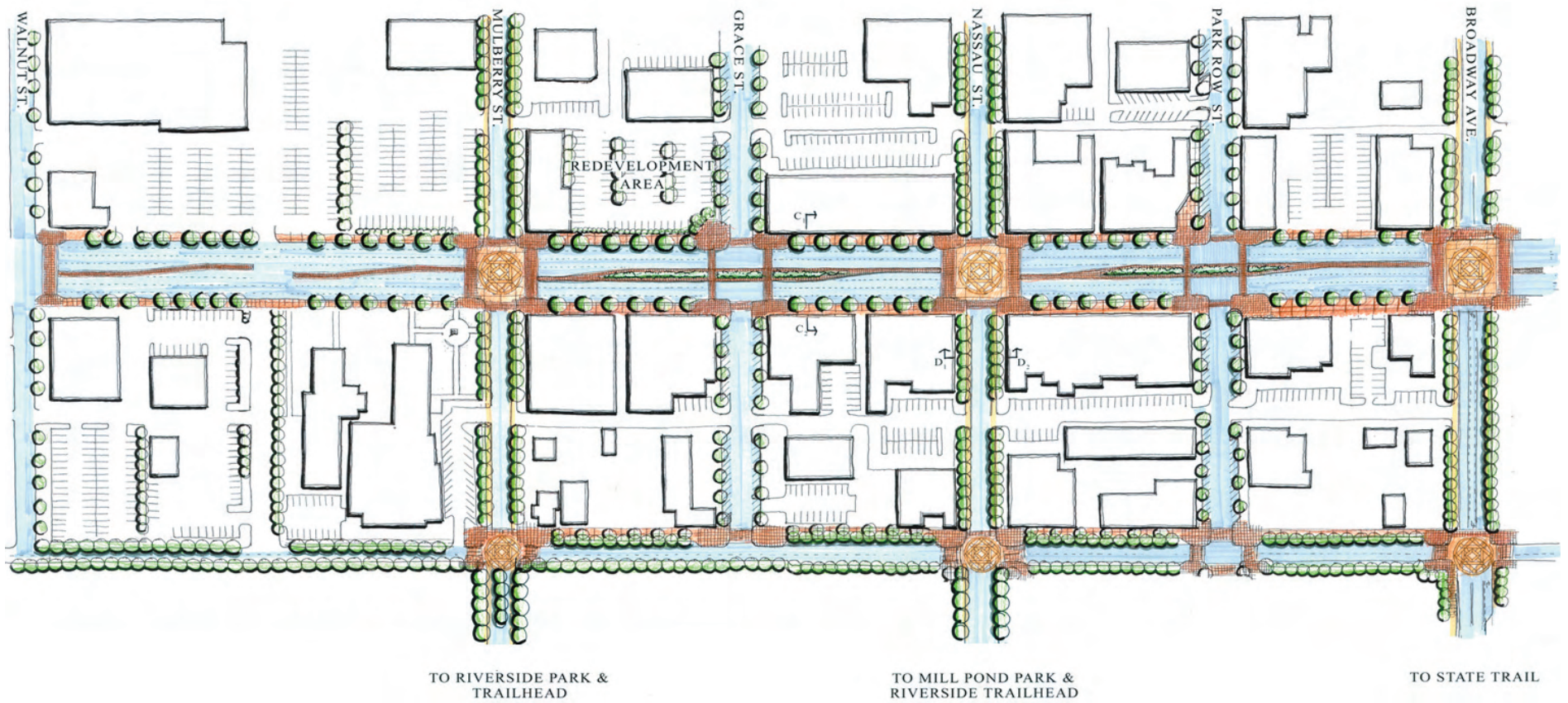




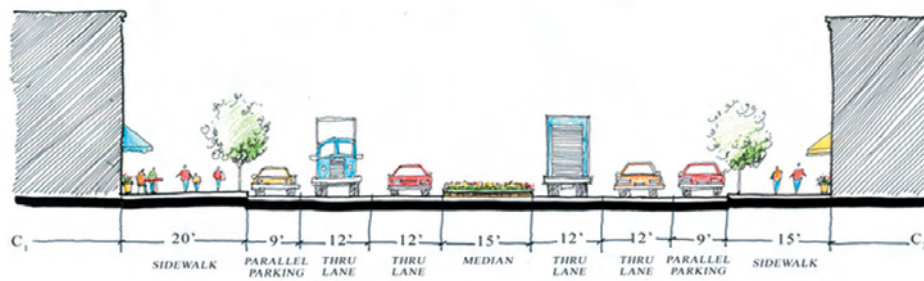
SAINT PETER: HISTORIC VALLEY COMMUNITY

DOWNTOWN DESIGN INTERIM OPTION: The Median Option

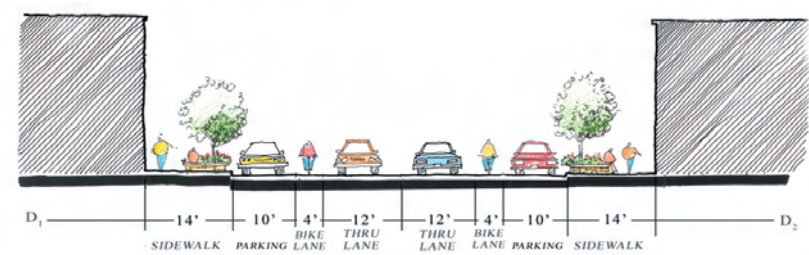
The currently proposed median plan is linked to a river and community connection strategy in the interim option for downtown. This interim option does not provide the same opportunity for development/redevelopment along Front Street. Highway 169 stays on Minnesota Avenue and Front Street would not be widened and redesigned. Minnesota Avenue/Highway 169 continues to accommodate four lanes of traffic, a turn lane, and parallel parking. Traffic would be separated in areas where segments of the turn lane become a raised median. At the Park Row Street and Grace Street intersections the median widens to accommodate plantings and crosswalks and through traffic is eliminated on these streets. Sidewalks remain at their existing width. Bump-outs promote safer pedestrian crossings by decreasing the length of the crossing and slowing traffic. This option for Minnesota Avenue is shown in Section C. The trees, planters, and decorative paving pattern at the bike lane intersections are same as the Future Downtown Design Option as shown in Section D.



SECTION C: MINNESOTA AVENUE/HIGHWAY 169



SECTION D: NASSAU STREET



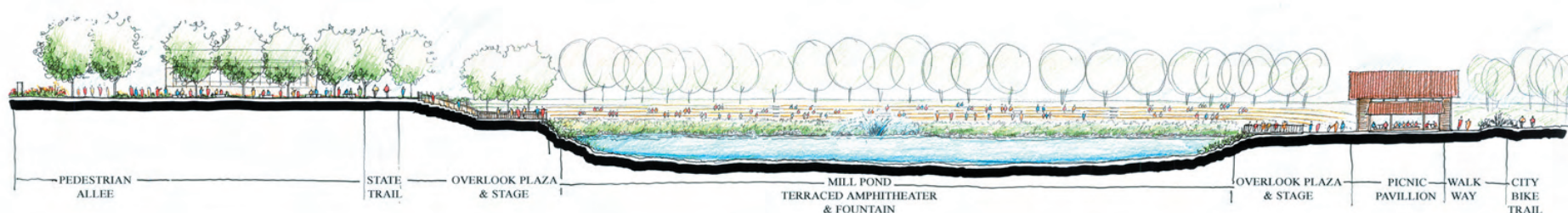
RIVERSIDE TRAILHEAD AT MILL POND PARK

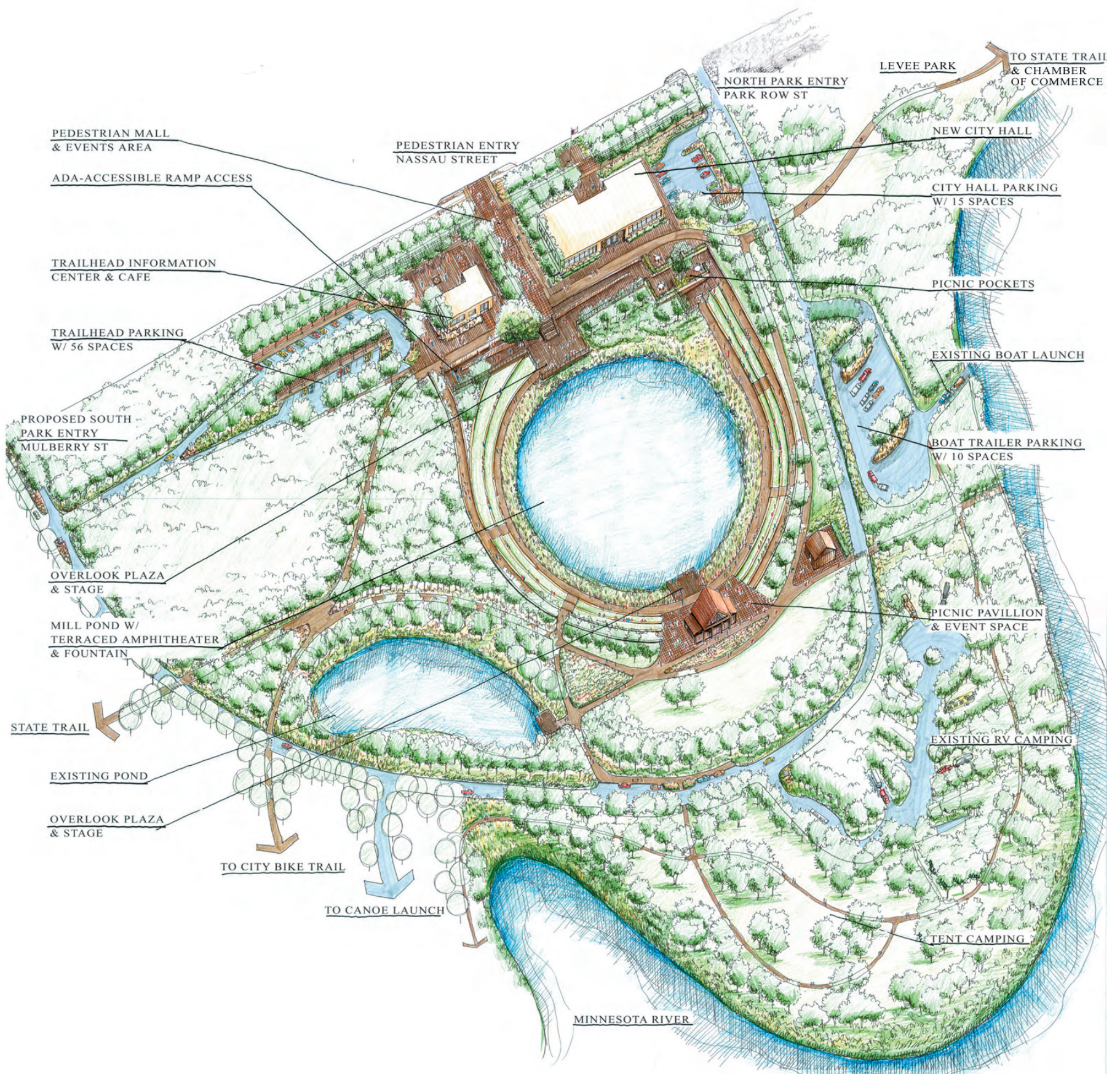
This future design of Mill Pond Park builds on the investments that have been made and expands on them to continue the redevelopment of this area. In order for this site to realize its full potential as an important public space that ties the city to the river, some existing buildings and the power-substation are eliminated or re-located. An alternative plan, seen on page 164, keeps the power station.

Nassau Street is an axis that provides a grand entry into the park that has a framed view of the Mill Pond, the picnic pavilion, and the performance platform. This enhanced civic space also has a pedestrian mall and plaza for markets and art fairs. A new city hall and the Minnesota State Trail Information Center are located across from each other on Nassau Street. Ramps that meet the Americans Disability Act (ADA) standards lead to the viewing platform and stage overlooking Mill Pond. The round shape and the sloping banks of the Mill Pond are used to create an outdoor amphitheatre for concerts and other live entertainment that has the pond at its center. The banks are terraced with Kasota stone and grass to create seating. Pedestrian paths circle the Mill Pond at the base and the top of the terraces to provide access from either level.

A new open-air picnic pavilion is aligned on the axis with the Nassau pedestrian entry as shown in the section below. A plaza surrounds the pavilion providing space for events and concerts. The existing comfort station is remodeled to reflect the architecture of the picnic pavilion. An open green behind the picnic pavilion provides space for recreation while accommodating the grade change.

The state bike trail is located on the platted but never built Market Street through Riverside Park. It curves to meet the trailhead center and city hall, moves north to enter Levee Park, and passes the Chamber of Commerce. A city bike trail loop is closer to the river. It wraps around the pond, the picnic pavilion, and the comfort station to meet the state trail as it enters Levee Park. The main park road skirts around the Mill Pond to the existing canoe launch, recreational vehicle camping area, and the boat launch. A new park entry off of Mulberry Street and the existing exit on Park Row Street provide access to this road. A small parking lot for city hall employees and visitors is located near the north entry on Park Row Street.





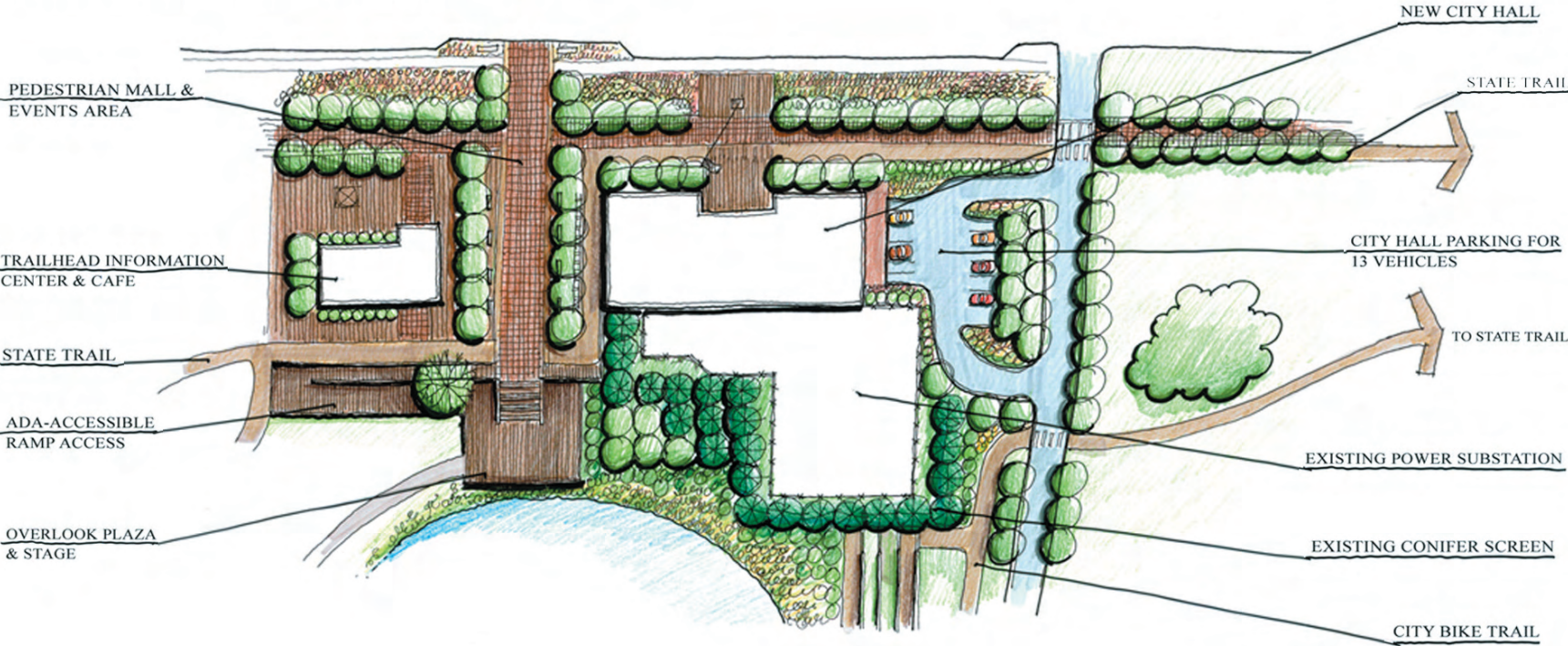


SAINT PETER: HISTORIC VALLEY COMMUNITY

RIVERSIDE TRAILHEAD AT MILL POND PARK

If re-locating the power sub-station is not an option, or if the design is implemented in phases, this plan illustrates how to accommodate the existing power sub-station into the larger park design. The power sub-station stays in its present location behind city hall. The state trail is re-routed along the side of city hall and turns north in front of city hall to parallel the pedestrian path into Levee Park. Because the sidewalk and the trail are next to each other, different paving patterns distinguish the pedestrian walkway from the state trail. The city bike trail stays the same, but meets the state trail in Levee Park near the Chamber of Commerce. City hall parking is reduced slightly, so parallel parking on Front Street accommodates additional parking.

TRAILHEAD OPTION WITH POWER SUBSTATION



Books and Articles

Anderson, Gary Clayton and Alan R. Woolworth, eds. Through Dakota Eyes: Narrative Accounts of the Minnesota Indian War of 1862. Minnesota Historical Society Press, 1998.

Anfinson, Scott F. Southwestern Minnesota Archaeology. St. Paul: Minnesota Historical Society Press, 1997.

Blue Earth County. Public Works Department. Red Jacket Trail. Mankato: 2006.

Buck, Anita A. Behind Barbed Wire: German Prisoner of War Camps in Minnesota. St. Cloud: North Star Press, 1998.

Casey Jones Trail: A Southwest Minnesota Trail for Everyone. Friends of the Casey Jones Trail Association: 2005.

City of Saint Peter. Comprehensive Plan. 2006.

City of New Ulm. Comprehensive Plan. 1995.

Curtiss-Wedge, Franklyn. The History of Redwood County Minnesota. Chicago: H.C. Cooper Jr. & Co., 1916.

Durand, Paul. Where the Waters Gather and the Rivers Meet: An Atlas of the Eastern Sioux. Paul Durand, 1994.

FairRidge Trail. Fairfax: 2005.

Fridley, Russell, Leota Kellett, and June Holmquist. Charles E. Flandrau and the Defense of New Ulm. New Ulm: Brown County Historical Society, 1962.

Furst, Randy. "A Solemn Ride to Realize a Dream." Star Tribune 25 December 2005.

Granger, Susan. St. Peter's Historic Contexts: Final Report of a Historic Preservation Planning Project. Submitted to the St. Peter Heritage Preservation Commission and the City of St. Peter. Gemini Research. St. Peter, MN: The Commission, 1991.

Hoisington, Daniel J. A German Town: A History of New Ulm, Minnesota. Edinborough Press, 2004.

Holmquist, June, ed. They Chose Minnesota: A Survey of the State's Ethnic Groups. St. Paul: Minnesota Historical Society, 1981.

Hughes, Thomas. Old Traverse des Sioux. Ed. Edward A. Johnson. St. Peter, MN: Herald Publishing Company, 1929.

Jewett, Jane, and Derrick Braaten. Local Food: Where to Find It, How to Buy It. St. Paul: Minnesota Institute for Sustainable Agriculture, 2005.

Meyer, Roy W. Everyone's Country Estate: A History of Minnesota's State Parks. Minnesota Historical Society, 1991.

Minnesota Department of Agriculture. Greenbook 2006: Sustainable Agriculture. St. Paul: Minnesota Department of Agriculture, 2006.

Minnesota Pollution Control Agency. Minnesota River Basin Information Document. GPO, 1997.

Monjeau-Marz, Corinne L. The Dakota Indian Internment at Fort Snelling 1962-1864. St. Paul, MN: Prairie Smoke Press, 2005.

Morgan Creek Vineyards. Pamphlet. New Ulm: 2006.

Nord, Mary Ann. The National Register of Historic Places: A Guide. Minnesota Historical Society Press, 2003.

Ojakangas, Richard W. and Charles L. Matsch. Minnesota's Geology. University of Minnesota, 1982.

Salmond, John A. "The Civilian Conservation Corps, 1933-1942: A New Deal Case Study". Duke University Press, 1967.

Senjem, Norman. Minnesota River Basin Information Document. Minnesota Pollution Agency, 1997.

Saint Peter Herald and Nicollet County Historical Society. Reflections of the Minnesota River Valley: the Early Years. Pediment publishing, 2001.

Tester, John R. Minnesota's Natural Heritage. University Of Minnesota, 1995.

Waldhauser, Steve. "Songs of Thy Triumph: A short history of Gustavus Adolphus College." Gustavus Adolphus College, St. Peter, MN.

Wilson, Waziyatawin Angela. "Decolonizing the 1862 Death Marches." American Indian Quarterly Winter & Spring 2004, Vol. 28, Nos.1 & 2: 185-215.

Websites:

Audubon Minnesota. "RegionsandLoopsOverview." Minnesota River Valley Birding Trail. <<http://www.birdingtrail.org/RegionsandLoopsOverview.htm>> November 2005.

City of Redwood Falls. "Early History of Redwood Falls." City of Redwood Falls. <<http://www.ci.redwood-falls.mn.us/about.htm>> September 2005.

Department of Geosciences. "Rock Description Page." 14 April 2003. College of Letters and Sciences, University of Wisconsin-Milwaukee. <http://www.uwm.edu/Dept/Geosciences/Urban_Geology/rockdescription.html> October 2005.

Minnesota Department of Natural Resources. "Minnesota River Prairie." Minnesota River Prairie Ecological Classification System. 2005. Minnesota Department of Natural Resources. <http://www.dnr.state.mn.us/ecs/prairie/ecs_q.html> September 2005.

Minnesota Department of Transportation. "Highway 169 in St. Peter Study" 2002-2006. Minnesota Department of Transportation <<http://www.dot.state.mn.us/d7/projects/169stpeter/index.html>> May 2007.

Minnesota Geological Survey. "The Virtual Egg Carton." 01 October 2005. University of Minnesota. <http://www.geo.umn.edu/mgs/virt_egg/secondpg.htm> October 2005.

Minnesota River Basin Data Center. "Basin Fast Facts." Minnesota River Basin Data Center. 15 April 2003. Minnesota State University. <http://mrdbc.mnsu.edu/mnbasin/fact_sheets/fastfacts.html> September 2005.

National Ocean Service. "National Centers for Coastal Ocean Science Gulf of Mexico Hypoxia Assessment." 06 August 2006. National Oceanic and Atmospheric Association. <http://oceanservice.noaa.gov/products/pubs_hypox.html> June 28, 2006.

National Scenic Byway. "Discovery Sites." Minnesota River Valley. <<http://www.mnrivervalley.com>> September 2005.

Shakopee Mdewakanton Sioux (Dakota) Community. "From a Dakota Point of View." Dakota Presence in the River Valleys. Shakopee Mdewakanton Sioux (Dakota) Community. <http://www.ccsmdc.org/crp/dak_pres3.html> September 2005 and <<http://www.shakopeedakota.org/smsc/history.html>> June 2007.

GIS and Other Mapping Data:

Audubon Minnesota and Minnesota River Valley Audubon Chapter. Minnesota River Valley Birding Trail. St. Paul, 2003. Digitized at 1:500.

Bolton & Menk, Inc. Saint Peter AutoCAD Files, New Ulm Development Maps.

Bonestroo, Rosene, Anderlik Associates. Redwood Falls AutoCAD Files.

City of New Ulm. AutoCAD base map.

Dakota Commemorative March. <<http://www.dakota-march.50megs.com/>> 2004. Digitized at 1:500.

Hoisington Koepler Group Inc. New Ulm Parks Map, Street Map, and Parcel Map.

Minnesota Department of Agriculture. Directory of Minnesota Organic Farms 2006. Digitized at 1:7000.

Minnesota River Valley Scenic Byway Alliance. Minnesota River Valley Scenic Byway. 2000. Digitized at 1:7000.

Minnesota Department of Natural Resources. DNR Data Deli. <<http://deli.dnr.state.mn.us/>> 2004-2007.

Presentations:

Schoenhoff, Molly. "wokiksuye k'a wayuohinau Remembering and Honoring: Red Planting Project." Powerpoint presentation. Digital file recieved in April 2006.