Long Range Transportation Plan Update for the White Earth Nation

Final Report

June 2018

Prepared by:
SRF Consulting Group
White Earth Public Works Division

SRF

2040 Transportation Plan

White Earth Reservation, Minnesota

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Prepared by:

SRF Consulting Group, Inc.

ENGINEERS
PLANNERS
DESIGNERS

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1 Introduction

Plan Overview

White Earth Nation conducted a Long-Range Transportation Plan update to identify and address critical existing and anticipated future transportation needs on the White Earth Reservation through the planning horizon year 2040. This document represents the culmination of the planning process.

The vision of the update was to develop a long-range transportation plan that promotes safety and mobility, provides economic support and opportunities for orderly growth, improves connectivity and continuity of roads, trails, and transit routes, identifies funding sources, and produces an overall strategy for prioritizing investments. To support this effort, specific and explicit goals and objectives have been identified throughout the plan. Relevant goals and objectives are included at the beginning of the chapter to which they pertain.

Structure of the Plan

Each aspect of the transportation system is addressed individually by chapter. Chapters 1-3 cover introductory material, including a general overview of the Reservation; an analysis of relevant socioeconomic factors that affect travel behavior, land use, and transportation planning; and future growth forecasts.

Chapters 4-5 focus on the existing conditions of the roadway network, primarily as they relate to automobile traffic and safety. Chapter 6 provides an inventory of bridges, railroads, and railroad crossing facilities on the reservation.

Chapter 7 outlines a method for prioritizing roadway improvements. It includes preliminary cost estimates for repairing and reconstructing the poorest Tribal roadways. Chapter 8 presents the regional transit plan. Chapter 9 presents a series of community trail and sidewalk plans. The last chapter, Chapter 10, discusses overall implementation and financing, and provides recommendations for prioritizing all the multimodal projects from the preceding chapters.

Tribal Roadway Inventory

The Plan includes a comprehensive inventory of the White Earth Nation's tribal roadway network using the Road Inventory Field Data System (RIFDS) provided by the Tribe. The RIFDS data has been joined with a GIS shapefile of tribal roadways to create a spatial dataset for the use of White Earth Nation, which can help the Tribe organize ongoing analysis of existing roadway conditions, particularly for roads that are owned and maintained by the Tribe or the BIA. To accurately join and display the RIFDS data in GIS, minor edits were made to the RIFDS dataset throughout plan development. The original data remains intact, but some new fields have been added to aid in analysis. In addition, the dataset has been updated to include several missing roadway segments and the most recent pavement condition information.

PURPOSE OF THE PLAN

The purpose of the White Earth Transportation Plan is to help the White Earth Nation and other affected jurisdictions prioritize future transportation investments. This was done by assessing anticipated growth over the next twenty years, and preparing recommendations that address existing roadway issues, safety issues, the White Earth Public Transit system, and pedestrian and bicycle facilities. This Plan will be used as a tool to guide major transportation investments and policy decisions.

By pursuing the development of a 20-year transportation plan, White Earth Nation is laying the foundation for a transportation system that can accommodate changing travel needs throughout the Reservation. In addition, the planning process provides opportunities to enhance and develop planning partnerships between the White Earth Nation and Federal, State, regional, and local governments. This transportation plan is an update to the plan that was completed in 2011.

STAKEHOLDER GROUP

The Plan was guided by a group of key stakeholders. The role of the Stakeholder Group was to provide technical direction to align planning objectives, identify practical constraints to plan implementation, and solidify public consensus for specific planning outcomes. Two meetings were conducted with the stakeholder group. The first was conducted on October 4, 2016, at the outset of the Plan. This meeting served to inform stakeholders about the undertaking of the Plan and to garner input about specific concerns regarding roadway condition and safety. The second meeting was conducted on April 5, 2018, to present a draft of the general public. The stakeholder group consisted of the following agencies:

- White Earth Reservation Tribal Council
- White Earth Public Works Department
- White Earth Economic Development
- White Earth Natural Resources
- Minnesota Department of Transportation District 2
- Minnesota Department of Transportation District 4
- Minnesota Department of Transportation Tribal Transit Program
- Becker County Roads Department
- Clearwater County Roads Department
- Mahnomen County Roads Department
- Becker County Sheriff's Department
- Clearwater County Sheriff's Department
- Mahnomen County Sheriff's Department
- Circle of Life Academy
- Naytahwaush Community Charter School
- Pine Point School
- Mahnomen Public School
- Waubun-Ogema-White Earth Public School
- Bagley Public School
- Indian Health Service
- White Earth Reservation Ambulance Service
- Mahnomen Health Center
- Sanford Health
- Essentia Health
- Mahnomen Volunteer Fire Department
- White Earth Volunteer Fire Department
- Twin Lakes Volunteer Fire Department
- Elbow-Tulaby Lake Volunteer Fire Department

- Carsonville Volunteer Fire Department
- Bagley Fire Department
- Tri-Valley Transportation
- Becker County Transit
- City of Mahnomen
- City of Waubun

PUBLIC INVOLVEMENT

In addition to the Stakeholder Group, members of the public contributed to plan development in a variety of ways. A summary of the public engagement events and solicitation methods is listed below.

Public kiosk events

Public kiosk events were conducted in Mahnomen, Rice Lake, Naytahwaush, and White Earth in December of 2016, engaging more than 100 community members in the planning process. These events provided the opportunity to inform the general public about the Transportation Plan. They offered a series of engagement activities, including the following:

- A sticker game designed to get community members thinking about how to prioritize improvements to the public transit service
- Reservation and community maps for identifying transportation issues
- A questionnaire provided via tablet and hard copy

The public survey generated more than 158 responses, providing a wealth of data on residents' habits, attitudes, perceptions, and desires related to transportation on White Earth Reservation. A summary of survey responses is given below.

- **85 percent of respondents indicated that their primary mode of transportation is driving alone.** This is roughly in line with the national average. 10 percent of respondents indicated they carpool.

- **49 percent of respondents indicated that they drive over 100 miles a week for work; 46 percent indicated said they drive over 100 miles a week for recreation and shopping.** This speaks to the enormous size and low density of the Reservation. Travel costs, particularly the cost of fueling and owning a personal vehicle, tend to represent a higher share of personal income under these circumstances. This poses a unique challenge for White Earth.

- The highest-priority infrastructure concerns identified by respondents were **lack of roadway striping** and **inadequate intersection controls.**

- **75 percent of respondents identified winter road maintenance as a primary issue.** This was bar the issue that was most frequently identified by respondents. The next highest issue gravel road maintenance, which was identified by 51 percent of respondents.

- **6 percent of respondents indicated that crime influenced their travel behavior "most of the time";** 16 percent said it "often" factored into their decisions.

- **20 percent of respondents said they bike or walk a distance of 1 mile or greater "most days".** Investing in bicycle and pedestrian improvements could have a significant impact.

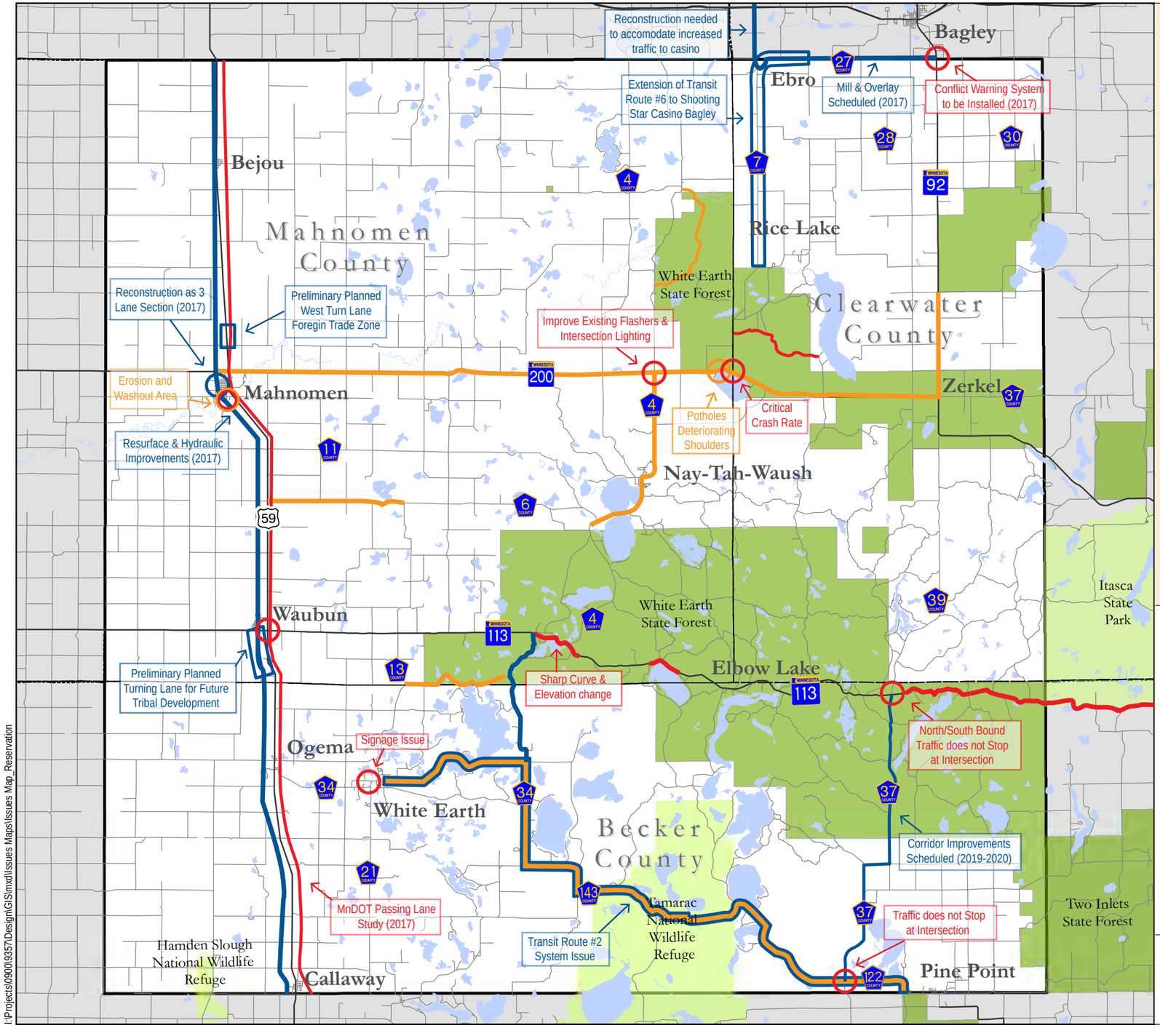
- **47 percent of respondents said they primarily walk or bike for exercise or recreation.**

- **Respondents placed the highest priority on improving local dirt trails and existing sidewalks and constructing new bike trails and sidewalks.** Planning efforts should focus on community-level improvements. Because distances between communities are more practically navigated by car, this plan prioritizes a community-level approach to trail planning over regional trail connectivity.

- **13 percent of respondents said they use White Earth Public Transit at least once a week.**

- **When asked about changes to transit that would make people more inclined to ride the bus, increased frequency of service was the most frequently cited response.**

A full analysis of the survey responses is included in **Appendix A: Public Survey Summary**. The results of the public engagement activities are included in **Appendix F: Public Involvement**. Public feedback regarding site-specific issues was incorporated into the Issues Map, which is shown below.



Corridor Issues

TH 200
- Mill & Overlay (Mahnomen to Roy Lake - 2016)
- Potholes and deteriorated shoulders (Roy Lake)
- Critical Crash Rate at intersection of CSAH 16
- Reclaim scheduled for 2022 (Roy Lake to Zerkel)

CSAH 6 – Mahnomen County
- Winter maintenance US Hwy 59 to CR 118

CSAH 4 – Mahnomen County
- Improve existing flashers at TH 200
- Mill & Overlay completed 2016

CSAH 144 – Mahnomen County
- Road maintenance issue – deep ruts

TH 92
- Conflict Warning System to be installed at intersection of Clearwater County CSAH 27 in 2017
- Reclaim scheduled for 2022 (CSAH 36 to Zerkel)

CSAH 10 – Mahnomen County
- Erosion and washout area (safety & maintenance issue)

Auginaush Road
- Pave remaining roadway to Clearway CSAH 7

TH 113
- Elevation changes and sharp curves
- Heavy farm machinery during planting/harvest seasons
- Improve intersection safety – north/south traffic does not stop at Long Lost Lake Road

US Hwy 59
- Resurface and Hydraulic Improvements scheduled for 2017 – three lane section in Mahnomen
- Driver Confusion – Dual entrances to City of Waubun
- Heavy truck traffic corridor
- MnDOT Passing Lane Study – scheduled for completion 2017
- Preliminary planned business/industrial park – South edge of Callaway (east of US Hwy 59 on township road)
- Preliminary planned turning lane west onto CSAH 22 at CSAH 22/119 intersection for possible industrial park off of CSAH 22 (west) or CSAH 119 (east) with possible rail spur to west with intermodal rail container facility
- Potential need for turning lane from south curve to 113 intersection with future tribal development in vicinity

CSAH 7 – Clearwater County
- Reconstruction needed to accommodate increased traffic volume due to Shooting Star Casino – Bagley

CSAH – 27 Clearwater County
- Mill & Overlay scheduled for 2017

Pine Bend Road (BIA Road)
- Gravel road maintenance issues

CSAH 34 – Becker County
- Signage issue – Confusing at intersection with CR 133 & CR 21
- Ice/snow maintenance issue

CSAH 37 – Becker County
- Corridor improvement scheduled for 2019-2020
- Traffic fails to stop at intersection

CSAH 39 – Becker County
- Gravel road maintenance issue near Rediscovery Center Road

Transit Route #2
- Roadway segments contain rough stretches
- Logging, gravel, farm machinery/equipment along corridor

Transit Route #6
- Extend existing route to Shooting Star Casino Bagley

Facilities within Communities

Mahnomen
- Shooting Star Casino
- White Earth Tribal College
- Mahnomen Public School (K -12)
- Hospital/Ambulatory Care Location
- White Earth Transit Route Transfer Location
- County Courthouse
- Off-site Casino Gaming
- Post Office

Rice Lake
- Community Center

Waubun
- Waubun Public School (K-12)
- Post Office
- Off-site Casino Gaming

Ogema
- Ogema Elementary School
- Post Office
- Off-site casino gaming

Elbow Lake
- Community Center

Callaway
- Post Office
- Off-site casino gaming

White Earth
- Circle of Life Academy
- Indian Health Service Clinic
- Reservation Tribal Council Headquarters
- Community Center
- White Earth Transit Route Transfer Location
- Off-site Casino Gaming

Nay-Tah-Waush
- Naytahwaush Community Charter School (K-6)
- Indian Health Service Clinic
- Sports Complex
- Tribal Government Offices
- Ambulatory Care Location
- Off-site Casino Gaming

Pine Point
- Pine Point School (K-8)
- Indian Health Service Clinic
- Tribal Government Offices
- Off-site Casino Gaming

Legend

Reconstruction Issue · Maintenence Issue · Safety Issue

Corridor Reconstruction Issue · Corridor Maintenence Issue · Corridor Safety Issue

System Issue · Reservation Boundary

N

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SRF Consulting Group, Inc.

Issues Map

White Earth Long Range Transportation Plan
White Earth Nation

Figure 1.1

Community Council Involvement

SRF met with representatives from the Community Councils for Naytahwaush, Pine Point, Rice Lake, and White Earth on January 12th and January 19th, 2017. The purpose of the meetings was to identify existing community trails and sidewalks and discuss potential improvements. This process resulted in a series of community sidewalk and trails plans, which are detailed in Chapter 9. Existing and desired trails were mapped. Existing trails have been added to White Earth's transportation inventory.

Previous Survey Efforts

Previous survey efforts were reviewed at the outset of the planning process. All prior surveys were solicited by the White Earth Department of Public Works. They include:

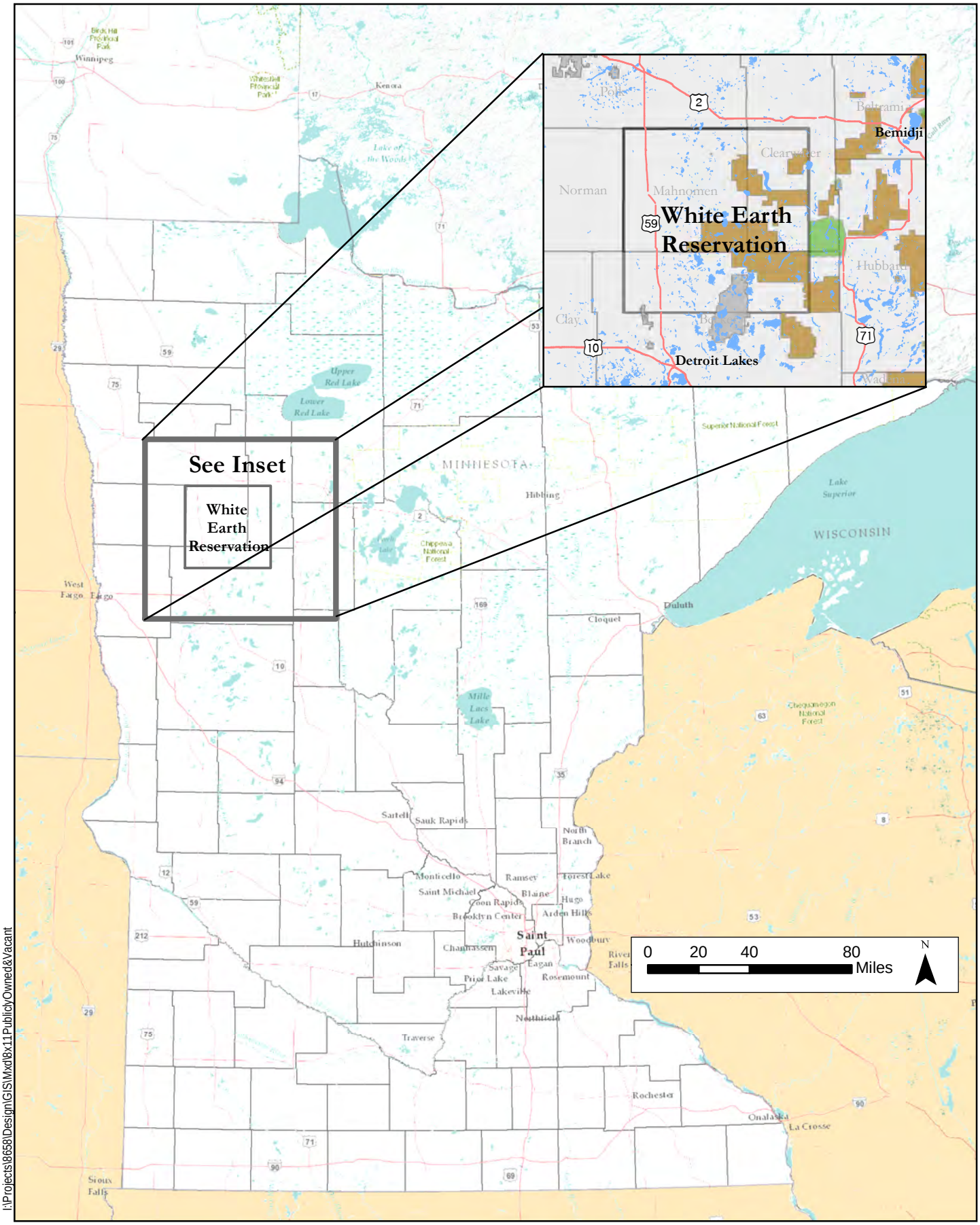
- Survey of adult habits and attitudes toward walking and bicycling
- Survey of student habits and attitudes toward walking and bicycling
- Survey of general habits and attitudes toward White Earth Public Transit

The results of the surveys were tabulated and presented to the Stakeholder Group at their first meeting.

2 White Earth Reservation Overview

Study Location

The White Earth Reservation is located in northwestern Minnesota where farmland of the Red River Valley transitions to the forest and hills of Minnesota Lake Country. The reservation includes all of Mahnomen County, plus portions of Becker County and Clearwater County. The primary north/south transportation corridor within the Reservation is US Highway 59. Other major routes within the study area include Minnesota State Highway 113, State Highway 200, and State Highway 92. US Highway 2 borders the northern edge of the Reservation.



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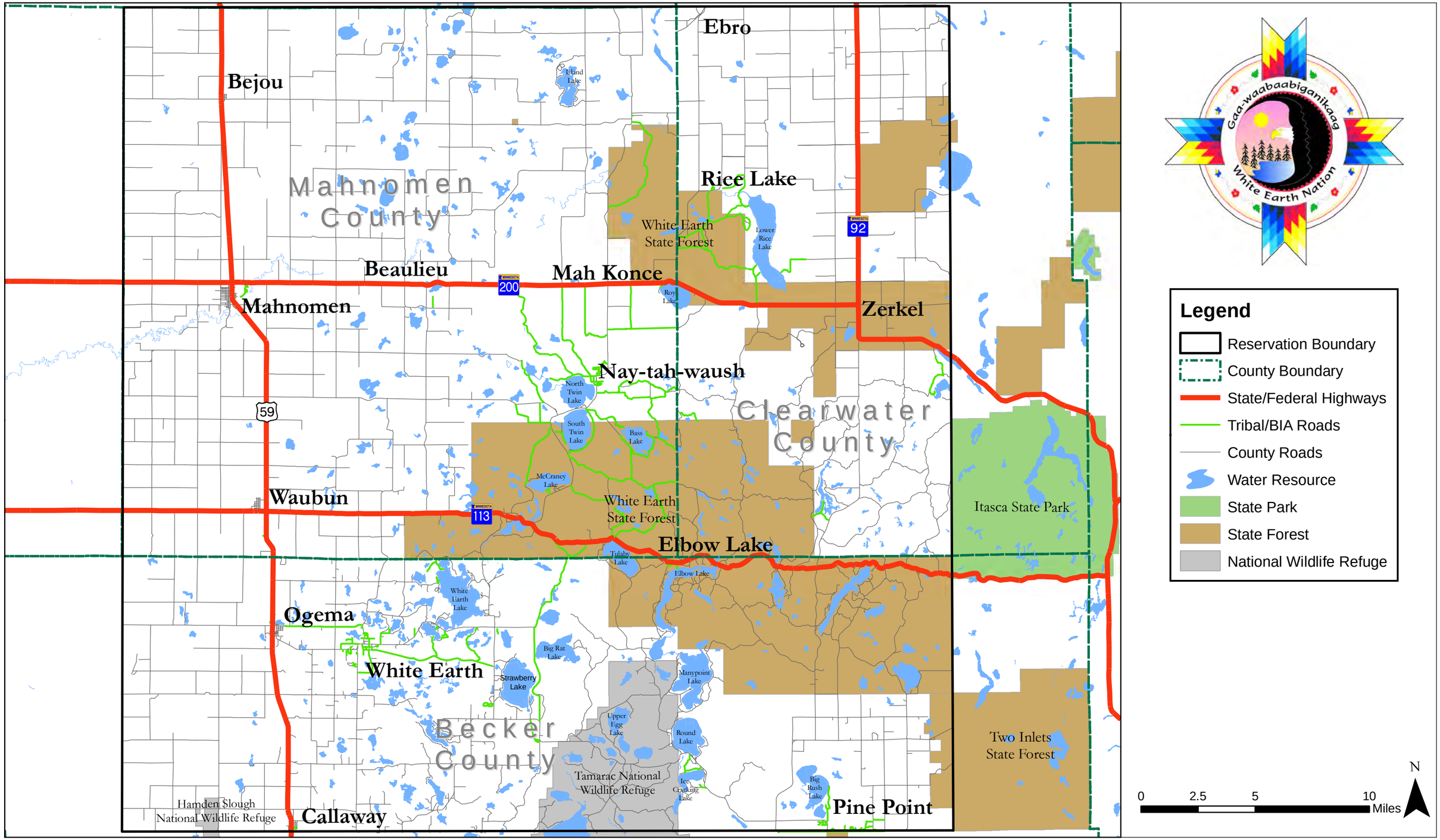
Consulting Group, Inc.

White Earth Reservation Location Map

White Earth Long Range Transporation Plan

White Earth, Minnesota

Figure **2.1**



SRF Consulting Group, Inc.

Study Area

White Earth Long Range Transportation Plan

White Earth Nation

Figure 2.2

TRIBAL BACKGROUND

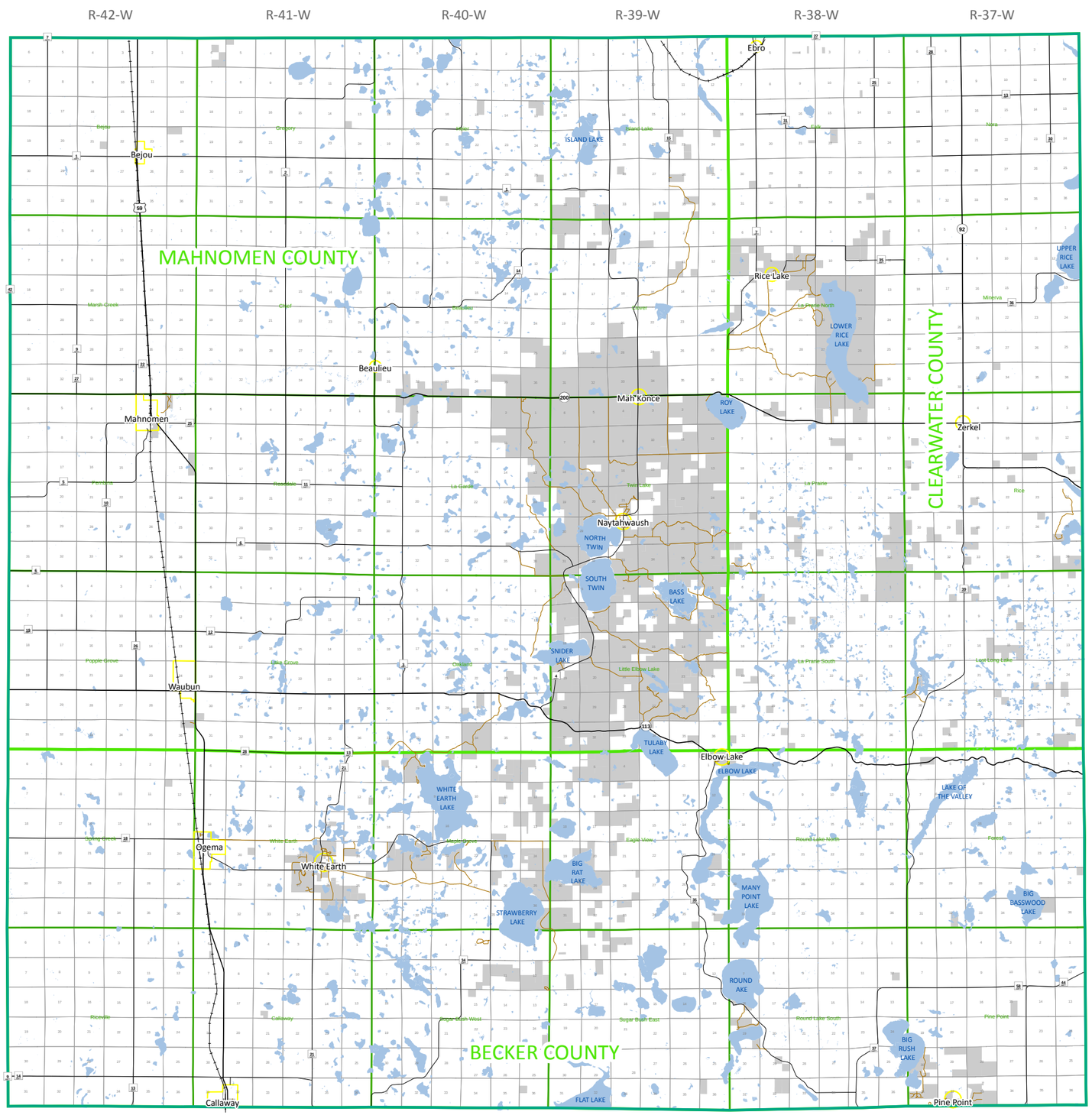
The White Earth Reservation is named for the white clay that is found near White Earth Village. The Reservation was originally planned as an isolated internment camp to which all the Woodland Indians of Michigan, Wisconsin, and Minnesota were to be sent. The boundaries of the present-day Reservation encompass 837,268 acres (1,300 square miles) and were set in 1867 by a treaty between the United States and the Mississippi Band of Chippewa Indians. White Earth is one of seven Chippewa reservations in Minnesota.

With the 1867 Treaty, intense pressure was placed on the Ojibwe bands to move to the Reservation. Different bands chose to settle in different areas of the Reservation. Mille Lacs Lake members moved to the northwestern part of the Reservation, around Naytahwaush and Beaulieu. Pillager Band members from the Red River Valley moved into a township on the western side of the Reservation. These various groups of Indians, with their different background and cultures, continue to add a diversity of interests to the White Earth Tribe today. The Minnesota Chippewa Tribe is the governing body to White Earth and five other bands of Chippewa tribes.

The Dawes Act of 1887 adopted by Congress authorized the President of the United States to survey Native American tribal land and divide it into allotments for individual ownership. The policy focused specifically on breaking up reservations by granting land allotments to individual landowners. The legislative action enabled the rapid division of Reservation land into individually held parcels, allowing individuals to sell their land. Land was quickly passed into non-Indian ownership. Today, only about 10 percent of the Reservation land is Indian-owned due to allotment and tax forfeiture losses that occurred in the early 20th Century. Much of land and businesses within Reservation boundaries are owned by individuals of non-Native American heritage. **Figure 2.3 Tribal Holdings with Reservation Boundary** identifies tribal land within Reservation boundaries.

White Earth Reservation

Figure 2.3 -Tribal Land Holdings



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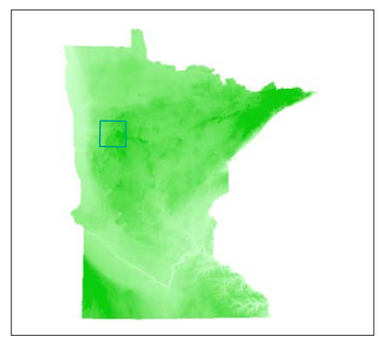
Legend

- Reservation Boundary
- County Boundary
- Township Boundaries
- Section Lines
- City/Villages
- Lakes
- Tribal Lands
- Major Roads
- Tribal/BIA Roads
- County Highways
- Rail Lines

0 5 10

Miles



White Earth Reservation
Department of Transportation

Source: MNDNR, White Earth DOT
White Earth Base Map 24x36.mxd
2011

Tribal Membership

According to the White Earth Enrollment Office, White Earth Nation consists of 18,432 members. On-reservation enrolled members total 4,007 while off-reservation enrolled members total 14,425. Members of the White Earth Nation comprise almost one half of the entire Minnesota Chippewa Tribe (MCT). The Minnesota Chippewa Tribe is the governing body to White Earth and five other bands of Chippewa tribes for major administrative needs.

According to the 2010 US Census the Native American population for the White Earth Reservation was reported as 3,378. (If mixed-heritage Ojibwe people and Hispanics are included, the Native American population was 4,154.) The White Earth Reservation Tribal Council (WERTC) has stated that the Indian populations of reservations are higher than counted during censuses. Many reservation households have more than one family (sometimes two or three families) sharing the same residence and may not be counted properly. For that reason, the population of the White Earth Band living within the Reservation maybe larger than what has been reported.

Incorporated Cities and Tribal Villages

City of Bejou

City of Bejou is located in the northwest corner of Mahnomen County. The city is situated along the intersection of US Highway 59 and Mahnomen County State Aid Highway 1 (CSAH 1).

City of Callaway

The City of Callaway is situated along US Highway 59 near the southern edge of the Reservation in Becker County. Callaway is located 11 miles north of the city of Detroit Lakes, the county seat of Becker County.

City of Mahnomen

The City of Mahnomen is the largest community in the Reservation, with a population of more than 1,200. It is home to the Shooting Star Casino and Event Center and White Earth Tribal and Community College. Mahnomen serves as the seat of Mahnomen County. Mahnomen serves as an area trade, health, education, recreation and tourism center for those living within a 40-mile radius.

City of Ogema

The City of Ogema is in Becker County and White Earth Reservation along US Highway 59 and Becker CSAH 34. The city of Ogema and village of White Earth are separated by a 3.5-mile stretch of Becker CSAH 34.

City of Waubun

The City of Waubun is located within Mahnomen County. The city lies at the intersection of two main transportation corridors, US Highway 59 and State Highway 113.

Village of Elbow Lake

The very small Village of Elbow Lake is located on a major east/west corridor (State Hwy 113), near the Becker, Clearwater, and Mahnomen County lines.

Village of Naytahwaush

The Village of Naytahwaush is centrally located within the Reservation. The village is located near North and South Twin Lakes on Mahnomen CSAH 4. Several Tribal services and offices are in Naytahwaush. For example, a satellite IHS clinic is located within the village which provides medical services to Tribal residents.

Village of Pine Point

The Village of Pine Point is in the southeast corner of the Reservation. The village is located along Pow Wow Highway/Becker CSAH 124. A satellite IHS clinic is located within the village to provide medical services to Tribal residents.

Village of Rice Lake

The Village of Rice Lake is in Clearwater County at the intersection of Clearwater CSAH 7, CSAH 35, and CSAH 34. The village is the lone tribal community in Clearwater County. Numerous tribal services and offices are in the Rice Lake community.

Village of White Earth

White Earth is the largest village on the Reservation. The village houses the WERTC headquarters and many of the tribal government offices and services. The main Indian Health Service (IHS) campus is located within the village and provides medical services to the vast majority of Tribal residents. The village of White Earth lies at the intersection of Becker CSAH 34 and 21.

Tribal Population

Approximately 38 percent of Tribal members living on the reservation reside in the communities described. Of the 38 percent residing within communities, approximately 14 percent of Tribal members live in the cities of Mahnomen, Waubun, Ogema, Callaway, and Bejou. The remaining 25 percent of Tribal members living within communities reside in White Earth, Naytahwaush, Pine Point, Rice Lake, and Elbow Lake. Approximately 61 percent of Tribal members reside throughout rural areas of the Reservation.

Table 2.1 – Population of White Earth Cities and Villages in 2010

City/Village	Population in 2010
Mahnomen	1,214
White Earth	580
Naytahwaush	578
Waubun	400
Pine Point	338
Rice Lake	235
Callaway	234
Ogema	184
Elbow Lake	95
Bejou	95

NATURAL ENVIRONMENT

The White Earth Reservation is blessed with the scenic beauty of many natural features such as forests, native prairies, rivers, and lakes. These areas provide ample amenities for recreational activities and economic opportunities. Below is a list of prominent water bodies and public lands that lie within or near the Reservation.

White Earth State Forest

The White Earth State Forest is a 160,000-acre forest that lies in Mahnomen, Clearwater and Becker counties. The forest is divided into three units – Northeast, West and South. A majority of the forest is located within the boundaries of the Reservation.

Tamarac National Wildlife Refuge

The Tamarac National Wildlife Refuge was established as a refuge and breeding ground for migratory birds and other wildlife by Executive Order 78902, May 31, 1938. Tamarac National Wildlife Refuge lies in the heart of a diverse transition zone that consists of eastern deciduous hardwoods, northern coniferous forests, and western tall grass prairies. Tamarac National Wildlife Refuge is home to a rich assortment of plants and animals.

Hamden Slough National Wildlife Refuge

Hamden Slough Wildlife Refuge is a 3,210-acre refuge that lies on the eastern edge of the Prairie Pothole Region. The refuge was established in 1989 for the production of waterfowl and other migratory birds. The refuge has rich history of abundant wildlife. It became a State-recognized *Important Bird Area* in 2004.

Itasca State Park

Itasca State Park is a 32,000-acre State park that lies outside the Reservation in Clearwater County. Established in 1891 to preserve remnant stands of virgin pine and the basin surrounding the source of the Mississippi River, the park is the oldest in Minnesota. Itasca State Park is a popular location for all-season recreational activities including fishing, hiking, biking, and canoeing, boating, birding, snowmobiling, snowshoeing, and horseback riding.

Two Inlets State Forest

Two Inlets State Forest is a 26,000-acre forest that lies in Becker County. State lands in Two Inlets Township were originally part of Smoky Hills State Forest until 1963, when tax-forfeited land was acquired. Legislation was introduced to convert sections of land into Two Inlets State Forest.

Wild Rice River

The Wild Rice River is a 183-mile tributary of the Red River of the North that flows west from Mud Lake in Clearwater County through Mahnomen County and the City of Mahnomen.

White Earth River

The White Earth River is a 26-mile tributary of the Wild Rice River. It begins at the outlet of White Earth Lake and flows northwest through Mahnomen County, joining the Wild Rice River east of the City of Mahnomen.

Lower Rice Lake

Lower Rice Lake is a tribally managed resource that lies within the Reservation in Clearwater County. The lake provides tribal members an opportunity to hunt, gather, and harvest natural resources. The main resource provided by Lower Rice Lake is *Manoomin*, also known as wild rice. Wild rice provides economic opportunity as well as a means of subsistence for Tribal members.

Land Use

Land use plays a key role in shaping the movement of people and goods. Integrating land use into transportation planning is crucial, so that existing land uses are served by an adequate roadway system and so that the future transportation plan is an accurate reflection of anticipated development. Although the communities in White Earth Reservation are small, each contains services and Tribal facilities that shape general travel patterns. The Shooting Star Casino and Event Center in Mahnomen is a prime example, as it employs hundreds of workers who commute from across the Reservation for daytime and nighttime shifts, and attracts regional traffic to its gaming activities, special events and entertainment events. Likewise, understanding where people live now, and where growth is expected to occur in the future, is key for all aspects of transportation planning. Households generate trips, via various travel modes, to employment destinations, such as the casino, as well as schools, services, entertainment, and community gathering places.

Land use and development goals are summarized in **Table 2.2.** The following text provides a summary of land use on White Earth Reservation.

Table 2.2 – Land Use/Development Goals and Objectives

GOAL: Integrate land use and transportation planning *Recognize the linkage between White Earth Reservation's desired growth and its transportation system to ensure that decisions regarding transportation and land use are fully integrated with land use planning and development efforts.*
• Identify and preserve potential transportation corridors by utilizing such tools as official mapping, foot printing, and new subdivision requirements.
• Manage access along arterial roadways, in accordance with local and state spacing guidelines.
• Incorporate MnDOT Access Guidelines into White Earth Reservation Transportation Plan.
• Ensure review by the White Earth Department of Transportation to provide input on land use, zoning, and subdivision proposals during the development review process.
• Establish a coordinated review process between White Earth Reservation and cities, townships, and counties within it that includes the White Earth Department of Transportation and Planning Commission in the review and approval process for subdivisions and roadway access requirements.

Land Use Summary

Low-Density Residential

The location and style of housing development greatly influence many aspects of local and regional travel behavior, including frequency of trip-making, vehicle miles traveled, and mode choice. Throughout the White Earth Reservation, housing is concentrated in the incorporated cities and villages. In 2010 the City of Mahnomen had 582 housing units. Most housing within the City of Mahnomen is on typical urban sized lots. Meanwhile, seven townships plus the City of Bejou had fewer than 50 housing units. Reservation-wide, housing density is about 3.5 units per square mile. Thus, most of housing could be classified as low-to-very low density.

Multi-family Residential

Multi-family residential refers to a structure or group of structures, such as apartments and senior care centers, which are designed to accommodate multiple households. (As previously noted, there are also many "single-family" dwellings that are shared by more than one family; the Census does not account for this technicality, and population figures may be under-reported as a result.) Multi-family developments are often located along higher-order roadways, such as arterials and collectors. Large multi-family developments generate a substantial number of vehicle trips. For travel efficiency and equity reasons, they are ideally served by public transit.

There are several multi-family residential areas in the City of Mahnomen, including Riverside Apartments, Park Terrace Apartments, and Valley View Commons. The Village of Naytahwaush includes Giwanakimin Supportive Housing. Ogema includes Dream Catcher Homes, an elderly care facility. White Earth includes Biimaadiiziiwiin, an elderly care facility, and Congregate Housing.

Each multi-family travel origin uniquely shapes transportation planning *within* the community. For example, the multifamily housing development located next to the White Earth Tribal College in the City of Mahnomen generates frequent pedestrian traffic along Adams Avenue, generating the need for sidewalk facility along the length of this corridor.

Agriculture/Forestry

By total acreage, much of Reservation land is cultivated or is contained within forested areas, both public and private. The rural landscape shifts from agricultural to forested and from relatively flat to hilly moving west to east across the Reservation. As the terrain becomes increasingly varied, it tends to force curved roadway alignments.

Traffic is lower on rural roads serving cultivated areas. It is also more intense, as access roads and farm-to-market roads are often used by heavy agricultural vehicles and trucks. These vehicles place lower axle loadings (ESALs) than commercial trucks, but their large, lug tires nonetheless damage asphalt roadways, especially on hot summer days. Wide, slow-moving vehicles operating on highway shoulders pose additional challenges to personal vehicles.

Institutional

Institutional land use in White Earth includes schools, government buildings, places of worship, community centers, and community health centers. All the land uses attract predictable trips at certain times throughout the week. Most of these facilities are located on direct transit routes. Providing safe sidewalk and trail facilities with continuity to schools, community centers, and other institutional uses improves can improve the quality of life for all members of a community.

Specific institutional uses include the Reservation Tribal Council (RTC) headquarters, which is in the village of White Earth. There are also Tribal government offices in Mahnomen, Waubun, Ogema, Callaway, Rice Lake, Naytahwaush, and Ponsford. The Tribe also maintains the White Earth Urban Office located in Minneapolis. The City of Mahnomen has government offices at 104 W Madison Avenue. Community centers in Bejou, Elbow Lake, Naytahwaush, Pine Point, Rice Lake, Waubun, and White Earth serve as daily gathering places.

Institutional uses also include the Indian Health Service (IHS) clinics located in White Earth, Pine Point and Naytahwaush. The Mahnomen Health Center also serves as an

institutional use. Education facilities are located throughout the Reservation. A summary of schools is provided below.

Head Start

Tribal Head Start programs are located throughout the communities of Mahnomen, Waubun, White Earth, Naytahwaush, Rice Lake, and Pine Point. The Head Start program serves all families residing on the Reservation while providing classroom and home base staff for children ages 3-5. The Head Start program operates four days a week.

Circle of Life Academy

The Circle of Life Academy (COLA) is a Bureau of Indian Education grant school operated by the WERTC. COLA offers a culturally-based education program to Native American students in grades K-12 who reside on or near the White Earth Reservation.

Mahnomen Public Schools

Mahnomen Public School is a K-12 school district made up of three school district buildings located within the community of Mahnomen. High school (9-12 grade) enrollment is 122.

Naytahwaush Community Charter School

The Naytahwaush Community Charter School is a K-6 charter school located within the community of Naytahwaush that serves approximately 120 students. The school opened in fall 2005.

Waubun-Ogema-White Earth School District

The Waubun-Ogema-White Earth school district includes two buildings located in the Cities of Waubun and Ogema. There are 650 students enrolled in the school district, from pre-K through grade 12.

White Earth Tribal and Community College

The White Earth Tribal and Community College is a higher learning institution dedicated to academic excellence in Anishinaabe culture, values and traditions. The main campus of the tribal and community college is located on the eastern edge of the City of Mahnomen on College Road. WETCC offers an Associate of Arts Degree with these areas of emphasis: Humanities, Arts & Social Sciences, Human Services, Business, Environmental Science, Native American Studies, Education and Early

Childhood Education. A total of five facilities are scattered throughout the City of Mahnomen.

Commercial

There are a limited number of commercial areas on White Earth Reservation. The largest commercial attractor is the Shooting Star Casino. A tribally owned C-Store is located adjacent to the Shooting Star Casino. Other tribally owned commercial entities that provide office material, custom apparel and building supplies include; White Earth Building Supply and White Earth Business Products.

For specialized shopping trips, many people travel to Detroit Lakes, which is located approximately 36 miles south of Mahnomen and Bemidji, which is located approximately 25 miles west of Bagley. The City of Mahnomen includes a downtown shopping center with a grocery store. A Shopko is located northeast of the Shooting Star Casino along US Hwy 59. There are smaller markets in Waubun, Ogema, Callaway, and Bejou, village stores in the Tribal communities, and convenience stations throughout the reservation.

Industrial

Industrial land uses include goods manufacturing, processing, packing, and storage facilities, as well as critical public infrastructure such as wastewater treatment plants and landfills. For example, the City of Mahnomen has designated an area east of US Highway 59 as its Industrial Park. It offers free land to any manufacturing businesses in the Industrial Park.

Although there are limited manufacturing facilities on White Earth Reservation, there has been discussion of expanding the Tribe's regional economic base by establishing a Foreign Trade Zone (FTZ) within the boundaries of the Reservation. The establishment of an FTZ could attract business to White Earth by giving tax breaks to employers. If an FTZ is established and industrial facilities are built, it will be critical to design access and circulation areas that can accommodate heavy trucks and machinery and facilitate a connection to the railway system.

There may also be opportunities to harvest White Earth's abundance of natural resources for industrial gain. A Biofuels Feasibility Study completed in 2009 identified a business strategy around the conversion of cellulosic material into fuel, which could improve resilience on the Reservation by establishing a local fuel source. There are many hurdles on the way to constructing an economically viable processing facility, including cheap national oil prices that are anticipated to stay low in the near term. Nonetheless, exploration of this opportunity may be continued in the future.

Public Recreation Areas

Recreational facilities are located throughout the Reservation. The following is a list of communities with recreational facilities:

City of Bejou – Community center gymnasium, softball field

City of Mahnomen – Mahnomen Public School gymnasium, City Park, city playground, Boys and Girls Club, Mahnomen Country Club

City of Callaway – Boys and Girls Club, City Park, softball field

City of Ogema – Ogema Elementary School gymnasium, Dream Catcher Homes playground, softball field

City of Waubun – Waubun-Ogema-White Earth Public School gymnasium, city softball fields,

Village of Elbow Lake – Community Center, community fishing pier

Village of Naytahwaush – Community Charter School gymnasium and playground, Community Service Center complex, softball fields, pow-wow grounds, community fishing pier

Village of Pine Point – Boys and Girls Club, pow-wow grounds, Pine Point School gymnasium

Village of Rice Lake – Community Center gymnasium, softball fields, pow-wow grounds

Village of White Earth – Community Center gymnasium, softball field, pow-wow grounds

There are numerous access points to lakes and rivers throughout the Reservation maintained by state and tribal natural resource departments.

The above described activity centers require a well-developed roadway system to connect communities and activities throughout the reservation.

Undeveloped/Open Space

Undeveloped open space includes areas that are preserved due to cultural sensitivity or preservation, as well as areas that are unlikely to be developed due to terrain and wetlands. Water Resources cover approximately 160,000 of acres (250 square miles) of White Earth Reservation, or roughly 20 percent of the total Reservation area. The White Earth State Forest covers more than 155,000 acres (242 square miles), or just under 19 percent of the total Reservation area.

ECONOMY

The WERTC and its entities are the largest single employer for Tribal and non-Tribal residents of the Reservation. The WERTC employs approximately 930 people throughout 20+ programs/services. The Shooting Star Casino employs approximately 940 people throughout 20+ programs/departments.

Local Employers

Major employment industries throughout the Reservation include:

- White Earth Tribal Government
- Indian Health Service Health Care Center
- Circle of Life Academy
- Mahnomen Public School
- Pine Point School
- Waubun-Ogema-White Earth Public School
- Pine Point School

The White Earth Tribal Government, a major employer for Tribal and non-Tribal members includes the following enterprises:

- Shooting Star Casino Mahnomen
- Shooting Star Casino Bagley
- White Earth Tribal and Community College
- Oshki Manidoo Center
- White Earth Building Supply
- White Earth Business Products
- White Earth Housing Authority
- Education
- Natural Resources
- Public Works
- Public Safety
- Human Services
- Health Services
- Behavioral Health
- Information Technology
- Finance
- Economic Development
- Marketing and Communications
- Tribal Court

Non-Local Employers

Additional employment industries located off Reservation include:

- Walmart (Detroit Lakes, Bemidji and Park Rapids)
- Team Industries (Bagley and Lake Park)
- Seasonal Construction
- Seasonal Recreation

Table 2.3 – Economic Development Goals and Objectives

GOAL: Support local growth *Manage transportation resources to support existing industry and facilitate future economic opportunities.*
• Prepare a system plan for 10-ton roadways.
• Ensure efficient and timely maintenance of roadways within the Reservation.
• Ensure that the transportation system serves major economic development generators.
• Coordinate economic development efforts with the Tribal Transportation Director to ensure that the necessary roadway improvements for development are fiscally feasible and can be provided in a timely manner.
• Coordinate economic development efforts with White Earth Public Transit.

MNTH 200

MNTH 200 provides an important economic link to both Tribal and non-tribal residents and entities. Residents of the Reservation use MNTH 200 as a primary east/west route to/from the City of Mahnomen where the Shooting Star Casino is located. The Shooting Star Casino provides employment for approximately 950 individuals, thus making MNTH 200 a vital economic route through the Reservation. In addition to this existing role, the Tribe envisions that MNTH 200 will support expanded economic opportunities. For example, the White Earth Economic Development Department has identified multiple locations for potential designation of a Foreign Trade Zone. The designation of foreign trade zone status is expected to create jobs, attract international business, and boost the Tribe's economic profile. The FTZ sites will provide incentive for attracting new manufacturing and distribution developments for the Tribe. MNTH 200, along with US 59 and the Canadian Pacific Railroad, can provide shipping routes for expanded commercial and industrial growth. One possible location for a foreign trade zone with the Reservation has been proposed near the City of Mahnomen near the intersection of US 59 and MNTH 200.

The importance of MNTH 200 extends beyond the Reservation. As a principal arterial in the State highway system, its primary purpose is to serve regional trips. Many travelers pass through the MNTH 200 corridor while visiting northern Minnesota. Itasca State Park is located on the eastern edge of the Reservation and is home to the headwaters of the Mississippi River, a highly attractive tourist destination. The park experiences high volumes of visitors each year with its northern access 21 miles south of Bagley on MNTH 200. The Shooting Star Casino and Event Center and Shooting Star Casino Bagley also attract high volumes of visitor traffic along the MNTH 200 corridor. Visitors and employees use MNTH 200 as the primary east/west route when visiting the Shooting Start Casino and Event Center in Mahnomen.

3 Sociodemographic Trends and Forecasts

Mobility, accessibility, and mode choice are influenced by sociodemographic and geographic factors as much as the built environment. For example, location and character of future growth will impact public transportation investment decisions as well as the travel and locational decisions of individual residents. Aging residents frequently have different transportation needs than younger generations. White Earth's low density and large area pose unique challenges, including high individual transportation costs for many residents. Many households cannot afford to drive, or simply do not own a vehicle. This chapter describes the existing composition of White Earth's population, reviews recent growth trends, and explores scenarios for future growth to identify opportunities and constraints to travel and development.

Data Sources

The population and housing trends described in this section, as well as the growth forecasts which are presented at the end of the chapter, rely on data from the U.S. Census, which occurs once a decade, as well as survey-based statistics from the American Community Survey (ACS), which are released once a year. The most recent 5-year ACS estimates are from 2014.

The ACS includes a margin of error with every estimate. In some cases – particularly for smaller samples as are taken from a rural area – those errors can be large. For example, the population of Little Elbow Township in 2014 was estimated as 372 with an error of +/- 79. This means that there was a small chance that the population of Little Elbow Township could have been as low as 293 and as high as 451, a difference of 21 percent in each direction. Applying the ACS to individual townships and communities would be misleading. However, it is expected that when estimates are aggregated for the Reservation as a whole, some of these errors will be negated.

Thus, the Census offers better data accuracy while the ACS is more recent. Both datasets are instructive for the plan. In general, the Census data was used to estimate

the existing population of the Reservation. However, ACS estimates from more recent years were used to develop a fuller understanding of recent Reservation growth trends.

Because the WERTC and BIA recognize a different reservation boundary than the federal government, socioeconomic data from both the Census and the ACS was retrieved for all townships and incorporated cities in Becker, Clearwater, and Mahnomen Counties. This data was introduced into computerized mapping software (ArcMap 10.4) and joined to TIGER shapefiles and clipped to the Reservation boundary. Utilizing disaggregated data for cities and townships gives the added benefit of permitting comparisons between smaller geographies within the Reservation.

Population And Housing Trends

In 2010, the total population of the Reservation was recorded as 10,437. With the Reservation encompassing an area of 13,000 square miles, average population density amounts to less than 1 person per square mile. **Figure 3.1 Population of White Earth Cities and Townships, 2010** shows how population is distributed throughout the Reservation. Outside the incorporated cities and Tribal communities, population density is lower still. The large geography and low density of the of the Reservation present challenges to travel, especially between Reservation communities.

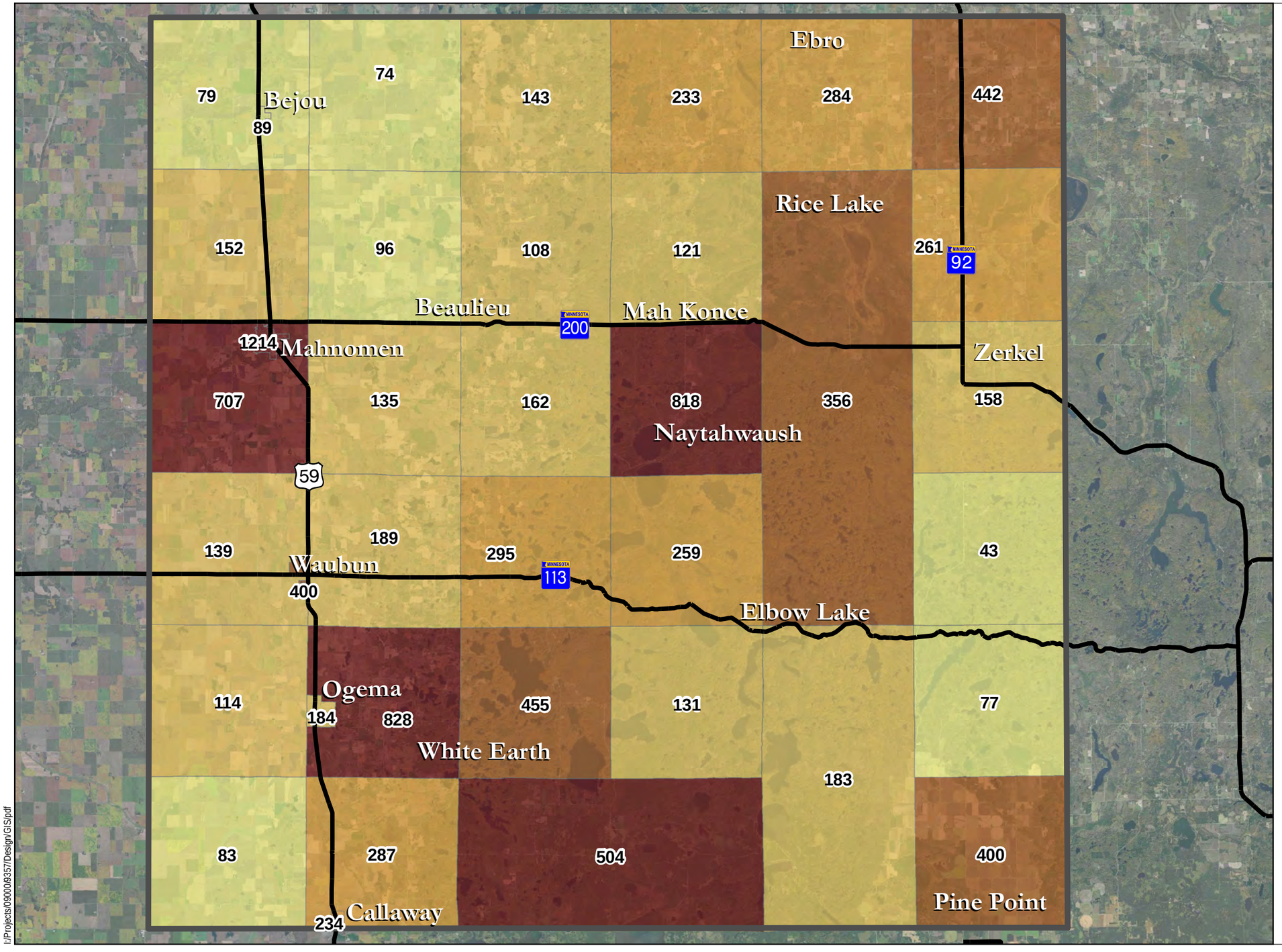
From 2000 to 2010, the total population of the Reservation grew from 10,013 to 10,437, an increase of approximately 4 percent. During this decade, most growth occurred in and around the largest cities and villages. More than half of total growth occurred in Pembina Township where the City of Mahnomen is located. Meanwhile, many townships lost population. **Figure 3.2 Net Population Change, 2000-2010** maps net population change from 2000 to 2010.

From 2000 to 2010, the total number of housing units also increased – even more than population. Units grew from 5,386 to 5,989, an increase of more than 11 percent. Again, the majority of housing growth occurred in the largest communities. The exception was Twin Lakes Township (Naytahwaush), which lost 69 housing units, the largest decrease during the decade.

Table 3.2 Net Population Change, 2000-2010 provides data for population and housing units for select communities and townships. **Figures 3.2 and 3.3 Housing Change, 2000-2010** map the net change in total population and housing units from 2000 to 2010. Not all housing growth mirrors population change. This suggests that there may be opportunities to increase the efficiency of housing development, so that sufficient housing is provided where needed and the construction of excess housing is limited.

Table 3.1 – Population and Housing Change (Select Geographies, 2000-2010)

Geography	Population			Housing		
	2000	2010	Change	2000	2010	Change
Reservation Total	10,013	10,437	+424	5,389	5,989	+603
Callaway City	200	234	+34	77	88	+11
Mahnomen City	1,202	1,214	+12	576	582	+6
Ogema City	143	184	+41	73	84	+11
Waubun City	403	400	-3	183	182	-1
Pembina Twp (Mahnomen)	471	707	+236	185	251	+66
Twin Lake Twp (Naytahwaush)	847	818	-29	392	323	-69
White Earth Twp	799	828	+29	276	330	+54



White Earth Reservation

Population of Cities and Townships (2010 Census)

Population Range

- 43 - 100
- 101 - 200
- 201 - 300
- 301 - 500
- 501 - 1214

Total Population :10,437

N

0 2.5 5 10 Miles

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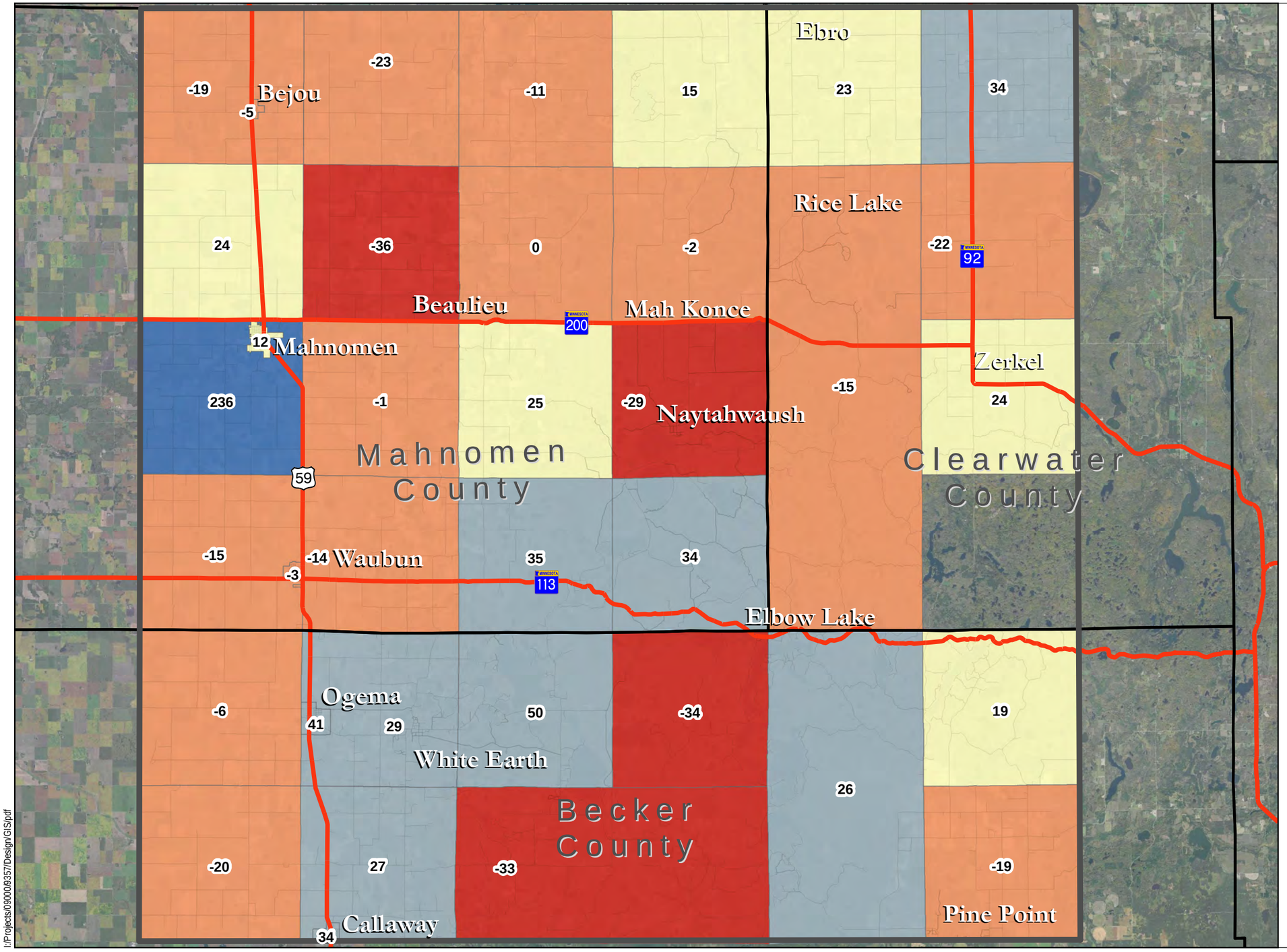
Population of White Earth Cities and Townships (2010 Census)

White Earth Long Range Transportation Plan

White Earth Nation

Figure **3.1**



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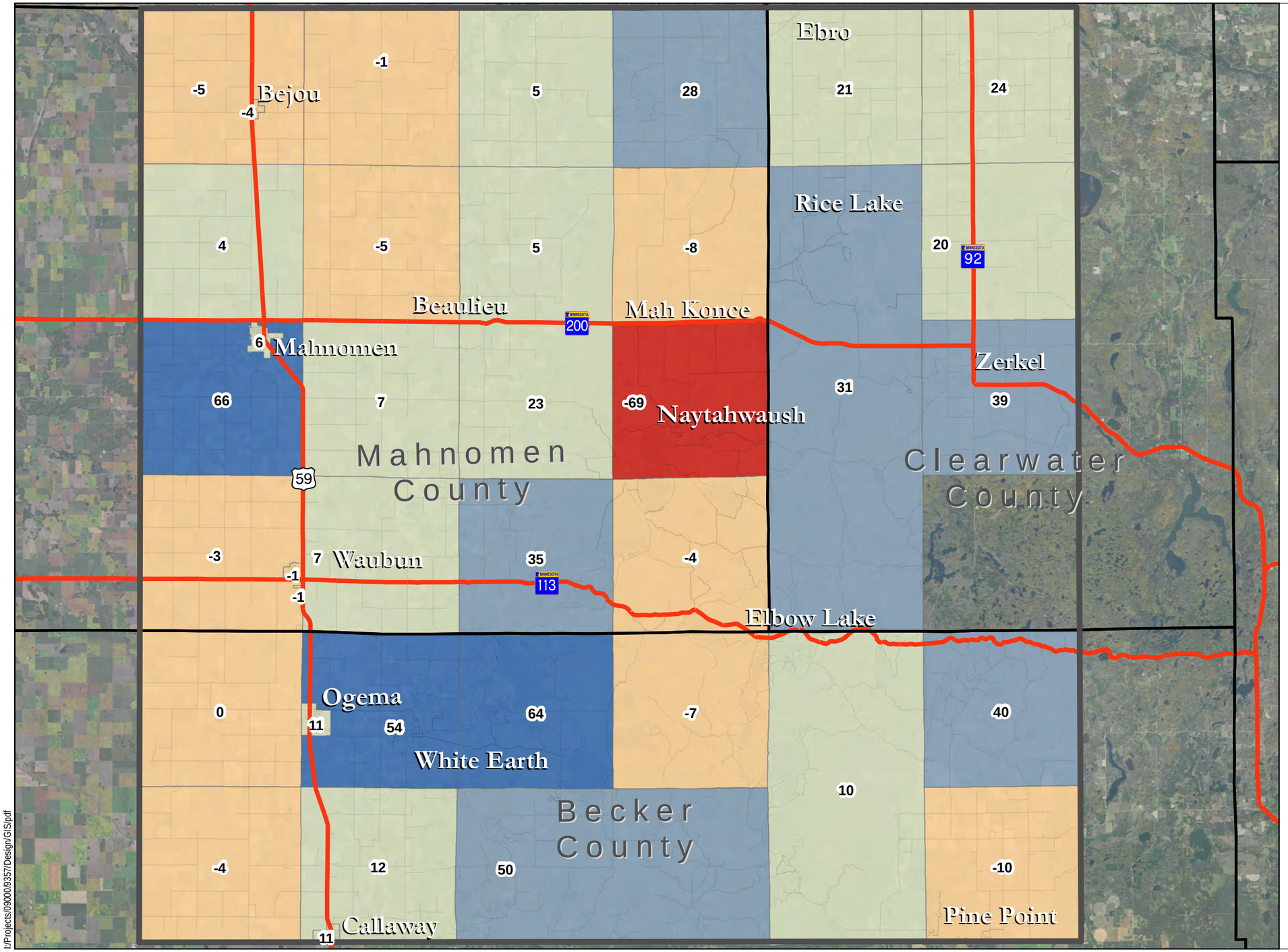
Net Population Change, 2000-2010

White Earth Long Range Transportation Plan

White Earth Nation

Figure 3.2



Net Housing Change 2000-2010

- Loss of more than 50 units
- Loss of 25 to 49 units
- Loss of 0 to 24 units
- Gain of 1 to 25 units
- Gain of 26 to 50 units
- Gain of more than 50 units

N

0 2.5 5 10 Miles

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Net Housing Change, 2000-2010

White Earth Long Range Transportation Plan

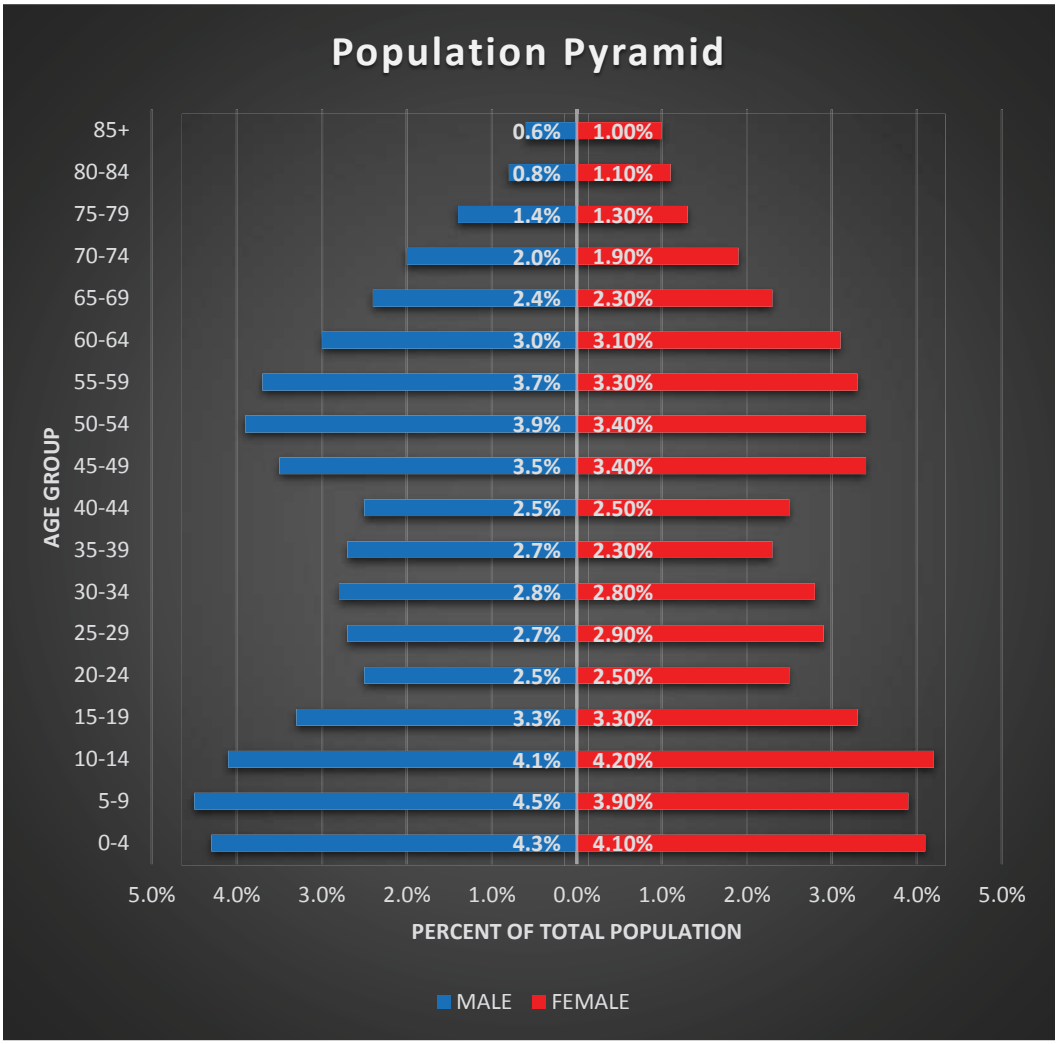
White Earth Nation

Figure 3.3

Population Composition

To further analyze the population characteristics of White Earth Reservation, the 2010 Census population was broken into cohorts by age and sex. The population pyramid illustrates this breakdown. **(See Figure 3.4 – Population Pyramid)** The broad base of the pyramid illustrates a trend of low growth. In 2010 approximately, 25 percent of the Reservation population consisted of young people (age 0-14). This relatively high percentage of children is due to a moderate fertility rate and migration of young families with children into the Reservation. In addition to the broad base of children in the population, a bulge of middle-aged and elderly populations is reflective of the baby boomer's generation.

Figure 3.4 – Population Pyramid



Migration

The low rate of growth from 2000 to 2010 suggests the three components of population change (i.e. fertility, mortality, and migration) remained almost entirely static or negated each other during this decade. As a decision-maker, the most valuable component of population change to examine is migration. By identifying the types of population coming to or leaving the study area, decision-makers can develop polices to reflect the community's goals and objectives. **Figure 3.5 Migration Trends** depicts net migration trends for sex and age cohorts.

Figure 3.5 – Migration Trends

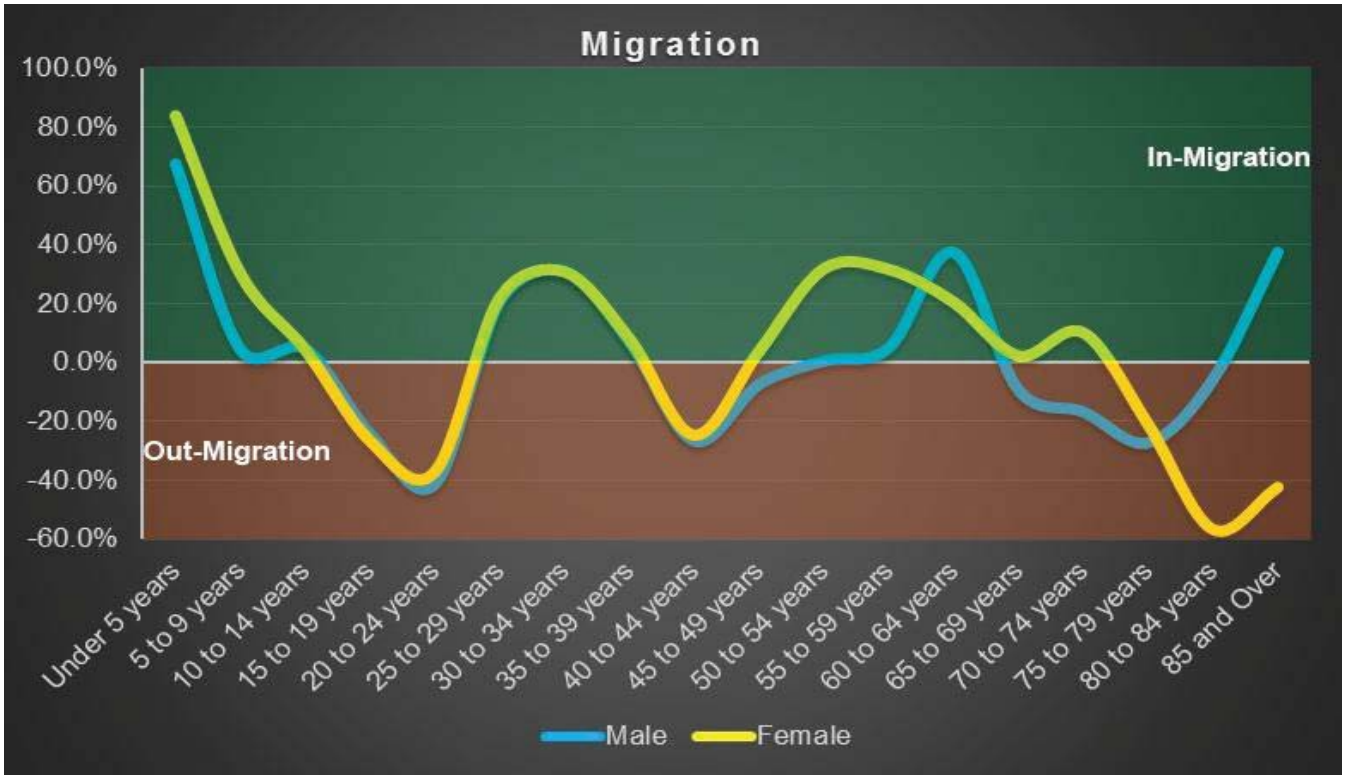


Figure 3.5 Migration Trends illustrates several noteworthy trends. Net migration is positive for the population of young children (cohort ages 0-9) and the population of young adults (cohort ages 25-39). With the migration rates for these groups mirroring each other, it is apparent that there is a net gain of young adults moving to the Reservation, many of whom support younger children.

Net migration is also positive for a large group of females aged 45-69. Within this group, net migration of males is only positive for ages 60-69. Middle-aged women tend to move to the reservation at a younger age than middle-aged men. The influx of people in their 40s, 50s, and 60s likely includes some Tribal members who grew up on

the Reservation but left at various stages to pursue economic educational, job and career opportunities, and then moved back as adults. This group also includes some early retirees.

Net migration is negative for teenagers and young adults (cohort ages 15-24). In general, more people in this demographic tend to leave the Reservation rather than stay, and there is minimal migration of teenagers and young adults into the Reservation. There could be many reasons for outmigration of this cohort; presumably the most significant factors are greater economic and educational opportunities outside the Reservation. As **Figure 3.5 Migration Trends** indicates, some of this population maybe returning and starting families when they reach the ages of 25-39.

Net migration is also negative for the elderly population (cohort ages 65 and over), although, again, there is some deviation between males and females. It is apparent that as the elderly population ages and health concerns multiply, they move off-Reservation for assisted living or nursing home operations and/or closer proximity to services such as healthcare.

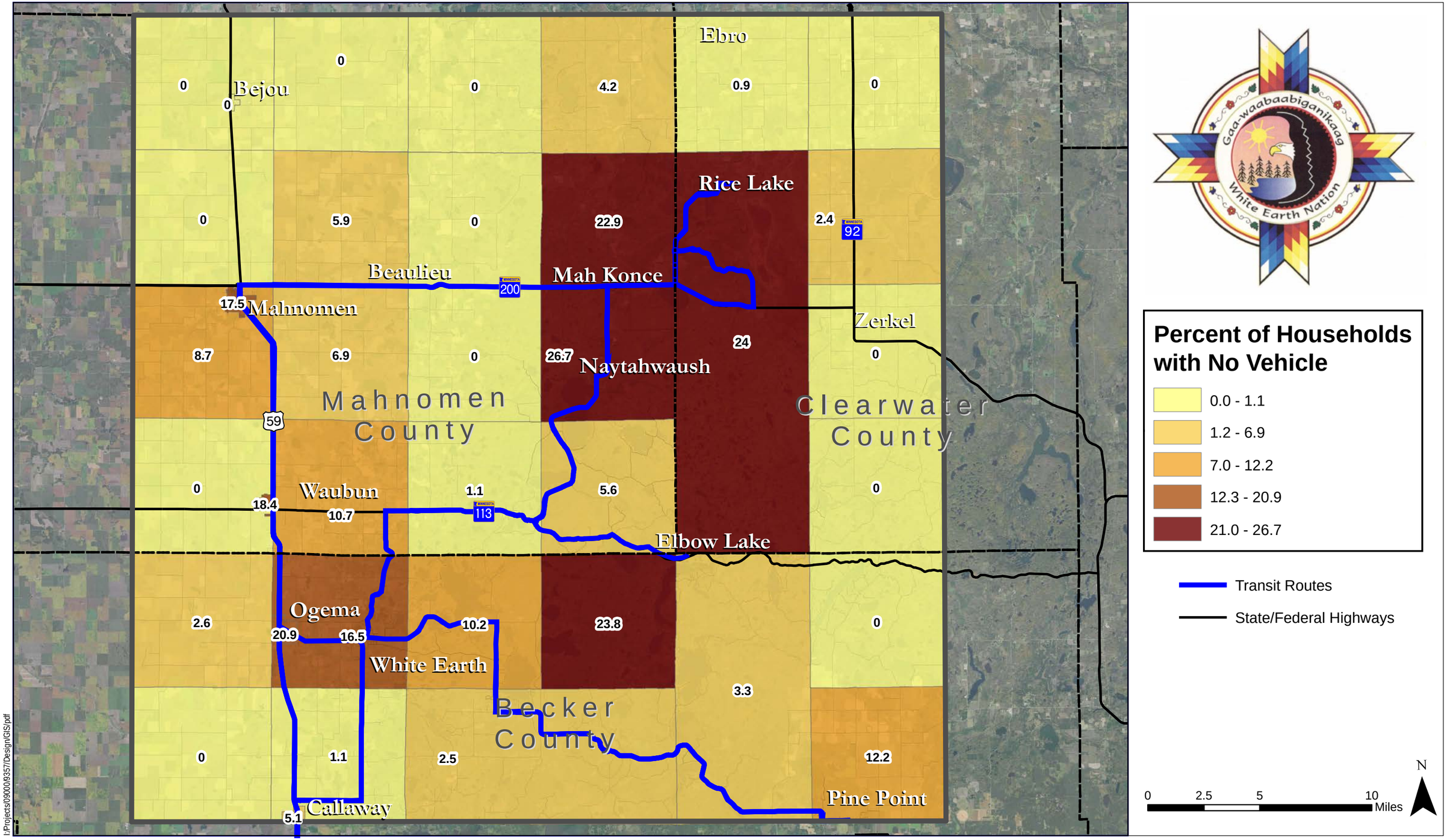
Taken together, the population pyramid and migration analysis provide key insights that can help inform planning, especially regarding housing and the development of services, such as the public transit system. **(See Chapter 8, Transit Plan)**

Personal Vehicle Access

The low density and large area of White Earth Reservation pose challenges to private and public transportation. Challenges to personal travel are exacerbated because many households have limited access to a personal vehicle. This forces more households to find alternative transportation, such as public transit or car-sharing, and diminishes overall mobility. **Figure 3.6 Percent of Households with No Vehicle** shows the percent of households which do not have access to their own personal vehicle. Limited vehicle access is particularly prevalent in the communities of Rice Lake and Naytahwaush, and around Mah Konce, all of which are located more than 15 miles from Mahnomen.

Elderly population

As people age they have the potential to become less mobile. This is true both physically and in terms of their ability to use the transportation system. To maintain their quality of life, elderly populations require access to healthcare, recreation, social interaction and activity. Often trips cannot be performed by the individual, who may require the use of public transportation or assistance from friends and relatives. The location of elderly populations is largely determined by the presence of senior living facilities. **Figure 3.7 Population Aged 65 and Over** provides estimates of the total number of individuals aged 65 or over living in each city and township on the Reservation.



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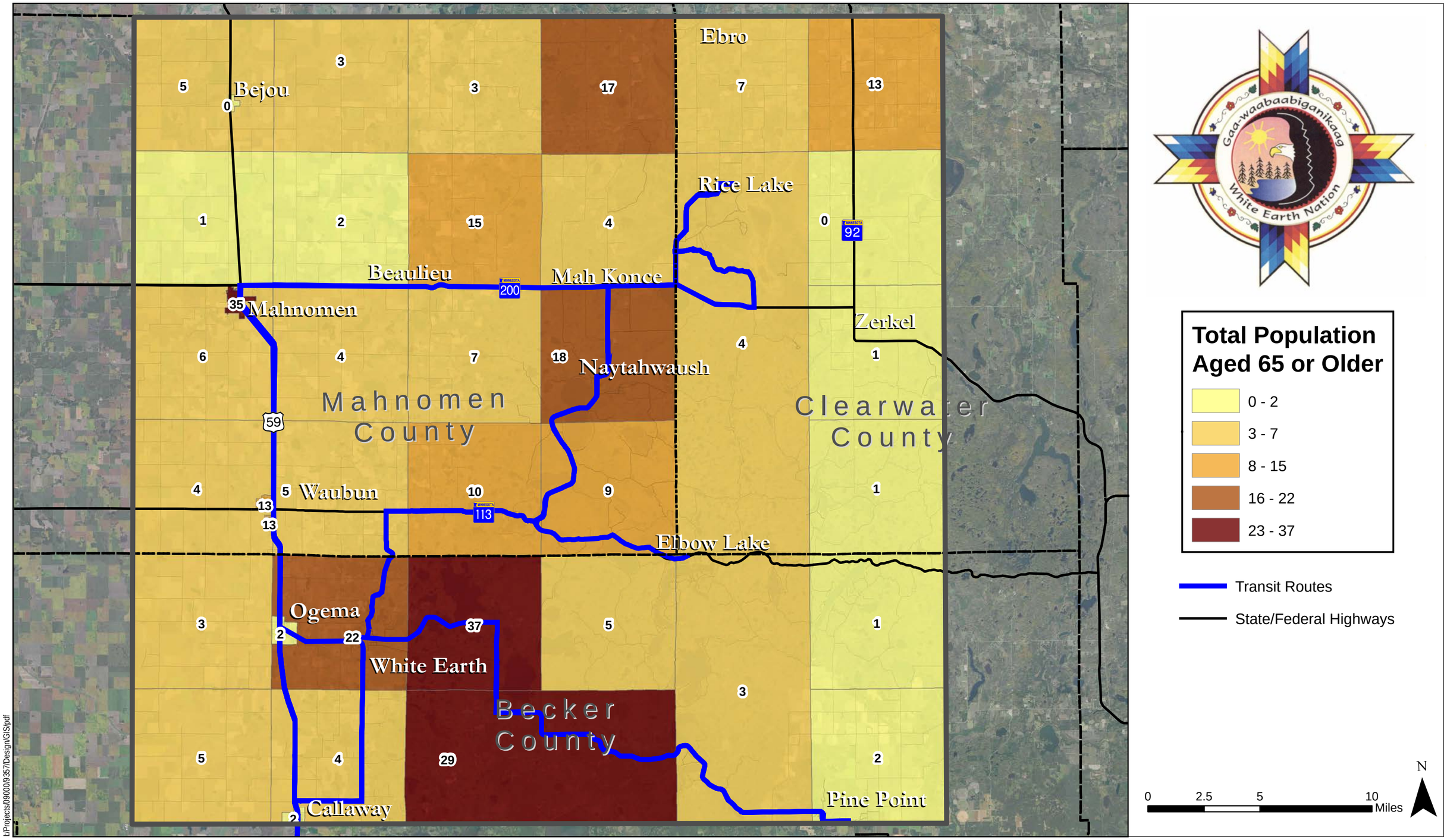
Percent of Households with No Vehicle (2014 ACS Estimate)

White Earth Long Range Transportation Plan

White Earth Nation

Figure 3.6



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Total Population Aged 65 or Older (2014 ACS Estimate)

White Earth Long Range Transportation Plan
White Earth Nation

Figure 3.7

Future Population Growth

General Methodology

As previously described, there was a slow rate of population growth between the 2000 and 2010 Census. During this time, the population of the Reservation grew at an average annual rate of growth of approximately 0.4 percent. More recently, however, it appears that the rate of growth has increased. The ACS estimate for 2014 is 10,808. (While the margin of error is large for individual city and township estimates, again, it is expected that some of these errors cancel out across the Reservation, which contains 37 city and township subdivisions.) Taking 10,808 as the best estimate for 2014, the population increased by 3.5 percent from 2010 to 2014, or an average annual rate of growth of approximately 0.9 percent. At this average rate of growth, the population increase would be 9 percent at the 2020 Census.

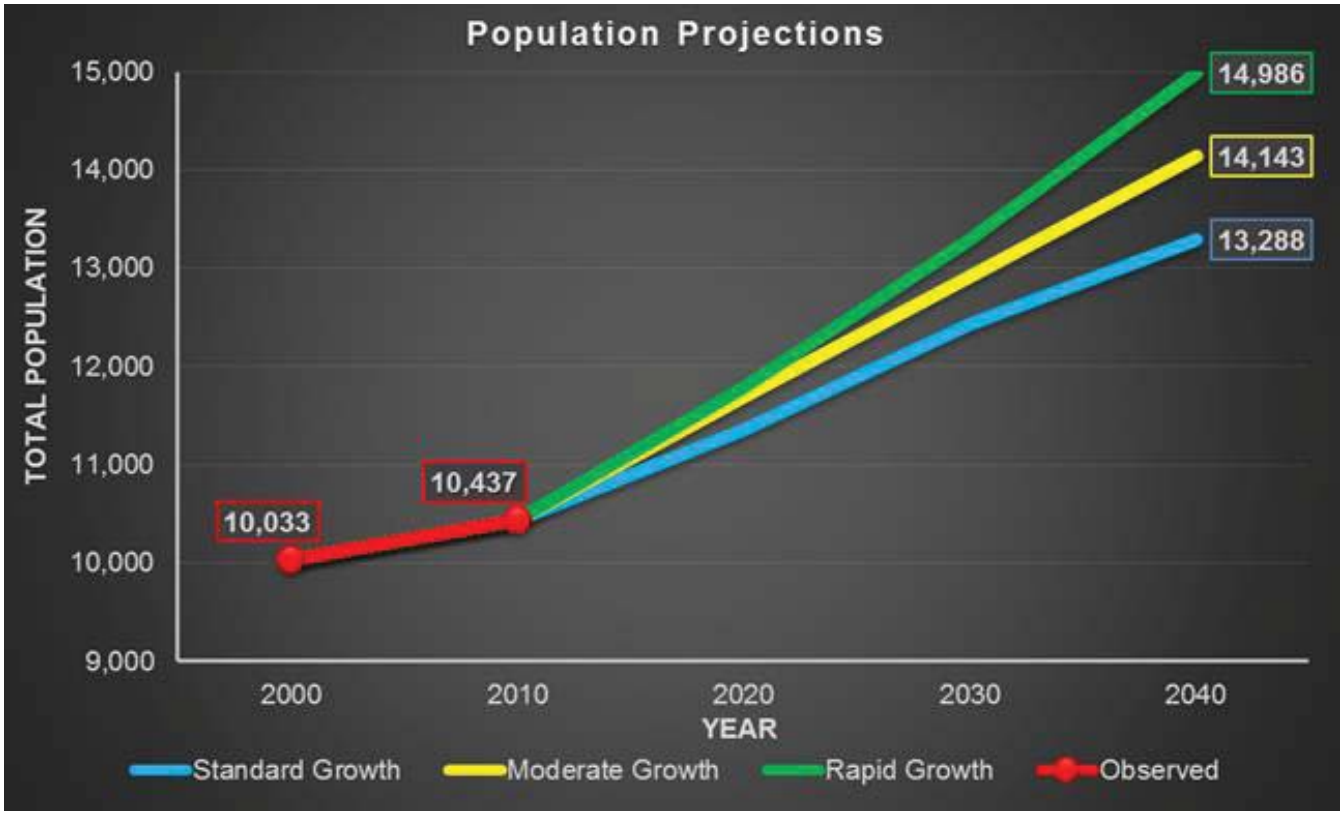
Keeping in mind the reported rates of growth for 2000-2010 and 2010-2014, three population forecasts were developed for White Earth Reservation. Each forecast was informed by historical rates of fertility and morbidity, as well as net migration trends. The forecasts were generated using the cohort component method, in which each cohort of the population is aged forward, and assumed rates of fertility, morbidity, and migration for each cohort are applied during each iteration of the model. **(See Figure 3.4, Population Pyramid, and Figure 3.5, Migration Trends.)**

All projections are indicative of the Reservation area that is illustrated throughout the Plan. Extrapolations of existing Reservation data assume that the boundary of the Reservation will remain static during the projection horizon (2016-2040).

2040 Population Projections

Figure 3.8 Population Projections depicts the three population projections through 2040. These projections are referred to as Standard Growth, Moderate Growth, and Rapid Growth, and share a target year of 2040. For simplicity, each graph essentially indicates an average annual rate of growth. This reflects the fact that there is some uncertainty from year to year, but a more predictable pattern overall. As illustrated in **Figure 3.8 Population Projections**, the three population projections all utilize an average annual rate of growth that is higher than what occurred from 2000-2010. The increased rate of growth is anticipated to be larger in the future, in part because the sizeable base of children reflects a growing population, and because net migration is positive for young families in general, and young women.

Figure 3.8 – Population Projections



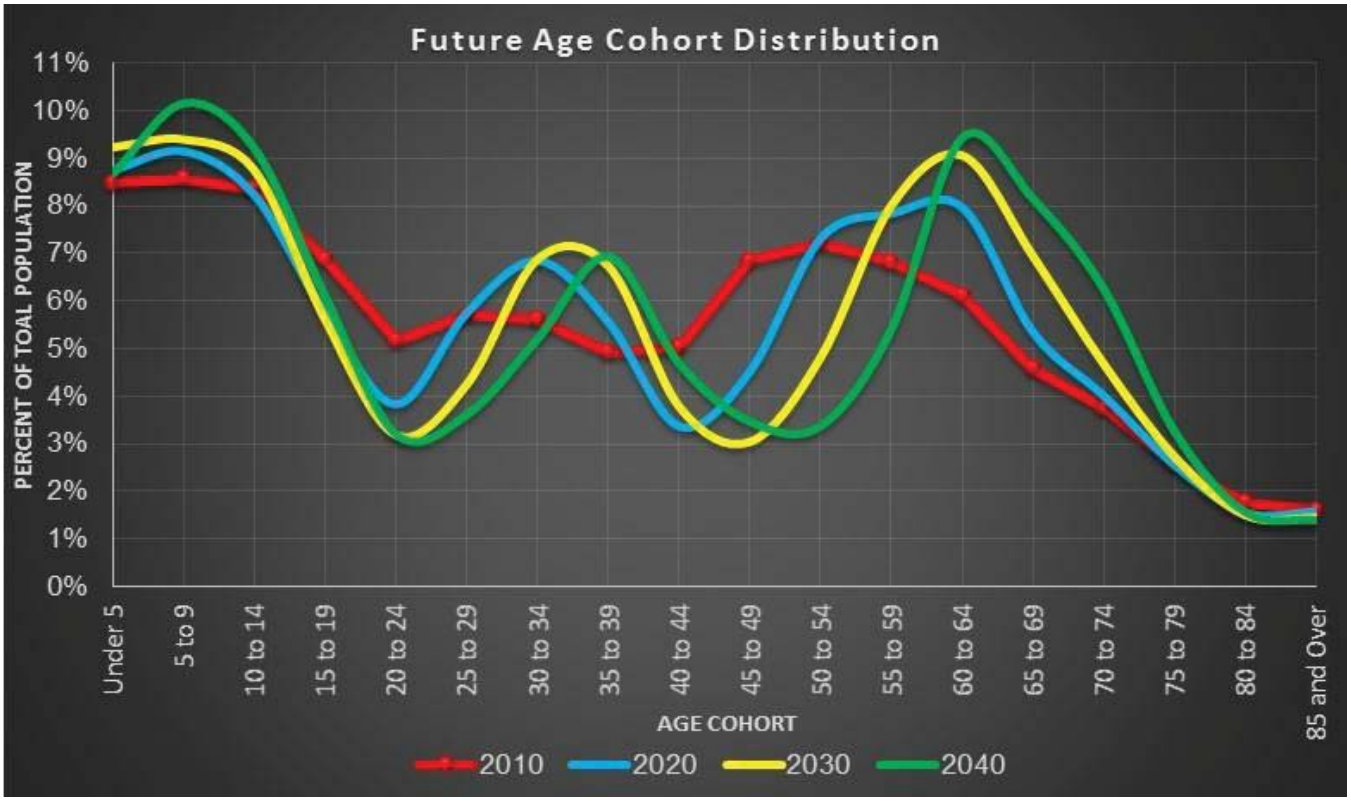
The standard growth scenario (blue) projects a total population of 13,288 in 2040. Under this scenario, the study area would increase in population by around 27 percent from 2014 to 2040, with an average annual growth rate of just under 1 percent. This growth rate is more in line with the growth that was estimated for 2010-2014.

The moderate growth scenario (yellow) anticipates a total population of 14,143 by 2040, an increase of around 36 percent, with an average annual growth rate of just over 1 percent.

The rapid growth scenario (green) anticipates a total population of 14,986 by 2040, an increase of around 44 percent, with an average annual growth rate of 1.45 percent.

Figure 3.9 Future Age Cohort Distribution illustrates the distribution of projected age cohorts in 10-year increments. The trend is for an increasing percentage of orderly people as the decades go by and an increasing percentage of children.

Figure 3.9 – Future Age Cohort Distribution



Appendix B: Population Projection Methodology outlines the overall methodology applied to develop the population projections for the study area. The methodology consists of three phases including: 1) the cohort component method, 2) multiple extrapolation methods, and 3) evaluation and combination of results.

To provide reasonable projections for a study area which does not follow conventional statistical boundaries, an extensive mixed-method approach using various sources was developed. The primary sources for observed data include the following:

- US Census Bureau American Community Surveys (2009 to 2014)
- US Census Decennial Census (2000 and 2010)
- Center for Disease Control and Prevention
- Minnesota Department of Health

Implications for Planning

An increase of 3,000-4,000 people in 25 years would not be astounding, especially given the size of the study area. Nevertheless, rural planning entities face their own set of challenges in accommodating growth, particularly with regard to funding. Furthermore, the location of growth is just as important as the magnitude of growth. If current growth patterns hold, more than half of future growth could be focused around the City of Mahnomen, in Pembina Township. If this community doubles or triples in population, significant expansion of services could be needed, particularly in housing, education, health care and emergency services.

Future Land Development Potential

White Earth Nation and the Headwaters Regional Development Commission (HRDC) are in the process of updating a future land use plan for the Reservation. The plan identifies suitable areas for housing, commercial, and institutional development. It notes that future growth will be concentrated around Tribal villages, where there is access to existing services, utilities, and transportation infrastructure. Some villages have higher growth potential than others. The Village of Naytahwaush, which is in the center of the Reservation and surrounded by extensive holdings of Tribal land, is a prime area for development. Conversely, Pine Point is limited due to hydric soil conditions and surrounding wetlands. Master planning initiatives have been proposed in Naytahwaush and White Earth. However, White Earth has experienced a rush of recent develop to support its function as Tribal government headquarters. It now has a limited amount of available Tribal land which is suitable for development, and the pace of development will slow unless new holdings are acquired.

MNTH 200

With the expected increase in population in the next 25 years, it is possible MNTH 200 plays an even more significant role in connecting communities within the Reservation. Large tracts of tribally managed land are located along MNTH 200. The White Earth Land Office oversees assigning homesite leases along the corridor. As abandoned sites are filled, additional homesites may be placed along the corridor. Also, the expected growth in the City of Mahnomen and in Pembina Township may be located along MNTH 200.

4 Roadway System

INTRODUCTION

A large component of the Transportation Plan involves planning for roadway maintenance and improvements. Most people depend on private vehicles or White Earth Public Transit to traverse long distances across the rural Reservation. Nearly half of residents surveyed travel more than 100 miles a week for work; 46 percent of survey respondents travel more than 100 miles a week for recreation and shopping. A connected, continuous, and well-maintained roadway network is required for the safe, efficient travel of these people and goods.

The complexity of roadway system planning is increased on a reservation for many reasons, one of which is that because there is one additional agency – White Earth Tribal government – which must coordinate with MnDOT and local entities. In addition, the Tribe and BIA maintain separate inventories from the FHWA, MnDOT, and local governments, and use a unique scheme for classifying roadways and monitoring roadway quality. Finally, The Tribe receives funding from unique sources, including the Tribal Transportation Program (TTP), which originated from the Fixing America's Surface Transportation Act (FAST Act) and superseded the Indian Reservation Roads (IRR) program at the end of 2015.

Through the Long-Range Transportation Plan, the White Earth Nation has the explicit objective of improving the condition of the roads for which it is responsible. Nevertheless, these roads constitute a fraction of roads on the Reservation. The role of White Earth's roads must be considered within the broader transportation network. For this reason, Chapter 4 begins with a section describing the general roadway network.

Subsequent sections describe in greater detail specific aspects of the Tribal/BIA roadway network, including the organization and allocation of funding sources available to the Tribe, and the current condition of Tribal roads. Establishing the need for improvements to these roadways is a key objective of the Plan, and the first step in developing a prioritized, fiscally-constrained roadway improvement plan.

ROADWAY SYSTEM GOALS AND OBJECTIVES

The following table provides a list of goals related to improving the function of the roadway system on and surrounding the White Earth Reservation. Specific actions are detailed under each goal. Some actions require ongoing work, while others are primarily addressed within the body of this Plan. Many actions are solely the responsibility of the Tribe, while others may require some degree of coordination with other entities.

Table 4.1 – Roadway System Goals and Objectives

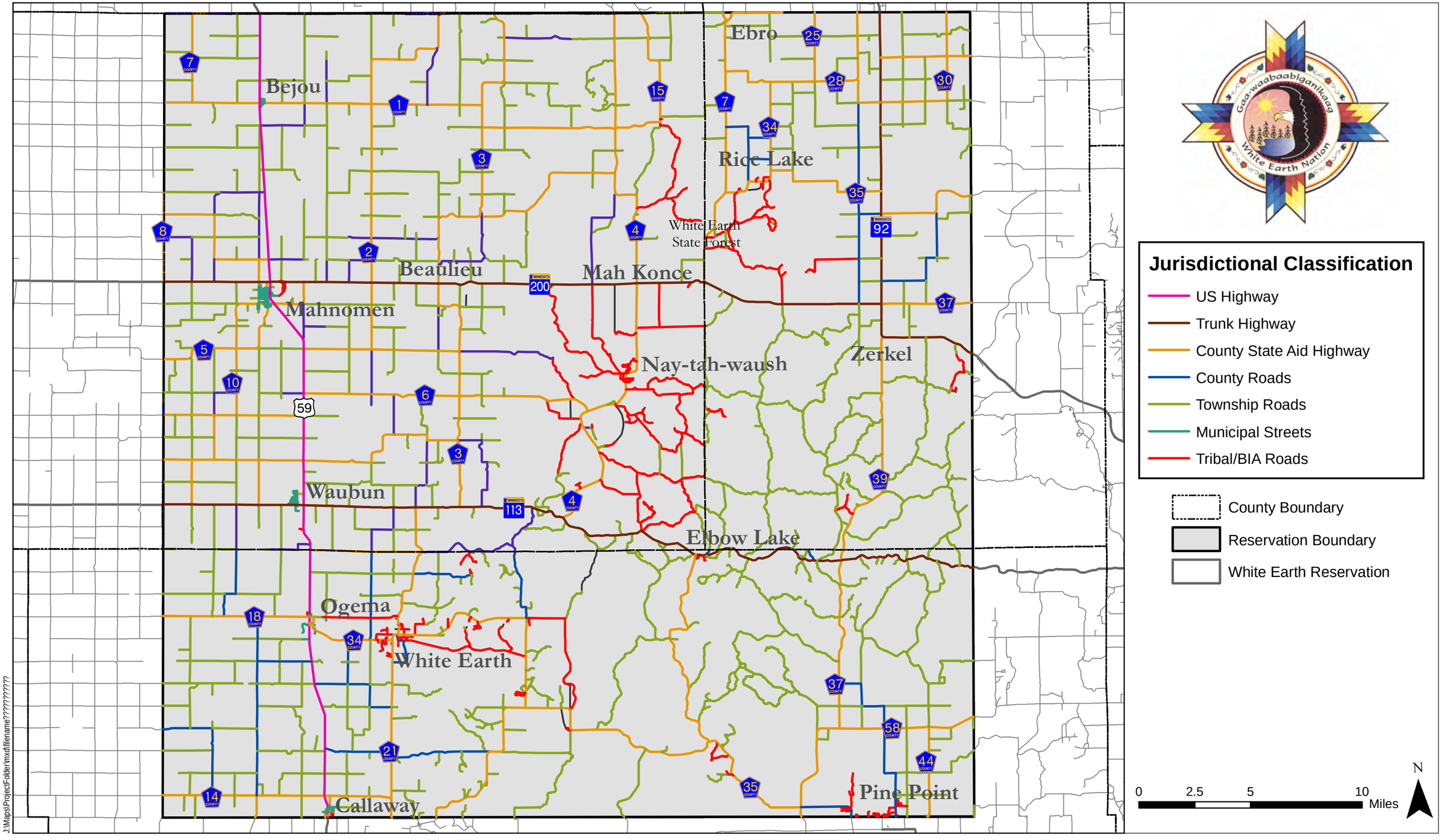
GOAL 1: Efficient Movement *Ensure that the transportation network promotes the efficient movement of people and goods*
• Maintain roadway infrastructure (ongoing).
• Provide roadways to serve new development areas and future urban routes within Tribal communities.
• Construct improved highway linkages to major State highways.
• Review the current functional classification system and propose a future 2040 functional classification framework.
• Encourage consistency between roadway jurisdiction, designation, and functional classification.
GOAL 2: Jurisdictional Coordination *Build cooperation and coordination among state and local jurisdictions*
• Seek opportunities to coordinate roadway improvement plans with overlapping counties, adjacent counties, and the State.
• Review and propose logical jurisdictional modifications for discussion among affected governments.
• Promote cooperative intergovernmental maintenance activities to increase the efficiency and effectiveness of services.

WHITE EARTH RESERVATION ROADWAY SYSTEM

This section describes general characteristics of the entire roadway system on White Earth Reservation, including State highways, County and Township roads, and City streets. It includes a discussion of the FHWA functional classification system, existing facility types, and traffic volumes. For a more detailed analysis of roads operated by White Earth Reservation, see the section titled Tribal Roadway Inventory, beginning on page 48.

Roadway Jurisdiction

Roadway jurisdiction determines maintenance responsibility and eligible funding sources for roadway projects. Several government agencies operate roads in White Earth Reservation. The amount of available funding is typically greatest for higher-volume highways, including State and Federal highways and County State-Aid Highways (CSAH). A summary of jurisdictional responsibilities is provided on **Figure 4.1 Existing Jurisdictional Classification** and described in the following text.



Existing Jurisdiction

Figure 4.1

White Earth Long Range Transportation Plan

White Earth Nation

Table 4.2 – Roadway Jurisdiction Breakdown

Geography	Miles	System Percentage
Federal	36.8	2.3
State	85.9	5.4
CSAH	382.8	23.9
County	163.2	10.2
Township	768.6	48.0
Municipal	18.0	1.1
Tribal/BIA	145.8	9.1
Total	1601	100.0

US Highway 59

The largest-volume road within White Earth Reservation is US Highway 59, which runs north-south through the western third of the Reservation. From north to south, US 59 connects the cities of Bejou, Mahnomen, Waubun, Ogema, and Callaway. South of the Reservation, the highway provides access to Detroit Lakes and US Highway 10. US 59 is the only Federal highway on the Reservation. In the City of Mahnomen, US 59 carries more than 4,000 vehicles per day, which is approximately twice the vehicle volume of any other road segment on the Reservation.

State Highways

State highways include Minnesota Highways 200, 113, and 92. MN 200 and MN 113 are both east-west highways which traverse the length of the Reservation. MN 200 is the primary east-west corridor, providing connectivity to the State line in the west and Itasca State Park in the east. MN 92 is a north-south highway near the Reservation's eastern border. It terminates at Zerkel, where it joins MN 200.

Regional roadways that serve the White Earth Nation connect residential areas with employment, government services, cultural areas, and educational facilities. The State highways carry relatively large volumes of traffic throughout the Reservation to destinations such as employment and commercial centers.

MNTH 200

MNTH 200 generally serves as the connection between regional destinations as well as between Reservation communities. MNTH 200 also services other key areas such as: agricultural areas, culturally significant locations, government services and access to natural resource areas for hunting, fishing and gathering. Thus, MNTH is used by a variety of vehicles, including personal vehicles and heavy farm/industrial machinery, as a well as non-motorized transport.

County State Aid Highways (CSAH)

Nearly one-quarter (24 percent) of all roadway mileage in White Earth Reservation consists of County State Aid Highways. These specialized County roads are part of Minnesota's State-aid system. Funding for these roadways is administered through the CSAH fund on a formula basis, although Counties share the cost of upkeep.

County Roads

Approximately 10 percent of roadway mileage in White Earth Reservation consists of county roads. Many county-owned roads are in Mahnomen and Clearwater Counties. Each county road is solely the responsibility of the governing county.

Township Roads

Nearly half (48 percent) of all roadway mileage in White Earth Reservation consists of township roads. These dirt and gravel roads carry an extremely limited amount of traffic and receive little to no maintenance. They are the sole responsibility of local townships and receive little support from the State. Statewide, there is limited information about the existing condition of township roads, because rural townships typically have limited capacity to maintain a digital roads inventory.

Municipal Roads

Slightly more than 1 percent of roadway mileage is classified as municipal. Many city-owned roads are in the City of Mahnomen. The cities of Waubun, Ogema, and Callaway also maintain small municipal street systems. There are no municipal streets in the Clearwater County of the Reservation.

BIA Roads

The BIA roadway system is part of the National Tribal Transportation Facility Inventory (NTTFI), which superseded the Indian Reservation Roadways (IRR) program at the end of 2015. There are approximately 143 miles of BIA roads located within White Earth Reservation, constituting approximately 9 percent of the total roadway network. The White Earth Public Works department monitors the existing condition of these roads in the RIFDS data inventory.

FHWA Functional Classification

A functional classification plan defines a roadway hierarchy system based on the type of function each roadway performs. It is used by agencies and planning officials to manage access, setbacks, and other design-related features of the roadway. The designated function of a road is defined by its role in serving the flow of trips through the roadway system. The complexity of the functional class system is increased in a tribal situation because BIA functional classifications differ from FHWA rural functional classifications. **Figure 4.2 Existing FHWA Functional Classification** shows the existing functional classification for non-Tribal roads located within White Earth Reservation. This classification system includes principal arterials (red), minor arterials (green), major collectors (blue), and minor collectors (orange).

Bejou
Ebro
Rice Lake
Mahnomen County
White Earth State Forest
Beaulieu
Mah Konce
Mahnomen
Zerkel
Nay-tah-waush
Clearwater County
Waubun
Itasca State Park
Elbow Lake
Ogema
White Earth
Becker County
Two Inlets State Forest
Tamarac National Wildlife Refuge
Pine Point
Callaway

Island Lake
Lower Rice Lake
Roy Lake
North Twin Lake
South Twin Lake
Bass Lake
McCraney Lake
Tulaby Lake
Elbow Lake
White Earth Lake
Big Rat Lake
Strawberry Lake
Manypoint Lake
Upper Egg lake
Round Lake
Ice Cracking Lake
Big River Lake

Gaa-waabaabiganikaag
White Earth Nation

FHWA Functional Classification

- Principal Arterial
- Minor Arterial
- Major Collector
- Minor Collector
- Local

- Reservation Boundary
- County Boundary
- State Park
- State Forest
- National Wildlife Refuge
- Water Resources

N

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Existing FHWA Functional Classification

White Earth Long Range Transportation Plan

White Earth Nation

Figure 4.2

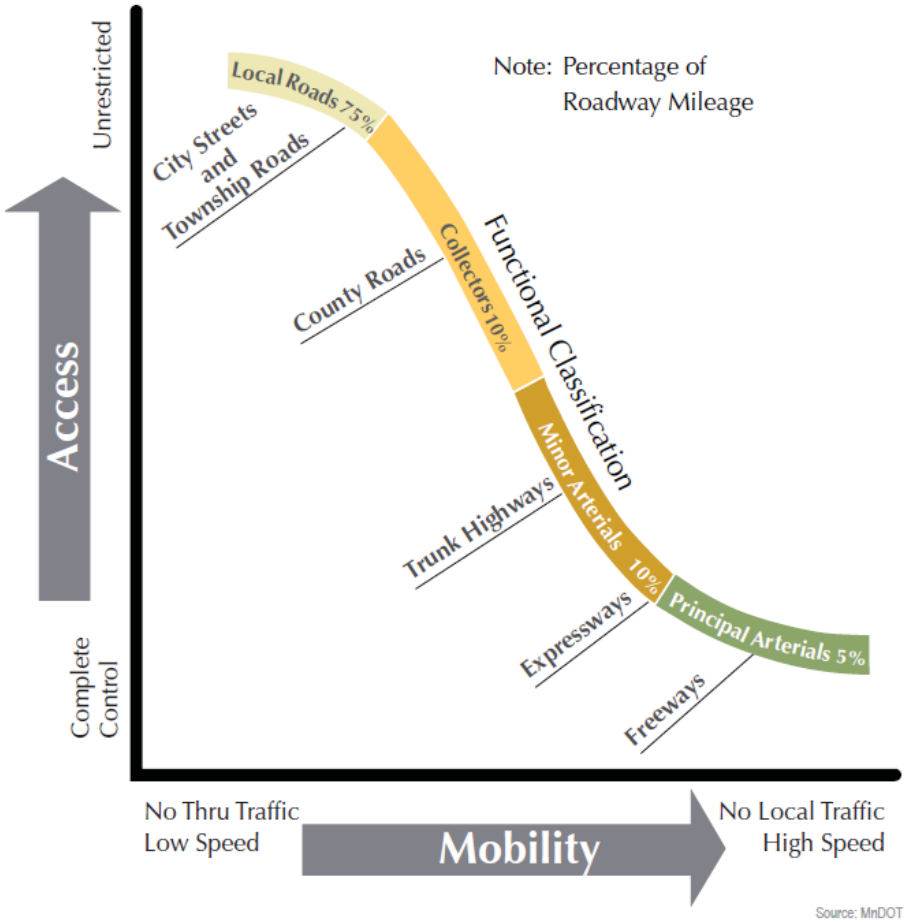
Table 4.3 – FHWA Functional Classification

FHWA Classification	Hierarchical Function	Example
Principal Arterial	• Connect major activity centers • Serve large travel sheds/regions • Have significant continuity at state level • Serve long, through-type trips • High-speed with limited access	US Highway 59
Minor Arterial	• Connect key activity centers • Have significant continuity within Reservation/multi-county area • Serve long-to-medium length trips • High-speed with limited access	MN Highway 200
Collector	• Connect local activity centers and to higher-order routes • Have continuity on local level • Serve medium- to short-length trips • Can serve a variety of uses, and therefore may have a variety of speeds • Place equal emphasis on access and mobility • Route spacing allows service to smaller or localized areas	MN Highway 113 Mahnomen CSAH 1 Clearwater CSAH 7 Becker CSAH 37
Local Route	• Connect local neighborhoods, farms, small developments, and to higher-order streets • Low degree of continuity • Serve medium- to short-length trips • Closely spaced access • Provide direct access to private property (no access control) • Serve limited travel sheds (very few through trips)	Township roads

Access Management

The functional classification system seeks to balance the competing priorities of access and mobility. There is an inverse relationship between access and mobility. **(See Figure 4.3 Access-Mobility Relationship.)** When mobility is prioritized, as for major and minor arterials, the number of public access points (intersections) and private accesses (driveways) is limited. These higher-order roads have the highest traffic volumes. When access is prioritized, as for local streets and some collectors, the number of access points is much greater, and mobility tends to suffer. These lower-order roads have the lowest traffic volumes.

Figure 4.3 – Access-Mobility Relationship



In a rural area such as White Earth, the tradeoff between access and mobility is less pronounced. Because travel volumes are low across the Reservation, congestion/delay is rare. (There may be occasional delays on side street accesses to US 59 in Mahnomen, especially during a large event at the Shooting Star Casino and Event Center.) Nevertheless, it is important from the Tribal standpoint to consider roadway access spacing.

Access management reduces the number of conflict points, resulting in improved safety. Crash rate correlates to the number of access points per mile, when traffic volumes, geometrics, and other factors are accounted for. The crash rate increases as the number of access points increases.

A variety of access control methods are used to mitigate these effects, including right-in/right-out, redirection of traffic to another access roadway, and consolidation of private access points. Realistically, application of access management techniques depends on the function of corridor. Practically speaking, right-in/right-out access control could be utilized on US 59 in Mahnomen, but probably not anywhere else in the Reservation. On the other hand, consolidating the number of private access points is a strategy that could be applied to both urban and rural corridors. The rationale for managing access in rural areas differs from the rational used in urban areas. Roadways in rural areas usually serve low-density land uses and usually have volumes well below capacity thresholds. Managing rural access increases by improving sight distance and reducing the number of conflict areas. In addition, it minimizes operational and maintenance costs relating to snow removal, roadway resurfacing, and water storage/drainage.

From the Tribe's standpoint, limited development options play a role in determining what access management strategies are feasible. Historically Tribal housing development has occurred around County highway corridors. In some cases, owing the location of Tribal land holdings, development occurs immediately adjacent to the highway, and is served by a short public access road maintained by the Tribe. Similarly, future development could occur adjacent to State Highway 200 west of Mah Konce, where the Tribe owns several contiguous sections of land. The Tribe is not able to finance the construction of a traditional collector system that connects to the County/State system of arterials and collectors. As growth occurs, it will be challenged to minimize the number of private access points along higher-order roads.

To address access in rural areas, Minnesota's Local Road Research Board (LRRB) developed the following best management practices:

- Establish an access policy – develop a formal policy that ensures that the agency has processes in place to determine the need for and evaluate the use, location, spacing and design characteristics of the requested access points.
- Encourage coordination during the zoning and platting process.
- Give access permits for specific use.

- Encourage adequate spacing of access points.
- Protect the functional area of intersections.
- Ensure adequate sight distance at entrances.
- Avoid offset or dogleg intersections and entrances.
- Encourage development of turn lanes.
- Consider consolidating access or relocating existing access.
- Encourage good driveway and intersection design characteristics, such as proper driveway width and turning radii, proper corner clearance, and alignment of intersections at right angles to maximize sight lines, minimize the time a vehicle is in the conflict area, and facilitate turning movements.

Additionally, access spacing should be considered when designing pedestrian and bicycle facilities. For example, pedestrians benefit from a higher level of accessibility and connectivity to adjacent land uses, whereas bicyclists benefit from reducing the number of conflict points with vehicles and pedestrians.

Land use authorities may exercise additional authority in limiting access through development rules and regulations. Land use authorities can require:

- Dedication of public rights-of-way
- Construction of public roadways
- Mitigation measures of traffic and/or other impacts
- Change in and/or development of new access points.

These types of access controls are processed through local appointed and elected officials, such as Tribal Councils, planning commissions, town boards, City Councils, and County Commissions.

Access guidelines and corridor management practices should be implemented at the tribal, county, and city level because these units of government are usually involved at the planning stages of development proposals and because they have stronger land use and access controls. However, long-term benefits of access management require mutual support and effective communication at all governmental levels.

Table 4.4 – Summary of Recommended Access Spacing provides MnDOT's framework for approaching access management in rural areas.

Table 4.4 – Summary of Recommended Access Spacing

Category	Area or Facility Type	Typical Functional Class	Intersection Spacing		Signal Spacing	Private entrances
			Primary Full Movement Intersection	Conditional Secondary Intersection		
1	**High Priority Interregional Corridors**					
1A	Rural, Exurban & Bypass	Principal Arterials	1 mile	1/2 mile	INTERIM ONLY by Deviation Only	By Deviation Only
2	**Medium Priority Interregional Corridors**					
2A	Rural, Exurban, and Bypass	Principal Arterials	1 mile	1/4 mile	STRONGLY DISCOURAGED by Deviation Only	By Exception or Deviation Only
2B	Urban Urbanizing		1/2 mile	1/4 mile		
2C	Urban Core		300-600 feet depending upon block length		1/4 mile	Permitted Subject to Conditions
3	**High Priority Regional Corridors**					
3A	Rural, Exurban, and Bypass	Principal and Minor Arterials	1 mile	1/2 mile	1 mile	Permitted Subject to Conditions
3B	Urban Urbanizing		1/2 mile	1/4 mile	1/2 mile	By Exception or Deviation Only
3C	Urban Core		300-600 feet depending upon block length		1/4 mile	Permitted Subject to Conditions
4	**Principal Arterials**					
4A	Rural, Exurban, and Bypass	Principal Arterials	1 mile	1/2 mile	1 mile	By Deviation Only
4B	Urban Urbanizing		1/2 mile	1/4 mile	1/2 mile	By Exception or Deviation Only
4C	Urban Core		300-600 feet depending upon block length		1/4 mile	Permitted Subject to Conditions
5	**Minor Arterials**					
5A	Rural, Exurban, and Bypass	Minor Arterials	1/2 mile	1/4 mile	1/2 mile	Permitted Subject to Conditions
5B	Urban Urbanizing		1/4 mile	1/8 mile	1/4 mile	By Exception or Deviation Only
5C	Urban core		300-600 feet dependent upon block length		1/4 mile	Permitted Subject to Conditions

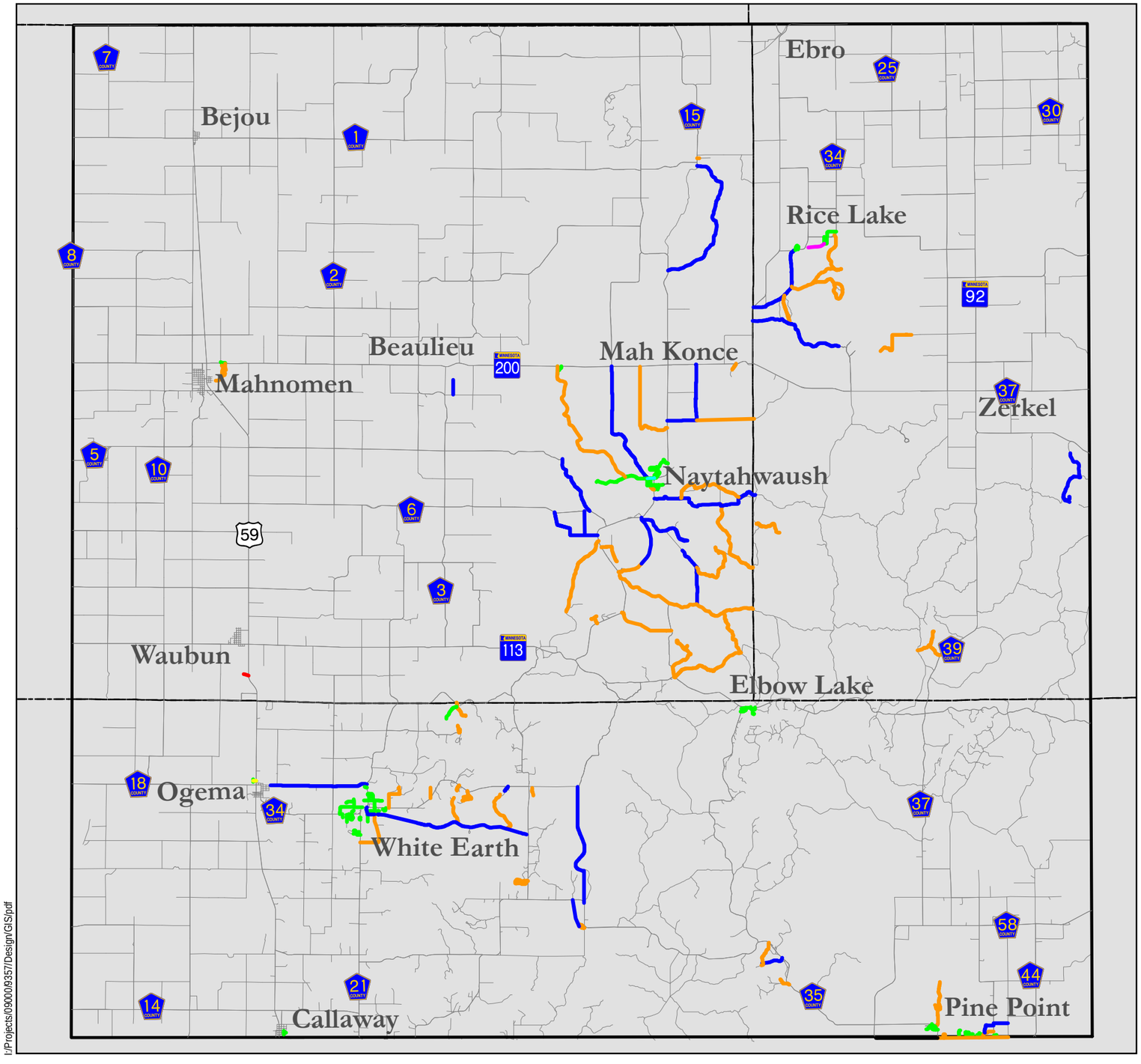
TRIBAL ROADWAY INVENTORY

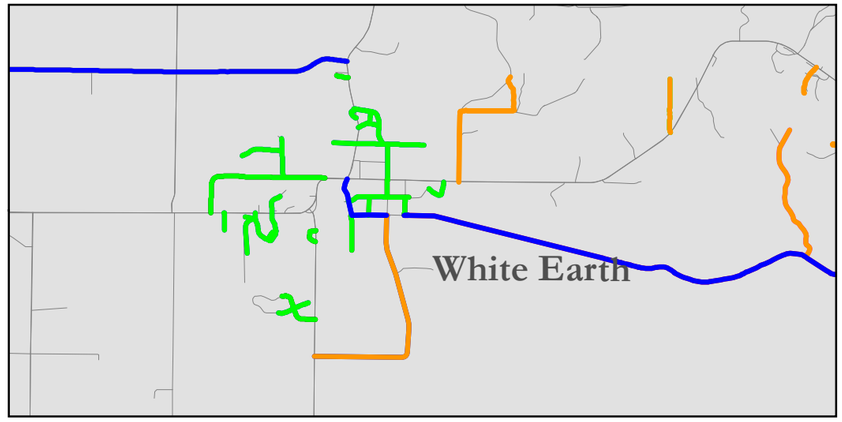
This section describes the existing aspects of the BIA and Tribal roadway system. The White Earth Public Works department maintains an inventory of Tribally-owned and BIA roads using the RIFDS system. The RIFDS inventory was joined to the Tribe's GIS shapefile database using a unique identifier for each roadway segment. This enabled mapping of the Tribal roadway data, and a full analysis of existing roadway conditions, vehicle traffic volumes, and other data. The spatial data that was created from this join was edited several times throughout the inventory process. This should provide the Tribe a starting point for migrating its road data from hard copy to GIS if it chooses. It will streamline data management and help the Tribe monitor progress towards implementing the Transportation Plan.

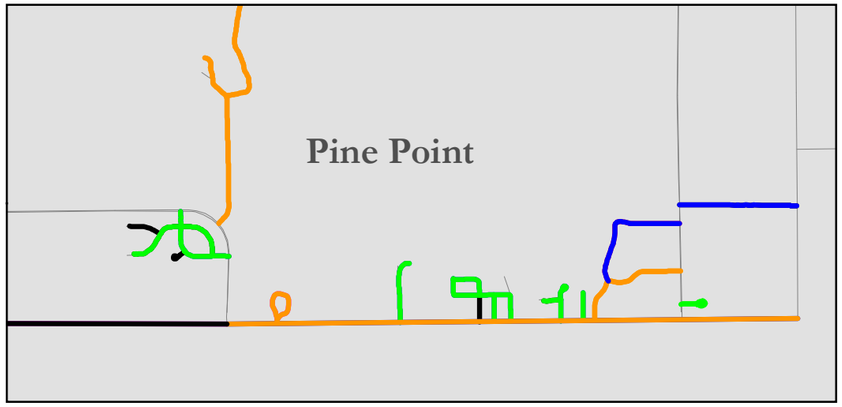
BIA Functional Classification

The BIA functional classification system is similar in intent to that of FHWA, although specifics differ somewhat between the two. The system is intended to assign a designation to each roadway that considers that roadways existing and anticipated future function within the roadway hierarchy. Functional classification is used to delineate differing roadway standards that affect funding allocation under the TTP. All transportation facilities included in the National Tribal Transportation Facility Inventory (NTTFI) must have a functional classification, including trails, airstrips, public parking facilities, and planned roadways. (See the Tribal Transportation Program section for a fuller description of the NTTFI.) Assigning functional classification to new routes or changing the classification of existing routes must be justified in the Long-Range Transportation Plan.

Table 4.5 BIA Functional Classification provides a summary of BIA Functional Classifications taken from the RIFDS coding manual**. Figure 4.4 Existing BIA Functional Classification System** shows the existing BIA functional classification of White Earth's inventoried roads. The only designated arterials are Housing Authority Road in Waubun and West Ogema Housing Road, two short accesses to US Highway 59.







BIA Functional Classification

N

- 1 - Major Arterial
- 2 - Rural Minor Arterial
- 3 - Community Street
- 4 - Rural Major Collector
- 5 - Rural Local Road
- 6 - City Minor Arterial
- 8 - Non-Road Facility

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BIA Functional Classification System

White Earth Long Range Transportation Plan

White Earth Nation

Figure **4.4**

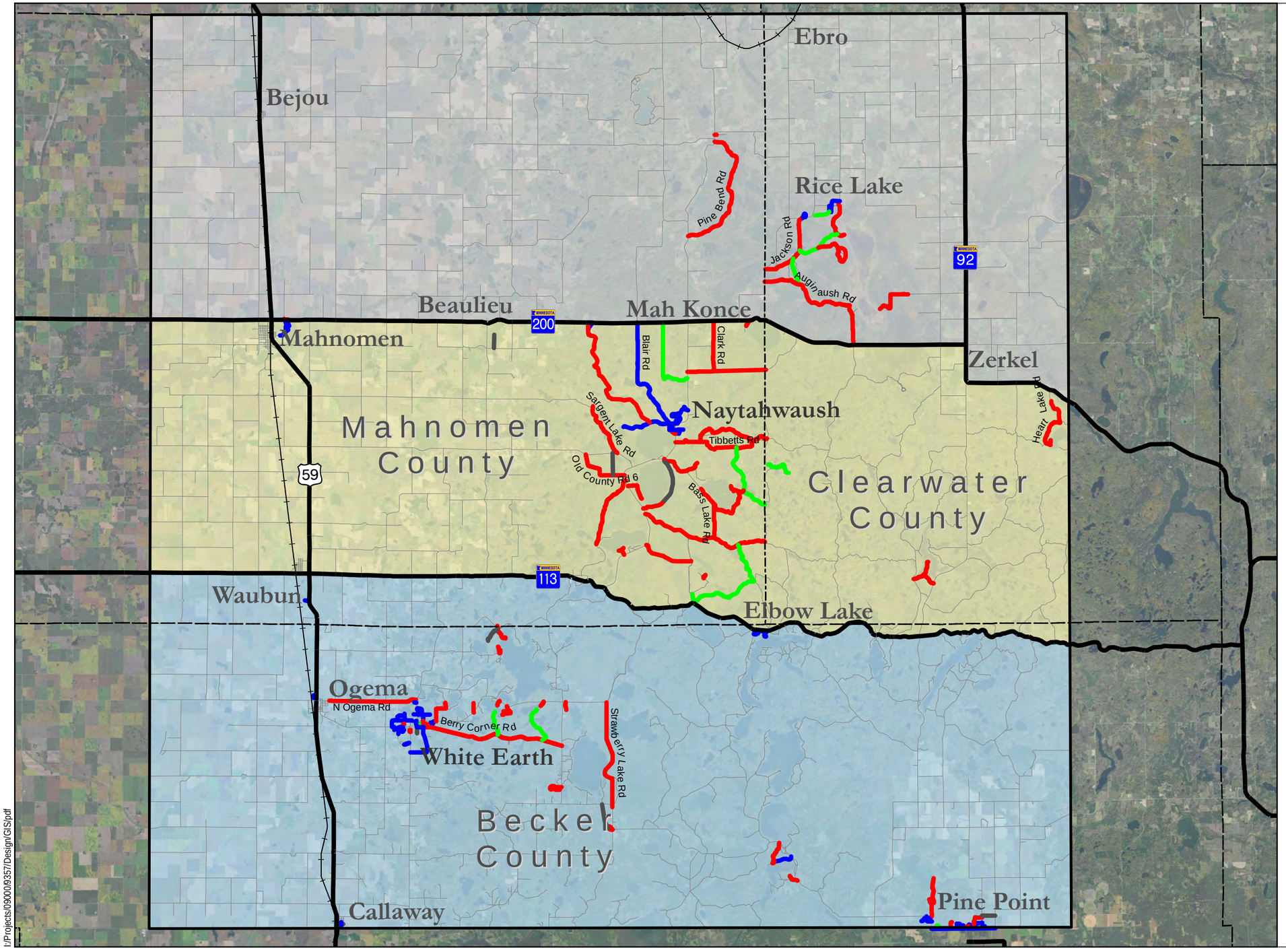
Table 4.5 – BIA Functional Classification

BIA Functional Classification Code	Class Name	Class Description
1	Major Arterials	Provide an integrated network for serving traffic between large population centers, with ADT of 10,000 or more and more than two travel lanes
2*	Rural Minor Arterials	Provide an integrated network between smaller population centers with ADT of fewer than 10,000. Generally, provide for at least inter-county or inter-state service
3*	Community Streets	Streets that are located within communities serving residential areas.
4*	Rural Major Collectors	Collect traffic from and distribute traffic to rural local roads
5*	Rural Local Roads	Section line and/or stub roads that make connections within the travel grid. May serve areas around villages, farming areas, schools. Includes roads and motorized trails for administration of forests, recreation, and other uses.
6*	City Minor Arterials	City minor arterial streets that are located within communities and serve as collectors to the city local streets.
7	City Collector Streets	City collector streets that are located within communities and serve as collectors to the city local streets.
8	Non-road Projects	Includes all non-road projects such as paths, trails, walkways, or other designated types of routes for public use by foot traffic, bicycles, all-terrain vehicles, etc.

*Currently present in White Earth's inventory

Road Surface Type

Figure 4.5 BIA Road Surface Inventory shows the surface type for all Tribal roadways. Currently White Earth Reservation maintains approximately 145 miles of roadway. Most of these roads are located in and around the communities of Naytahwaush, Pine Point, Rice Lake, and White Earth, and Mahnomen. Within the communities, there are several bituminous segements (blue) of varying pavement thickness, acounting for approximately 15 percent of total BIA roadways. Outside of the communities, nearly every road is gravel (red) or an earthen trail (green). Approximately 60 percent of surface is gravel, while 15 percent of roads are categorized as primitive earthen trail. Some segments are proposed future BIA roads at this time(black).



BIA Road Surface Type

- Bituminous
- Gravel
- Proposed Road
- Primitive Trail

- White Earth Reservation
- County Boundary
- Railroad

White Earth Districts

- District 1
- District 2
- District 3

N

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BIA Road Surface Types

White Earth Long Range Transportation Plan

White Earth Nation

Figure **4.5**

Road Surface Condition

White Earth Public Works inventories roadway surface condition and roadbed condition. Both are determined from field survey data. Surface condition is evaluated using a surface condition index (SCI), which gives an overall rating for each roadway segment, indexed on a scale of 0-100. (Practically speaking, roadway segments with a recorded value of 0 may be unconstructed, or do not currently have data associated with them.) Lower values are poor and higher values are good, although the interpretation of a value depends on whether the surface is gravel or bituminous. **Table 4.6 Surface Condition Index Evaluation Criteria** describes the criteria for evaluating paved (bituminous) versus gravel roadways.

Table 4.6 – Surface Condition Index Evaluation Criteria

Gravel SCI Evaluation Criteria	Pavement SCI Evaluation Criteria
• Loss of gravel • Rutting • Corrugations • Grade depression and upheaval • Condition during inclement weather	• Longitudinal cracking • Horizontal cracking • Transverse cracking • "Alligator" cracking • Grade depression • Rutting • Corrugations • Raveling • Bleeding • Patching

To identify standard thresholds within the 100-point SCI scale, three categories were established by the Tribe. The SCI cutoff for these categories depends on surface type. **Table 4.7 Surface Quality Ranges** shows the different SCI thresholds and the recommended maintenance or improvement for each category.

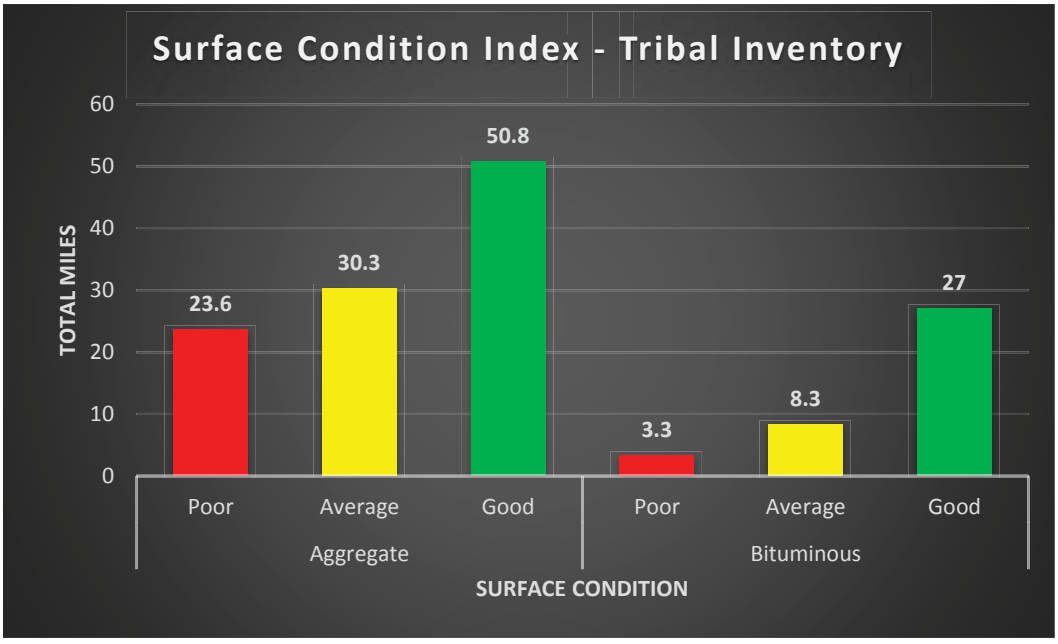
Figure 4.6 Total Mileage of Good, Average and Poor SCI Roads shows the total mileage of roads within each SCI range for gravel and bituminous surfaces. The majority of surface mileage is in good or average condition. However, there are more than 23 miles of gravel roads that are in poor condition. **Figures 4.7A and 4.7B Existing Road Surface Condition** map surface quality for all inventoried roadways.

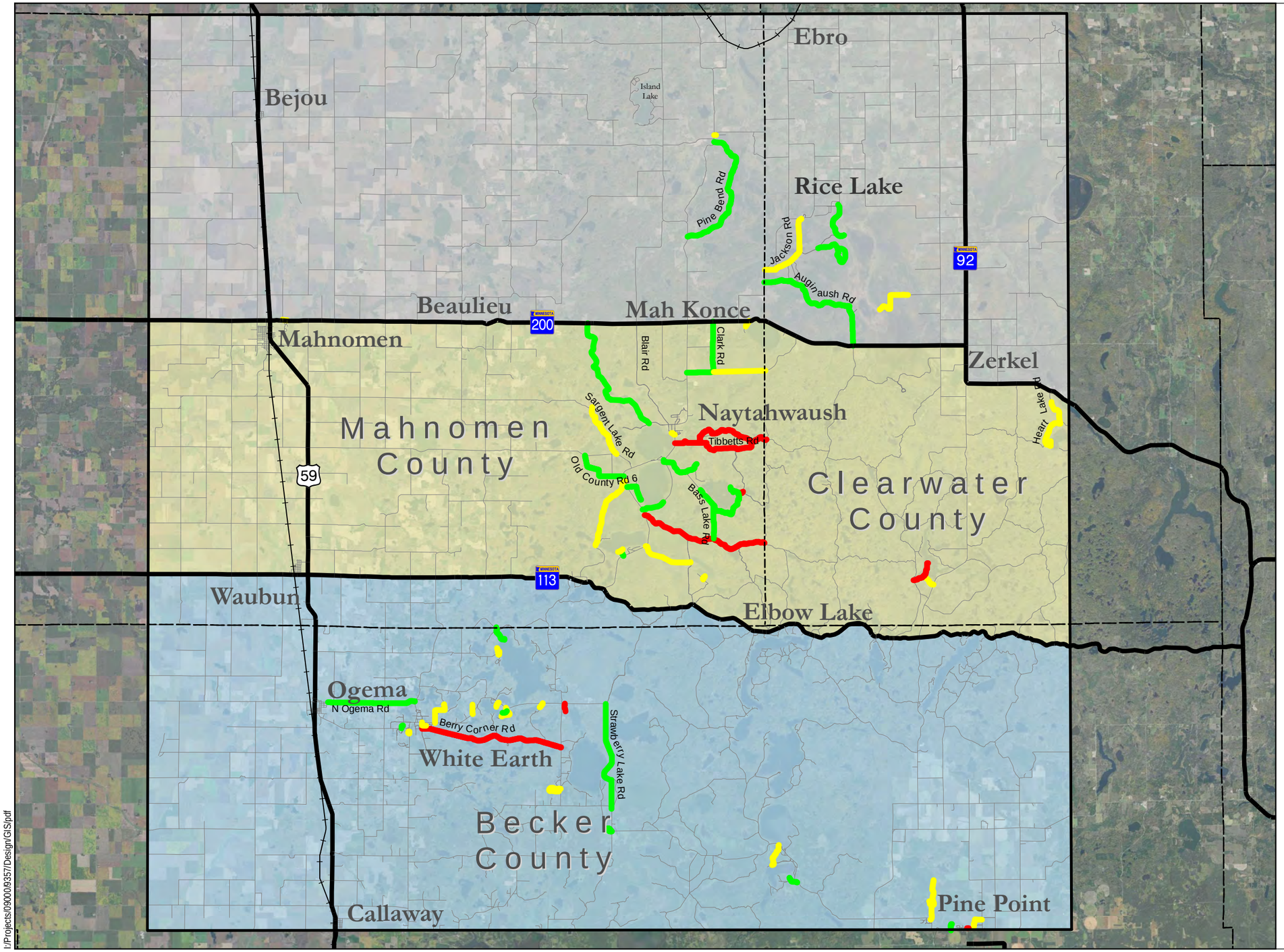
Table 4.7 – Surface Quality Ranges

Gravel		
SCI Range	**Surface Quality**	**Improvement**
0-60	Poor	Mill and Overlay*
61-80	Average	Crack Seal
81-100	Good	Monitor condition; no short-term maintenance required
Pavement		
SCI Range	**Surface Quality**	**Improvement**
0-40	Poor	Resurface*
41-60	Average	Regular Blading
61-100	Good	Light Blading

*Resurfacing is not recommended for segments with poor subsurface condition. Roads with poor surface quality and a poor roadbed are candidates for reconstruction.

Figure 4.6 – Total Mileage of Good, Average, and Poor SCI Roads





Surface Condition Index

Gravel Inventory

- 0 - 40 Poor
- 41 - 60 Average
- 61 - 100 Good

- White Earth Reservation
- County Boundary
- State/Federal Highways
- Railroad
- Other Non-BIA Roads

White Earth Districts

- District 1
- District 2
- District 3

N

0 2.5 5 10 Miles

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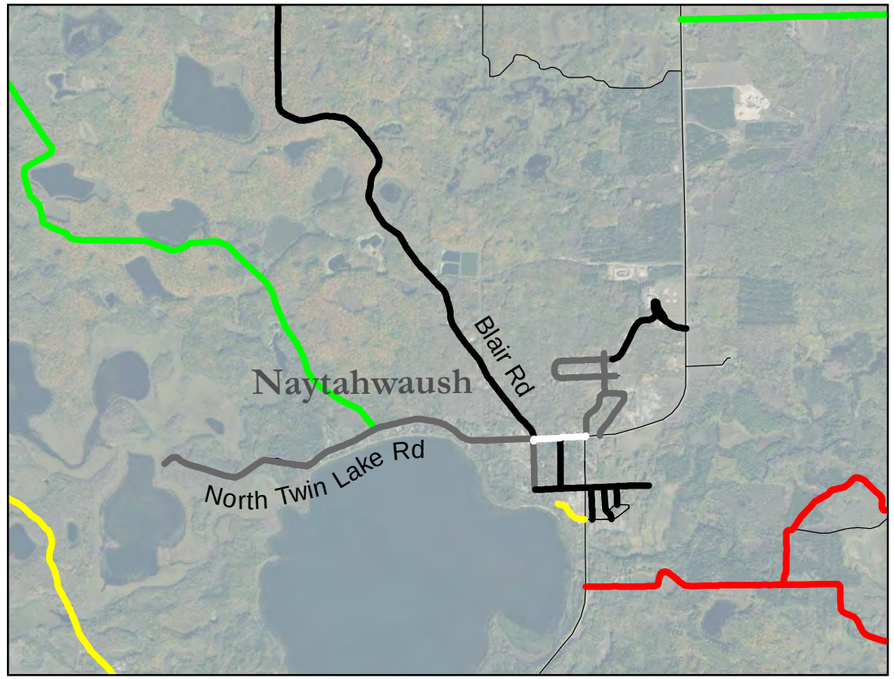
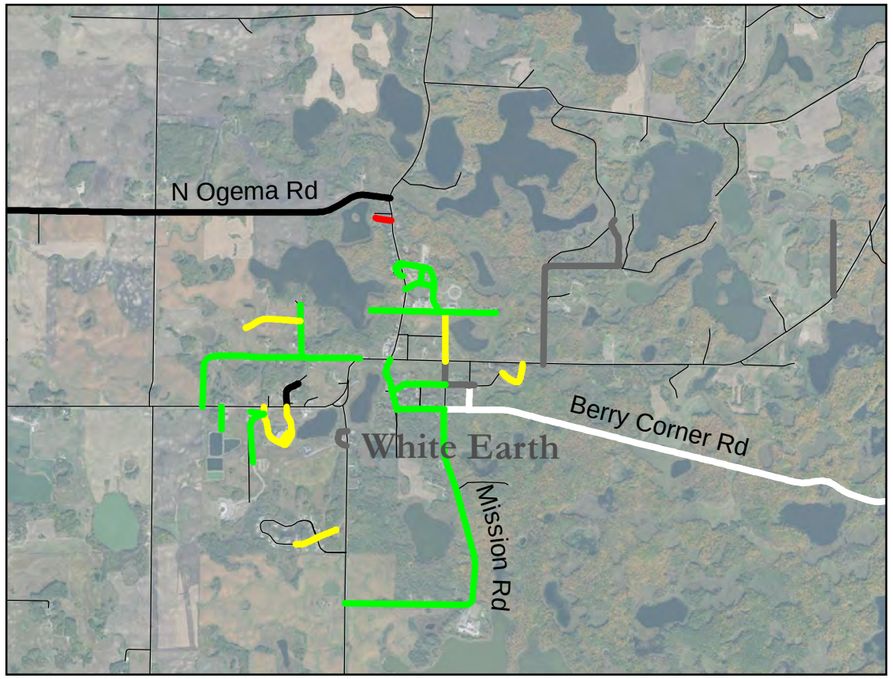
Condition of Gravel Surfaces

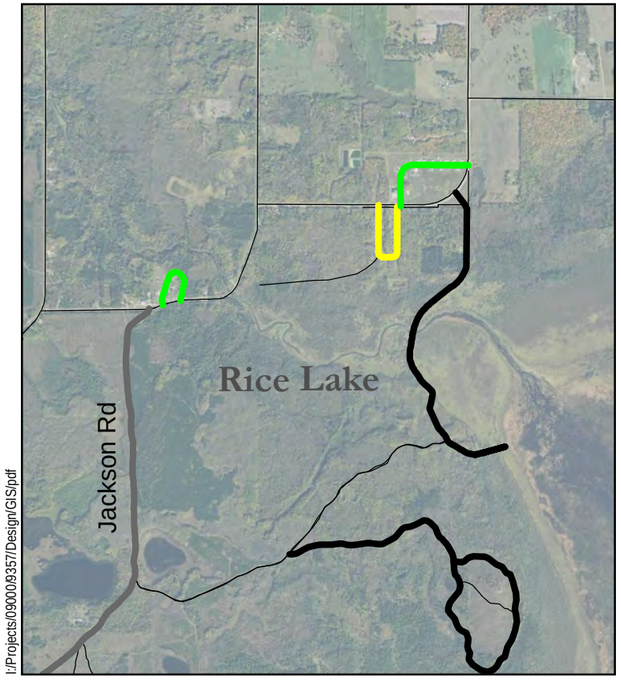
White Earth Long Range Transportation Plan

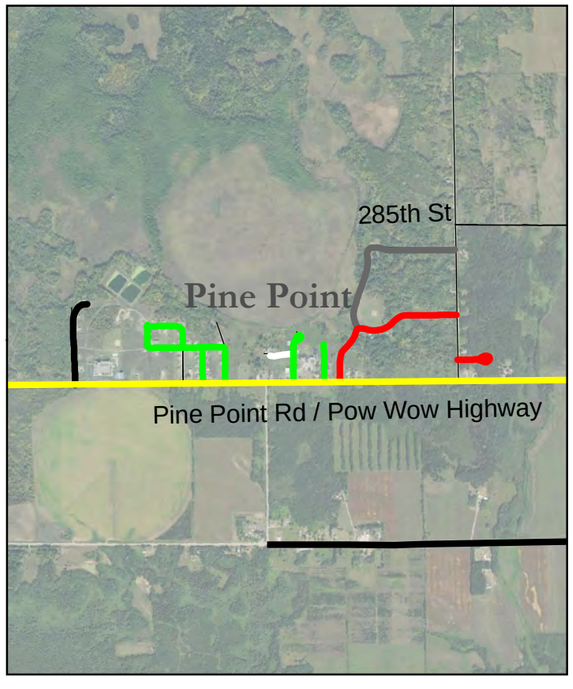
White Earth Nation

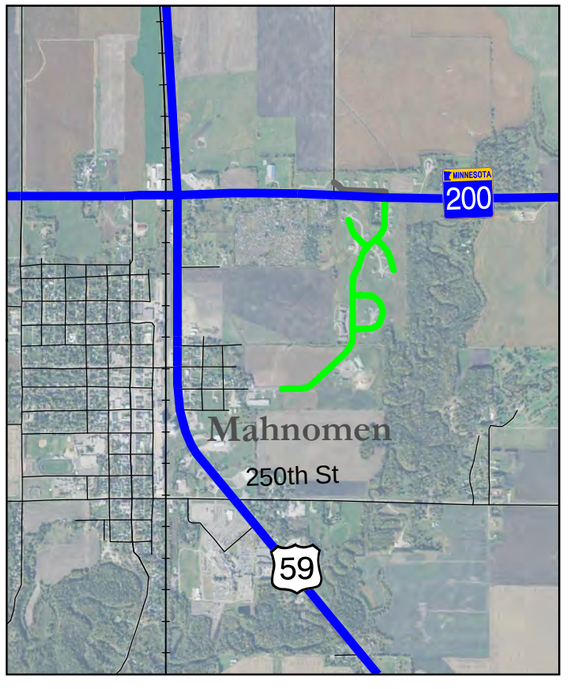
Figure **4.7A**











Surface Condition Index

Bituminous Inventory

- 0 - 60 (Mill and Overlay)
- 61 - 80 (Crack Seal)
- 81 - 100 (No Maintenance)

Gravel Inventory

- 0 - 40 (Possible Resurface)
- 41 - 60 (Regular Blading)
- 61 - 100 (Light Blading)

- State/Federal Highways

N

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Condition of Gravel and Bituminous Surfaces

White Earth Long Range Transportation Plan

White Earth Nation

Figure **4.7B**

Roadbed Condition

It is important to document roadbed condition as well as surface condition. In many cases, roadbed condition will be the principle determinant of reconstruction needs. For example, some routes with poor roadbeds could be candidates for reconstruction, regardless of surface quality. Furthermore, it is anticipated that surface quality will deteriorate more quickly for routes with poor roadbeds, even if the surface is currently in good condition. Before resurfacing is considered, it is critical to identify roadbed condition issues that could warrant reconstruction.

The RIFDS inventory uses eight definitions to describe roadbed conditions. **Table 4.8 BIA Roadbed Condition Codes** provides a description of each roadbed condition category, along with the corresponding RIFDS numerical code. This code signifies a relative value like the SCI but is included as a shorthand for the definitions. The coded description is used from this point forward in the Plan.

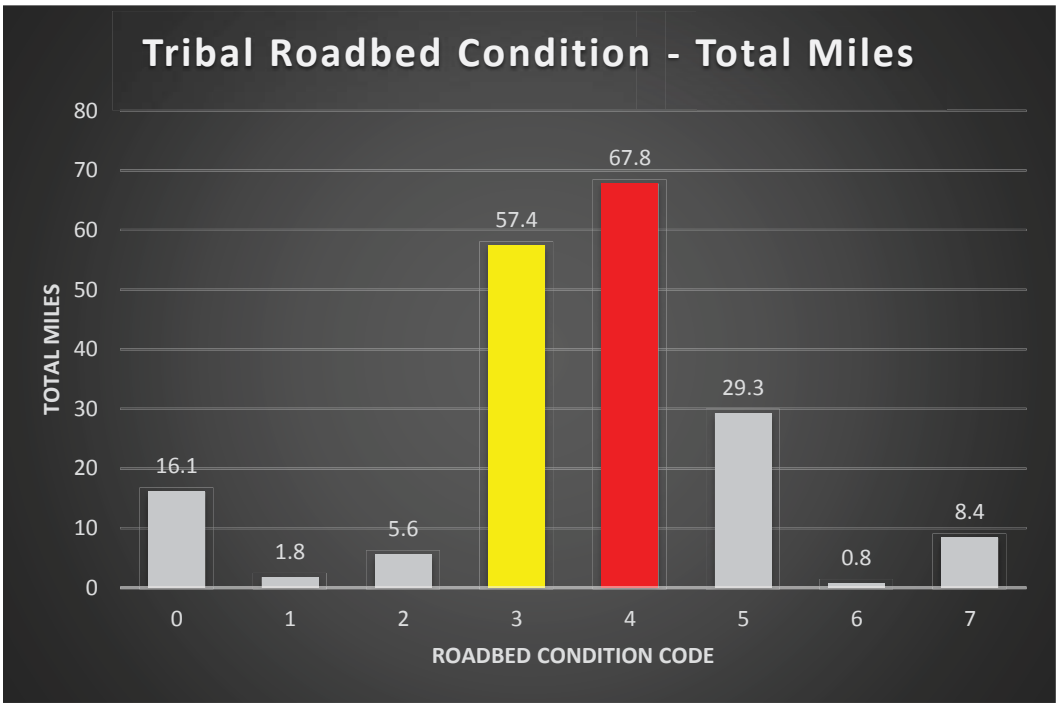
Table 4.8 – BIA Roadbed Condition Codes

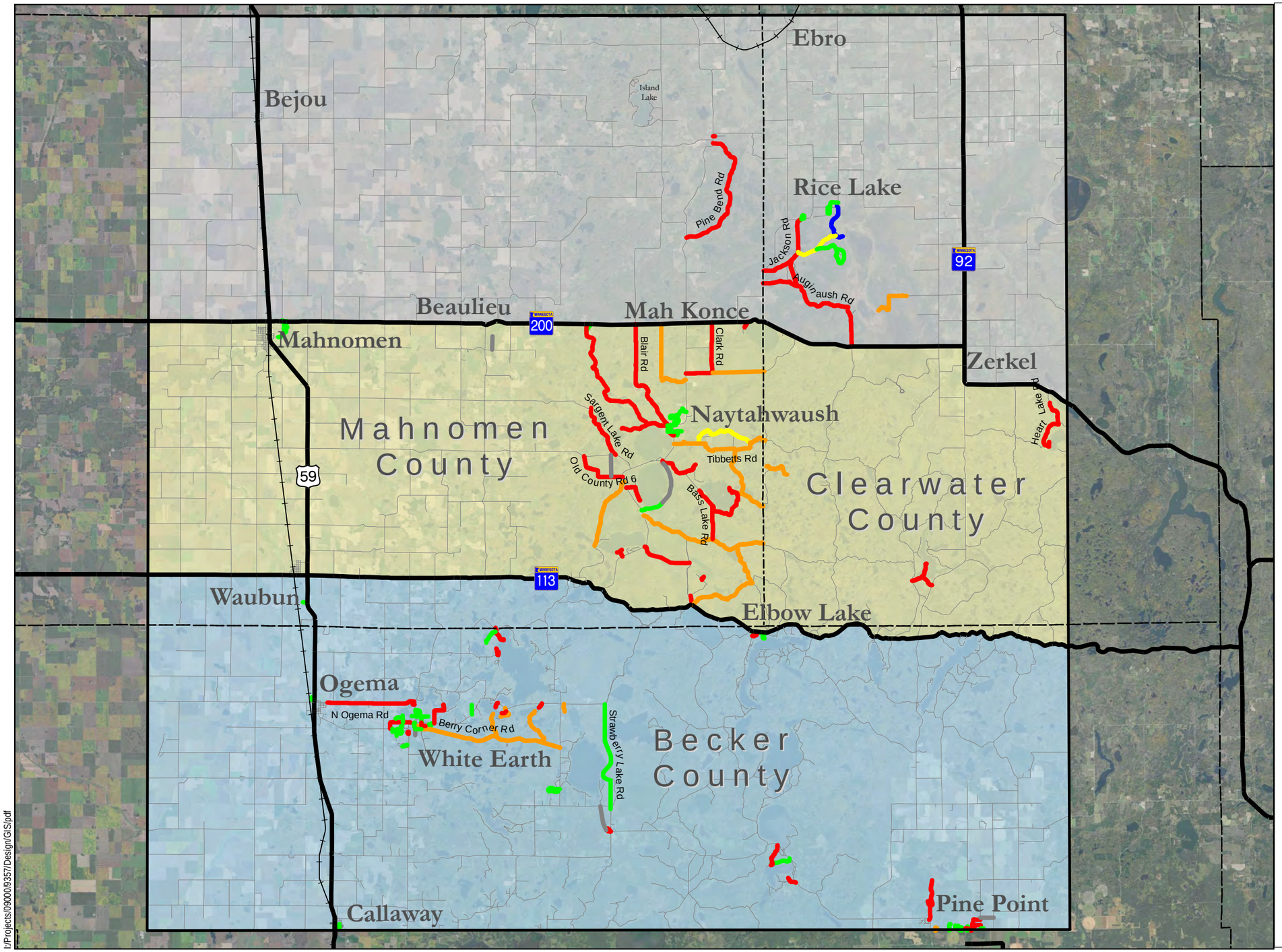
Roadbed Condition Code	Roadbed Category Description
0	Proposed Road
1	Primitive Trail
2	Bladed unimproved road with poor drainage and poor alignment
3	Minimum built-up roadbed (shallow cuts and fills) with inadequate drainage and alignment that generally follows existing ground
4	A designed and constructed roadbed with some drainage and alignment improvements required
5	A roadbed constructed to adequate standards with good horizontal and vertical alignment and proper drainage
6	A roadbed constructed to adequate standards with curb and gutter on one side
7	A roadbed constructed to adequate standards with curb and gutter on both sides

Roadbed Category 4 is the primary category of interest. Category 4 includes roadbeds that have been constructed to some degree, but which have insufficient drainage and other issues. Nearly 68 miles of BIA roads fit this description. Category 4 segments could be candidates for reconstruction. Category 3 roadbeds are also deemed inadequate. **Figure 4.8 Tribal Roadbed Condition Breakdown – Total Miles** highlights the total mileage of roads for Category 3 and Category 4 roadbeds, which together comprise more than two-thirds of the BIA roadway system on White Earth Reservation. The maps in **Figures 4.9.A and 4.9.B Tribal Roadbed Condition** show the roadbed status for all Tribal roadway segments.

The roadbed condition code also includes information about the cross-section design of roadway facilities, such as indications of urban curb and gutter treatments, for example (Category 6 and 7). Many roads currently lack these features.

Figure 4.8 – Tribal Roadbed Condition Breakdown





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Roadbed Condition - BIA Roads

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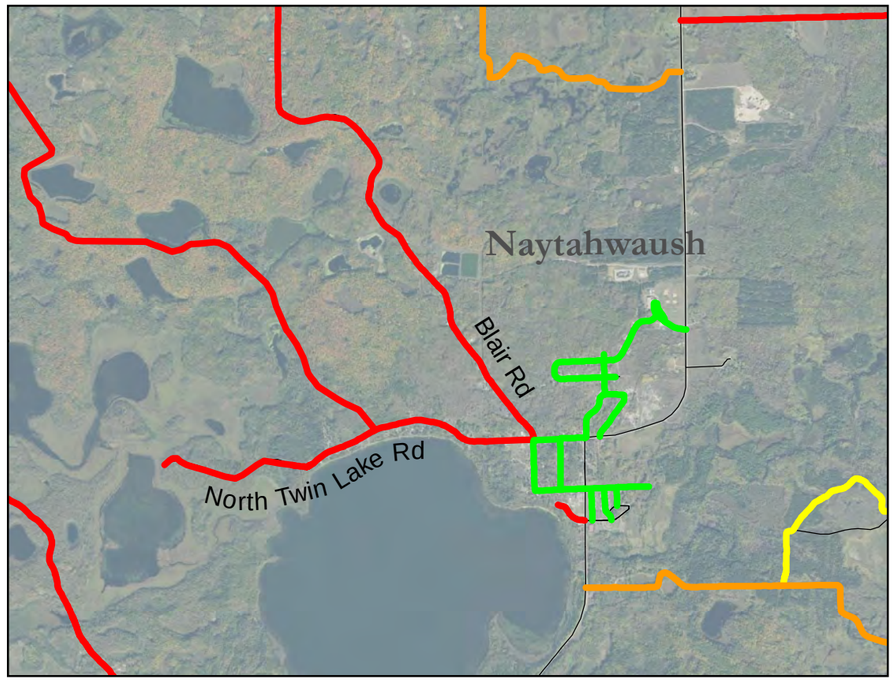
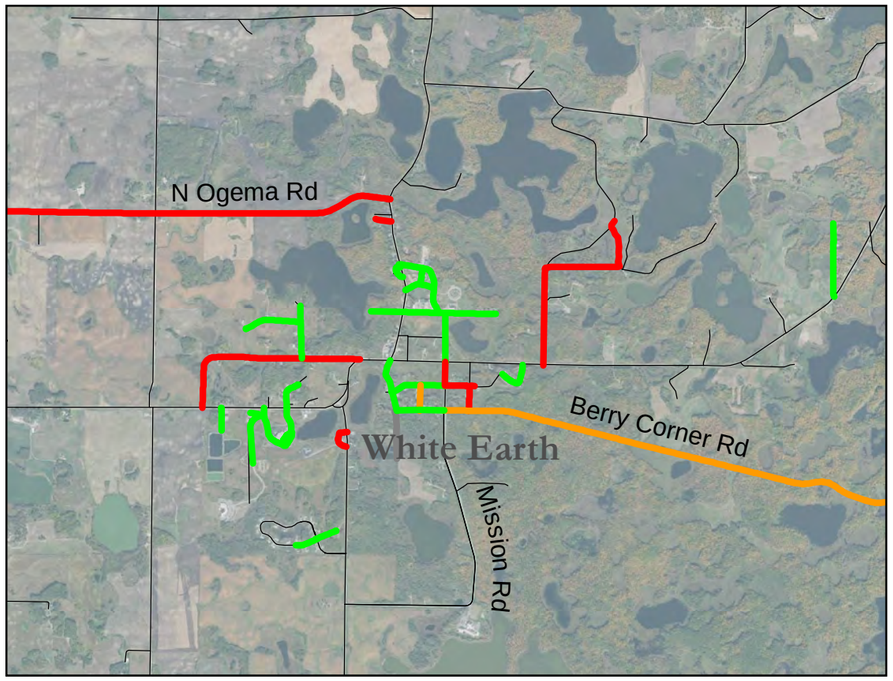
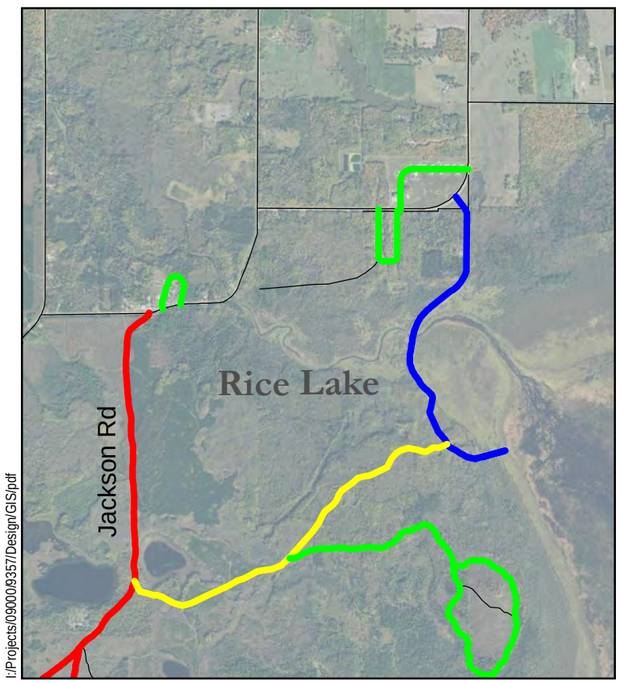
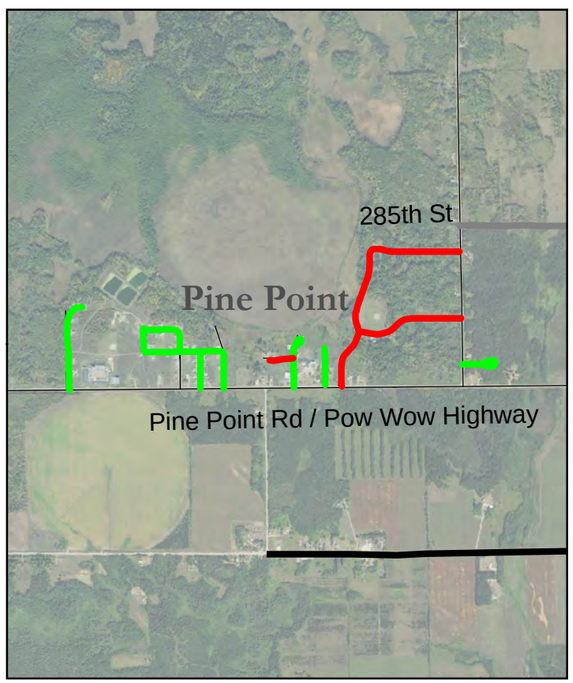
White Earth Nation

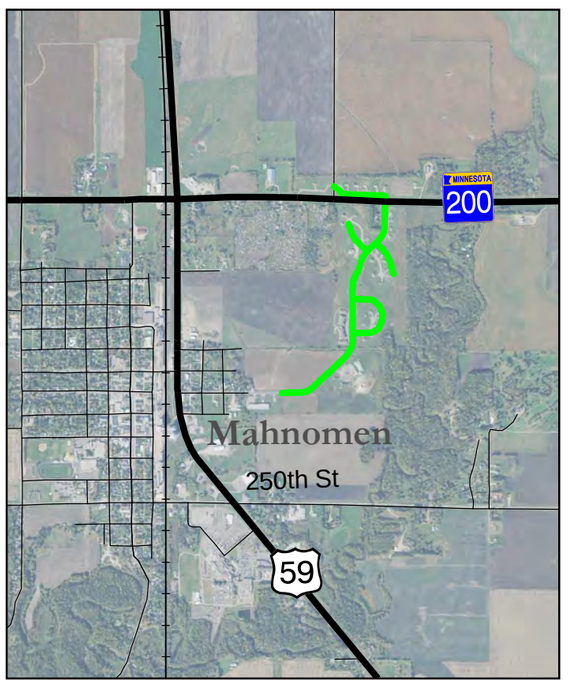
Figure 4.9A











Roadbed Condition

- Proposed Road
- Primitive Trail
- Bladed, unimproved road with poor drainage and poor alignment
- Minimum built-up roadbed (shallow cuts and fills) with inadequate drainage and alignment that generally follows existing ground
- A designed and constructed roadbed with some drainage and alignment improvements required
- A roadbed constructed to adequate standards

N

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Condition of Gravel and Bituminous Surfaces

White Earth Long Range Transportation Plan

White Earth Nation

Figure **4.9B**

Existing Traffic Volumes

Figure 4.10 Average Daily Traffic Volumes shows annual average daily traffic (AADT) volumes in White Earth Reservation. Existing counts for State and US Highways were obtained from MnDOT. Counts for classified County highways are from County datasets. Counts for Tribal roads were provided by White Earth.

From MnDOT's standpoint, ADT counts are used to model intersection performance (Level of Service), evaluate the impacts of proposed traffic improvement alternatives on State and Federal highways, such as the signalization of US 59 in Mahnomen, and in developing future travel forecasts. From White Earth's standpoint, this data may be used to help prioritize certain roads for improvement, obtain funding for improvement projects, and developing simplified travel forecasts. (See below)

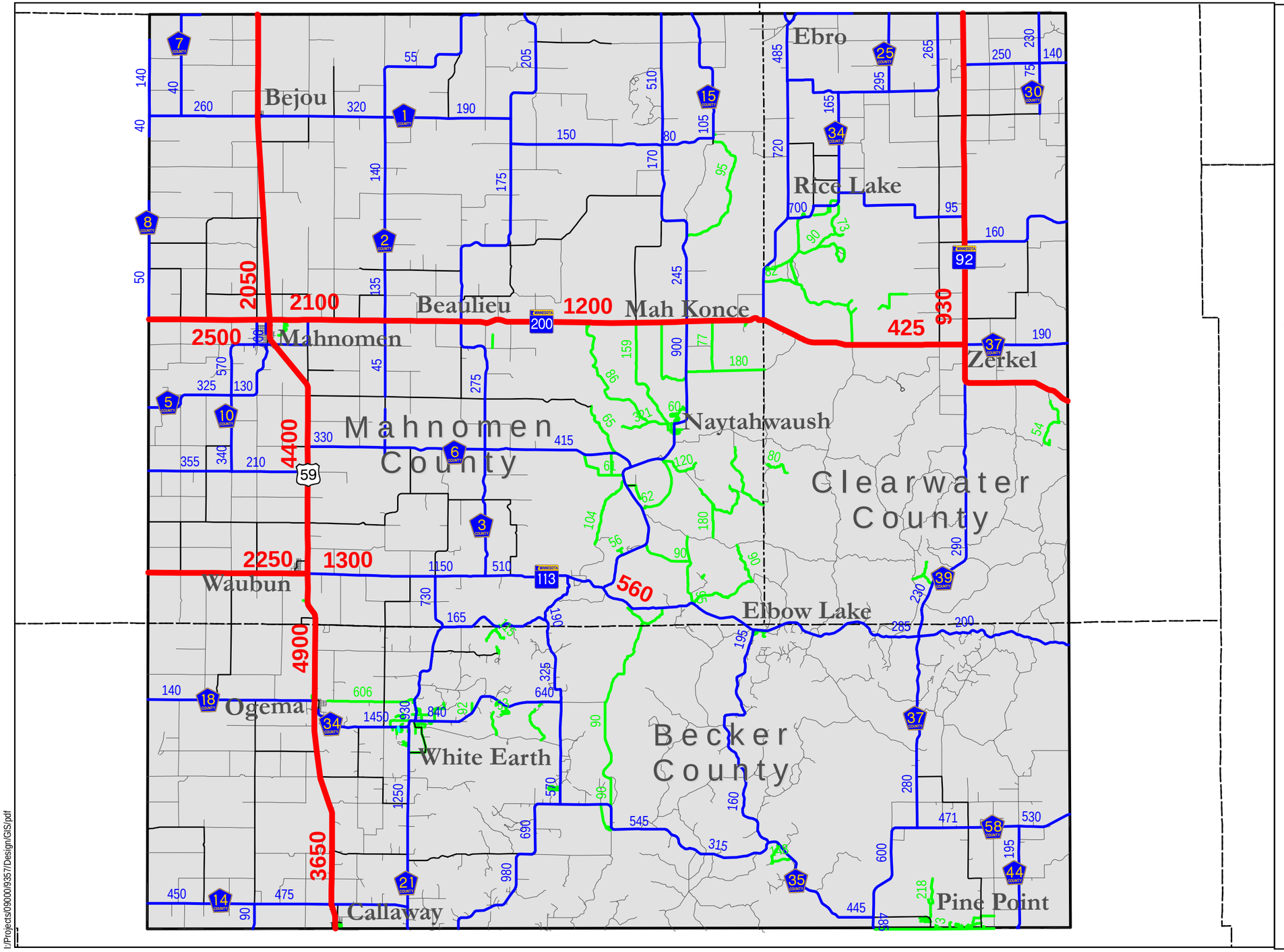
By far the highest-volume road is US 59 from Mahnomen to Waubun (4,300 ADT), given that the largest population centers are located along this corridor. Many Tribal roads have ADTs around 100 or less.

Future Traffic Forecast

Traffic forecasts are typically generated from assumptions about future land use and the future roadway network. In White Earth's case, the future land use plan has not been officially updated, and no new highway projects are planned. A simple traffic forecast was created for White Earth's purposes. At White Earth's request, the 2040 forecast was calculated using a compound annual growth rate of 1.485 percent. This growth rate was applied to White Earth's roads and classified County roads. A smaller growth rate, approximately 1 percent, was used for State Highway volumes, to maintain consistency with the US Highway 59 Passing Lane Study.

Figure 4.11 - 2040 ADT Forecast shows the travel volumes that were calculated using the method described. Note that this method assumes that traffic will grow uniformly across the Reservation, which will almost certainly not be the case. A few areas are primed for growth, including the City of Mahnomen/Pembina Township and the Village of Naytahwaush. Future volumes are expected to be higher on roads within or providing access to these communities than for roads in stagnant or declining areas. Nevertheless, it is impractical to perform more detailed analysis under the circumstances. Errors between the forecast produced for this plan and that which could be produced using a more precise method are likely to be inconsequential, given that existing traffic volumes are low to begin with.

As future land use planning progresses, White Earth may consider revising forecasts, especially for areas that are expected to grow in the near term. The compound growth formula could easily be updated for any year or growth rate. Forecasts will be useful for planning future maintenance and reconstruction, for evaluating when to convert gravel roads to paved surfaces.



Current ADT Volumes

- Arterials (MnDOT Count)
- Collectors (County Count)
- Tribal Roads (White Earth Count)
- Unclassified CSAH and CR System
- Other Local Roads

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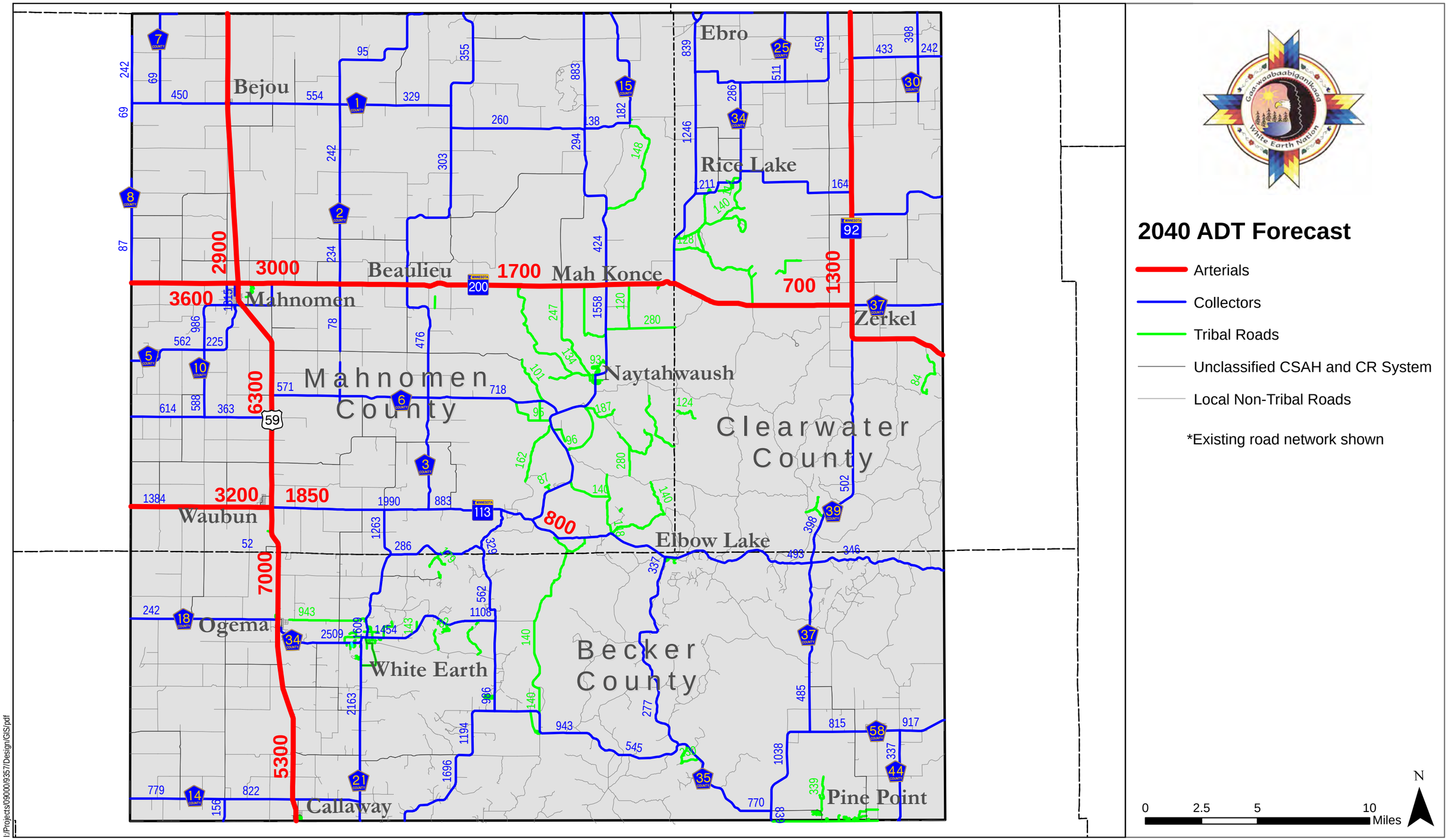
Current ADT Volumes

White Earth Long Range Transportation Plan

White Earth Nation

Figure **4.10**



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2040 Traffic Forecast

White Earth Long Range Transportation Plan

White Earth Nation

Figure 4.11

TRIBAL TRANSPORTATION PROGRAM

Administration of this program has remained under joint authority of the Bureau of Indian Affairs (BIA) and Federal Highway Administration (FHWA). The program is funded by contract authority from the Highway Trust Fund. Funds are allocated among tribes using a statutory formula based on tribal population, road mileage, and average tribal shares of the former Tribal Transportation Allocation Methodology (TTAM) formula. White Earth's total tribal share for 2016 was $1,533,437. This was partially derived from an estimated population of 7,177 and the 172.5 miles of White Earth's roadways that are included in the National Tribal Transportation Facility Inventory (NFFTI). Based on 2015 American Indian and Alaska Native (AIAN) population data, the FAST Act also authorized the total tribal shares for all tribes through 2020. As a result, White Earth's future shares are as follows:

- FY 2017 – $1,555,759
- FY 2018 – $1,576,852
- FY 2019 – $1,596,554
- FY 2020 – $1,614,766

National Tribal Transportation Facility Inventory

The inventory of TTP eligible roads, formerly known as the Indian Reservation Roads (IRR) inventory, is now referred to as the National Tribal Transportation Facility Inventory (NTTFI) because of the FAST Act. The NTTFI consists of approximately 47,900 miles of BIA and tribally-owned public roads, 101,300 miles of state, county, and local government public roads, and 12,500 miles of proposed roads.

Annual coordination between the Tribe and the BIA Regional Office is needed to determine if any new facilities should be added to the NTTFI. A proposed transportation facility is any transportation facility, including a highway bridge, that 1) servers a public transportation need, 2) meets the eligibility requirements of the TTP, and 3) will be open to the public when constructed.

The Tribe must submit **all the following** to the BIA/FHWA Quality Assurance Team when proposing **a new transportation facility** to be considered for the NTTFI:

1. A Tribal resolution or other official action identifying support for the facility and its placement on the NTTFI.

2. A copy of the Tribe's LRTP containing:

a. A description of the current land use and identification of land ownership within the proposed road's corridor (including what public easements may be required);

b. A description of need and outcomes for the facility including a description of the project's boundaries; and
c. The sources of funding to be used for construction.

3. If the landowner is a public authority other than the Tribe or BIA, documentation from the public authority that the proposed road has been identified in their LRTP, STIP approved by FHWA, or other published transportation planning documents.

4. Documentation clearly identifying that easements or rights-of-way have been acquired or a clear written statement of willingness to provide a right-of-way from each landowner along the route.

5. Certification that a public involvement process has been carried out for the proposed road.

6. A synopsis discussing the project's anticipated environmental impacts as well as the engineering and construction challenges.

7. Documentation that the project can meet financial or fiscal constraint requirements including financial information demonstrating that the project can be implemented using existing or reasonably available funding sources, and that the project route can be adequately maintained after construction.

8. Documentation identifying the entity responsible for maintenance of the facility after construction is completed.

Tribal Technical Assistance Programs (TTAP)

Throughout the country, there are seven Tribal Technical Assistance Programs (TTAP). Minnesota tribes fall under the Michigan Tech TTAP, located at Michigan Technical University in Houghton, Michigan. The program aims to distribute technical assistance and training activities to the tribes; help tribes implement administrative procedures and new transportation technology; provide training and assistance in transportation planning and economic development; and develop educational programs to encourage and motivate interest in transportation careers among Native American students.

With assistance from the TTAPs, FHWA continues to provide technical assistance and training to complete Road Safety Audits (RSA) for tribes. These RSAs are formal safety performance examinations completed by an independent, multidisciplinary team. By assessing safety of existing transportation facilities, the resulting information can be used to enhance the design of roadway improvement projects, improve traffic control, or implement interim measures in advance of large-scale roadway improvement projects.

BIA Road Maintenance Program

The BIA defines road maintenance as the preservation of the roadway template and related structures in the as-built condition. Road maintenance does not include new construction, improvements, or reconstruction as an eligible activity. The BIA Road Maintenance Program is intended to preserve, repair, and restore the BIA system of roadways and transportation facilities in accordance with applicable laws. The program has traditionally been responsible for maintaining only roads owned by the BIA since the program is funded by the Department of Interior. In recent years, the BIA has received roughly $25 million in Tribal Priority Allocation (TPA) funding annually for the administration of the program; however, roughly $300 million is the average annual deferred maintenance total in recent years.

5 Safety

This chapter investigates recent crashes that occurred on White Earth Reservation to identify locations with persistent safety issues. Common crash types are identified, as well as the location and manner of fatal crashes. The chapter includes a statistical analysis to identify "hot spots" where there are clusters of crashes that are higher than expected. Ultimately, the results of this analysis can be supplemented by anecdotal evidence gleaned from the public involvement process to create a fuller picture of safety issues on White Earth Reservation.

Table 5.1 – Safety Goals and Objectives

GOAL: Safety *Develop and maintain and a transportation network that promotes safety for all users*
• Review roadway geometrics and identify improvement needs.
• Enforce speed limits along major arterial routes.
• Identify high crash locations and implement segment/intersection improvements as warranted.
• Monitor vehicle volumes and crash rates for intersection control warrants.
• Upgrade community trail and sidewalk facilities and lighting.
• Reduce through-traffic speeds in local villages.
• Manage access along arterial roadways, in accordance with local and state spacing guidelines
• Update pavement condition and roadbed condition data in RIFDS database.
• Prioritize hazardous road segments for reconstruction, resurfacing, or maintenance as warranted.
• Improve winter road and trail maintenance. Coordinate with Tribal communities to identify opportunities to increase efficiency of services and ensure equitable snowplow coverage.
• Conduct a Road Safety Audit to identify safety issues along Minnesota Highway 200.
• Pursue planning and funding partnerships to improve Minnesota Highway 200.

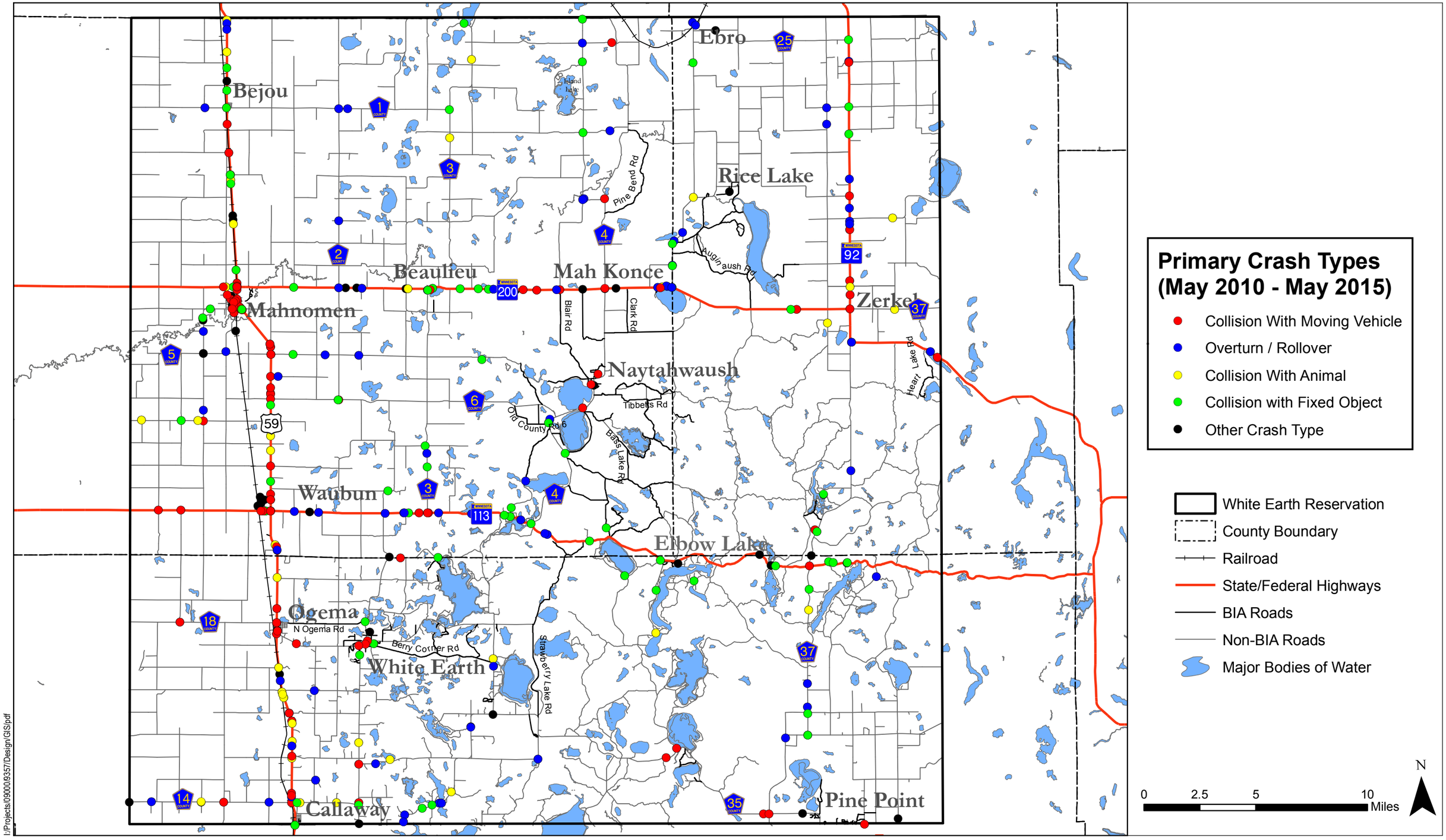
VEHICLE CRASH ANALYSIS

Data Source

Crash data was obtained from the Minnesota Department of Transportation (MnDOT) and analyzed using standard MnDOT methodology. Because roadway circumstances are continually changing, only the most recent data was used in the analysis. The most recent data from MnDOT was for May 2015. To cover a complete five-year period, data from May 2010 to May 2015 was used in the analysis.

Crash Type

Figure 5.1 Primary Crash Types, May 2010 – May 2015 shows the primary types of collision. Collisions most frequently involve a second moving vehicle, an animal, a fixed object such as a tree or structural element, or a vehicle overturn or rollover. (Collisions of similar types, such as "collision with deer" and "collision with other animal" or specific fixed objects, were grouped for display purposes.) Multiple-vehicle collisions are common on US 59 but less so on MN 200. Clusters of moving-vehicle collisions are observed in the Cities of Mahnomen, Waubun, and Ogema. On the other hand, many crashes on MN 200, MN 113, and MN 92 involve a single vehicle. Certain features of these roads, such as narrow roadway shoulders with steep ditches, create dangerous conditions for a collision. Rollovers appear to be more common, and several collisions resulted with the vehicle located off the roadway.



Primary Crash Types, May 2010 - May 2015

White Earth Long Range Transportation Plan
White Earth Nation

Figure 5.1

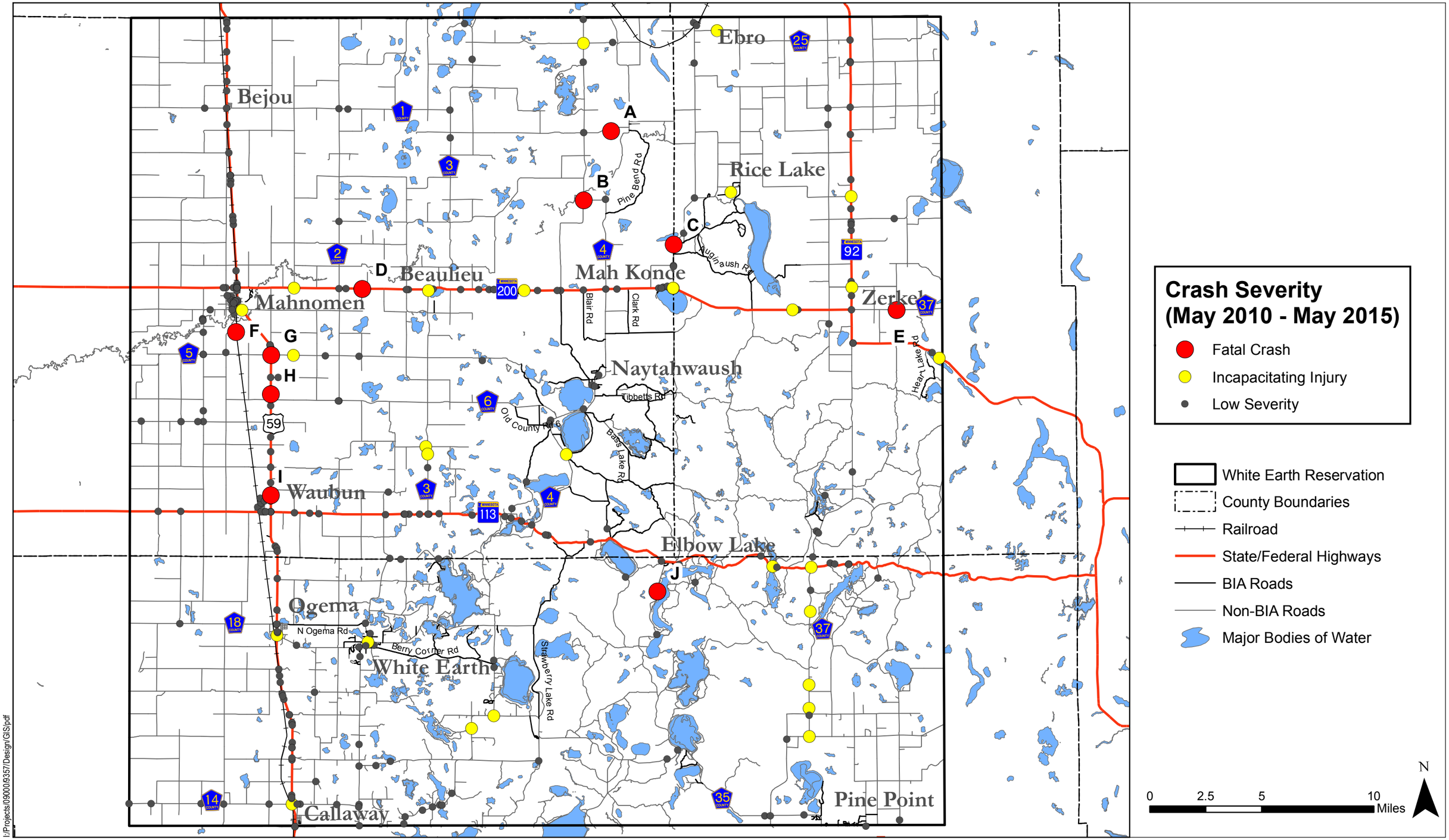
Crash Severity

All crashes are worth investigating, but crashes resulting in fatalities or life-changing injuries are particularly worrisome. From May 2010 to May 2015, there were 10 fatal crashes on White Earth Reservation. These crashes occurred under a variety of circumstances. Because the sample size of fatal crashes is small, trends cannot be identified. Three fatal collisions occurred on US 59 between Mahnomen and Waubun. All these crashes involved collision with a second moving vehicle. It is also noteworthy that there were five fatal crashes on rural local roads; four of these were rollovers.

Fatal crashes are mapped on **Figure 5.2 Fatal Crashes, May 2010 – May 2015**, with a letter label corresponding to the fatal crash table (**Table 5.2 Fatal Crash Summary**) which is included below.

Table 5.2 – Fatal Crash Summary

MAP ID	Year	Month	Time	Weather	Location	Cause	Driver Age	Driver Sex	Driver Condition
A	2012	8	17:35	Clear	Roadside	Rollover	32	M	Intoxicated
B	2013	5	18:22	Cloudy	Roadside	Rollover	22	M	N/A
C	2014	8	5:28	Clear	Roadside	Tree	57	M	N/A
D	2010	10	18:23	Clear	Roadside	Rollover	30	M	N/A
E	2013	9	21:20	Clear	Roadway	Deer	67	M	Had Been Drinking
F	2014	12	3:31	N/A	Roadway	Train	45	M	Normal
G	2012	5	8:13	Fog	Roadside	Motor vehicle collision	38	M	N/A
H	2010	12	2:44	Snow	Roadside	Motor vehicle collision	23	F	N/A
I	2010	11	19:28	Clear	Roadside	Motor vehicle collision	33	F	N/A
J	2012	9	11:36	Clear	Roadway	Rollover	22	M	N/A



Crash Severity, May 2010 - May 2015

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White Earth Nation

Figure 5.2

Critical Crash Rate Analysis

Several clusters of crashes are evident from **Figure 5.3 Crash Analysis Groups.** Clustering is associated with higher traffic volumes. Where there is more traffic the incidence of crash will be greater. However, some clusters could indicate a real issue with traffic operations or road condition/design. To identify persistent safety issues, a formal crash analysis was conducted using standard MnDOT methodology. This methodology utilizes a standard statistical test for significance to assess how much a given crash rate deviates from the statewide average, and the extent to which that deviation is cause for greater concern.

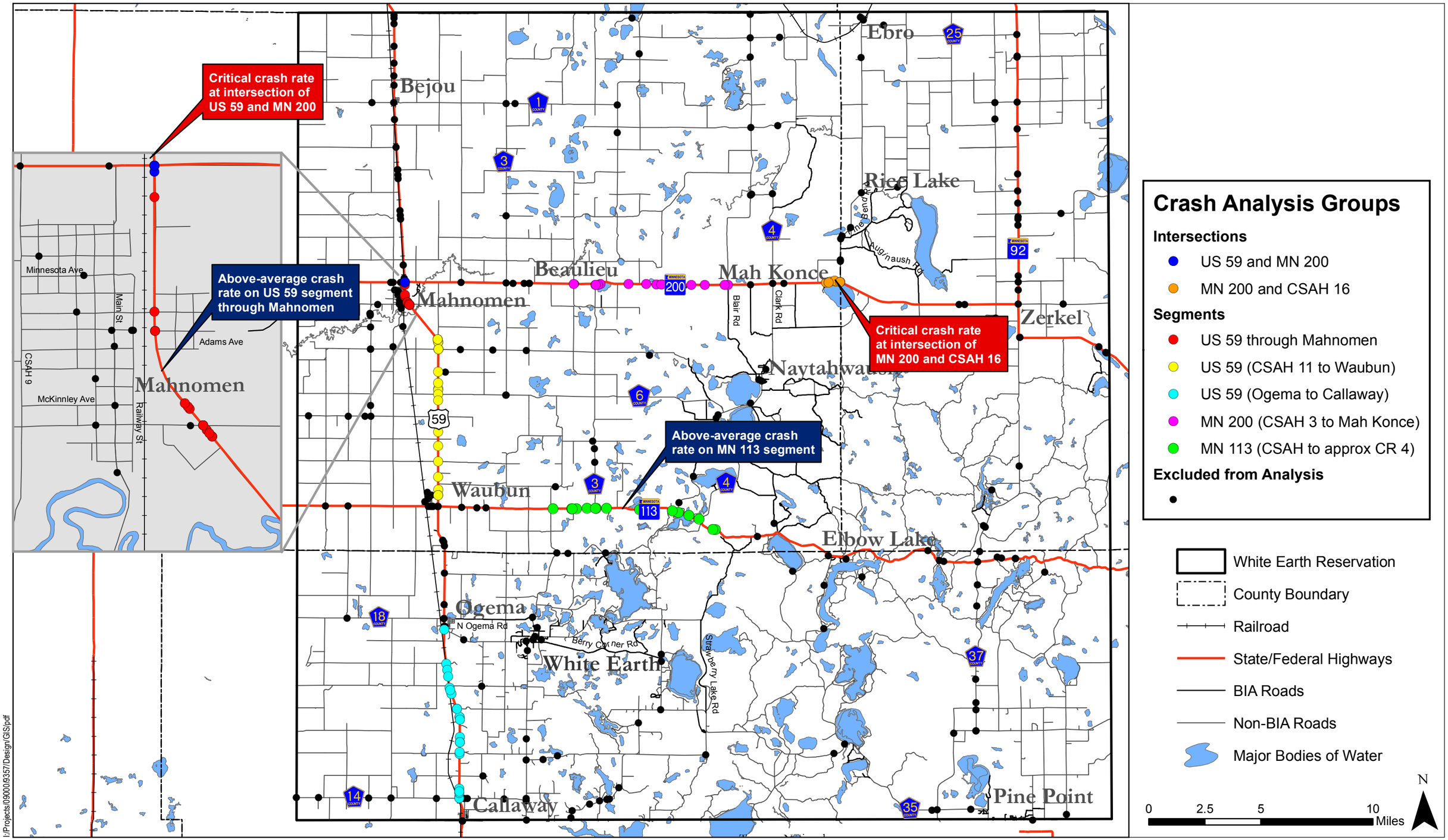
Seven locations that appeared to demonstrate a clustering effect were identified for this analysis **(Table 5.3 Crash Analysis Segments and Intersections)**.

Table 5.3 – Crash Analysis Segments and Intersections

Segments	
Road Name	**Segment Start/End**
US 59	Mahnomen City Limits
US 59	CSAH 11 to MN 113
US 59	County Road 14 to County Road 18
MN 200	CSAH 3 to Mah Konce
MN 113	CSAH 13 to County Road 4
Intersections	
US 59 and MN 200**	
MN 200 and CSAH 16 (Roy Lake)**	

*Above Average Crash Rate

**Critical Crash Rate



Vehicle Crash Analysis

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White Earth Nation

Figure 5.3

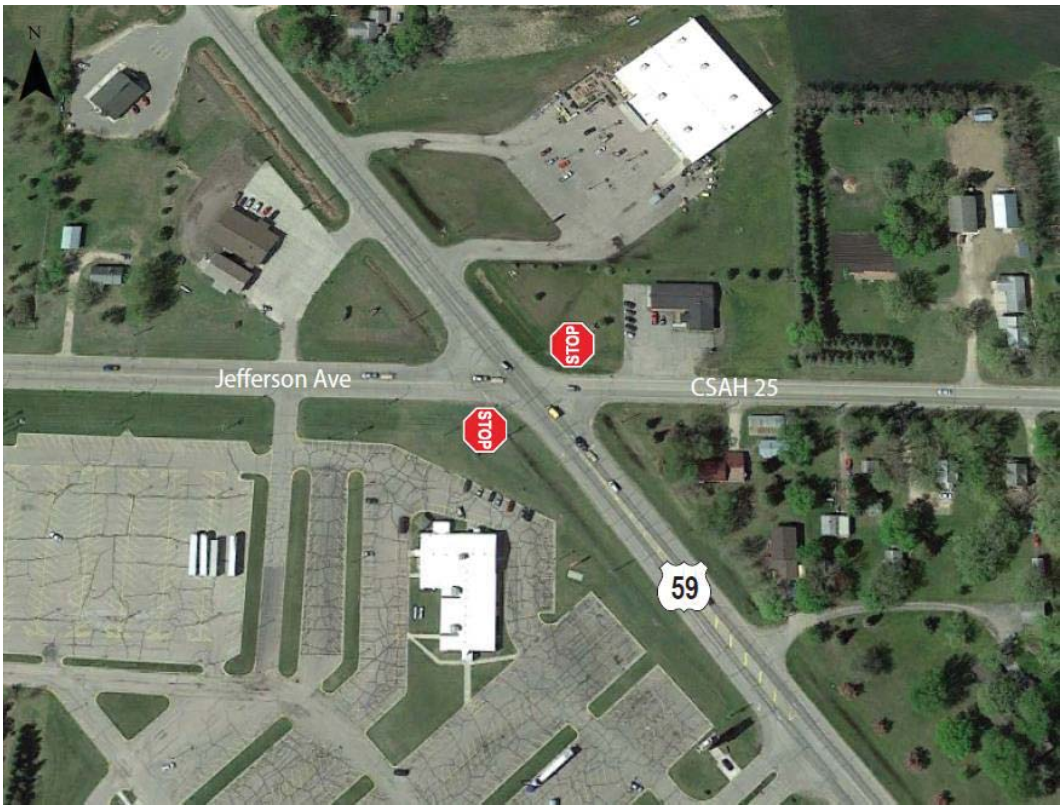
The total number of crash observations for each roadway segment or intersection was compared with an expected number of crashes for similar roadways/intersections, which is based on statewide averages. For example, the total number of five-year crashes on US 59 through Mahnomen was compared to average five-year crash values for other two-lane, urban undivided, non-junction roadways of the same segment length. Likewise, each intersection was compared to other unsignalized, rural, through-stop intersections in Minnesota.

The results of the analysis show that both intersections have a crash rate exceeding the critical value – i.e., the number of observed crashes is significantly higher than would be expected due to random error, with the caveat that each test included a small sample size.

The aerial image below shows the intersection of US 59 and MN 200, the highest-volume intersection in the Reservation. The intersection is stop-controlled on MN 200. Several features complicate traffic movements at the intersection. The west approach is intersected by the railroad, which runs parallel to US 59. A convenience store is in the northeast quadrant of the intersection, with private access to both US 59 and MN 200 located approximately 300 feet from the intersection. In addition, there are several private access points on the south approach. Currently, there are no passing lanes or turn lanes on either US 59 or MN 200 within the vicinity of this intersection.

Two segments with above-average crash rates were also identified. They are US 59 through Mahnomen and MN 113 from CSAH 13 to County Road 4.

Most of the crashes on US 59 in Mahnomen are located near the intersection with CSAH 25/Jefferson Avenue, which is pictured in the image below. This segment is troublesome for several reasons. First, the Shooting Star Casino is located southwest of the intersection. It attracts a high volume of traffic throughout the day. The orientation of the intersection creates sharp angles for turning and limits sight distance for vehicles turning onto the highway. There is Shopko market located in the northeast quadrant of the intersection, with two private accesses to US 59. The casino and market attract several trips, both individually and between the two destinations. This results in frequent abrupt turning movements along the two-lane corridor. Upon review, it appears that the majority of crashes on the US 59 segment through Mahnomen could be attributed to this intersection. If this intersection were analyzed independently, it would likely demonstrate a critical crash rate.



Any of these locations may be of concern. Many of them were identified during the public involvement process, and still other safety concerns highlighted by the public have not formally analyzed. Locations that do not exhibit clustering and/or a critical crash rate may nonetheless pose safety concerns.

All the crash locations which were considered in this analysis are located on Federal or State highways, including US 59 and MN 200. Although these roads are not under the purview of White Earth Reservation, they are the most frequently traveled roads in the Reservation. Numerous members of the public have expressed concern about State Highway 200, with its narrow shoulders and deteriorating surface. This road could be a strong candidate for grant funding. US 59 is currently the subject of a passing-lane study. In Mahnomen, the corridor is currently being studied for possible signalization, and pedestrian improvements are planned for 2017. Both improvements will make the flow of traffic more predictable.

MN 200 near Perch Lake

MNTH 200

Additional crash history research for MNTH 200 was conducted during the MNTH 200 Road Safety Audit process. A 5-year crash history review was developed by MnDOT Office of Training, Safety Technology. Two sections of crashes were examined.

- East of Mahnomen to CSAH 7 near Roy Lake
- CSAH 7 near Roy Lake to Zerkel.

MNTH 200 from 55 MPH E of Mahnomen to CSAH 7 near Roy Lake

Table 5.4 – Crash Data – RP 48.5 to 66.2 (E of Mahnomen to CSAH 7)*

Crashes by Severity	
Fatal	0
Incapacitating Injury	4
Non-incapacitating Injury	3
Possible Injury	5
Property Damage	12
Total Crashes	24

Section Characteristics	
Length	18.620 miles
Volume (ADT)	1,416
Environment	Rural
Median Types	Undivided/No median
Number of Lanes	2

Total Crash Rate	
Observed	0.50
Statewide Average	0.40
Critical Rate	0.65
Critical Index	**0.77**

Fatal & Serious Injury Crash Rate	
Observed	8.31
Statewide Average	2.76
Critical Rate	6.87
Critical Index	**1.21**

*Crash data, 2006-2015. Excludes crashes at junctions.

MNTH 200 from CSAH 7 near Roy lake to Zerkel, Minn.

Table 5.5 – Crash Data RP 66.2 to RP 74.3 (CSAH 7 to Zerkel)*

Crashes by Crash Severity	
Fatal	0
Incapacitating Injury	2
Non-incapacitating Injury	2
Possible Injury	2
Property Damage	3
Total Crashes	9

Section Characteristics	
Length	7.613 miles
Volume (ADT)	458
Environment	Rural
Median Type	Undivided/No median
Number of Lanes	2

Total Crash Rate	
Observed	0.71
Statewide Average	0.41
Critical Rate	0.91
Critical Index	**0.78**

Fatal & Serious Injury Crash Rate	
Observed	15.71
Statewide Average	2.65
Critical Rate	12.42
Critical Index	**1.26**

*Crash data, 2006-2015. Excludes crashes at junctions.

MNTH 200 Road Safety Audit

MNTH 200 is a critical artery that serves a variety of modes, some of which conflict with one another. Because there is a high number of households without vehicles throughout the reservation, many pedestrians and bicyclists currently use MNTH 200. It is crucial to provide sufficient shoulders and striping on this facility to protect pedestrians and bicyclists. Safety issues are compounded by ongoing maintenance concerns and by the current roadway geometry – narrow shoulders pose a threat to vehicles and non-motorized travelers alike.

To address safety factors along the corridor, a road safety audit was conducted June 8, 2017. Twenty-one locations were identified by roadway safety professionals consisting of representatives from the following agencies:

- MNDOT District 4 Traffic Engineer
- BIA – Bemidji Regional Office Highway Engineer
- Mahnomen County Engineer
- White Earth Public Works Department Assistant Director
- SRF Consulting Group Road Safety Audit Specialist

The approximately twenty-six mile stretch of highway running from R.P. 48.5 (east of Mahnomen) to R.P. 74.3 (Zerkel) identified the following issues throughout the corridor:

- Crash Related Issues (3)
- Roadway Design Issues (5)
- Intersection Lighting Issues (4)
- Deceleration Conflicts (2)
- Other (7)

A list of site-specific suggestions was identified to provide cost-effective means to improve roadway safety. The completed road safety audit report is available upon request from the White Earth Public Works Division.

6 Roadway System Preservation Plan

This section describes existing and future roadway system preservation needs. It builds upon the 2017-2020 Tribal Transportation Improvement Plan (TTIP) to develop a prioritization scheme for planning system preservation improvements. All improvements refer to existing roads. System preservation is emphasized over system expansion, given that many existing Tribal roads are maintained in poor condition, growth projections are moderate, and limited funding is available to the Tribe.

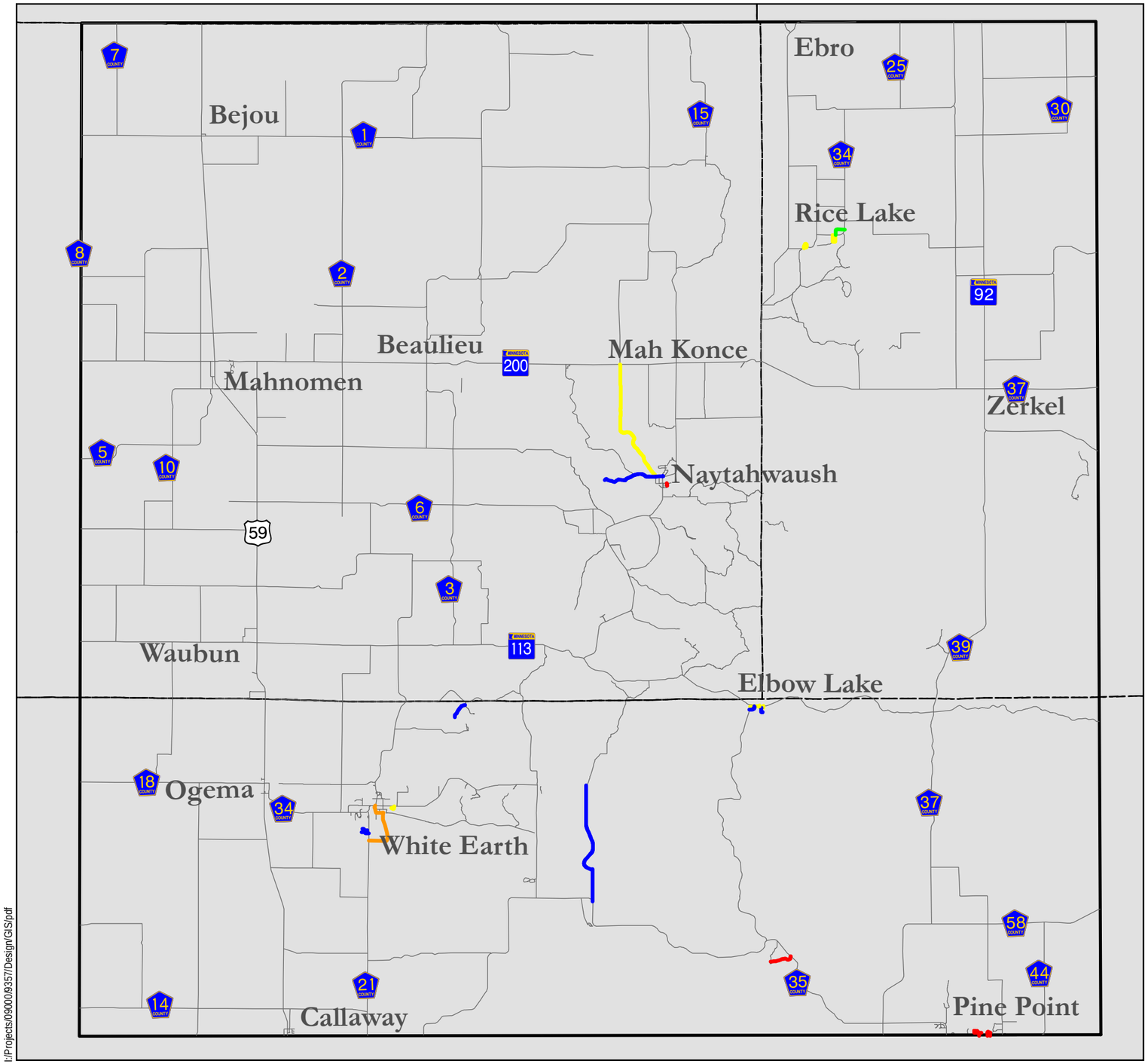
The Long-Range Transportation Plan is obligated to provide a list of fiscally constrained future roadway projects. "Fiscal constraint" implies that not all projects may be feasible, and that improvements should be programmed in future TTIPs only if they can be fully financed under a reasonable funding scenario. Thus, improvements must be prioritized based on severity of need and other considerations.

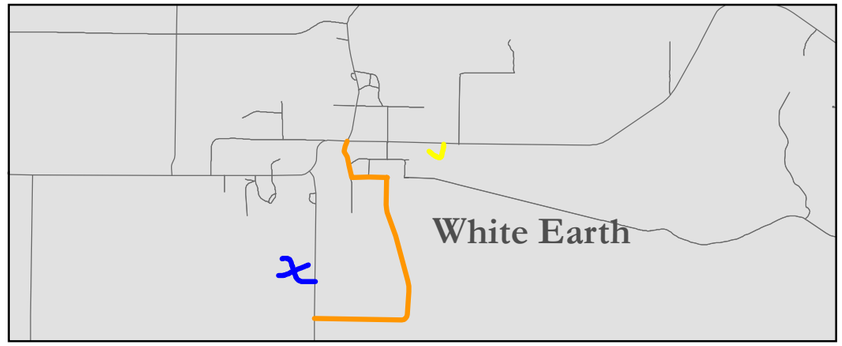
Table 6.1 – Roadway System Preservation Plan Goals and Objectives

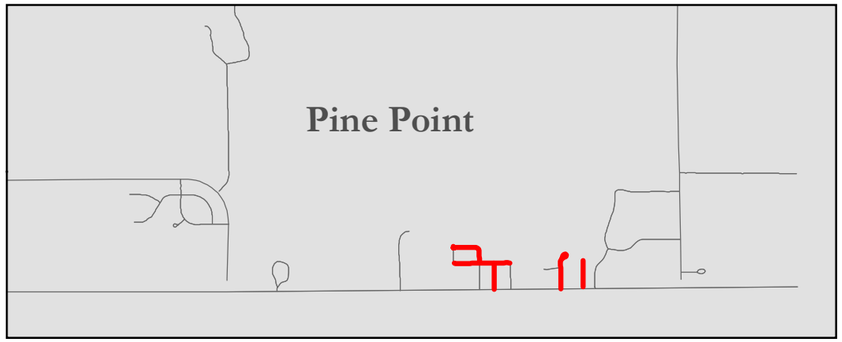
GOAL: Roadway System Preservation Plan *Develop a roadway system preservation plan that provides guidance on safe guarding existing roadway system, maintenance/re-paving, and reconstructing inadequate roadbeds.*
• Maintain all roadways, shoulders, traffic signs, pavement markings, and drainage structures
• Identify existing roadside hazards with the existing Tribal/BIA roadway system
• Identify and evaluate present and future transportation needs
• Provide short, mid and long-term transportation improvement projects
• Secure funding for development of multi-modal paths and trails
• Coordinate with local, state and federal agencies to better address the transportation needs of the entire Reservation.
• Gather feedback from the public about what they perceive as transportation needs of the Reservation

2017-2020 Planned Improvements

Currently, the Tribe has an annual budget of $1.5 million through 2020. This money has been allocated to series of road improvements, including paving, reconstruction, and a mill and overlay projects**.** Many of these improvements are to streets that are located within communities serving residential areas (BIA Functional Class 3). Two collectors, Blair Road and Strawberry Lake Road, are listed for improvement. The current TTIP provides an indication of the extent and nature of improvements that the Tribe can reasonably expect to accomplish within any given year. **Figure 6.1 2017-2020 Tribal Transportation Improvement Plan** maps the segments that are programmed for improvement in the 2017-2020 TTIP.







2017-2020 TTIP projects

N

- mill/overlay
- paving
- paving/reconstruction
- reclaim/overlay
- reconstruction and lighting

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LONG-TERM ROADWAY PRESERVATION PLAN

To develop priorities beyond 2020, a unique prioritization scheme was implemented. All segments in the RIFDS inventory were compared with respect to surface type, surface condition, roadbed condition, and functional classification. Segments with low surface quality are prioritized over segments with good or average surface; roads with inadequate roadbeds are prioritized over roads with a minimum built-up roadbed or an adequate roadbed, etc. (Collector roads and local roads have been split out for project cost estimation purposes.)

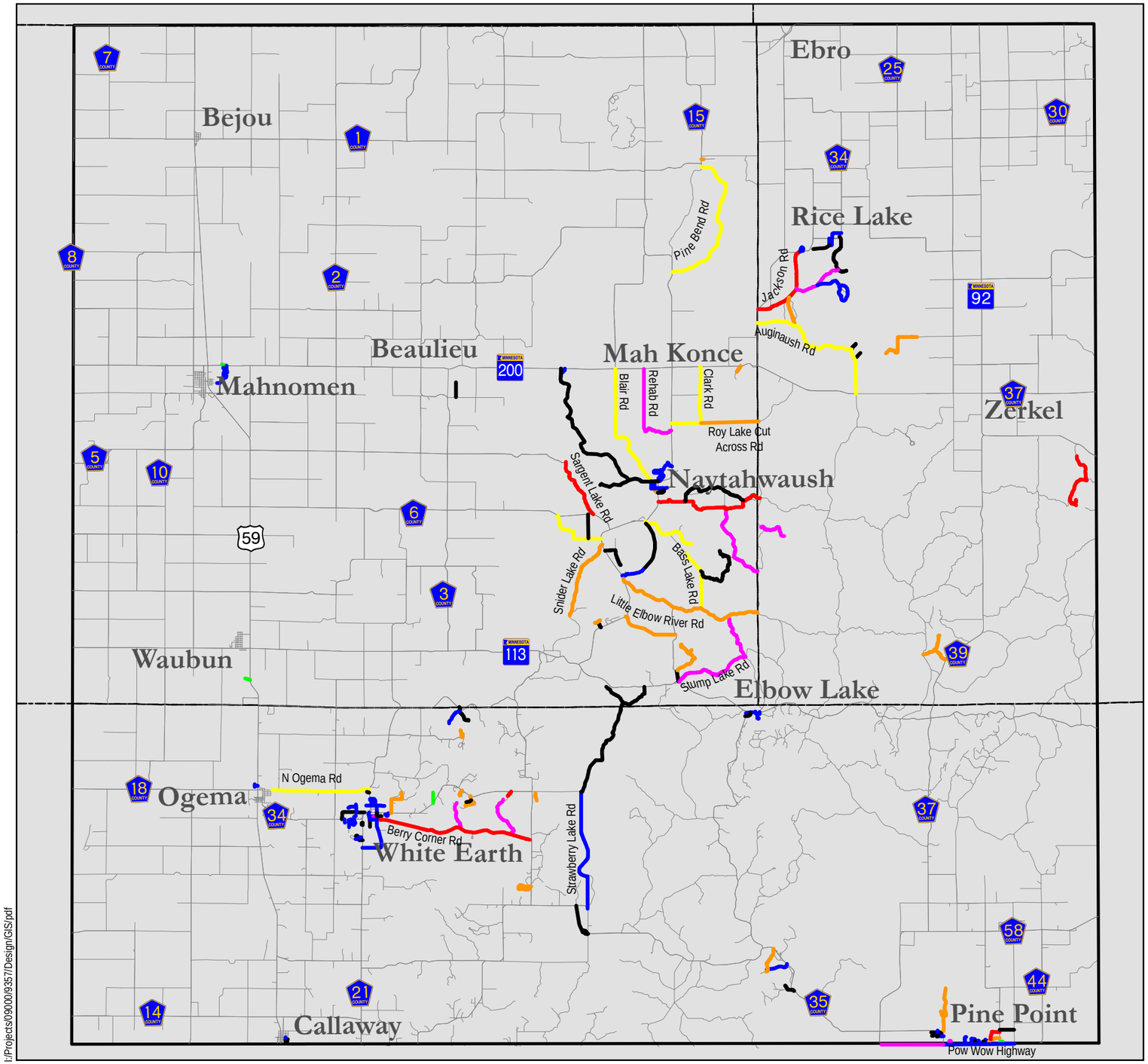
When these factors are analyzed in combination, the highest-priority segments are identified. For example, a roadway segment with poor surface and a poor roadbed should have a higher level of need than another segment with equally poor roadbed but better surface quality. In the second case, the surface life could be prolonged temporarily until reconstruction is more feasible. This would ensure that a viable surface is not excavated prematurely to reconstruct the road.

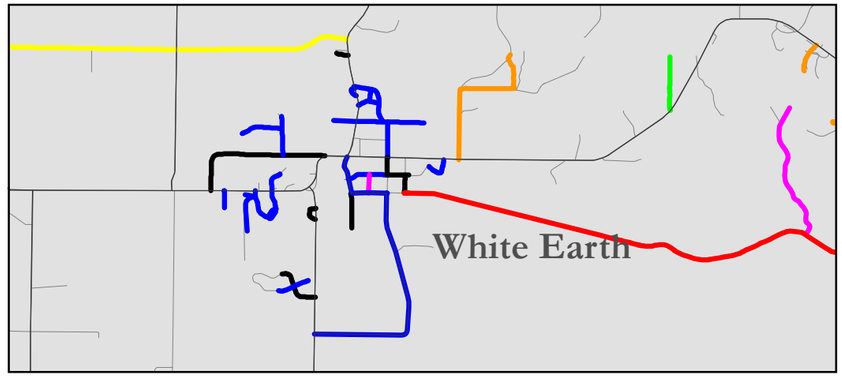
To develop the priorities list, all segments in White Earth's roadway inventory were queried with respect to the factors described. (Segments meeting none of the queried characteristics have not been included in this analysis.) Using a combination of factors, seven priority groupings were created – they were coded as 1-7 in the Tribe's spatial dataset, under the new attribute field 'PRIORITY_CODE." **Table 6.2 Roadway Preservation Priority Classification** describes the characteristics of each priority group and describes system preservation needs in greater detail. The groups are mapped on **Figure 6-2 Road Preservation Priority Groups.**

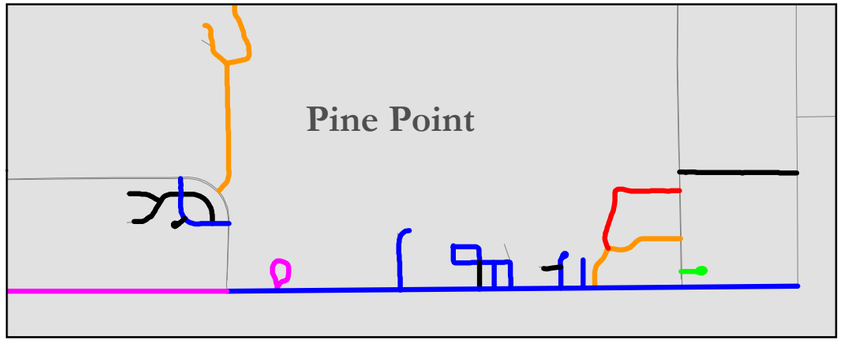
The method described in Table 6.1 allows the Tribe to index roads based on overall quality, which accounts for the sufficiency of the roadbed as well as the surface. This provides a guide for prioritizing system preservation improvements. Other factors should be considered. The Issues Map should be consulted. The existing and anticipated future function of the road must also be considered. Many roads have been allowed to deteriorate, or were never built up, because they serve a limited purpose – they may provide lake access, for example, instead of access to housing or service. Some may be used primarily as hunting routes; discretion should be used when considering improvements to hunting routes that facilitate vehicle travel. Roads that serve existing development or which are needed to serve new development should continue to be prioritized. Additionally, locational factors should be considered. Efficiency gains are possible in construction and development if clustered/linked segments are constructed together. Additionally, existing and future ADT volumes could impact prioritization and/or the nature of the improvement. The Tribe assumes ADT 169 as the cutoff for converting gravel roads to bituminous pavement.

Table 6.2 – Roadway Preservation Priority Classification

PRIORITY CODE	QUERIED CHARACTERISITICS	PRIORITY NEED
1	**Functional Class:** 4 –rural major collector **Roadbed Condition:** 3, 4 – minimum built-up road or inadequate constructed roadbed **Surface Type:** 3 – gravel **Surface Rating:** SCI ≤ 60 – poor to average	Higher need for reconstruction in short or mid-term
2	**Functional Class:** 5 – rural local **Roadbed Condition:** 3, 4 – minimum built-up road or inadequate constructed roadbed **Surface Type:** 3, 4, 5 – gravel or bituminous **Surface Rating:** SCI ≤ 60	Higher need for reconstruction in short or mid-term
3	**Functional Class:** 4 – rural major collector **Roadbed Condition:** 3, 4 – minimum built-up road or inadequate constructed road **Surface Type:** 3, 4, 5 – gravel or bituminous **Surface Rating:** SCI > 60	Lower need for reconstruction in short term. Maintain surface and reconstruct as able.
4	**Functional class:** 3, 4, 5, 6 – community street, rural major collector, rural local road, or city minor arterial street **Roadbed Condition:** 5, 6, or 7– roadbed constructed to adequate standards **Surface Type:** 3, 4, 5 – gravel or bituminous **Surface Rating:** SCI ≤ 60	Resurface and maintain as warranted
5	**Functional Class:** 3, 4, 5, 6 – community street, rural major collector, rural local road, or city minor arterial street **Roadbed Condition:** 5, 6, 7 – roadbed constructed to adequate standards **Surface Type:** 3, 4, 5 – gravel or bituminous **Surface Rating:** SCI > 60	Routine maintenance only. Resurface in long term.
6	**Functional Class:** All **Roadbed Condition:** 0,1,2,3 **Surface Type:** 1, 2 – Primitive Trail; Bladed, unimproved road **Surface Rating:** SCI ≤ 60	*Improve as necessary. These are the lowest quality roads in the reservation, but they typically do not serve housing or provide a vital community link. Depending on usage, varying degrees of construction, resurfacing, or maintenance may be desired.
7	***All remaining roads** – includes roads that did not meet any of the data queries for groups 1-5. In some cases, road data was not available. In other cases, roadbed condition = 0 (proposed road) or surface type = 0 or 1 (proposed or primitive road)	*Update data inventory. Improve as necessary.







Legend

- **GROUP 1.** High need for reconstruction. Rural collector road with a constructed roadbed with drainage/alignment issues and poor surface.
- **GROUP 2.** High need for reconstruction. Rural local road with a constructed roadbed with drainage/alignment issues and poor surface.
- **GROUP 3.** Lower need for reconstruction. Rural collector road with a constructed roadbed with drainage/alignment issues and adequate surface.
- **GROUP 4.** Resurface and maintain. Roadbed constructed to adequate standards and below-average surface quality.
- **GROUP 5.** Routine maintenaince only. Adequate surface and roadbed.
- **GROUP 6.** Limited local road. Minimum built-up roadbed and poor surface quality. Improve as needed.
- **GROUP 7.** Other. Improve as needed. Update inventory data.

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SRF Consulting Group, Inc.

Roadway System Preservation Priority Groups

White Earth Long Range Transportation Plan
White Earth Nation

Figure 6.2

Detailed Priority Segment List

This section provides a detailed breakdown of all road segments that were prioritized using the method above. Note that some inventoried roadways are not on the list; they were not selected using any of the queries. This indicates that they do not meet the criteria chosen, so they are presumably a lower priority than the segments listed in the tables below.

In the tables below, cost estimates are given for reconstruction and resurfacing. As travel volumes increase, it is practical to consider converting some gravel inventory to paved surface to maximize the return on investment. Public Works considers 169 ADT a suitable threshold for considering paved construction. The 2040 ADT forecast is included for reference. Segments with ADT forecasts above 169 which currently gravel or unimproved are bolded. For roads that are currently not bituminous, cost estimates are provided for both aggregate and bituminous construction. This enables Tribal transportation planners to visualize a range of costs for each improvement.

Costs estimates are given for all projects, regardless of priority. Costs are given for Priority 5 segments, even though they are currently listed as routine maintenance only. These roads are in good condition currently but could require reconstruction within the 2040 planning horizon.

All costs are given in 2017 dollars. This allows the Tribe to compare apples to apples when making infrastructure decisions. However, it should be noted that prices will inflate in the future. A reasonable estimate of project costs for any given year could be produced by scaling 2017 estimates with the rate of inflation. (It is assumed that roadway construction technology will change little in the future, so that cost fluctuations will be driven primarily by the supply of materials and the number of project bidders.) A detailed breakdown of unit costs is provided in **Appendix G: Detailed Unit Cost Estimates.**

Priority Group 1

Rural collector roads with poor roadbed and poor surface quality

Priority improvement: Reconstruct in short-term to mid-term

Table 6.3 –Priority Group 1

ROAD NAME	ROUTE (Segment)	MILES	CLASS	SURFACE	2040 ADT FORECAST	COST ESTIMATE (2017 $)	
						AGG	BIT
Ponsford Cemetery Road	4 (10)	0.6	4	Agg	90	$252,184	$436,324
White Earth Bass Lake Road	5 (10)	0.2	4	Agg	N/A	$84,061	$145,441
Sargent Lake Road	10 (10)	3.1	4	Agg	101	$1,302,949	$2,254,339
Jackson Road	15 (10)	3.0	4	Agg	N/A	$1,260,918	$2,181,618
Berry Corner Road	19 (10)	5.7	4	Agg	126	$2,395,744	$4,145,074
Heart Lake Road	30 (10)	2.6	4	Agg	84	$1,092,796	$1,890,736
Tibbetts Road	31 (10)	4.3	4	Agg	124	$1,807,316	$3,126,986
					TOTAL	**$8,195,968**	**$14,180,518**

Priority Group 2

Rural local roads and community streets with poor roadbed and poor surface quality

Priority improvement: Reconstruct in short-term to mid-term

Table 6.4 –Priority Group 2

ROAD NAME	ROUTE (Segment)	MILES	CLASS	SURFACE	2040 ADT FORECAST	COST ESTIMATE (2017 $)	
						AGG	BIT
Snider Lake Road	8	2.8	5	Agg	162	$918,478	$1,777,798
Ponsford Landing	17	1.8	5	Agg	N/A	$590,450	$1,142,870
South Net Lake Access	20	0.7	5	Agg	82	$229,620	$444,450
Long Lost Lake Road	22 (10)	1.3	5	Agg	N/A	$426,436	$825,406
Long Lost Lake Road	22 (20)	0.6	5	Agg	N/A	$196,817	$380,957
Roy Lake Access Road	26 (10)	0.5	5	Agg	N/A	$164,014	$317,464
Snider Lake Access Road	27 (20)	0.3	5	Agg	87	$98,408	$190,478
White Earth Lake Access Road	28 (10)	0.3	5	Agg	N/A	$98,408	$190,478
Pine Bend Housing	110 (10)	0.1	5	Agg	140	$32,803	$63,493
Jackson Cutoff Road	176 (10)	1.0	5	Primitive	N/A	$328,028	$634,928
Pine Point Ball Park Road	180 (10)	0.5	5	Bit	168	N/A	$317,464
Naytahwaush Roads / Forestry Compound	181 (10)	0.2	5	Agg	140	$65,606	$126,986
Little Elbow Lake Road	186 (10)	1.8	5	Agg	156	$590,450	$1,142,870
Victory Way Drive	187 (10)	1.2	5	Agg	86	$393,634	$761,914
Net Lake 295th Avenue	188 (10)	0.3	5	Agg	98	$98,408	$190,478
Jacksaw Landing	192 (10)	0.4	5	Agg	N/A	$131,211	$273,971
Big Rush Lake Road	**201 (10)**	**1.9**	**5**	**Agg**	**339**	**$623,253**	**$1,206,363**
Little Elbow River Road	204 (10)	2.8	5	Agg	140	$918,478	$1,777,798
Roy Lake Cut Across Road	**209 (10)**	**2.0**	**5**	**Agg**	**280**	**$656,056**	**$1,269,856**
Norcross Lake Road	210 (10)	1.1	5	Agg	86	$360,831	$698,421
White Earth Lake Spur	229 (10)	0.2	5	Agg	N/A	$65,606	$126,986
North Ice Cracking Trail	235 (10)	0.9	5	Agg	N/A	$295,225	$571,435
					TOTAL	**$7,446,325**	**14,412,865**

Priority Group 3

Rural collectors with poor roadbed and above-average surface quality

Priority improvement: Maintain in short-term and reconstruct in mid-term to long-term.

Table 6.5 –Priority Group 3

ROAD NAME	ROUTE (Segment)	MILES	CLASS	SURFACE	2040 ADT FORECAST	COST ESTIMATE (2017 $)	
						AGG	BIT
North Ogema Road	**1 (10)**	**3.8**	**4**	**Agg**	**943**	**$1,597,163**	**$2,763,383**
Blair Road[1]	12 (10)	4.7	4	Bit	247	$1,975,438	$3,417,868
Auginaush Road	13 (10)	5.6	4	Agg	128	$2,353,714	$4,072,354
Clark Road	14 (10)	3.1	4	Agg	120	$1,302,949	$2,254,339
Pine Bend Road	16 (10)	5.5	4	Agg	148	$2,311,683	$3,999,633
Bass Lake Road	208 (10)	2.1	4	Agg	162	$882,643	$1,527,133
Bass Lake Road	**208 (20)**	**0.9**	**4**	**Agg**	**243**	**$378,275**	**$654,485**
Old County Road 6	183 (10)	2.1	4	Agg	95	$882,643	$1,527,133
					TOTAL	**$11,642,476**	**$20,143,606**

1. Scheduled for paving/reconstruction in current TTIP

Priority Group 4

Roadbeds constructed to adequate standards with poor-to-average surface quality

Priority improvement: Resurface and maintain in short-term to mid-term

Table 6.6 –Priority Group 4

ROAD NAME	ROUTE (Segment)	MILES	CLASS	SURFACE	2040 ADT FORECAST	COST ESTIMATE (2017 $)	
						AGG	BIT
Old Round House Road[1]	57 (10)	0.2	3	Bit	371	N/A	$37,261
John Sullivan Road	189 (10)	0.4	5	Agg	143	$32,856	$74,522
East Mahnomen Housing	223 (10)	0.1	3	Agg	N/A	$8,214	$18,630
Housing Authority Road	225 (10)	0.9	2	Bit	467	N/A	$171,896
					TOTAL	**$41,070**	**$302,309**

1. Scheduled for Mill/Overlay in current TTIP

Priority Group 5

Roadbed constructed to adequate standards with average-to-good surface quality

Priority improvement: Routine maintenance only in short term. Resurface in mid-term and long term.

Table 6.7 –Priority Group 5

ROAD NAME	ROUTE (Segment)	MILES	CLASS	SURFACE	2040 ADT FORECAST	COST ESTIMATE (2017 $)	
						AGG	BIT
Ladoux Road[1]	21 (10)	0.9	4	Bit	230	N/A	$171,896
Strawberry Lake Road[2]	23 (10)	3.2	4	Agg	140	$350,400	N/A
Strawberry Lake Road Extension	23 (20)	1.6	4	Agg	140	$175,200	N/A
Elkhorn Road	29 (10)	0.7	5	Agg	96	$57,498	N/A
Chippewa Ranch Road	40 (10)	0.3	3	Bit	181	N/A	$55,891
Pine Point 477th Ave[3]	51 (10)	0.1	3	Bit	215	N/A	$18,630
Pine Point 282nd Street[4]	53 (10)	0.1	3	Bit	386	N/A	$18,630
Pine Point Old School Road[5]	54 (10)	0.3	3	Bit	481	N/A	$55,891
Pine Point Break Road[6]	55 (10)	0.3	3	Bit	190	N/A	$55,891
Pine Point 283rd Street[7]	56 (10)	0.1	3	Bit	N/A	N/A	$18,630
Rattle Snake Circle	60 (10)	0.4	3	Bit	496	N/A	$74,522
Marten Drive	61 (10)	0.1	3	Bit	496	N/A	$18,630
Loon Drive	62 (10)	0.1	3	Bit	179	N/A	$18,630
Crane Road	63 (10)	0.5	3	Bit	518	N/A	$93,152
Gull Road	64 (10)	0.3	3	Bit	417	N/A	$55,891
Beaver Trail	65 (10)	0.3	3	Bit	210	N/A	$55,891
Eagle Road	69 (10)	0.2	3	Bit	598	N/A	$37,261
First Avenue	70 (10)	0.2	3	Bit	93	N/A	$37,261
Second Avenue	71 (10)	0.2	3	Bit	302	N/A	$37,261
Third Avenue	72 (10)	0.1	3	Bit	123	N/A	$18,630
Center Street	73 (10)	0.4	3	Bit	277	N/A	$74,522
N/A	74 (10)	0.3	3	Bit	786	N/A	$55,891

N/A	75 (10)	0.2	3	Bit	937	N/A	$37,261
N/A	76 (10)	0.6	3	Bit	1248	N/A	$111,782
N/A	77 (10)	0.6	3	Bit	1640	N/A	$111,782
N/A	78 (10)	0.3	3	Bit	115	N/A	$55,891
N/A[8]	79 (10)	0.3	3	Bit	764	N/A	$55,891
North Elbow Lake Road[9]	82 (10)	0.3	3	Bit	140	N/A	$55,891
Elbow Lake 400th Avenue[10]	83 (10)	0.3	3	Bit	114	N/A	$55,891
Wild Rice Loop[11]	90 (10)	0.6	3	Bit	682	N/A	$111,782
Callaway Street 2nd Avenue	100 (10)	0.2	3	Bit	202	N/A	$37,261
Water Tower Loop[12]	120 (10)	0.6	3	Bit	223	N/A	$111,782
Mission Road	133 (10)	1.7	5	Bit	490	N/A	$316,717
Mission Road	133 (20)	0.5	4	Bit	N/A	N/A	$95,498
Pine Point 282nd Street	150 (10)	0.1	3	Bit	N/A	N/A	$18,630
Pine Point 478th Avenue	151 (10)	0.2	3	Bit	N/A	N/A	$37,261
Nokomis Drive	154 (10)	0.4	3	Bit	632	N/A	$74,522
Pow Wow Highway	158 (10)	2.4	5	Bit	N/A	N/A	$447,130
Wolf Clan Lane	161 (10)	0.3	3	Bit	313	N/A	$55,891
Black Duck Trail	162 (10)	0.3	3	Bit	93	N/A	$55,891
Lynx Lane	163 (10)	0.2	3	Bit	255	N/A	$37,261
White Earth South Housing	164 (10)	0.4	3	Bit	412	N/A	$74,522
White Earth South Housing	164 (20)	0.2	3	Bit	N/A	N/A	$37,261
White Earth East Housing Road[13]	165 (10)	0.2	3	Bit	349	N/A	$37,261
Rice Lake Community Center Road[14]	171 (10)	0.5	3	Bit	462	N/A	$93,152
Elderly Center / Head Start Road (White Earth)	172 (10)	0.5	3	Bit	378	N/A	$93,152
Clinic Entrance Road	174 (10)	0.4	3	Bit	1106	N/A	$74,522
Clinic Service Road	175 (10)	0.2	3	Bit	115	N/A	$37,261
Rediscovery Center Spur Road[15]	178 (10)	0.2	3	Bit	N/A	N/A	$37,261
Naytahwaush	179 (10)	0.3	3	Bit	913	N/A	$55,891

Community Center Road							
Red Adams Road	190 (10)	0.3	3	Agg	114	$24,642	N/A
North Naytahwaush Road	220 (10)	0.3	3	Bit	772	N/A	$55,891
West Ogema Housing	227 (10)	0.1	6	Bit	261	N/A	$18,630
Ogema Housing Road	227 (20)	0.1	3	Bit	N/A	N/A	$18,630
Mahnomen College Road	230 (10)	0.5	5	Bit	521	N/A	$93,152
Mahnomen College Road	230 (20)	0.3	5	Bit	1088	N/A	$55,891
White Earth Fire and Ambulance Road	231 (10)	0.1	3	Bit	N/A	N/A	$18,630
Lower Rice Lake Trail Loop	236 (10)	0.2	5	Agg	N/A	$16,428	N/A
West Mahnomen College Road Cul-de-sac	247 (10)	0.2	5	Bit	N/A	N/A	$37,261
East Mahnomen College Road Cul-de-sac	248 (10)	0.2	5	Bit	N/A	N/A	$37,261
South Mahnomen College Road Loop	249 (10)	0.1	5	Bit	N/A	N/A	$18,630
					TOTAL	**$624,168**	**$3,788,540**

1. Scheduled for mill/overlay in current TTIP
2. Scheduled for paving in current TTIP
3-8. Scheduled for mill/overlay in current TTIP
9. Scheduled for paving/reconstruction in current TTIP
10. Scheduled for paving in current TTIP
11-13. Scheduled for paving/reconstruction in current TTIP
14. Scheduled for reclaim/overlay in current TTIP
15. Scheduled for paving in current TTIP

Priority Group 6

Limited local road.

Priority improvement: Reconstruct/improve as warranted.

Table 6.8 –Priority Group 6

ROAD NAME	ROUTE (Segment)	MILES	CLASS	SURFACE	2040 ADT FORECAST	COST ESTIMATE (2017 $)	
						AGG	BIT
Pine Point Road	**157 (10)**	**2.7**	**1**	**Unimproved**	**467**	**$1,134,826**	**$1,963,456**
Sawquit Road	195	3.0	5	Unimproved	N/A	$984,084	$1,904,784
Stump Lake Road	202	2.9	5	Unimproved	N/A	$951,281	$1,841,291
Sawmill Lake Road	203	1.8	5	Unimproved	140	$590,450	$1,142,870
Sandhill Road	206	1.2	5	Unimproved	124	$393,634	$761,914
Pine Point Pow Wow Grounds	232	0.3	5	Unimproved	N/A	$98,408	$190,478
Rehab Road	244	3.3	5	Unimproved	N/A	$1,082,492	$2,095,262
Net Road	245	0.9	5	Unimproved	N/A	$295,225	$571,435
Little Bass Lake Road	246	1.5	5	Unimproved	N/A	$492,042	$952,392
					TOTAL	**$6,022,442**	**$11,423,882**

Table 6.9 –Priority Group 7

ROAD NAME	ROUTE (Segment)	MILES	CLASS	SURFACE	2040 ADT FORECAST	COST ESTIMATE ($ 2017)	
						AGG	BIT
North Twin Lake Road[1]	7 (10)	1.5	3	Bit	500	N/A	$190,478
North Twin Lake Road	7 (20)	1.7	3	Bit	500	N/A	$1,236,250
Rice Lake Dam Road	18 (10)	1.8	5	Agg	114	$590,450	$1,142,870
Snider Lake Access Road	27 (10)	0.2	5	Agg	N/A	$65,606	$126,986
Pine Point 476th Ave	50 (10)	N/A	N/A	N/A	N/A	N/A	N/A
Pine Point 281st Street	58 (10)	0.1	3	Agg	N/A	$32,803	$63,493
Gull Road	64 (10)	0.1	3	Agg	N/A	$32,803	$63,493
Beaver Trail	65 (10)	0.1	3	Agg	N/A	$32,803	$63,493
White Fish Lane	67 (10)	0.1	3	Agg	N/A	$32,803	$63,493
Village Lane[2]	81 (10)	0.3	3	Bit	101	N/A	$190,478
Callaway Street Minnesota Ave	101 (10)	0.4	3	Proposed	N/A	$131,211	$253,971
Callaway Street Iowa Ave	102 (10)	N/A	N/A	N/A	N/A	N/A	N/A
Shinob Trail	156 (10)	0.5	3	Bit	140	N/A	$317,464
Bear Clan Drive	160 (10)	1.0	3	Bit	518	N/A	$634,928
White Earth South Housing	164 (10)	0.5	3	N/A	N/A	N/A	$317,464
White Earth Compound	166 (10)	0.1	3	Agg	284	$32,803	$63,493
White Earth South Lagoon Road	168 (10)	0.6	3	Proposed	N/A	$196,817	$380,957
South Ice Cracking Road	173 (10)	0.4	5	Agg	77	$131,211	$253,971
Rediscovery Center Road	177 (10)	0.7	5	Agg	155	$229,620	$444,450
Lynwood Road	184 (10)	0.1	5	Agg	N/A	$32,803	$63,493
Little Elbow Park Road	186 (20)	0.2	5	Primitive	128	$65,606	$126,986
Little Elbow Park Road	186 (30)	N/A	N/A	N/A	N/A	N/A	N/A
Mary Yellowhead Loop	191 (10)	0.5	5	Agg	N/A	$164,014	$317,464
Bad Boy Creek Road	205 (10)	2.7	5	Agg	N/A	$885,676	$1,714,306
Perch Lake Road	211 (10)	0.9	4	Proposed	N/A	$295,225	$571,435
Rice Lake Cut Across	212 (10)	0.7	8	Primitive	N/A	$229,620	$444,450
East South Twin Lake Road	215 (10)	1.7	4	Proposed	N/A	$557,648	$1,236,250
Mary Yellowhead Trail	217 (10)	1.9	4	Proposed	N/A	$1,206,363	$1,381,691

ROAD NAME	ROUTE (Segment)	MILES	CLASS	SURFACE	2040 ADT FORECAST	COST ESTIMATE ($ 2017)	
						AGG	BIT
Rock's Subdivision	219 (10)	0.5	4	Proposed	N/A	$0	$363,603
Snider Way	221 (10)	1.7	4	Proposed	N/A	$0	$1,236,250
Me-Te-Go Ah-Kee-Sun Housing Road	226 (10)	N/A	N/A	N/A	N/A	N/A	N/A
Me-Te-Go Ah-Kee-Sun Housing Road	226 (20)	N/A	5	Agg	N/A	N/A	N/A
Bass Lake Trail	234 (10)	0.3	5	Agg	N/A	$55,891	$190,478
North Net Lake Access Road	234 (20)	0.3	5	Agg	116	$55,891	$190,478
Woodchuck Lake Road	238 (10)	5.8	N/A	N/A	N/A	N/A	N/A
Little Rat Lake Trail	247 (10)	N/A	N/A	N/A	N/A	N/A	N/A
Little Rat Lake Trail	247 (20)	N/A	N/A	N/A	N/A	N/A	N/A
					TOTAL	**$5,057,665**	**$13,644,616**

7 Bridges and Railroads

Bridges

A comprehensive and detailed inventory of bridge conditions was developed for bridges within the White Earth Reservation. The White Earth Roads Department is responsible for one bridge within the Reservation (Bridge No. F217 - John Neeland Bridge/Dam Bridge) **See Table 7.1 BIA Indian Reservation Roads Bridge Inventory**. Nevertheless, monitoring the quality of bridges in the plan can help local governments identify existing and future needs, aids in fiscal planning and grant pursuits, and helps the Tribe identify possible constraints to growth. Responsibility for the existing bridges within Reservation boundaries falls to the following:

- Tribal Roads Department/BIA
- State Highway Agency (MnDOT)
- County Highway Agency (Becker, Clearwater or Mahnomen County)
- Town or Township Highway Agency (Riceville Township)

Bridge Sufficiency Ratings

The FHWA provides structural sufficiency ratings to assess the quality of inventoried bridges. The rating is calculated from four separate factors-deck, superstructure, substructure, and culvert which describe the sufficiency of the bridge to remain in service. The result of this method is a 0-10 index, where 10 represents an entirely sufficient bridge and 0 represents an entirely insufficient or deficient bridge. Based on this rating system, structures located with the Reservation are in relatively good conditions; however, some structures have been deemed "structurally deficient" – this signifies that the bridge has a defect that requires speed or weight restrictions be imposed, or that the approaches to the bridge flood regularly. Mahnomen County Bridge Inventory, Clearwater County Bridge Inventory and Becker County Bridge Inventory show individual bridges within the Reservation and can be found in **Appendix H – Becker, Clearwater and Mahnomen County Bridge Inventory**.

Table 7.1 – BIA Indian Reservation Roads Bridge Inventory

Bridge Number	Owner	Length	Condition	Functional Class	Sufficiency Rating
F217	BIA	72 feet	Excellent; no construction required	Rural Local	98

Bridge Improvements

The John Neeland Dam Bridge is the lone bridge under Tribal jurisdiction. Future bridge improvements will be based on results of future inspections conducted by the BIA and reflected in the IRR Program Bridge Management System Structure Inventory and Appraisal Sheet. In the IRR Bridge Maintenance Plan, routine maintenance is prescribed for the Rice Lake Dam Bridge. This includes inspection, cleaning, graffiti removal, and maintenance of the bridge deck, joints, footings and abutments.

However, the existing bridge does pose some safety concerns for the Community of Rice Lake (See Chapter 9). The narrow crossing exposes pedestrians to vehicle traffic on a curved, low-visibility section of roadway. The Rice Lake Community Council has expressed a desire for a separated trail and pedestrian crossing.

All existing transportation facilities in the TTP must have a construction need (CN) which is used to develop construction cost calculations. The CN value (0-4) is developed using certain guidelines such as: Ownership or responsibility of the facility, whether it is within or provides access to reservations, groups, villages and communities in which many of the residents are Indian, and whether it is vital to economic develop of Indian Tribes.

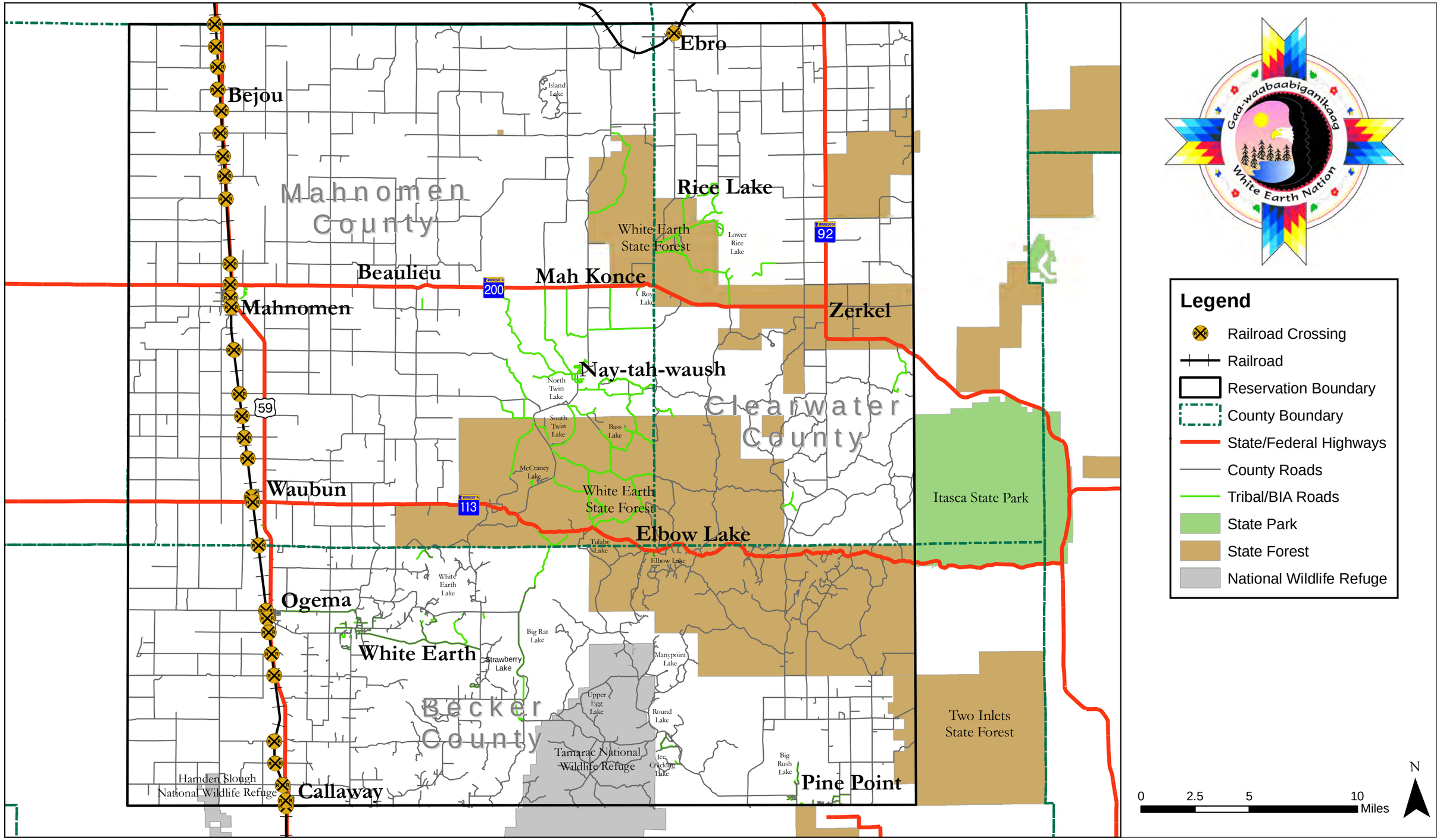
RAILROADS

The Canadian Pacific (CP) Railroad alignment lies along the western half of the White Earth Reservation. The north-south bound railroad is located parallel to US Highway 59, on the west side of the highway. It services grain elevators in Callaway and Mahnomen. The Burlington Northern Santa Fe (BNSF) railroad tracks predominately east-west through the northeast corner of the Reservation. According to the Federal Railroad Administration Office of Safety Analysis six to eight trains pass through the Reservation daily with speeds reaching 49 mph. With 36 at-railroad crossings on the Reservation, this results in a high number of vehicle conflict points. In 2014, there was a fatal collision involving a train in Mahnomen.

In March 2016, a train derailment occurred in the City of Callaway after a freight train collided with a tanker truck. A simple crossing sign was the only railroad traffic control measure. Eleven rail cars and one locomotive in the CP train derailed.

Crossings

Thirty-six (36) at-grade crossings are located within the Reservation. There is no grade separated crossings (overpass or underpass) or designated quiet zones located within the Reservation. Traffic control devices include gates, stop signs, flashing lights, traffic signals, WiWags, bells and cross bucks. However, some rural crossings provide only a crossing sign.



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Railroad Crossings

White Earth Long Range Transportation Plan

White Earth Nation

Figure 7.1

8 Transit Plan

PREVIOUS PLANNING WORK

The 2008-2030 Short and Long-Range Transportation Plan for the White Earth Reservation was completed when White Earth Public Transit was in an initial development phase as a transit system (service commenced in 2007). Based on survey results from that planning effort, transit goals and objectives were developed to guide ongoing efforts for service planning and the eventual operations of a White Earth transit service. These goals were tailored to meet the needs of the Reservation and to provide a planning framework for tribal leaders. The overall goal statement is as follows:

To provide safe, reliable, and cost-effective transit service to all people within the reservation, to enhance residents' quality of life and sustain essential human services.

To achieve this goal, several service objectives were developed that could be measured over time to evaluate progress. This section will provide an update on theses transit objectives and update them for the next ten years. Some of these goals will carry over into the recommendations set forth in this plan.

Table 8.1 – Existing Transit System Objectives

Current Objective	Notes/Progress
Strive to link people residing in reservation communities and villages with services in larger communities both on and off the reservation.	Goal achieved, will be continued
Operate most services Monday through Friday to meet most travel needs.	Goal achieved, meets basic travel needs
Work toward serving work trip needs, primarily using rideshare and subscription-type services.	Goal achieved, meets basic travel needs
Work toward serving the needs of the White Earth Health Center.	Goal achieved, service to White Earth Health Center is provided, can be improved
Charge riders a fee that is reasonable for services provided.	Goal achieved
Operate a call center to take trip reservations during normal business hours, Monday through Friday.	Goal achieved
Establish easy-to-identify, safe, and convenient bus stops at key locations across the service area.	Area for improvement
Coordinate service with Mahnomen and Becker Counties wherever possible.	Area for improvement
Continue to utilize the transit transfer center in Detroit Lakes	Goal achieved, can be improved

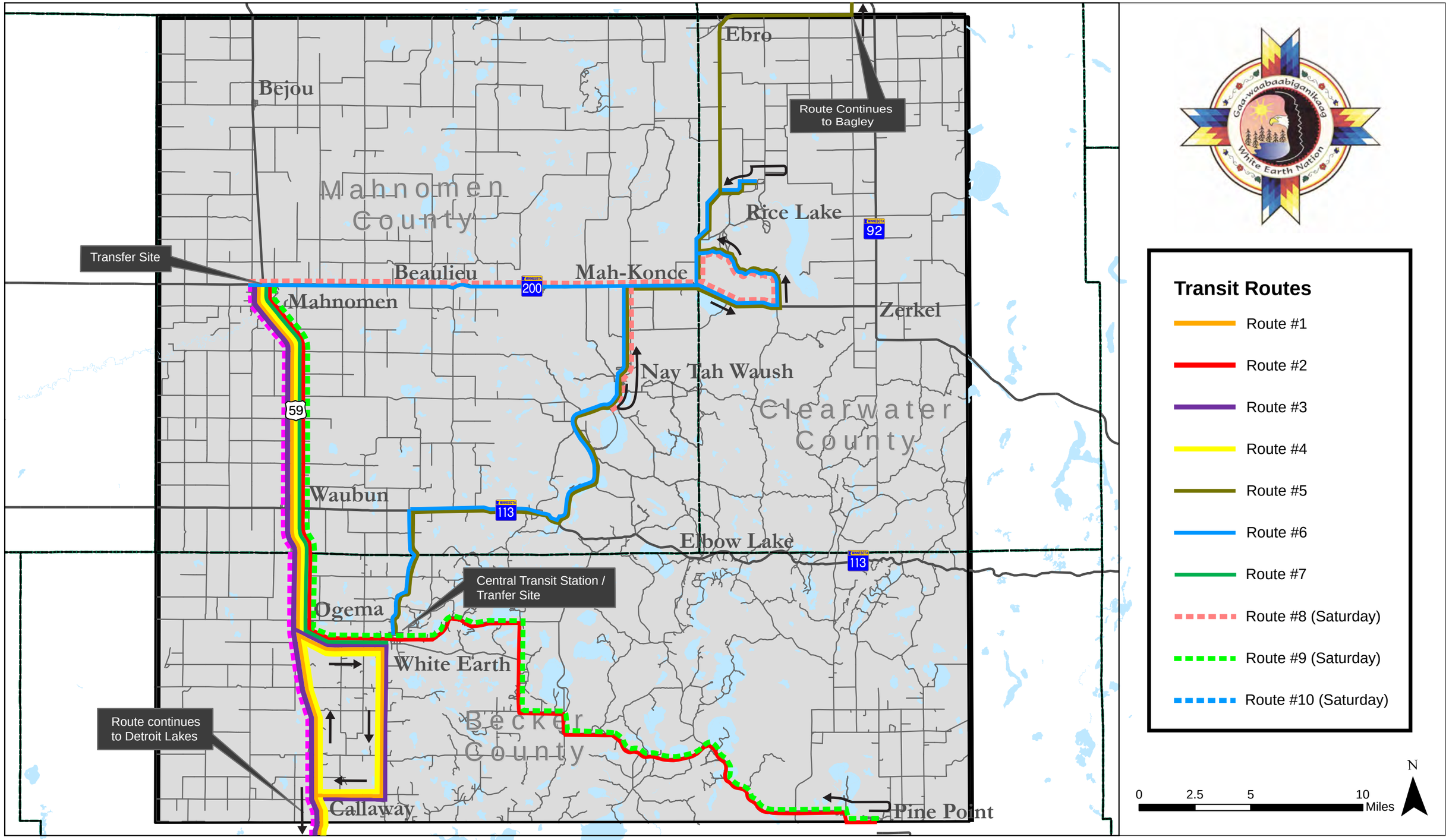


Figure 8.1

Transit Routes

White Earth Long Range Transportation Plan

White Earth Nation

EXISTING TRANSIT SERVICE

White Earth Public Transit currently operates ten (10) bus routes that serve people with origins and destinations on the White Earth Reservation. Seven (7) of these routes operate on weekdays, and three (3) routes operate on Saturdays. The routes all operate as "deviated routes" meaning that there are scheduled stops and time points on a corridor or route, but upon request the buses will deviate up to ¾ mile from the standard route. This is an equivalent level of service to complementary paratransit service recommended by the Americans with Disabilities Act (ADA). At its peak time there are approximately eight vehicles in service.

Fares are $2.00 per person each way, and free transfers are provided between bus routes. There is no charge for children under 5. Children 12 and under must be accompanied by an adult. Monthly passes and punch cards are available for purchase.

Route Descriptions

Route 1 – Detroit Lakes and White Earth

Route 1 operates as a circulator route connecting White Earth with Detroit Lakes. It primarily serves White Earth, Ogema, Callaway, and Detroit Lakes. It also makes one afternoon run on Highway 59 to Mahnomen, serving the Shooting Star Casino and Waubun. Route 1 service begins at approximately 10:00a.m. and ends at 6:15p.m. and operates on weekdays. In Detroit Lakes transfers can be made to Becker County Transit, Amtrak, and Jefferson Lines intercity bus service. A full cycle of the route takes approximately two hours. Route 1 also makes some demand response stops within Detroit Lakes. See **Figure 8.2 – Route 1: White Earth/Detroit Lakes** and **Table 8.2 – Route 1 Schedule.**

Route 2 – Pine Point to Mahnomen

Route 2 travels a corridor from the southeast to northwest and serves the communities of Pine Point, White Earth, Ogema, Waubun, and Mahnomen. Route 2 operates during the full span of White Earth Transit's service, starting its first run at 6:15a.m. in Pine Point and ending at 6:00p.m. in White Earth. A full cycle of the route takes 3.5 hours. Passengers can make time transfers to Route 1 and Route 6 in White Earth and Mahnomen. See **Figure 8.3 – Route 2: Pine Point to Mahnomen** and **Table 8.3 – Route 2 Schedule.**

Figure 8.2 –Route 1: White Earth/Detroit Lakes

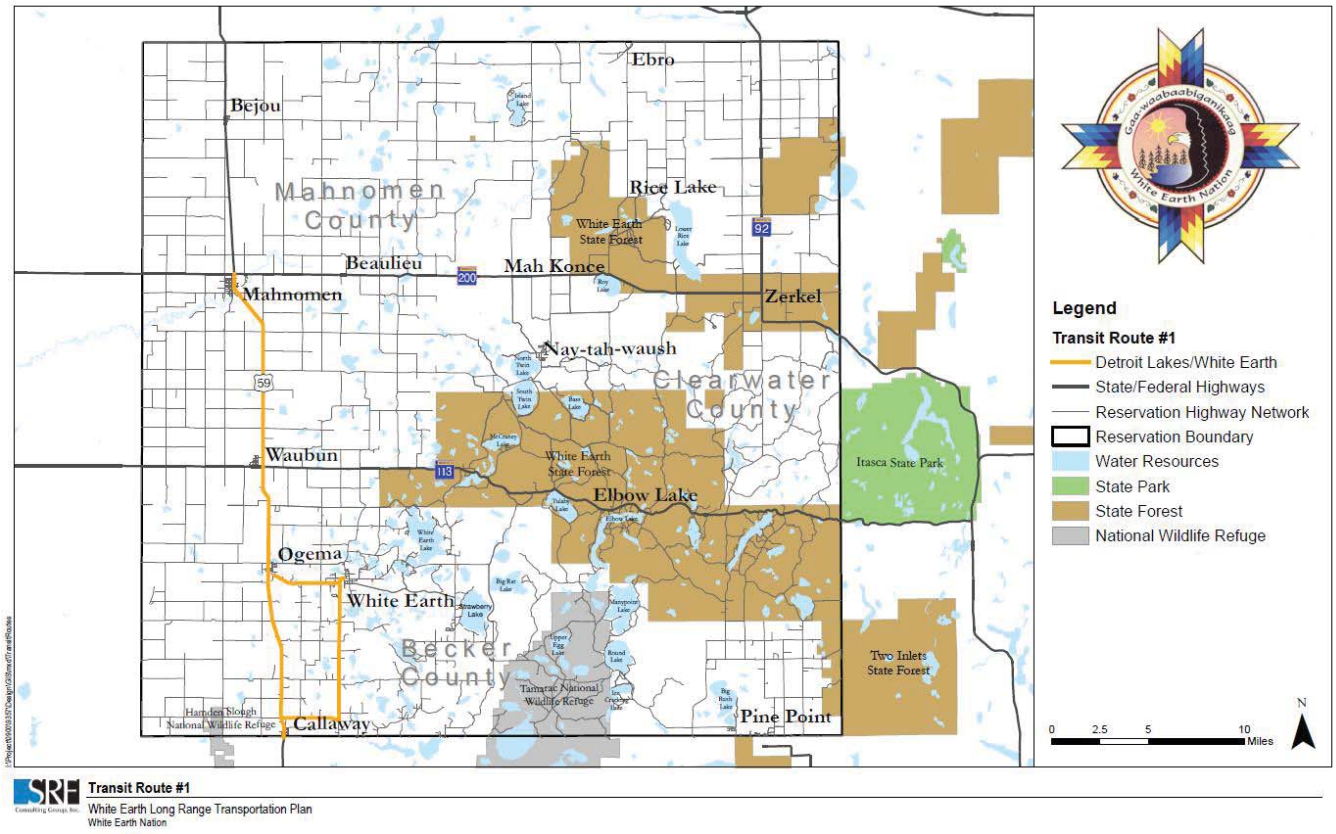


Table 8.2 – Route 1 Schedule

Route#1 Detroit Lakes/White Earth	
Location	**Departure**
White Earth> Detroit Lakes	**AM**
White Earth/ IHS/ Transfer Rt 2	10:15-10:30
Callaway Stops	10:45
Detroit Lakes Stops/Depot	11:00
Detroit Lakes> White Earth	**AM**
Detroit Lakes Stops/Depot	11:15
Callaway Stops	11:30
White Earth Stops / Transfer Rt 2	11:45-12:10
White Earth > Detroit Lakes	**PM**
White Earth Stops /Transfer Rt 2,6	12:10
Callaway Stops	12:25
Detroit Lakes Stops/Depot	12:40-1:05
Detroit Lakes> White Earth	**PM**
Detroit Lakes Stops/Depot	1:05
Callaway Stops	1:15
White Earth Stops	1:35

White Earth > Detroit Lakes	PM
White Earth/ Transfer RT 2	1:50
Callaway Stops	2:00
Detroit Lakes Stops/Depot	2;20
Detroit Lakes> White Earth>Mah	**PM**
Detroit Lakes Stops/Depot	2:35
Callaway Stops	2:45
White Earth Stops /Rt 6 > Mahnomen	3:35
Mahnomen>WE>Detroit Lakes	**PM**
Mahnnomen Stops/Casino Transfer 2,6	4:08
White Earth Stops/ IHS/RTC	4:35
Callaway Stops	4:50
Detroit Lakes Stops/Depot	5:15
Detroit Lakes> White Earth	**PM**
Detroit Lakes Stops/Depot	5:15
Callaway Stops	5:30
Ogema /Transfer Rt 4	5:55
White Earth Stops/Transit Station End	6:15

Figure 8.3 – Route 2: Pine Point to Mahnomen

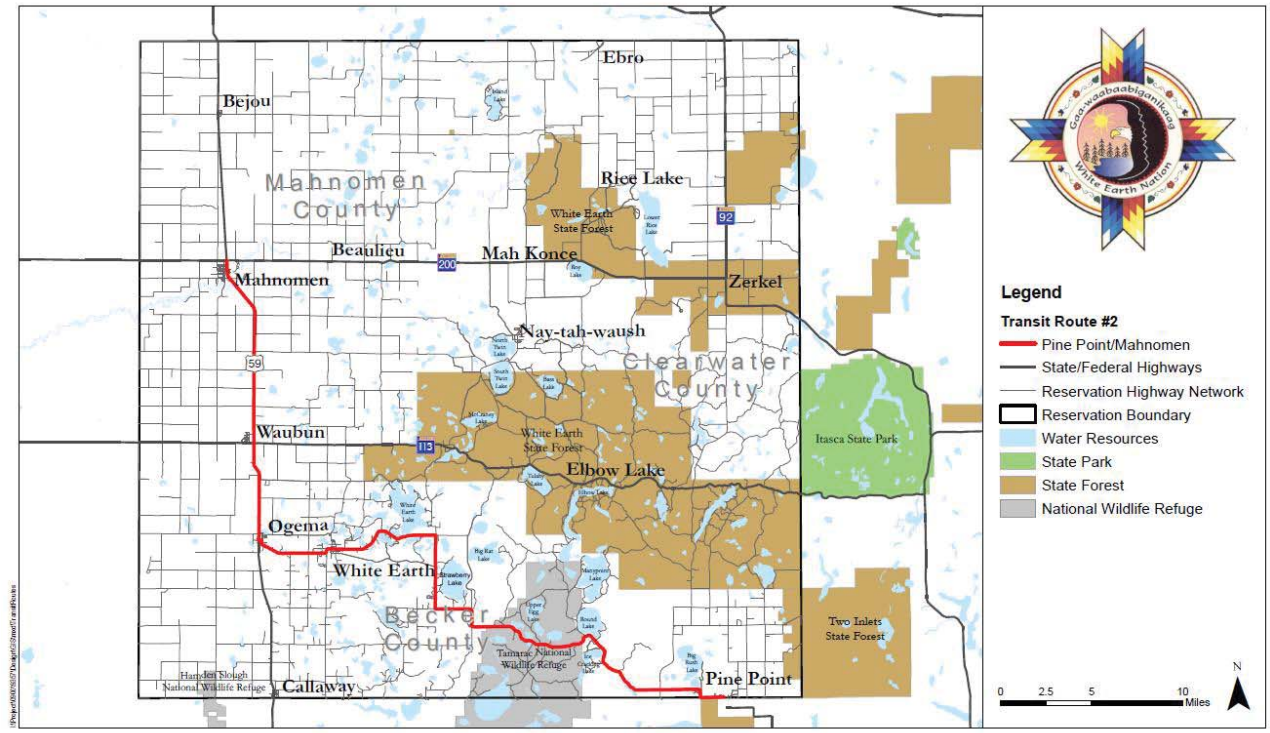


Table 8.3 – Route 2 Schedule

Route # 2 Pine Point/Ponsford/MHN	
Location	**Departure**
Pine Point>White Earth	**A M**
Pine Point Area Stops	6:15
White Earth/ IHS	7:15
Ogema/M&W Store/DCH	7:30
Ogema>Mahnomen	**A M**
Ogema/M&W Store /DCH	7:30
Waubun Stops	7:25
Mahnomen Stops/ SSC	7:45
Mahnomen>White Earth	**AM**
Mahnomen Stops/SSC	8:15
Waubun Stops	8:25
White Earth Stops	8:45
White Earth> Pine Point	**AM**
White Earth Stops	8:45
Strawberry Lake Store	9:00
Pine Point Area Stops	9:45
Pine Point>White Earth	**A M**
Pine Point Area Stops	9:45
White Earth /IHS/ Transfer RT 1	10:30
Ogema/M&W Store/DCH	10:40
Ogema>Mahnomen	**AM**
Ogema/M&W Store/DCH	10:40
Waubun Stops	10:50
Mahnomen Stops/Transfer Rt 6	11;15

Mahnomen>White Earth	**AM**
Mahnomen Stops/SSC	11:15
Waubun Stops	11:25
Ogema/M&W Store/DCH	11:40
White Earth/ IHS/ Transfer Rt 1	12:00
White Earth> Pine Point	**PM**
White Earth/ Transfer Rt 1, 6	12:10
Strawberry Lake Store	12:30
Pine Point Area Stops	1:00
Pine Point>White Earth	**P M**
Pine Point Area Stops	1:10
White Earth /IHS/ Transfer Rt 1	1:50
Ogema/M&W Store/DCH	2:20
Ogema>Mahnomen	**PM**
Ogema/M&W Store/DCH	2:20
Waubun Stops	2:30
Mahnomen Stops/ SSC	2:45
Waubun Stops / School	3:30
Mahnomen > White Earth	**P M**
Mahnomen Stops/ SSC Transfer 1,6	4:10
Waubun Stops	4:25
White Earth Stops	4:35
White Earth> Pine Point	**PM**
White Earth Stops	4:35
Strawberry Lake Store	4:45
Pine Point Area Stops	5:15
Transit Station End	6:00

Route 3 – Detroit Lakes/Mahnomen

Route 3 operates along the corridor between Detroit Lakes and Mahnomen and serves White Earth. Route 3 complements the service provided by Route 1 on the Highway 59 corridor. Unlike Route 1, Route 3 does not provide on demand service within Detroit Lakes, but will transfer to other transit services at the Detroit Lakes Depot. Service begins at 6:45a.m. and ends at 4:30p.m. Route 3 is broken into segments that operate at various times throughout the day and cycle times vary. Significant portions of the running time are dedicated to pick-ups and drop offs in population centers in White Earth and Mahnomen. The 9:30a.m. trip from Detroit Lakes to Mahnomen operates only on Mondays, Wednesdays, and Fridays. See **Figure 8.4 – Route 3: Detroit Lakes/Mahnomen** and **Table 8.4 – Route 3 Schedule.**

Route 4 – Detroit Lakes Shopping

Route 4 is a shopping-oriented trip that operates on Tuesdays and Thursdays. It is operated by one bus that circulates throughout the White Earth Reservation and transports people to Walmart and the B and G Thrift Store in Detroit Lakes. Passengers have approximately one hour to run errands and then the bus makes its return trip. See **Figure 8.5 – Route 4: Detroit Lakes Shopping** and **Table 8.5 – Route 4 Schedule.**

Route 5 – Naytahwaush, Rice Lake, Elbow Lake

Route 5 links White Earth with many of the communities on the eastern portion of the White Earth Reservation including Naytahwaush and Rice Lake. Route 5 has re-re-routed its services to include the City of Bagley. It makes a timed transfer to Route 6 in Naytahwaush. Route 5 begins and ends its service in White Earth and will make trips to White Earth on demand throughout the day as scheduled travel time allows. Route 5 starts service in White Earth at 6:50 a.m. and ends service at 5:30p.m. Cycle times range from 1.5 to 2 hours. See **Figure 8.6 – Route 5: Naytahwaush, Rice Lake, Bagley**.

Figure 8.4 – Route 3: Detroit Lakes/Mahnomen

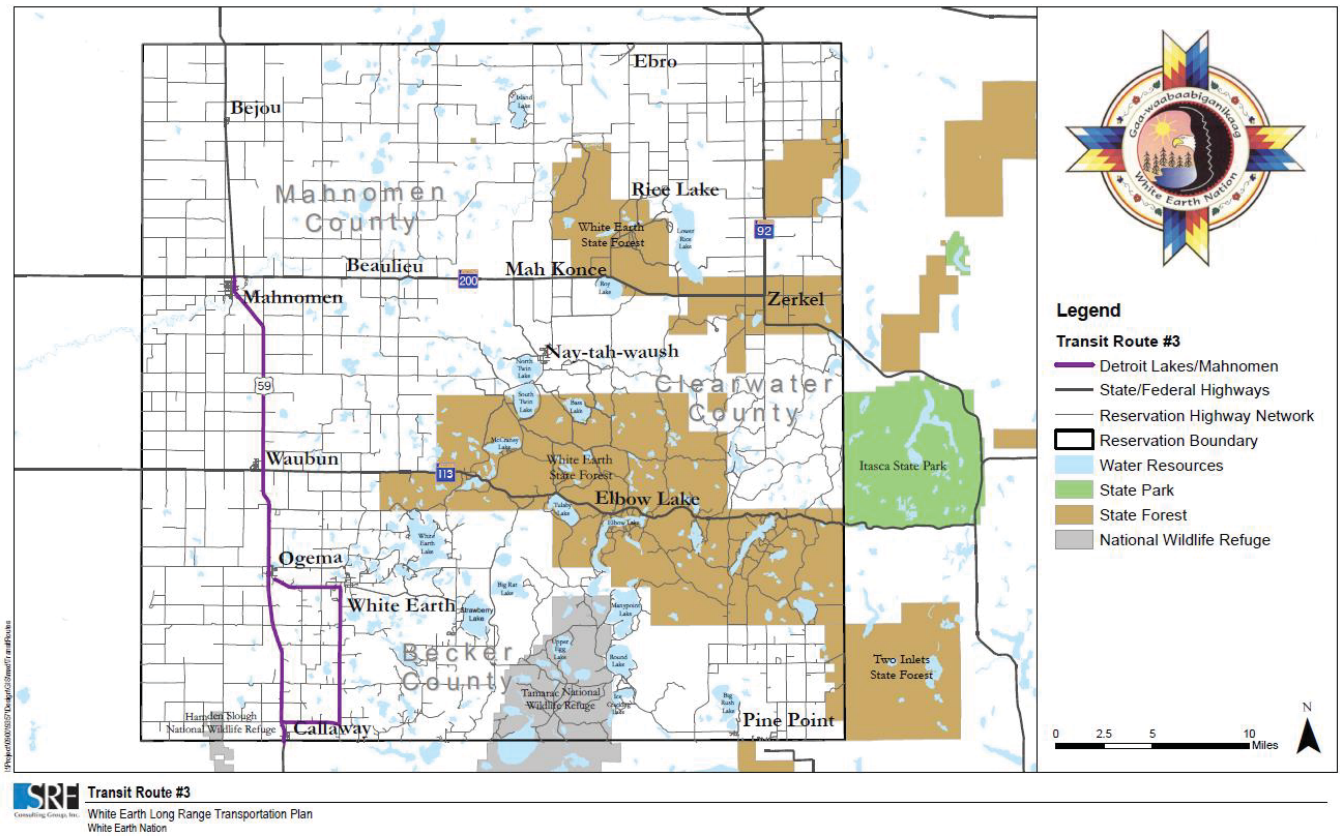


Table 8.4 – Route 3 Schedule

Route # 3 Detroit Lakes/Mahnomen	
Location	**Departure**
Detroit Lakes > White Earth	**AM**
Detroit Lakes Depot only	6:45
Callaway Stops	7:00
White Earth Stops / IHS	7:15-7:30
White Earth >Detroit Lakes>Casino	**AM**
White Earth Stops	8:45
MON,WEDS,FRI ONLY	
Detroit Lakes -Depot only	9:30
Shooting Star Casino	10:15
Mahnomen	**AM**
Mahnomen Stops / Transfer Rt 6,2	10:30->12:00
Mahnomen Stops / Transfer Rt 6	1:00->2:20
Shooting Star Casino	2:30
Mahnomen>Detroit Lakes	**PM**
Shooting Star Casino/WE/DL	3:00-3:30
Detroit Lakes -Depot only	4:00
Detroit Lakes > White Earth	**PM**
Detroit Lakes- Depot only	4:05
White Earth Stops/Transit Station End	4:30

Route 6 – Rice Lake, Naytahwaush, Mahnomen

In a similar manner to Route 5, Route 6 serves communities on the eastern portion of the White Earth Reservation, however its service is oriented to Mahnomen instead of White Earth. Route 6 makes a timed transfer to Route 5 in Naytahwaush, and timed transfers to Routes 1 and 2 in Mahnomen. Route 6 begins its service in Rice Lake at 6:05a.m. and ends service in Rice Lake at 6:00p.m.; after 6:00p.m. The route completes a full cycle in 1.5 hours, with some longer cycles at the beginning and end of the day as it starts and ends revenue service. Route 6 makes a run to White Earth where it concludes service at 7:00p.m. See **Figure 8.7 – Route 6: Rice Lake, Naytahwaush, Mahnomen** and **Table 8.7 – Route 6 Schedule.**

Route 7 – White Earth/Mahnomen

Route 7 operates on the corridor with the highest frequency of service in the White Earth Transit System, and connects the communities of White Earth, Ogema, Waubun, and Mahnomen. Service circulates through these communities and operates on a two-hour cycle. Route 7 service begins at 6:00a.m. in White Earth and ends at 6:45p.m. See **Figure 8.8 – Route 7: White Earth/Mahnomen** and **Table 8.8 – Route 7 Schedule.**

Routes 8, 9, and 10 – Saturday Service

On Saturdays three bus routes connect White Earth Reservation communities to Mahnomen and the Shooting Star Casino. Route 8 serves Rice Lake and Naytahwaush, Route 9 serves Pine Point and White Earth. Route 10 serves Detroit Lakes. Each route makes one morning trip and one afternoon trip. See **Figure 8.9 – Saturday Service Map** and **Table 8.9 – Saturday Service Schedule.**

Figure 8.5 – Route 4: Detroit Lakes Shopping

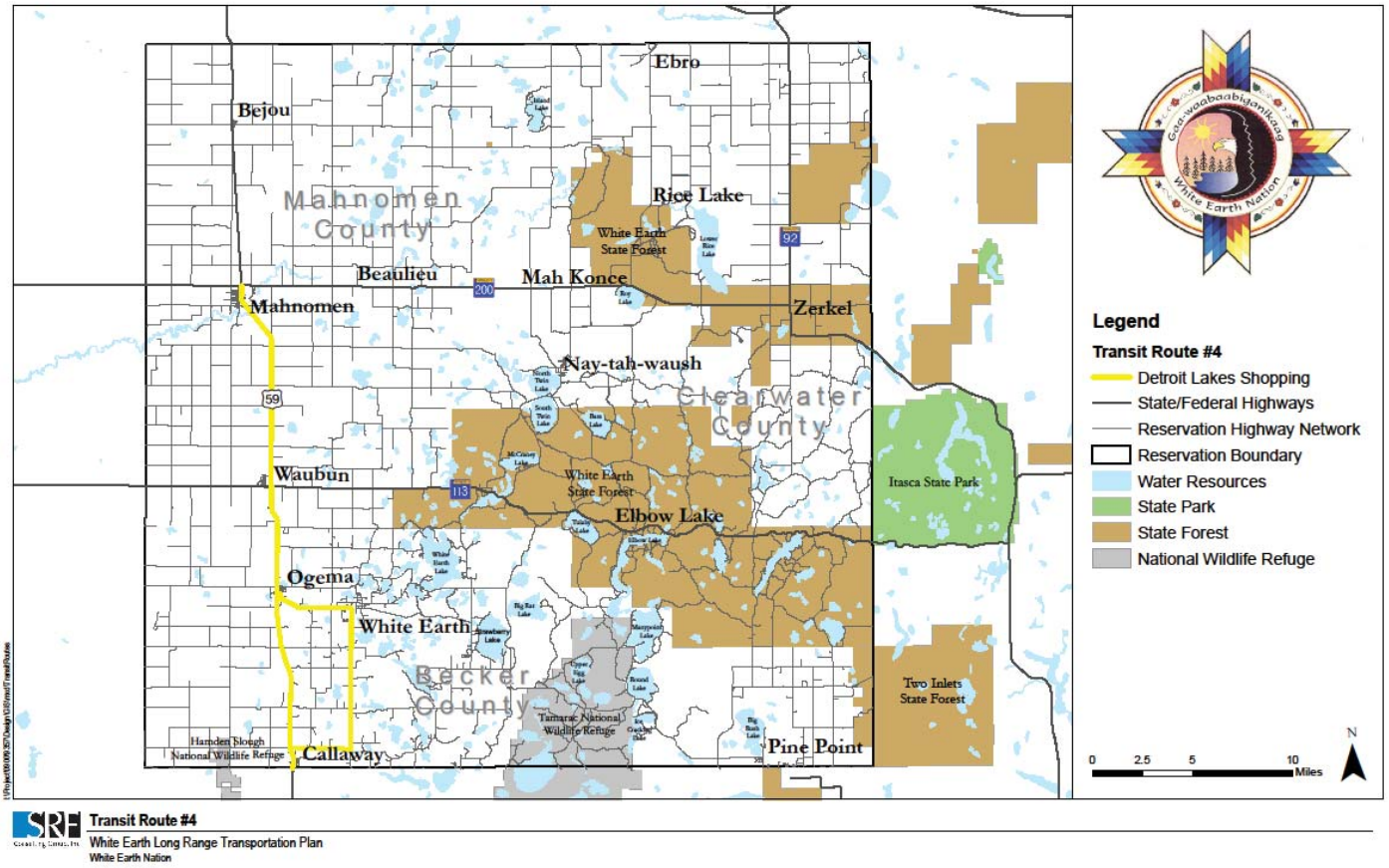


Table 8.5 – Route 4 Schedule

Route # 4 Detroit Lakes shopping	
Location Tues. Thurs. Only	Departure
MAHNOMEN	A M
Riverland Apt	8:00
Valley View commons	8:07
Mahnomen	8:15
Waubun	8:25
Ogema/Dreamcatchers	8:35
Biimiidiiziiwiin	8:50
Round House	9:00
Congregate	9:10
Leave WE	9:20
Walmart	9:50
B & G Thrift Store	10:00
Walmart	11:00
Load Bus	11:15
B & G Store	11:25
Return To WE	11:30
WE Drop Off	12:15
Mahnomen Drop Off	12:45
Return To WE End	1:00

Figure 8.6 – Route 5: Naytahwaush, Rice Lake, Bagley

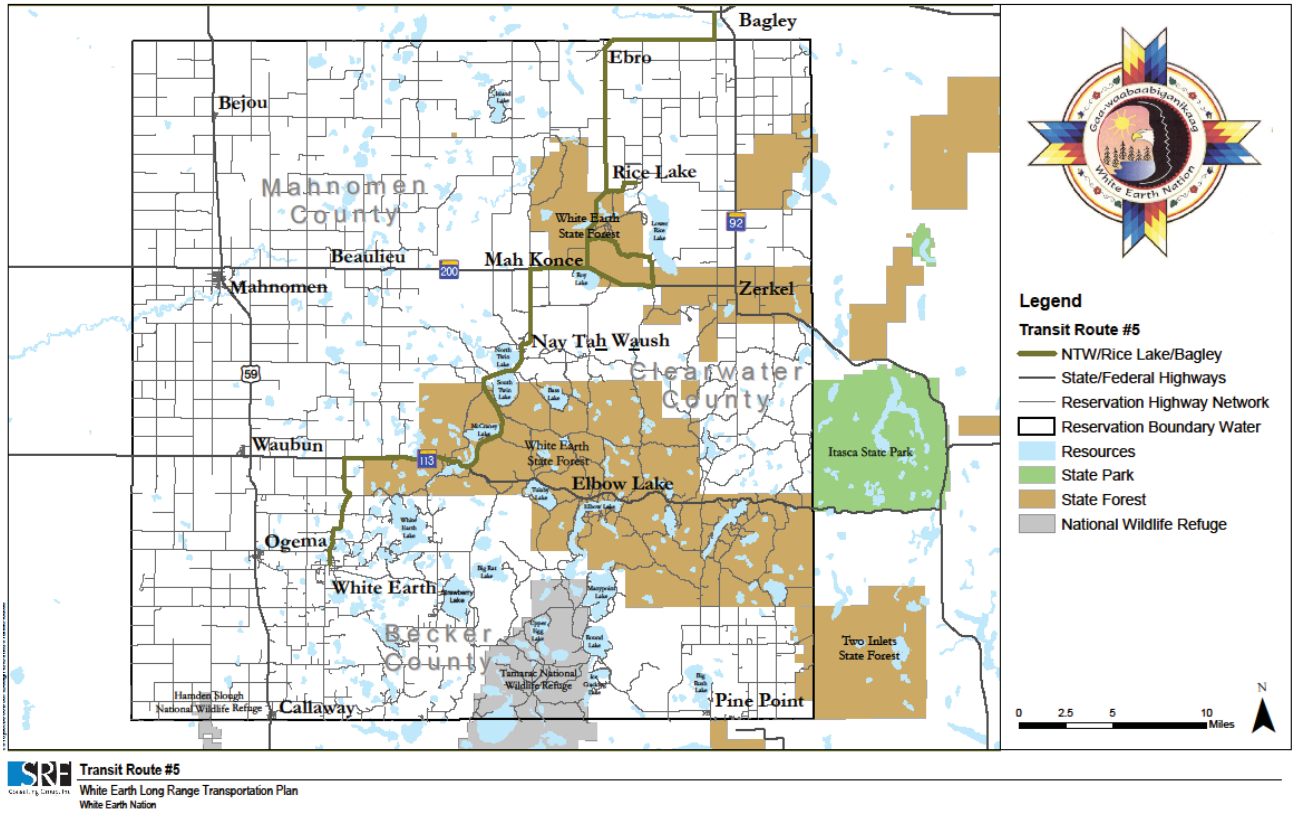
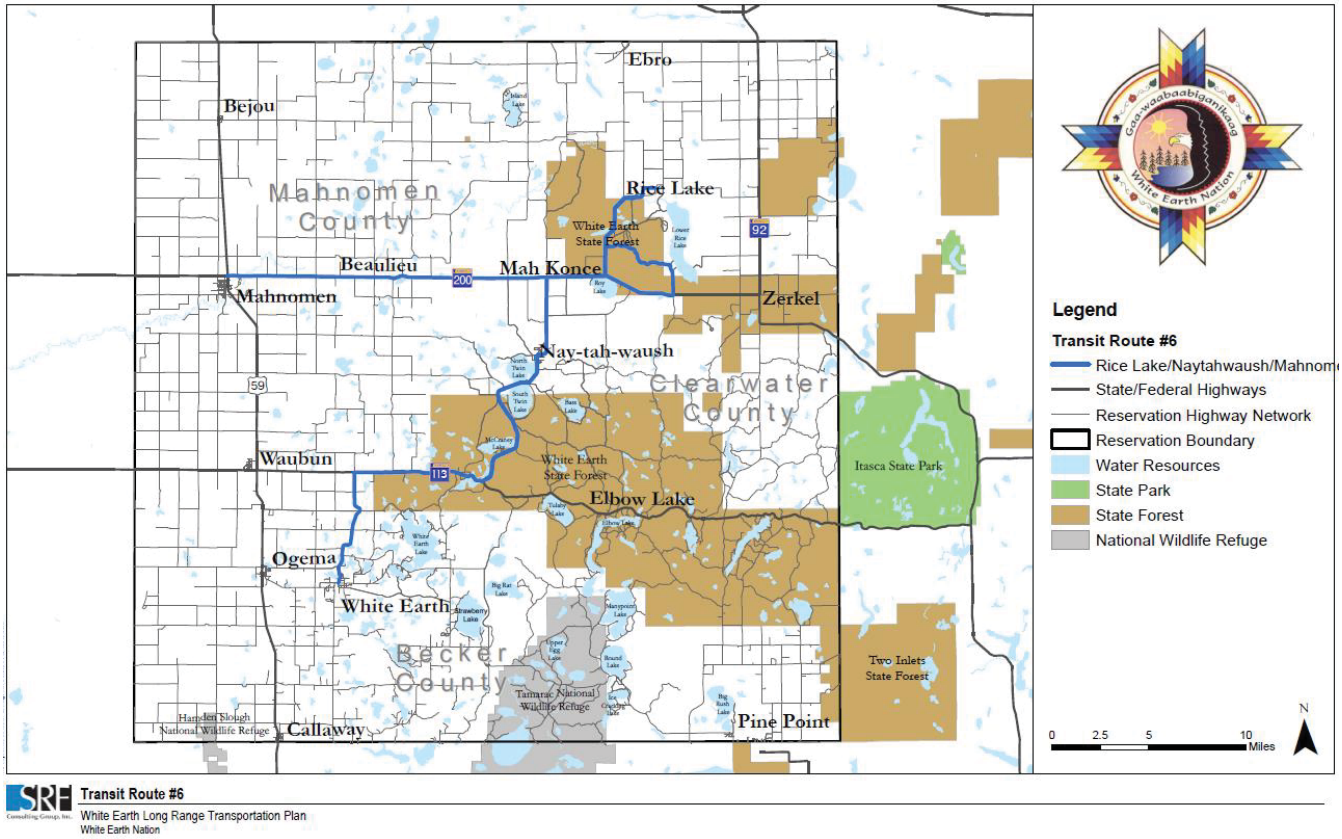


Table 8.6 – Route 5 Schedule*

Route # 5 NTW/ RL / Elbow Lake	AM/PM
White Earth Stops	6:50-7:15
Elbow Lake Community Center	8:00
Naytahwaush Complex / Transfer Rt 6	8:45
NTW / Ricelake / NTW/ Transfer Rt 6	8:45-10:15
NTW/Rice Lake / NTW/ Transfer Rt 6	11:30-12:45
NTW/Rice Lake / NTW/ Transfer Rt 6	12:45-2:45
NTW/Rice Lake / NTW/ Transfer Rt 6	2:45-4:15
NTW>Elbow Lake	4:15-4:45
Elbow Lake > WE	4:45-5:15
WE End	5:30

***Note**: The route has been changed due to ridership demand. Service has been added to Bagley and suspended to Elbow Lake.

Figure 8.7 – Route 6: Rice Lake, Naytahwaush, Mahnomen



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White Earth Long Range Transportation Plan
White Earth Nation

Table 8.7 – Route 6 Schedule

Route # 6 Rice Lake/ NTW/ Mah	
Location	Departure
Rice Lake > Naytahwaush	**AM**
Rice Lake Transit Station	6:05
Rice Lake Community	6:15
Naytahwaush Complex	7:10
Mahnomen> Naytahwaush	**AM**
Mahnomen SSC/ Transfer Rt 2	7:45-8:05
Naytahwaush Complex / Transfer Rt 5	8:45
Naytahwaush >Mahnomen	**AM**
Mahnomen SSC	9:15-9:30
Naytahwaush Complex /Transfer Rt 5	10:15
Mahnomen SSC	11:30
Mahnomen/ WE/ NTW	**AM**
Mahnomen/ Shooting Star Casino	11:30
Mahnomen> WE> PP>DL Transfer Rt 1, 2	11:40
Mahnomen> Naytahwaush	12:10

Naytahwaush >Mahnomen	PM
Naytahwaush Complex / Transfer Rt 5	12:40-1:00
Mahnomen/ Shooting Star Casino	1:40-2:00
Mahnomen> Naytawaush	**PM**
Mahnomen Shooting Star Casino	2:00
Naytahwaush Complex / Transfer Rt 5	2:45
Naytahwaush >Mahnomen	**PM**
Naytahwaush Complex / Transfer Rt 5	3:10
Mahnomen/ Shooting Star Casino	3:45-4:10
Mahnomen> Naytahwaush	**PM**
Mhn/ Shooting Star Casino Transfer 1,2	4:10
Naytahwaush Complex	4:50
Naytahwuash> Rice Lake> W.E.	**PM**
Naytahwaush Complex	5:00
Rice Lake Transit Station	5:40
Rice Lake Community Center	6:00
White Earth Transit Staion End	6:45-7:00

Figure 8.8 – Route 7: White Earth/Mahnomen

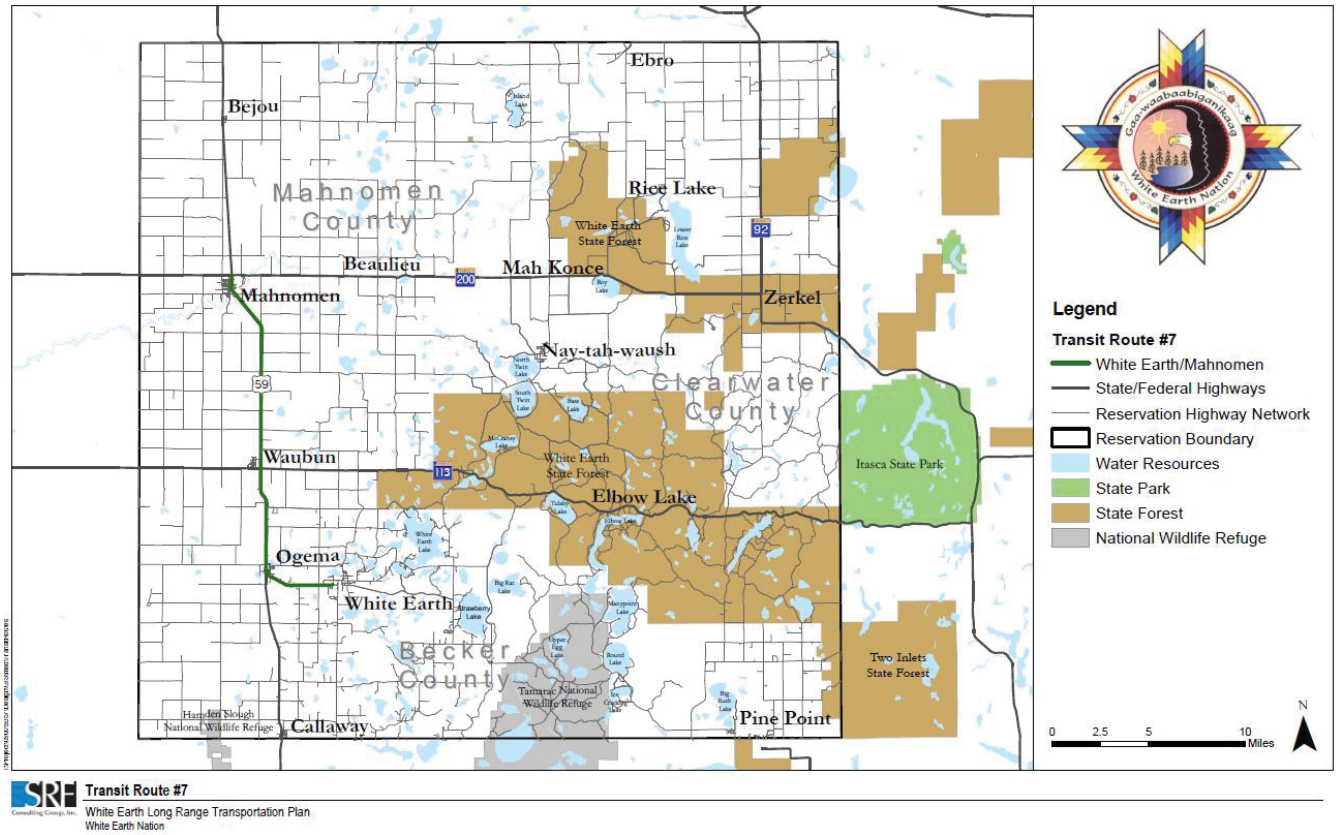


Table 8.8 – Route 7 Schedule

Route # 7 White Earth> Mah	AM
White Earth Stops	6:00
Mahnomen Stops	6:30-7:00
White Earth Stops/ Transfer Rt 3,2	7:45-8:30
Mahnomen Stops	9:00-10:00
White Earth Stops /Transfer RT 1 End	10:30
White Earth/Mahnomen	PM
White Earth Stops / Transfer Rt 3	4:00->4:30
Ogema /M&W Store / DCH	4:45
Ogema>Mahnomen	PM
Ogema/M&W Store/DCH	4:45
Waubun Stops	4:55
Mahnomen Stops/Casino	5:15-> 5:30
Mahnomen>White Earth	PM
Mahnomen Stops/Casino	5:30
Waubun Stops	5:45
Ogema /M&W Store / DCH/ Transfer Rt 1	5:55
Mahnomen/SSC	6:20
White Earth End	6:45

Figure 8.9 – Saturday Service Map

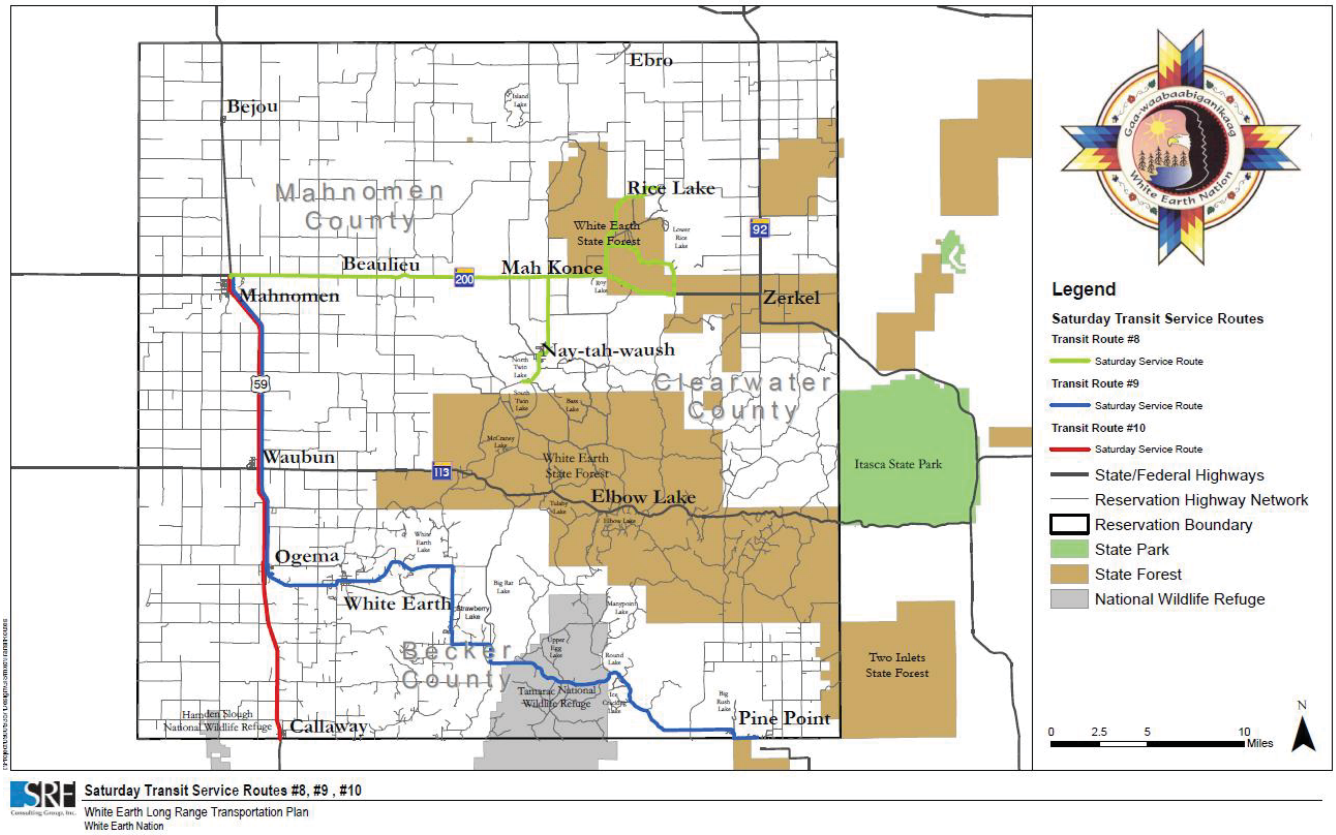


Table 8.9 – Saturday Service Schedule

Route 8 SATURDAY ROUTES ONLY	DEPARTURE
Rice Lake/Naytahwaush	6:00-7:15
Arrive At SSC	7:45
Depart SSC > NTW> RL> End	4:08
Route 9 SATURDAY ROUTES ONLY	**DEPARTURE**
Pine Point > WE	6:15-6:30
White Earth > SSC	7:45
Arrive At SSC	7:45
Depart SSC > WE > PP> End	4:08
Route 10 SATURDAY ROUTES ONLY	**DEPARTURE**
Detroit Lakes Depot	6:45
MHN/SSC	7:30
MH/SSC Depart for DL	8:00
Depart Detroit Lakes Depot	3:00
Arrive SSC	3:45
Depart SSC	4:08
Detroit Lakes Depot End	5:00

Ridership and Service Characteristics

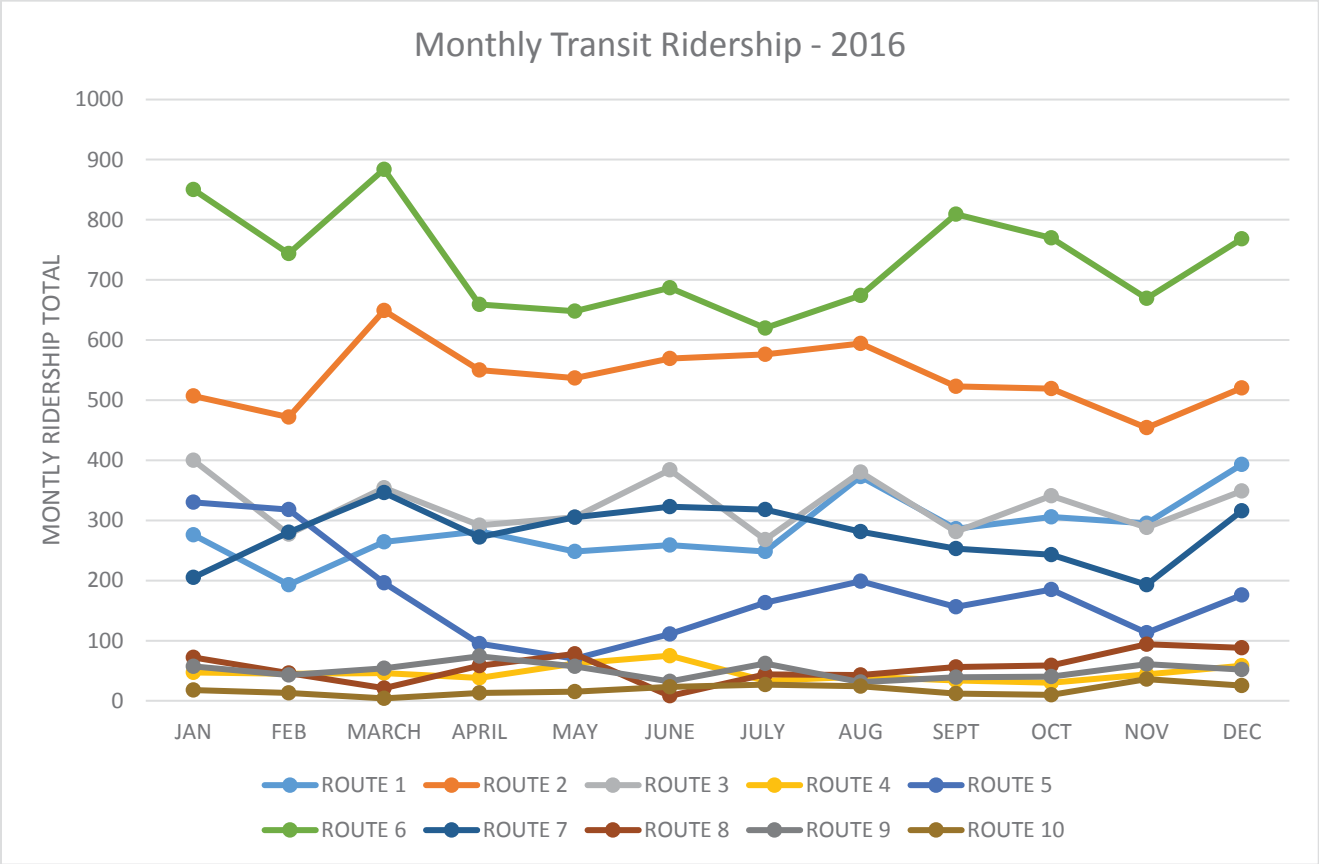
In 2016, White Earth Transit provided approximately 30,082 passenger trips. **Table 8.10 – Annual Ridership by Route** provides a breakdown.

Table 8.10 – Annual Ridership by Route

Route	Annual Ridership
Route 1	3,423
Route 2	6,470
Route 3	3,919
Route 4	552
Route 5	2,112
Route 6	8,782
Route 7	3,335
Route 8	667
Route 9	602
Route 10	220

The routes with the highest ridership are Route 2 and Route 6. The more specialized routes (Route 4 and Saturday Service) have comparatively low ridership due to their limited scope of service. Seasonal variations in ridership by route are shown in **Figure 8.10 – Monthly Ridership by Route.** Anecdotally, Route 2 and Route 6 link communities with more people who rely on transit to major community destinations in Mahnomen and White Earth. Spring and winter months tend to be the peak ridership months for White Earth Transit.

Figure 8.10 – Monthly Ridership by Route



Source: White Earth Transit

In addition to passenger trips, the effectiveness of a transit system can be measured by how much service is consumed in relationship to the service provided. Passengers per hour is a measure of how efficient the transit system in terms of service consumed in relation to the amount of service provided **(Table 8.11 – Service Consumption)**. This measure has declined somewhat from 2012-2014[1]. A typical rural deviated fixed route system will carry a minimum of 5-7 passengers per hour; rural demand response transit service will carry a minimum 3-5 passengers per hour. White Earth Transit covers greater distance and mileage than typical deviated route transit systems, so its characteristics may reflect that. Strategic recommendations will identify ways to improve ridership and meet transit system goals and objectives. Additionally, the

transit system has been continuously expanding so this measure should be monitored over a longer period.

Table 8.11 – Service Consumption

Service Consumption	2012	2013	2014
Annual Vehicle Revenue Hours	11,022	11,480	17,504
Total Unlinked Passenger Trips	54,388	53,003	58,552
Total Unlinked Passenger Trips per Vehicle Revenue Hour	4.93	4.62	3.34

Fleet

White Earth Transit currently operates its service using a fleet of twelve (12) medium-duty, cutaway chassis buses. It is a relatively young fleet with an average age of 3.6 years and average mileage of 132,000. This reflects the delivery of a recent order of six (6) 2015 model year buses. The smaller buses typically have capacities of 9-11 passengers while the larger vehicle have seating capacities of 26. All vehicles are equipped with Braun wheelchair lifts and securement systems. See **Table 8.12 – 2016 Fleet Inventory.**

Table 8.12 – 2016 Fleet Inventory

Vehicle #	Year	Make/Model	Average Mileage	ADA Lift Vehicles	Age
355	2010	Ford/E350	100,115	Yes	6
354	2010	Ford/E350	109,249	Yes	6
357	2010	Ford/E450	312,585	Yes	6
384	2012	Ford/E450	238,867	Yes	4
444	2015	Ford/E450	56,254	Yes	1
447	2015	Ford/E450	54,412	Yes	1
445	2015	Ford/E450	47,510	Yes	1
446	2015	Ford/E450	59,977	Yes	1
448	2015	Ford/E550	36,294	Yes	1
449	2015	Ford/E550	35,961	Yes	1
433	2005	Ford/E450	255,847	Yes	9
356	2010	Ford/E450	279,571	Yes	6
Total			132,220 (average)		3.6 (average)

Funding

White Earth Transit is primarily supported by two funding sources, both overseen by the Federal Transit Administration.

FTA Section 5311 (Formula Grants for Rural Areas) -- The Formula Grants for Rural Areas program provides capital, planning, and operating assistance to states to support public transportation in rural areas with populations of less than 50,000, where many residents often rely on public transit to reach their destinations. The program also provides funding for state and national training and technical assistance through the Rural Transportation Assistance Program. Funding for this program is distributed by an annual solicitation process overseen by MnDOT.

FTA Section 5311 (c) (Tribal Transit Program) – The Tribal Transit Program provides funding to federally recognized Indian tribes to provide public transportation services on and around Indian reservations or tribal land in rural areas. Funding is provided as a set-aside within of the Formula Grants to Rural Areas program and allocated both by statutory formula and through a competitive discretionary program. White Earth Transit has been a recipient of both competitive and formula funds in the past for operating assistance.

Both FTA programs have local match requirements which historically have been provided by the White Earth Tribe.

Other programs used to support White Earth Transit include:

- FTA Section 5310 – Enhanced Mobility of Seniors and People with Disabilities
  - Used in the past for vehicle replacement
- FTA Section 5316 – Job Access Reverse Commute
  - Now defunct program used for operating assistance.
- State of Minnesota Livable Communities Act Grant
  - Recently used for replacement/expansion vehicles

An inventory of federal programs outside of FTA rural public transit programs that can be used to support public transportation can be found in Appendix B.

CURRENT TRANSIT ISSUES

Through a combined effort of data collection, focused discussions, interviews, and public outreach the project team was able to assess the current condition of the transit system, and it provide revised goals and objectives for the project.

White Earth Transit Functional Areas

Facilities

Most of White Earth Transit's vehicles are stored and maintained at their administrative and maintenance facility in White Earth. This is also where transit system management and dispatch are located. Additionally, there are satellite garages in Rice Lake and Pine Point. The satellite garages are simple "shed" facilities and do not have water or sewer connections so vehicles stored there cannot be washed or undergo repairs and maintenance. Alignment and frame repairs are performed on a contract basis off-site at a location 150 mile away. The transit system has outgrown the current site both in terms of office space and vehicle storage. Additionally, the storage and maintenance areas are shared with other Tribal Transportation departments.

Shelters are also an issue for the transit system. Management has cited that shelters are not in acceptable locations in that many are difficult to reach on foot or by wheelchair, they are not lighted or heated, and they are vulnerable to vandalism. Shelters should be placed at more appropriate locations near key destinations and with sidewalk access.

Marketing

White Earth Transit promotes the service and conducts market outreach in a variety of ways. The transit system distributes brochures to key locations throughout the White Earth Reservation and in Detroit Lakes that include a guide on how to use the service, as well as schedules and maps. They also conduct several market research and outreach activities:

- Presence on social media to provide service updates to customers and regular interactions
- Maintain a transit system website with basic information and contacts
- Regularly conduct online and direct mail surveys to obtain customer input
- Partner with MnDOT to conduct on-board surveys as part of the Greater Minnesota Transit Investment Plan

Software and Equipment

There is a future need to upgrade software as the transit system grows. Currently, dispatching and scheduling is performed using an excel spreadsheet and radios. The transit system is equipped with automatic vehicle locators (AVL) to aide dispatchers but they are not used to the fullest potential to investigate customer service issues, route buses, streamline trip planning, etc.

Planning and Coordination

Service Coordination

Currently White Earth Transit does not have any interagency agreements with neighboring transit providers to coordinate services or offer regional trips. Management has had some preliminary talks with Becker County Transit and Wadena Friendly Rider (operated by the same organization) as they continue to develop their service in Detroit Lakes, as well as Tri-Valley Transit which currently provides service in Mahnomen.

Service Expansion

The most immediate need for expanded service is the establishment of a route that will serve a new casino in Bagley. Additionally, rural areas that are not on transit routes are a challenge to serve right now. Extending the service area of the current routes has a major impact on travel time.

Market for Service

The most common transit destinations are employment (particularly to Shooting Star Casino in Mahnomen, Detroit Lakes, and White Earth), medical services, and shopping. Leadership believes that the service is adequate for elders and provides a critical link to health care and social trips. However, travel times can be too long for some, and they would like to incorporate modern technologies that can help bring in new demographic groups to the service. Additionally, there may be some unmet demand for school transportation. There are currently segments of some routes that have low ridership.

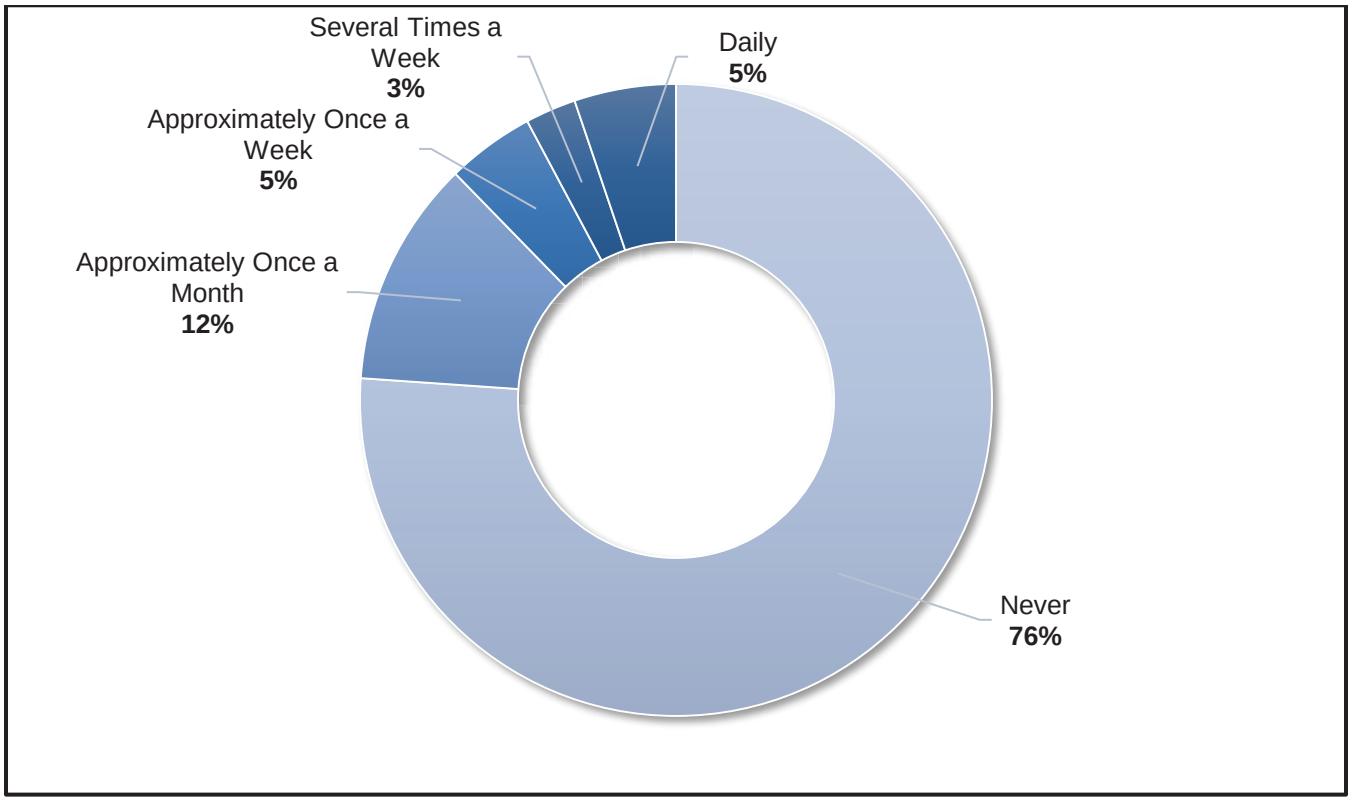
Stakeholder Input

A considerable part of the Long-Range Transportation Plan involved gathering input from various stakeholders. This included a multi-channeled effort featuring surveys, open houses, and various meetings/interviews. Each of these tasks had topics specific to transit service and the following is a summary of this input.

Surveys and Open Houses

People who attended open house meetings and participated in surveys were asked several questions about their relationship to and understanding of transit service. Participants were asked how often they use White Earth Transit service **(Figure 8-11 – How frequently do you use the White Earth Transit System?)**. Many respondents (76 percent) never used the service, while under 25 percent were current users of the system. Of those respondents that were transit users, most were people that used transit service at least once a week.

Figure 8.11 – How frequently do you use the White Earth Transit System?

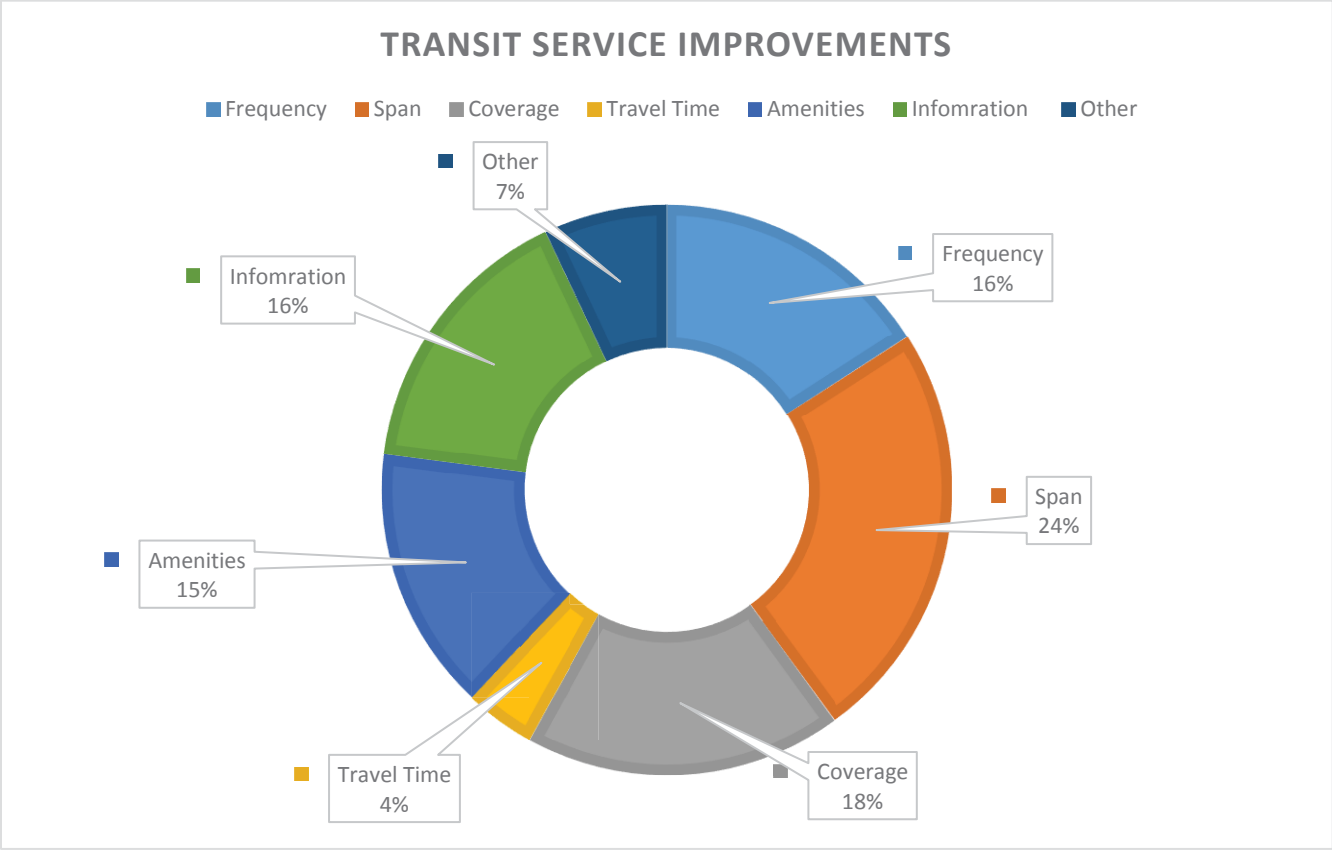


Survey participants were also asked to prioritize the separate ways in which they would like to see White Earth Transit improved. The improvements included:

- Frequency – shorten the wait times between buses (more buses on a given route)
- Span – have buses run earlier or later in the day
- Coverage – serve locations that are currently unserved or underserved
- Travel Time – shorter trips
- Amenities – miscellaneous items that make transit service more attractive, such as wireless internet and improved facilities
- Information – making schedules, maps, smartphone apps more accessible and user-friendly
- Other

The most common response in the surveys was increasing the span of service to run earlier or later **(Figure 8.12 – Given financial constraints, how would you prioritize transit service improvements?)**

Figure 8.12 – Given financial constraints, how would you prioritize transit service improvements?



A similar question was asked of open house attendees, asking participants to indicate which changes to the transit system would make them ride the bus if they did not

currently ride **or** which changes would make them ride the bus more often. Participants could select up to two answers. Categories included:

- Reduced wait times before bus arrivals
- Park-and-Ride locations where someone could park their car and use transit
- Year-round bus service on all routes
- Convenient transit shelters
- Improved transit facilities
- Lower fares
- Bicycle racks on buses
- Improved roadways that are better for transit vehicles

Most participants indicated the better service frequency (reduced wait times before bus arrivals) would attract greater ridership **(Figure 8.13 – What changes to transit service would make you ride the bus more often?)**. Park-and-ride locations were also a popular response. Survey participants were also asked what would make them use bus shelters more often. The most common responses were replacing older shelters with new ones and improving safety measures at shelters **(Figure 8.14 – What can be done to increase the use of transit shelters?)**.

Figure 8.13 – What changes to transit service would make you ride the bus more often?

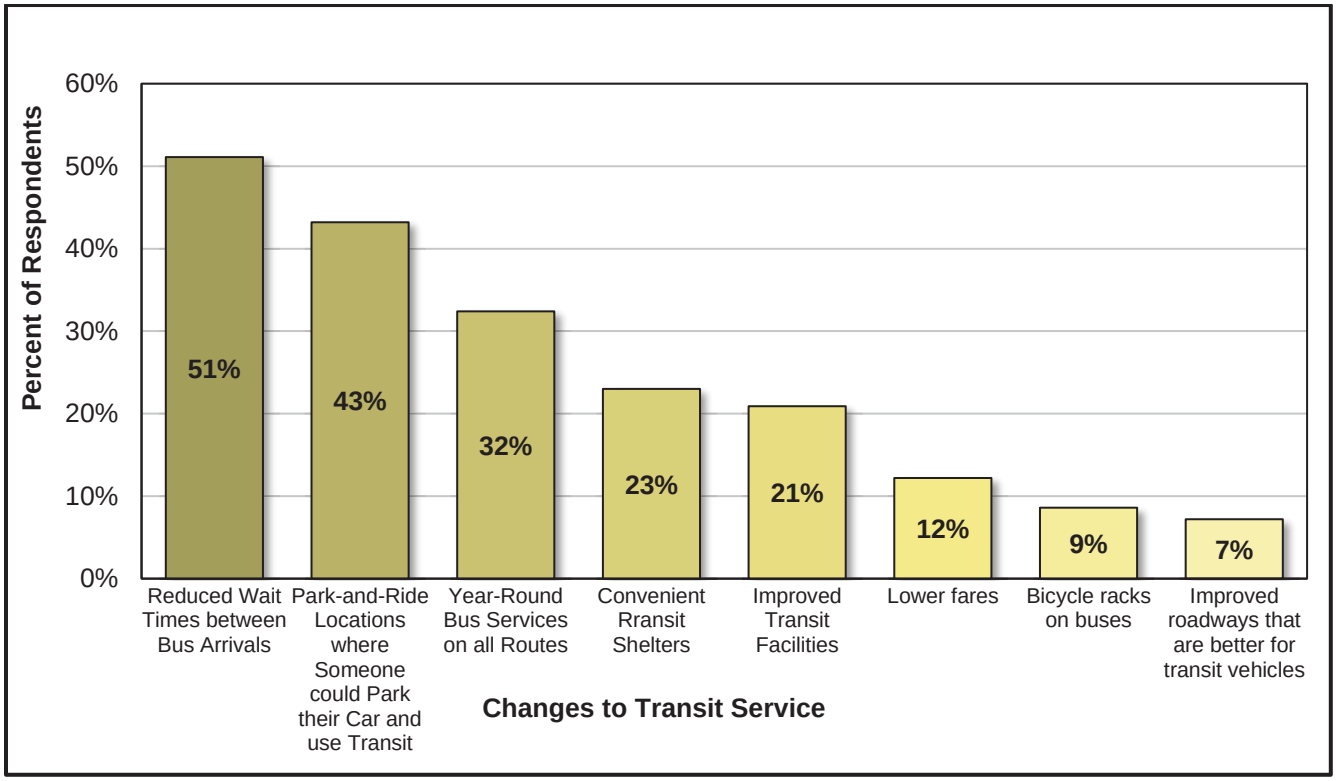
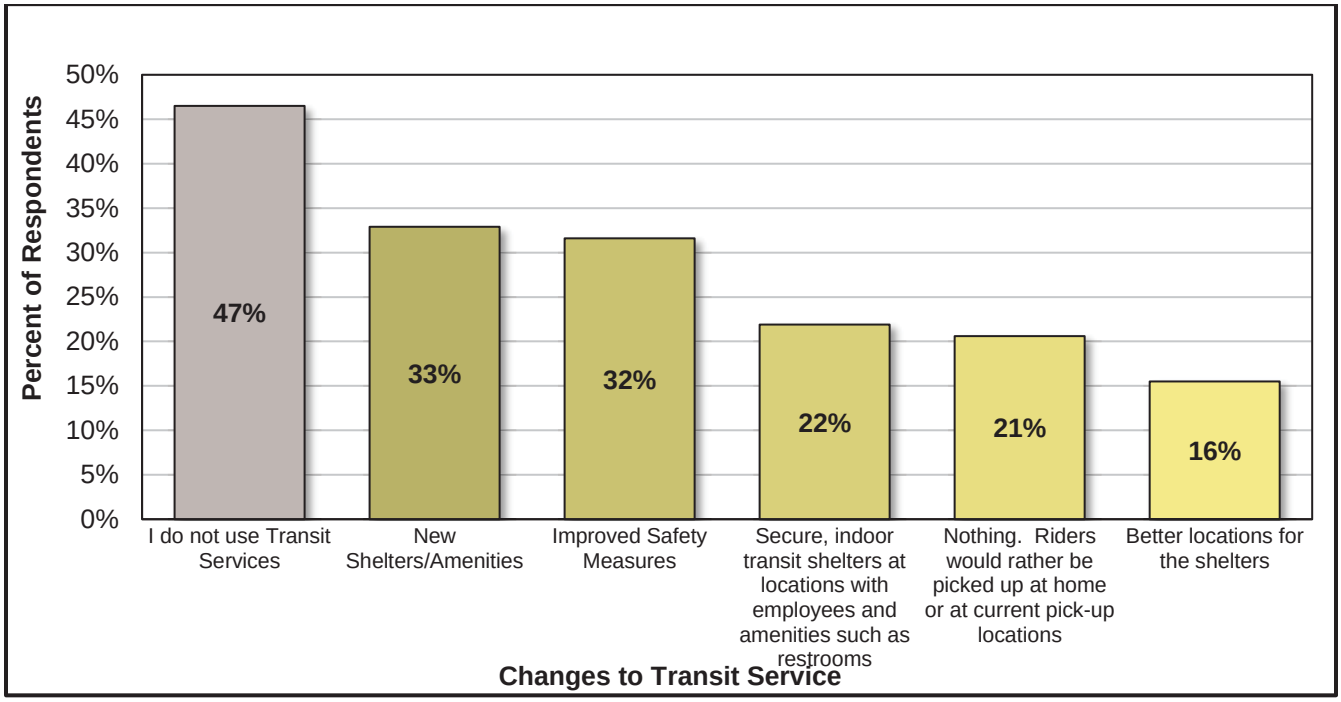


Figure 8.14 – What can be done to increase use of transit shelters?



Transit Director Input/Leadership Input

The project team also corresponded with Ken Bakken throughout the course of the project to understand and assess White Earth Transit's needs. Detailed meeting notes are in Appendix C, and the following is a summary of various meetings and calls.

While White Earth Transit is a relatively new transit system, only about ten years old, it already has numerous strengths and is a valued service with a developing base of transit users. Ken Bakken serves as Transit Manager and has been with the agency for about nine years, holding positions as a driver and dispatcher prior to his current role. The following are some key factors that will affect the long-range development of the transit systems.

- The ability to acquire vehicles through the MnDOT state contract has worked well for the agency, and they are looking to invest in cleaner and more affordable fuels such as propane to power the fleet.
- They are quickly growing out of their existing facility in White Earth and may consolidate operations at a new facility in Waubun. The Waubun facility would offer vehicle cold storage, offices, and a passenger transfer facility
- Bus shelters are a critical area of need. Many shelters are in areas where they are not needed and do not sufficiently protect against the weather. Many are not ADA compliant.
- Service expansion priorities:

  - Establish a new route to serve Bagley
  - Collaborate with Tri-Valley Transit to establish regional routes
  - Analyze low ridership on Elbow Lake Route: Are there ways to increase ridership? Should there be a dedicated dial-a-ride service to this area instead of a deviated route?
- Maintaining connections to jobs, including vocational site in Bagley

White Earth Transit benefits from having a capable, and motivated staff, and has rapidly adopted training in safety and planning, and modern technologies. There are also emerging markets in surrounding communities that White Earth Transit may be equipped to serve. As the service product continues to improve, the agency can take on more in the way of customer service and amenities. A future challenge may be an inability to meet future demand and experience a decline in ridership due to not being able adapt to new markets for service.

TRANSIT GOALS

Building on collected data, stakeholder input, and reviewing previous transit system goals, the following objectives will frame recommendations for the transit component of the Long-Range Transportation Plan.

Table 8.13 – Transit Goals

Goal:
• Link people residing in reservation communities and villages with services in larger communities both on and off the reservation.
• Operate a span of service that meets needs of people being transported to and from employment.
• Work toward serving work trip needs, primarily using rideshare and subscription-type services.
• Operate storage and maintenance facilities that can accommodate future system growth.
• Charge riders a fee that is reasonable for services provided.
• Make transit service more convenient for existing riders as a way of increasing ridership
• Establish easy-to-identify, safe, and convenient bus stops at key locations across the service area.
• Establish partnerships with other transit agencies that capitalize on the strengths of each provider and are consistent with other objectives.
• Broaden appeal of transit service to attract new riders

TRANSIT RECOMMENDATIONS

Long range plan recommendations are divided into the following categories:

- Service Planning Expansion
- Coordination
- Safety and Training
- Facilities and Equipment

Service Planning and Expansion Strategies

Many of the current issues that the project team has identified have to do with the large service area of the transit system. Long distances between communities and some roadway networks that are not direct make route cycle times and travel times quite lengthy. It is not uncommon for trip times to be over an hour on many routes. Frequencies area also typically 1.5 or 2 hours, which can limit the usefulness of the service and requires a great deal of advanced planning for the customer. This plan recommends a series of service options that can be implemented over time that will address some of these concerns, and track back to plan objectives. Additionally, these recommendations will address the need to expand the service area. For cost estimating, a fully allocated operating cost of $63.00[2] per service hour is assumed.

Investments in Frequency

High Ridership Segments

In the near term, the greatest return on frequency investments in terms of ridership are achieved on routes that already have the highest ridership. For White Earth Transit this would be Route 2 and Route 6. These routes have both high ridership and long travel times. Moreover, their route patterns are not duplicative. Adding a bus to each route would double the service frequency. The total annual operating cost for this project would be approximately $354,000 per year.

Eliminating Low Ridership Segments

Cycle times and travel time can be decreased by shortening route segments. Many routes take one to two hours to complete a trip. Additionally, routes may make several deviations from a corridor that can make travel times unpredictable. While White Earth Transit does not operate true fixed route service, the routes can be designed to connect to activity centers. A "rule of thumb" is that an area can support **hourly fixed route transit** service if it has a density of approximately four jobs or four households

[2] Based on 2013 National Transit Database reported data adjusted for inflation.

per acre. A deviated route service should link these areas along major corridors. If there is large area without densities that are transit supportive, demand response service may be more appropriate.

An example of a community that is anecdotally challenging to serve via transit is Elbow Lake. The roadways that connect Elbow Lake to other communities is somewhat circuitous, and it is not a major center of population density. Ridership has notably declined in this region of the White Earth Reservation. However, there are also critical needs to be met for people who rely on transit in this community. White Earth Transit can look at adjusting its schedule to meet the needs of those who currently use the service – understood through outreach and surveys – or converting the area to a demand response zone. This approach can be taken for other areas of low population density or declining ridership. The result is that the corridor/route-based service can be focused on areas where there will be the greatest ridership return and offer shorter travel times. Adding a dial-a-ride bus to complement the route service will require additional financial resources.

Investments in Service Span

While it varies by route, White Earth Transit operates a 10-12-hour span. While this meets most basic needs, some feedback was provided through the plan process that this does not serve all shift start and end times at places of employment. For example, it is typical that jobs at restaurants, retail, and other service sector workplaces have start times that are mid-morning and end times that go late into the evening. Operating some routes earlier or later or adjusting trip times can better serve these users. Adding two revenue hours to two routes on weekdays would have a fiscal impact of about $161,000 per year.

New Routes

For the near-to-medium term many of the service expansion needs can be accomplished by investments in frequency on existing service and coordination with other providers. However, as development continues within and near the White Earth Reservation, new routes may be necessary. Bagley has emerged as a key employment destination given the new Shooting Star Casino that recently opened in the community. Additionally, Bagley is a retail, medical care, and activity center located near the northwest portion of the White Earth Reservation.

Service would begin and end in White Earth at the 6:00a.m. start time and 6:00p.m. end time. During regular service the bus would travel between Mahnomen and Bagley, also serving the community of Rice Lake. A timed transfer to other routes would be made in Mahnomen. The cycle time of the Bagley route would be approximately two hours. Operating the service with one bus (two-hour frequency) would have an operating cost of approximately $193,000, and an hourly frequency with two buses

would have an operating cost of approximately $386,000. The capital cost would include one lift-equipped medium-duty bus and should have a budget of approximately $80,000 if purchased new.

Comprehensive Operations Analysis

As White Earth Transit is a relatively new transit system, it has never undergone a formal transit development plan or comprehensive operations analysis. Transit systems typically go through this every five-to-ten years with the assistance of a regional planning organization or a contractor. The scope of work for a comprehensive operations analysis should include:

- A performance review and peer analysis of existing services
- Analysis of ridership demand
- Public outreach (surveys, focused discussions, meetings) and input from current transit users
- Service planning scenarios and service improvements
- Feasibility of new transit modes (fixed-route bus, dial-a-ride)
- Needs assessment for vehicles and facilities
- Opportunities for coordination with other transportation service providers

The operations analysis will aid the transit system in performing market research to understand customer needs and develop a framework for sustainable growth of the transit system. Additionally, if there is a reduction in resources, a transit development plan can provide valuable information on how to gain efficiencies in the transit system and balance needs.

Coordination Strategies

Coordination can be used to address problematic transportation situations, such as duplication of effort and opportunities for improving transportation resource efficiency. It is a way of effectively leveraging existing services to achieve better outcomes for transit users. White Earth Transit operates throughout the White Earth Reservation (which is in three counties) and provides regional service to Detroit Lakes. Many of the surrounding communities have their own transit services and some also make trips into the White Earth Reservation. The abundance of transportation resources in the immediate area puts White Earth Transit in a fortunate position in that it can expand services and meet additional transportation needs through partnerships.

White Earth Transit operates a scheduled, deviated route service that specializes in long distance routes that operate at least five days per week, necessary given the expansive service area. Many of the transit service providers in the region are more community focused, providing pure demand response service within certain

communities or only making regional trips on certain dates and times. Therefore, the numerous services have enormous potential to complement each other.

Regional Coordination Councils/Coordination Planning

White Earth Transit has already begun to participate in the Regional Coordinating Council (RCC) effort. RCC's are regional committees made up of transportation providers and other key stakeholders that collaborate on eliminating barriers and gaps to transportation. RCC tasks include, but are not limited to:

- Provide a venue to lead activities that advance coordination in a given region
- Develop a governance and decision-making framework for transportation coordination
- House a mobility manager
- Provide technical assistance to develop agreements for service contracting, vehicle leases, procurements, etc.
- Establish reporting and performance standards
- Cooperate on marketing and branding of transit services
- Oversee volunteer driver programs
- Establish or promote travel training programs

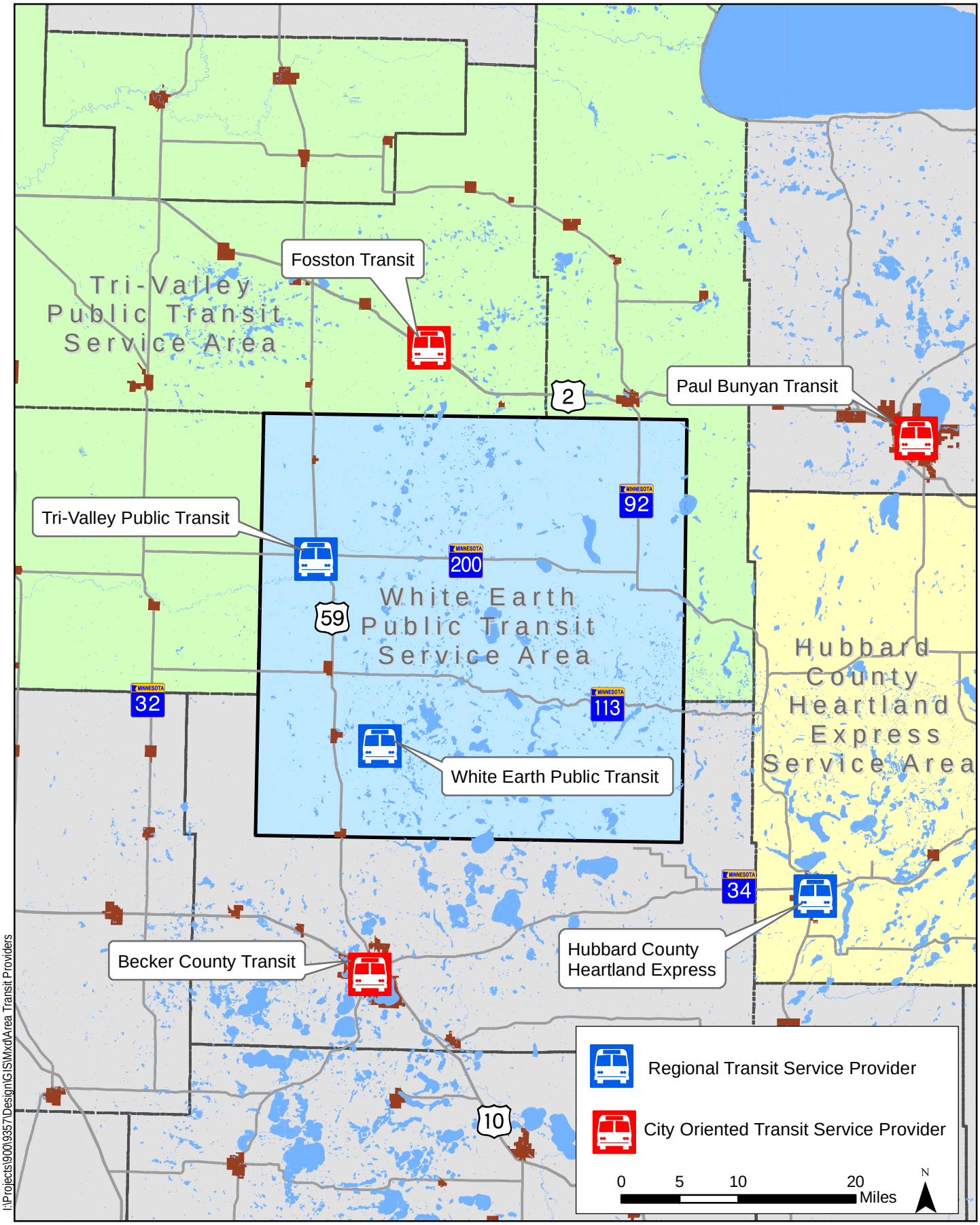
It is recommended that White Earth Transit continue to be an active participant in RCC efforts.

Transit Service

Many of the transit goals and objectives presented in this plan can be achieved through improved coordination of transit services among transit providers. See **Table 8.14 – Regional Transit Provider Inventory** and **Figure 8.15 – Regional Transit Map.**

Table 8.14 – Regional Transit Provider Inventory

Transit System	Service Area	Transit Mode and Description	Span	Coordination Opportunities
Tri-Valley Public Transit	Polk, Red Lake, Norman, Marshall, Kittson, Pennington, Mahnomen, and Clearwater Counties.	Tri-Valley Transit operates demand response service in Mahnomen County, and provides "rural route" service from the City of Mahnomen to other regional destinations every second Tuesday of the month.	Monday – Friday 7:30a.m. -4:30p.m.	Regional service originating in Mahnomen. Transfers to White Earth Transit routes.
Paul Bunyan Transit	Beltrami, Roseau, and Lake of the Woods Counties. Majority of service is within 10 miles of Bemidji.	Dial-a-ride service Route service to Waskish, Kelliher Blackduck, Tenstrike, and Turtle River every 1st and 3rd Thursday of the month	Monday-Friday 7:00a.m.-6:00p.m. Saturday 8:00a.m.-5:00p.m.	Connections to Bemidji Coordination of regional route service northeast of White Earth Reservation
Hubbard County Heartland Express	City of Park Rapids	Dial-a-ride service, trips to Bemidji area available on an on-demand basis	Monday-Wednesday 7:00a.m.-7:00p.m. Thursday-Friday 7:00a.m. – 4:15p.m. Saturday 8:30a.m. – 4:00p.m.	
Fosston City Bus	City of Fosston	Dial-a-ride service	Monday-Friday 8:00a.m. – 4:30p.m.	
Tri-Valley Public Transit	Polk, Red Lake, Norman, Marshall, Kittson, Pennington, Mahnomen, and Clearwater Counties.	Tri-Valley Transit operates demand response service in Mahnomen County, and provides "rural route" service from the City of Mahnomen to other regional destinations every second Tuesday of the month.	Monday – Friday 7:30a.m. -4:30p.m.	Regional service originating in Mahnomen. Transfers to White Earth Transit routes.
Fosston City Bus	City of Fosston	Dial-a-ride service	Monday-Friday 8:00a.m. – 4:30p.m.	
Becker County Transit	Becker County	Dial-a-ride service (majority of service is in Detroit Lakes)	Monday-Friday 8:00a.m.-4:00p.m.	Reduced duplication of service Transfer opportunities



I:\Projects\9000\9357\Design\GIS\Mxd\Area Transit Providers

SRF Consulting Group, Inc.

Area Transit Providers

White Earth Long Range Transporation Plan

White Earth, Minnesota

Figure 8.15

Example Coordination Strategies: Becker County Transit and Tri-Valley Transit

Two promising opportunities to expand and improve service through coordination with other transit providers exist with Becker County Transit and Tri-Valley Transit. Becker County transit operates much of its service as a dial-a-ride operation in Detroit Lakes with occasional trips to other locations in the outlying portions of the county. White Earth Transit makes several trips a day into Detroit Lakes. The more time that White Earth Transit spends on curb-to-curb service within Detroit Lakes, the greater the running time on the route. Detroit Lakes also has a transfer facility that is used by public transit and intercity transportation providers. Becker County Transit can assist some passengers by taking them as a transfer in Detroit Lakes and delivering them to their destination, while White Earth Transit can focus on the city-to-city trip. Currently, about 15 minutes of running time is allocated to Detroit Lakes stops for each trip on White Earth Transit. By transferring some passengers to Becker County Transit, White Earth can increase its capacity to provide door-to-door service in Detroit Lakes. Moreover, as Becker County's service develops into a deviated fixed route within Detroit Lakes (a tentative plan), those routes can have a timed transfer to the White Earth Transit routes.

Tri-Valley Transit currently operates service five days per week in Mahnomen and can transport people twice monthly to places outside of Mahnomen in its multi-county service area. Coordination and communication among providers can ensure that

Mobility Management

White Earth Transit already performs several activities that advertise its service and provide customer information. Vehicles have a clear identity and public perception of the service is overall positive. However, in rural and semi-rural areas where transit is not a common part of everyday life for most residents, transit agencies must make a robust effort to reach potential riders. Working with senior centers, care organizations, advocates for people with disabilities, and major employers is necessary to develop new bases of ridership. Additionally, one-on-one work with new riders to train them on using transit service. "Bus buddy" programs have been highly successful in other settings and provide a safe orientation to transit service where people have someone to assist them with scheduling, boarding, and understanding where the bus can take them. These types of activities are often funded with FTA Section 5310 program dollars (coordinated through MnDOT) and are reimbursable at 80 percent under mobility management programs.

Mobility management refers to a set of activities that are reimbursable at an 80 percent share by FTA programs and are focused on removing barriers to coordinated transportation and better serving people with disabilities and older adults. However,

mobility management activities also benefit general public transit riders as well. Here are some elements of a mobility manager's position:

- Trip planning assistance to customers
- Helping customers troubleshoot mobility challenges
- Orienting new and potential users to transit service (travel training)
- Serving as the liaison between White Earth Transit and human service agencies
- Serving as the point of contact between White Earth Transit and other transportation providers
- Promoting White Earth Transit services

A mobility manager, or similar staff position, can take over some of the marketing and customers service tasks that are currently held by the Transit Director and dispatchers and focus specifically on meeting transportation needs on the White Earth Reservation and advancing coordination initiatives. There are other locations in Minnesota that have mobility management programs in place and may also be able to provide resources for White Earth Transit. In Northern Wisconsin, Bay Area Rural Transit, Bad River Transit, and Namekagon Transit all have full time Mobility Managers in Tribal transit setting. Example advertisements are shown in **Figure 8.16 – Mobility Management Advertisements from Rural Transit Websites.**

It is estimated that adding a full-time mobility management position will add approximately $30,000 - $60,000 to the transit system's operating budget. The Transit Program is currently seeking funding opportunities to practice this service. Transit would like to create a Marketing/Mobility Manger.

Figure 8.16 – Mobility Management Advertisements from Rural Transit Websites

Cooperative Purchasing and Training

In addition to service coordination, White Earth Transit can also collaborate with other transit systems on procurements and training. White Earth Transit has already successfully purchased vehicles using the State of Minnesota contract, but maintenance equipment, service contracts, and software can also be purchased cooperatively to minimize duplication of effort in developing bid documents. Moreover, software compatibility with nearby transit providers can make coordinating dispatching and ride referrals easier as transit systems continue to develop. Bulk purchasing can also yield more favorable pricing. Transit systems can also host various trainings together, and White Earth Transit has numerous conference and meeting facilities that can accommodate this.

Safety and Training Strategies

Vehicle Safety

Commercial Motor Carrier regulations require drivers to conduct inspections of the vehicle prior to embarking on transit service routes. A thorough inspection before and after trips increases the overall safety of the driver and passengers. Items to inspect include:

- Horn
- Windshield wipers
- Mirrors
- Lights
- Brakes
- Turn Signals

Securing vehicles and equipment prohibit criminals from tampering with safety-related equipment preventing malfunctions. Currently the White Earth Transit Department vehicle fleet has multiple facilities that house transit vehicles. The White Earth Transit Department intends to build a new ground transportation center that would house day to day operations as well as secure all the transit fleet.

Pre-Inspection

There are four components of a pre-trip inspection:

Approach – check for body damage and signs of tampering, check the exhaust for attached objects, look for oil and other fluid leaks (under engine and rear differential) and check to see if the vehicle is leaning to one side (shocks and tire pressure)

Under the hood – Check all fluid levels (oil, washer fluid, antifreeze, brake, transmission, power steering), check battery (corrosion), belts (snugness and cracks) and hoses (cracks).

Walk around – Start the vehicle's engine, turn on and check all inside and outside lights along with four-way flashers, check to see if heater or air conditioning works

(depending on weather) and check horn and windshield washer and wipers. The vehicle operator should also check the condition of the windshield, license plate folder, mirrors and mounts, headlights and taillights.

The vehicle operator should perform an inspection on the tires and rims on the vehicle. Tread depth should even from sidewall to sidewall and not be below the wear-bars (raised bar that runs perpendicular to the tread). Identifying worn tires and is very important in maintaining a safe environment. A tire tread depth gauge should be made available to check tires for minimum depth.

Tread depth should be at a minimum:

- 4/32 inch on steering axle
- 2/32 inch on all other axles

The operator should look for nails or other objects that have penetrated the tire. A sudden leak may lead to a flat tire during the transit route. Valve stems should be inspected and be in good condition with no cracks or leaks. Wheel rims should be void of cracks or dents and be free of gear oil or brake fluid. Rust around the wheel lug nuts may indicate loose nuts. The operator should notify maintenance personnel immediately.

On-board – Passenger seating area should be checked to ensure seat mounts are secured to floor, seatbelts should be inspected for missing/worn parts, light bulbs should work, fire extinguisher must be on board and functional, seat belt cutter should be within reach of the operators seated position, first aid kits should be on board and fully stocked, ensure emergency equipment is on board, check that all gauges are property functioning. The operator should inspection headlights, brake lights, turn signals and 4-way flashers

Inspections of the vehicle hydraulic brake system, air brake system, stairwell, lift and lift door and wheelchair securement should also be a part of the on-board operator inspection.

In-Route Inspection

While a transit operator is driving, visual attention should be given to gauges, lights, tires and rims of the vehicle which provide the operator the ability to identify signs of trouble. Listening for trouble can also help the operator identify knocks, clicking, tapping, squeal, backfiring, sputtering, popping and hissing which could all be notifications of vehicle malfunctioning. The transit vehicle operator should also be mindful of odors that could point to maintenance issues such as: burning rubber, oil and rags, brakes, hot electrical wires, exhaust fumes and gasoline.

Post-Trip Inspection

This inspection can be nearly identical to the pre-trip inspection. The post-trip inspection will provide the opportunity to note any non-critical defects observed during the route. Noting mechanical failures allows maintenance to occur in a timely manner and alerts the next driver of the apparent issue.

Driver Safety

Defensive driving plays a key role in creating safe atmosphere for transit operators. As important as defensive driving is, it is only a small portion of overall driver safety precautions. Driving safety for a transit driver encompasses all aspects of the work day, from pre-trip inspection until the last detailed report is completed.

Driver tools include:

- Eyes
- Ears
- Nose
- Hands
- Feet
- Brain

Adverse Conditions

Reduced Visibility - Dust, smoke, fog, rain or snow can reduce visibility for the vehicle operator. When reduce visibility conditions occur the operator should turn on headlights, reduce speed, increase following distance to two or three times the normal distance, avoid pulling off onto side of roadway.

Bad Weather - An increase in recognition and stopping distance occurs while driving in adverse weather conditions. Reduction of speed, the use of headlights, an increase of following distance to two or three times the normal distance, windshield wiper and defrost of windows and mirrors are all safety measures the vehicle operator can use to increase safety while experiencing dangerous weather conditions.

Winter Driving - Inspection of tire tread is very important during winter driving conditions. Worn or uneven tread is a safety issue and should be addressed and documented immediately. The vehicles heating system and on-board emergency equipment should also be inspected as part of the pre-trip inspection. An increase in following distance, reduction of speed into curves, gradual slowing of vehicle at determined stops, and knowledge of overpasses, underpasses shady areas where ice tends to form create safe driving conditions during winter driving conditions.

Summer Driving - Tire condition, vehicle cooling/ventilation system and on-board emergency equipment should be part of the pre-trip inspection. The operator should monitor vehicle gauges always.

Night Driving - Poor lighting, glare and other factors create greater risk when night driving occurs. Some areas may have streetlights, but most rural roads will have to depend on headlights from the vehicle. Less light means a reduction in the ability to see hazards as clearly or as soon. The vehicle operator should make sure headlights are clean during the pre-trip inspection.

Facilities and Equipment

Administrative and Maintenance Facility

At the time of this plan's development a new administrative and maintenance facility is being developed in Waubun. As mentioned earlier, most vehicles are stored in White Earth. There has been a concern about this increasing "deadhead" mileage – times when a vehicle is not in revenue service. Relocating terminal locations will have an impact on Routes 2, 5, and 7 by adding approximately 20 deadhead miles per day. Other routes may see a reduction in deadhead miles as Waubun has easier access to the Highway 59 corridor and population centers in Mahnomen. This increase to operating costs can be offset by adjusting schedules to keep vehicles in revenue service as much as possible, and the impact will be nominal. It is also recommended that the satellite storage facilities be kept in operation to minimize this deadhead mileage and vehicles should be rotated in and out of these facilities so that they can be maintained, cleaned, etc. on a regular basis. Any new facility should be built with the ability to have enough vehicles to support a transit system that provides hourly service on all routes – a long-term goal. This would require at least an additional six buses and support vehicles.

Shelters

Current bus shelters for White Earth Transit are inadequate in that they lack amenities, are perceived to be unsafe, and are difficult to reach from key destinations while walking or using an assistive device. The following are guidelines for improving bus shelters.

Placement

In rural areas bus shelters should be placed at key transfer points and areas of high transit boarding and alighting activity. Ideal locations include:

- Places where people make timed transfers from one route to another
- Places where there are more than 30 boarding's per day or more than 20 boarding's if near senior housing
- Places where people who use wheelchairs or other assistive devices board buses greater than 15 times per day
- Shared facilities that develop and maintain their own passenger waiting areas.

Shelters should also have access to a paved sidewalk and paved pad for boarding the bus that is ADA compliant. There should be a minimum of five feet of clearance for pedestrians to pass that is free of obstacles. Shelters should be large enough so that wheelchairs can turn inside of them and make an easy entrance and exit so that they can be loaded properly onto a bus.

Features

Bus shelters should be equipped with the following features:

- Lighting – Shelters should be placed in well-lit areas with overhead lighting oriented toward the bus stop and/or have their own lighting on the interior of the bus stop.
- Security – Shelters should be placed in an area with as high pedestrian traffic that is in view of building entrances and commercial centers. If possible, have the bus shelter in sight of a security camera and note the presence of the cameras in the signage.
- Branding – Shelters should clearly be marked as bus stops for White Earth Transit.
- Waste Receptacles – High ridership, transfer locations, and places where the potential for accumulating trash is apparent influence the decision to place trash cans. Placement must not infringe upon the ADA pad or pedestrian pathway. Trash cans must be emptied regularly.
- Materials – While breakable, simple bus shelters should use safety glass as weather protection rather than plastic as this material tends to be easier to clean

and cheaper to replace. Transparent building materials are better for customers as they can see their surroundings and when a bus is arriving.

- Heating – Larger shelters that are connected to a power source should have radiant heat.

MNTH 200/Transit Update

The White Earth Department of Public Works is researching information regarding constructing a new public transit ground transportation center near the City of Mahnomen to serve as a master control center for all transit routes and vehicles. The location of the facility has yet to be determined, but with MNTH 200 as the primary east/west route for many tribal and non-tribal residents using the tribal transit system, an improvement to MNTH 200 is crucial for the continued service that the White Earth Transit Department provides.

The need for the proposed transit ground transportation center is consistent with the Facilities and Equipment portion of Chapter 8: Transit Plan of this long-range transportation plan chapter. Currently the existing transit facility experiences overcrowding of fleet vehicles as well as a shortage or office space for transit personnel.

The construction of a new regional transit service ground transportation center will enable the White Earth Transit Department to expand hourly bus service for all routes seven days a week which would increase services along MNTH 200.

The White Earth Nation is currently researching the possibility of pursuing a Foreign Trade Zone (FTZ) status within reservation boundaries. A FTZ can offer a tremendous competitive advantage regarding imported components for distribution or manufactured finished products that are exported. Safe and reliable transportation corridors (State and Federal roadways and railroad) are key to establishing a FTZ. MNTH Highway 200 provides an arterial east/west route through the northern half of Minnesota. Currently, the portion of MNTH Highway 200 that runs from the City of Mahnomen to Zerkel has higher crash rates than similar roads, lacks adequate shoulder widths, requires ditch in slope and clear zone improvements and improved intersection lighting at multiple locations along the project corridor.

A MNTH 200 corridor improvement project is necessary to improve the overall operation of the White Earth Transit Department services. A Road Safety Audit was completed by SRF Consulting Group identifying safety issues within the Reservation.

9 Community Trail and Sidewalk Plans

Table 9.1 – Multi-Modal Goals and Objectives

GOAL 1: Local Connectivity *Establish a network of connected trails and sidewalks within each community.*
• Incorporate new/updated sidewalks in housing developments.
• Prioritize pedestrian and bicycle facilities when designing new roadway extensions.
• Provide safe walking routes for local schoolchildren.
• Allocate equitable financial resources and planning efforts to all tribal communities for upgrades to bikeways, paths, and lighting facilities.
• Evaluate and apply suitable traffic calming techniques in tribal villages.
• Leverage grant opportunities to finance trail and sidewalk improvements.
GOAL 2: Regional Connectivity *Support planning endeavors to expand and integrate regional trails into Tribal growth opportunities.*
• Establish connections to regional trails and recreation areas.
• Coordinate with agencies such as the Minnesota DNR to identify opportunities for hiking and recreational trails and to collaborate on funding for such facilities.

INTRODUCTION

This chapter presents community trail and sidewalk plans for the villages of Naytahwaush, Pine Point, Rice Lake, and White Earth. Planned projects in the City of Mahnomen are also included. The chapter provides a brief description of design standards and unit cost estimates for trail, sidewalk, and lighting facilities.

White Earth residents frequently travel by foot and bicycle. While car or bus is the only practical way to traverse long distances *between* communities, short trips that originate and end *within* communities are often taken on foot or bicycle. Currently there are few community facilities to support bicyclists and pedestrians. Most trips are taken on the roadside or via earthen trails. Given high rates of walking and bicycling, and limited funding for new roads, White Earth has prioritized trail system improvements to achieve a high return on investment.

The White Earth Reservation Long-Range Transportation Plan takes a community-based approach to address the specific bicycle and pedestrian needs of each

community. At public kiosk events conducted in December 2016, Tribal residents identified existing trails, connectivity issues, and safety concerns in their communities. Then, four community councils provided additional input to help refine their bicycle and pedestrian plans. Throughout this process, the public consistently described unsafe conditions for bicyclists and pedestrians.

Each community council identified existing walking and bicycling routes in their communities. The majority of pedestrian and bicycle traffic follows dirt trails and highways shoulders. To maximize the potential for improvement, all existing and proposed trails and paths have been recorded as 10' bituminous trails in White Earth Public Works' roadway inventory. This ensures that every route is eligible for improvement using BIA funds. However, it does suggest that every route *should* be paved, or that proposed alignments are finalized. Rather, the Tribe should use discretion when building out its trail networks. There are natural redundancies in the communities' informal trail systems, but the Tribe should avoid investing in paved trails that duplicate pedestrian/bicycle routes. On the other hand, some trail connections are depicted may ultimately be suited for road construction, to maintain compatibility with the Tribe's land use plans and maintain open avenues for future growth opportunities.

NAYTAHWUASH VILLAGE TRAIL SYSTEM PLAN

Naytahwaush is situated along Mahnomen CSAH 4. This road provides regional access to the community and generates through traffic to Pinehurst Resort. There are several housing developments with access to the highway, and additional housing along North Twin Lake Road. Linking the developments via a series of multi-use trails would trail would decrease the amount of pedestrian and bicycle traffic on the roadway and improve connections between major destinations within the community. The Community Council's top priority is a separated, lighted trail west of CSAH 4, along North Twin Lake. Existing paths through forested areas could also be enhanced. However, the community should consider how future developments will be integrated into the trail network, as it is expected to grow more than other communities. Sidewalks are desired in residential areas and should be provided in new developments as well.

Figure 9.1 – Naytahwaush Village Trail System Plan provides a map of the trail and sidewalk improvements that were discussed for the community of Naytahwaush. Cost estimates for these facilities are given in **Table 9.2 – Itemized Cost Estimates for Naytahwaush.** The item identification letters on the table correspond to the map. Note: These cost estimates exclude the cost of signage and traffic calming.

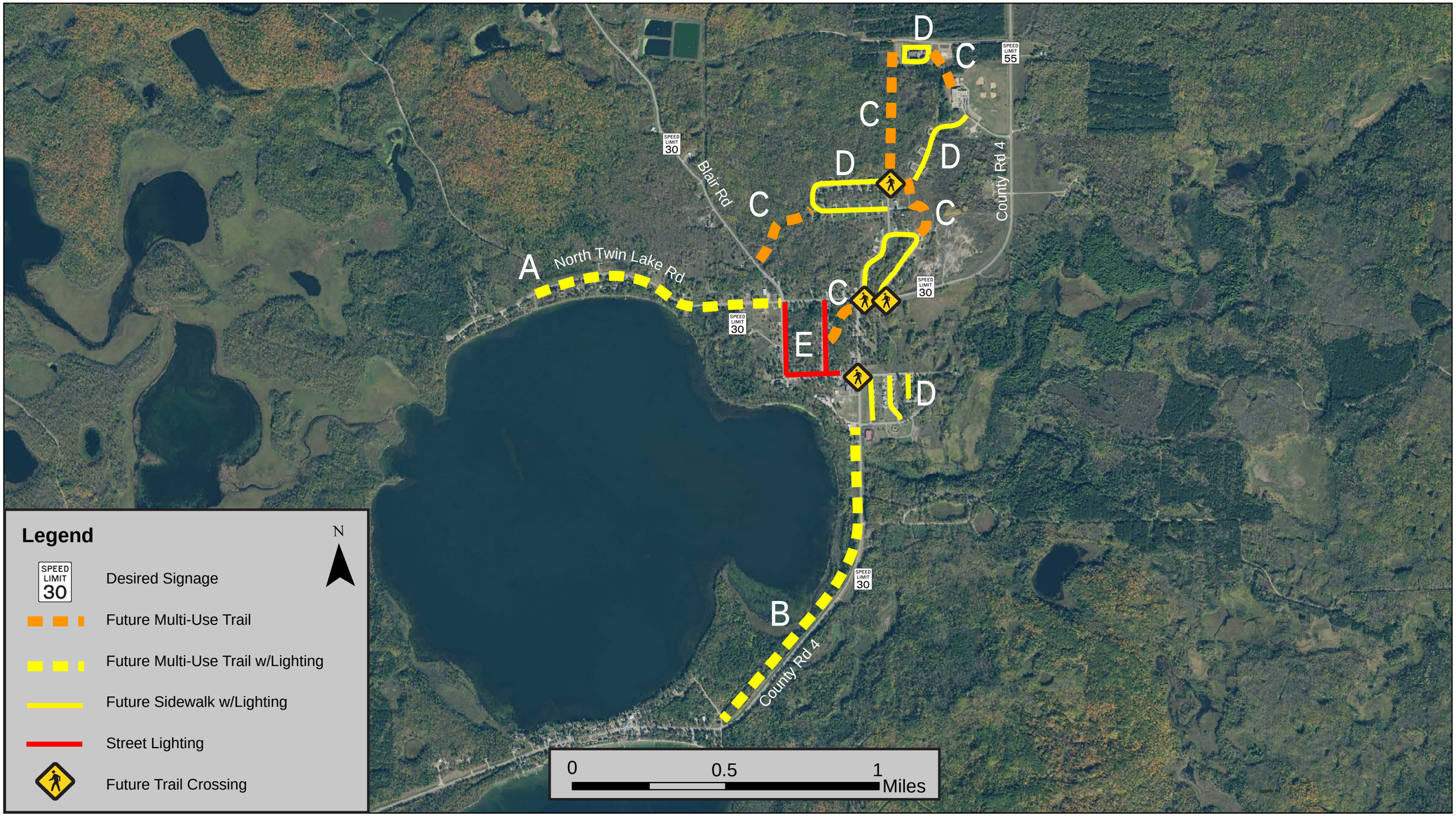
Table 9.2 – Itemized cost estimates for Naytahwaush

ITEM ID	DESCRIPTION	MILES	UNIT COST		TOTAL
			TRAIL/SIDEWALK	LIGHTING	
A	10' multi-use trail with lighting south of North Twin Lake Rd	1.0	$226,709	$106,000	$332,709
B	10' multi-use trail with lighting west of County Rd	1.25	$226,709	$106,000	$415,886
C	Miscellaneous multi-use Trail projects (10')	1.35	$226,709	$0	$306,057
D	Miscellaneous sidewalk installation (6')	1.4	$130,522	$106,000	$331,131
E	Street Lighting	0.65	$0	$106,000	$68,900

GRAND TOTAL: $1,454,683

Naytahwaush Village - Trail System Plan

Figure 9.1



PINE POINT VILLAGE TRAIL SYSTEM PLAN

Pine Point is laid out in a linear fashion along Pow-wow Highway. This road provides access to essentially all the commercial, institutional, and residential land uses in Pine Point, including the Old School, New School, convenience store, and IHS Clinic. Because of this, there is frequent pedestrian and bicycle traffic in the road. Pine Point's Trail System Plan is centered around the construction of a multi-modal, lighted trail on the north side of Pow-wow Highway. This would improve safety by eliminating pedestrian and bicycle traffic in the roadway and improve connections between travel origins and destinations.

The Pine Point Community Council has also proposed enhancements to the trail network that is located behind/north of the highway frontage. Some existing paths were designated for closure to motor vehicles, others for possible paving. However, with the construction of a new multi-modal facility along the highway, there will be diminished need for a "backage" bicycle/pedestrian trail. It is recommended that future linkages consist of fully constructed roads that are integrated with the existing roadway network, and which will allow for future housing growth and other development. Contingent upon the Village's land use plans, Ponsford Cemetery Road could be designated for paving/trail extension, which would allow bicycle traffic to cut the corner the at the southeast terminus of Pow-wow Highway. This existing route is highly used by pedestrians.

Figure 9.2 – Pine Point Village Trail System Plan provides a map of the trail and sidewalk improvements that were discussed for the community of Pine Point. Cost estimates for these facilities are given in **Table 9.3 – Itemized Cost Estimates for Pine Point**, below. The item identification letters on the table correspond to the map. Note: These cost estimates exclude the cost of signage and traffic calming.

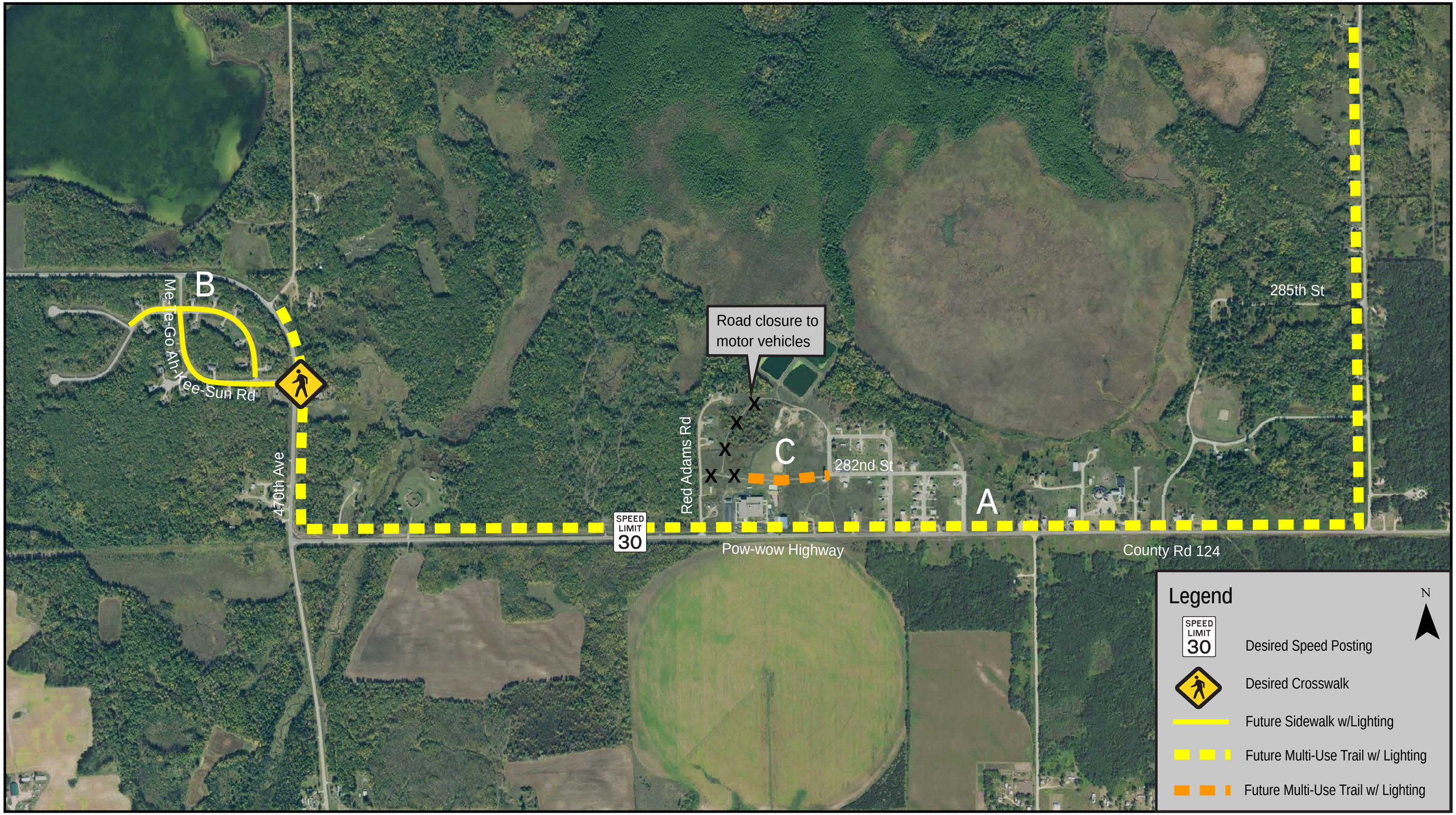
Table 9.3 – Itemized cost estimates for Pine Point

ITEM ID	DESCRIPTION	MILES	UNIT COST		TOTAL
			TRAIL/SIDEWALK	LIGHTING	
A	10' multi-use trail with lighting east of 470th Ave, north of Pow-wow Highway, and west of County Rd 129	2.5	$226,709	$106,000	$831,773
B	10' multi-Use trail along to baseball field	0.15	$226,709	$0	$34,006
C	Miscellaneous sidewalk installation	0.6	$130,522	$106,000	$141,913

GRAND TOTAL: $1,007,692

Pine Point Village - Trail System Plan

Figure **9.2**



0 0.25 0.5 Miles

RICE LAKE VILLAGE TRAIL SYSTEM PLAN

Lower Rice Lake Road (Clearwater County Road 35) is frequently used by pedestrians. This route links residential subdivisions across the community. Supporting dirt trails provide access to the Wild Rice River. These trails have been shown as paved for inventory purposes. The Rice Lake Community Council indicated that its top priority would be to have a lighted, multi-use trail parallel to Lower Rice Lake Road.

Constructing a multi-use trail along Lower Rice Lake Road would involve coordination with Clearwater County, which maintains jurisdiction of the facility. It would be prudent to make trail and road improvements simultaneously. If a separated trail were built according along Lower Rice Lake Road, it would have to tie into the existing Lower Rice Lake Dam Bridge, which is owned by the Tribe, or a new pedestrian crossing would have to be constructed parallel to the bridge. The existing bridge is narrow and there is currently no separation between vehicles and pedestrians.

Rice Lake Community Members expressed a concern over vehicle speeds on Lower Rice Lake Road. They indicated they would like to see a 30-mph speed limit enforced through the village. Community members described occasions when speeding citations were successfully challenged because no signage is posted. Warning flashers were discussed at the entrances to Water Tower Loop and Wild Rice Loop.

Figure 9.3 – Rice Lake Village Trail System Plan provides a map of the trail and sidewalk improvements that were discussed for the community of Rice Lake. Cost estimates for these facilities are given in **Table 9.4 – Itemized Cost Estimates for Rice Lake**, below. The item identification letters on the table correspond to the map. Note: These cost estimates exclude the cost of signage, traffic calming, and an estimate for a trail bridge of the Wild Rice River.

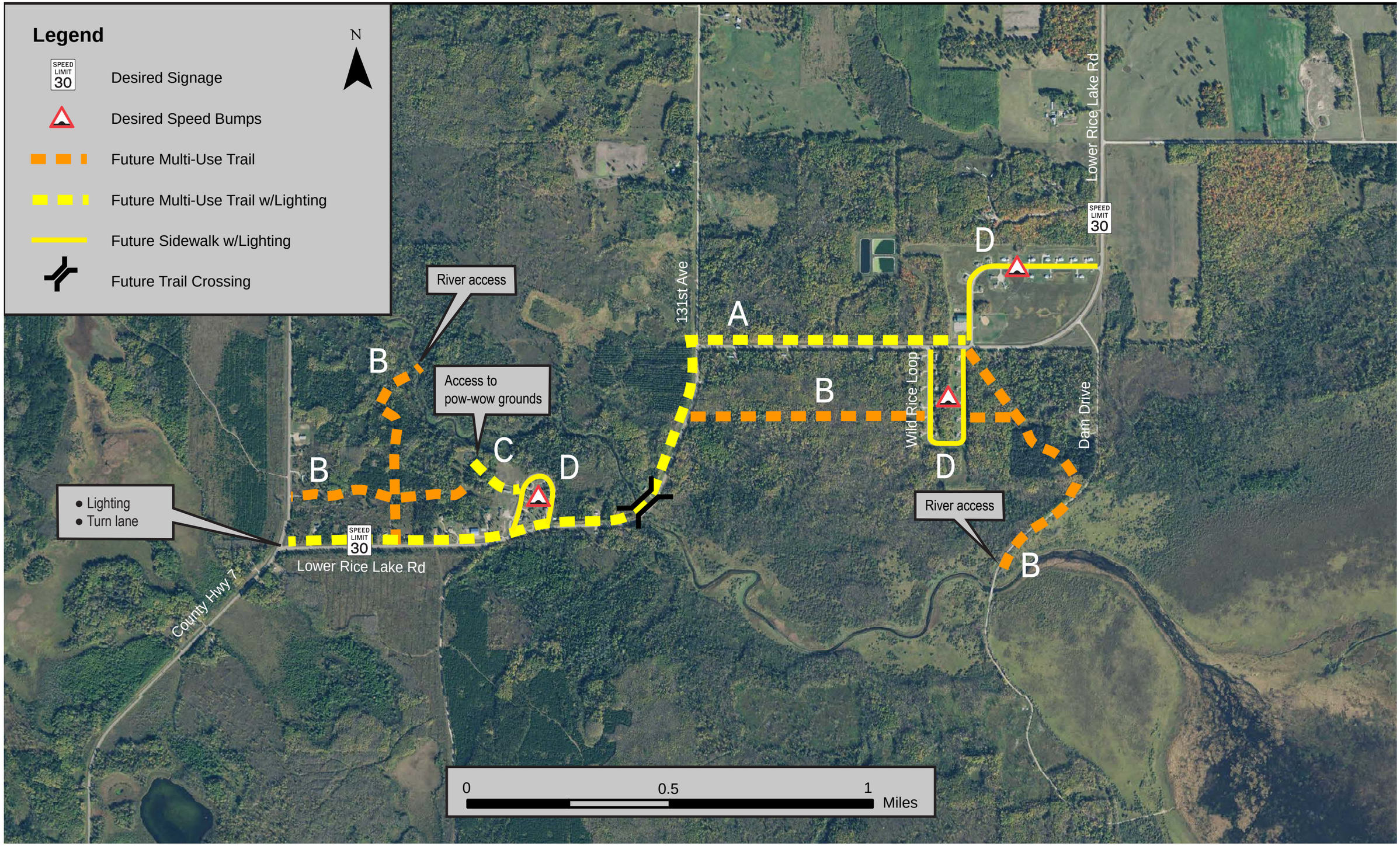
Table 9.4 – Itemized cost estimates for Rice Lake

ITEM ID	DESCRIPTION	MILES	UNIT COST		TOTAL
			TRAIL/SIDEWALK	LIGHTING	
A	10’ multi-use trail with lighting north of Lower Rice Lake Road	2.0	$226,709	$106,000	$665,418
B	Miscellaneous Multi-Use Trail Projects (10’)	2.0	$226,709	$0	$453,418
C	10’ multi-use trail with lighting from Wild Rice Loop to Pow-Wow Grounds	0.2	$226,709	$106,000	$66,542
D	Miscellaneous sidewalk installation	0.6	$130,522	$106,000	$141,913

GRAND TOTAL: $1,327,291

Rice Lake Village - Trail System Plan

Figure 9.3



White Earth Village Trail System Plan

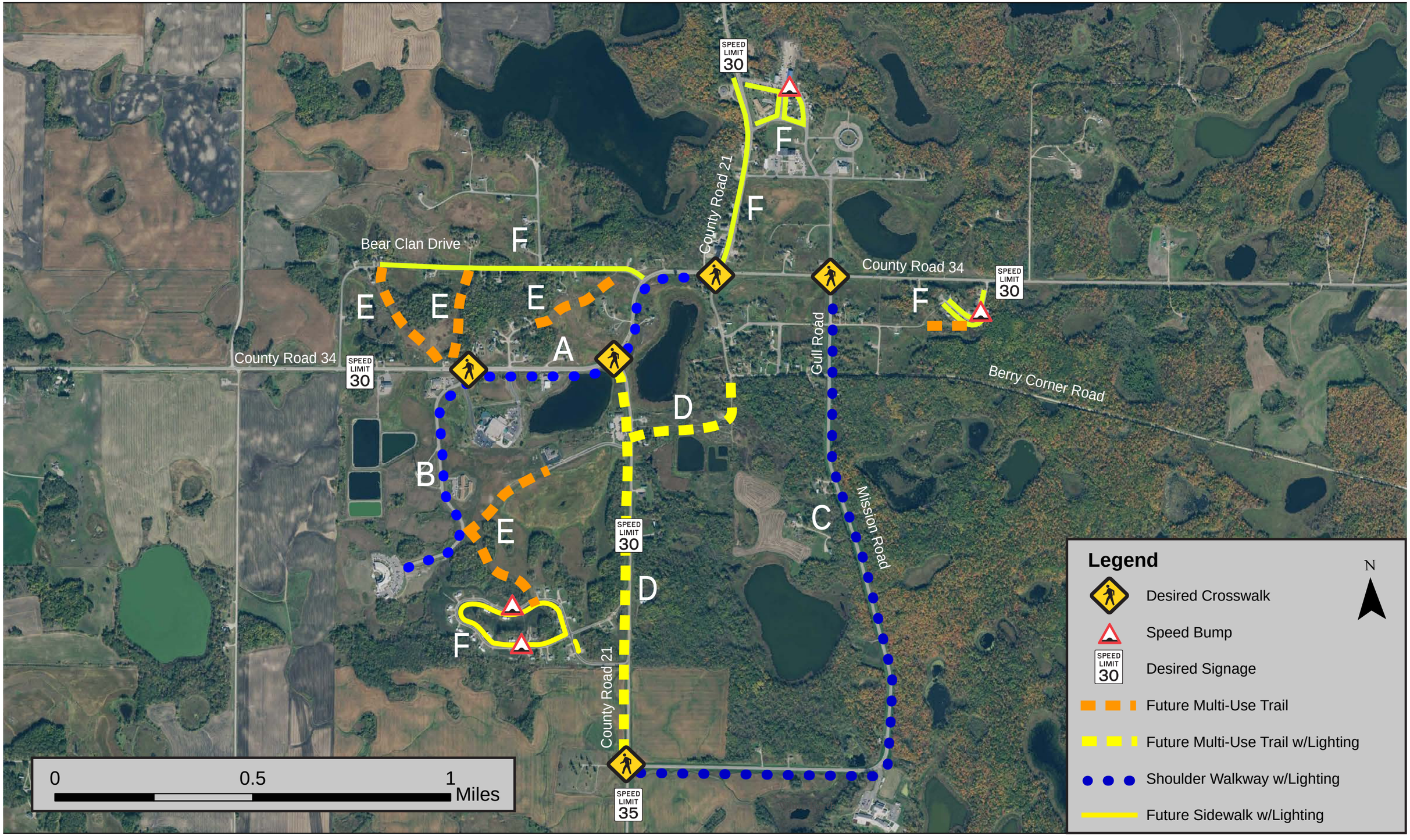
White Earth has experienced recent housing growth, and the construction of several key institutional facilities, including the Tribal Headquarters and the Circle of Life Academy (COLA). Development has occurred in a somewhat inefficient manner, owing to the location of available tribal land holdings with access to Becker CSAH 34 and County Highway 21, the primary highway corridors through the community. These roads provide access to the Circle of Life Academy, IHS Clinic, Reservation Tribal Council Headquarters, the convenience store, and the pow-wow grounds. White Earth's Trail System Plan prioritizes the addition of street lighting along highly-used shoulder walkways and a multi-modal lighted trail along County Highway 21. These would improve connections between origins and destinations and provide safer travel routes. Several crosswalks are also recommended.

Figure 9.4 – White Earth Village Trail System Plan provides a map of the pedestrian and bicycle facility improvements that were discussed for White Earth. **Table 9.5 – Itemized Cost Estimates for White Earth** gives a breakdown of the estimated costs for lighted shoulder walkways, multi-use trails, and sidewalk facilities.

Table 9.5 – Itemized cost estimates for White Earth

ITEM ID	DESCRIPTION	MILES	UNIT COST		TOTAL
			TRAIL/SIDEWALK	LIGHTING	
A	Lighted shoulder walkway along CSAH 34	1.0	$0	$106,000	$106,000
B	Lighted shoulder walkway along Tribal Headquarters Road	0.6	$0	$106,000	$63,600
C	Lighted shoulder walkway along Mission Road	1.7	$0	$106,000	$180,200
D	10' multi-use trail with lighting along County Road 21	1.35	$226,709	$106,000	$449,157
E	Miscellaneous multi-use trail projects	1.5	$226,709	$0	$340,064
F	Miscellaneous sidewalk installations	2.6	$130,522	106,000	$614,957

GRAND TOTAL: $1,753,978


SPEED LIMIT 30
F
F
County Road 21
Bear Clan Drive
F
E
E
E
A
County Road 34
SPEED LIMIT 30
County Road 34
SPEED LIMIT 30
F
Gull Road
Berry Corner Road
D
B
E
C
Mission Road
SPEED LIMIT 30
D
F
County Road 21
SPEED LIMIT 35
0
0.5
1
Miles
Legend
N
Desired Crosswalk
Speed Bump
SPEED LIMIT 30
Desired Signage
Future Multi-Use Trail
Future Multi-Use Trail w/Lighting
Shoulder Walkway w/Lighting
Future Sidewalk w/Lighting

City of Mahnomen Planned Improvements

There are few Tribal roads in the City of Mahnomen. The Tribe does have partial jurisdiction on East Adams Avenue, where the Tribal College is located. Recent development has occurred along this road, including multi-family housing and a Head Start facility. The residential development generates pedestrian traffic to downtown. Currently there is sidewalk connectivity north of the Tribal College, but not to the south/west continuing to US Highway 59. There is a cooperative agreement between the City of Mahnomen and White Earth to extend a trail facility along this segment of the road. A cost estimate for constructing this facility is given in **Table 9.6 – Mahnomen Trail Facility.**

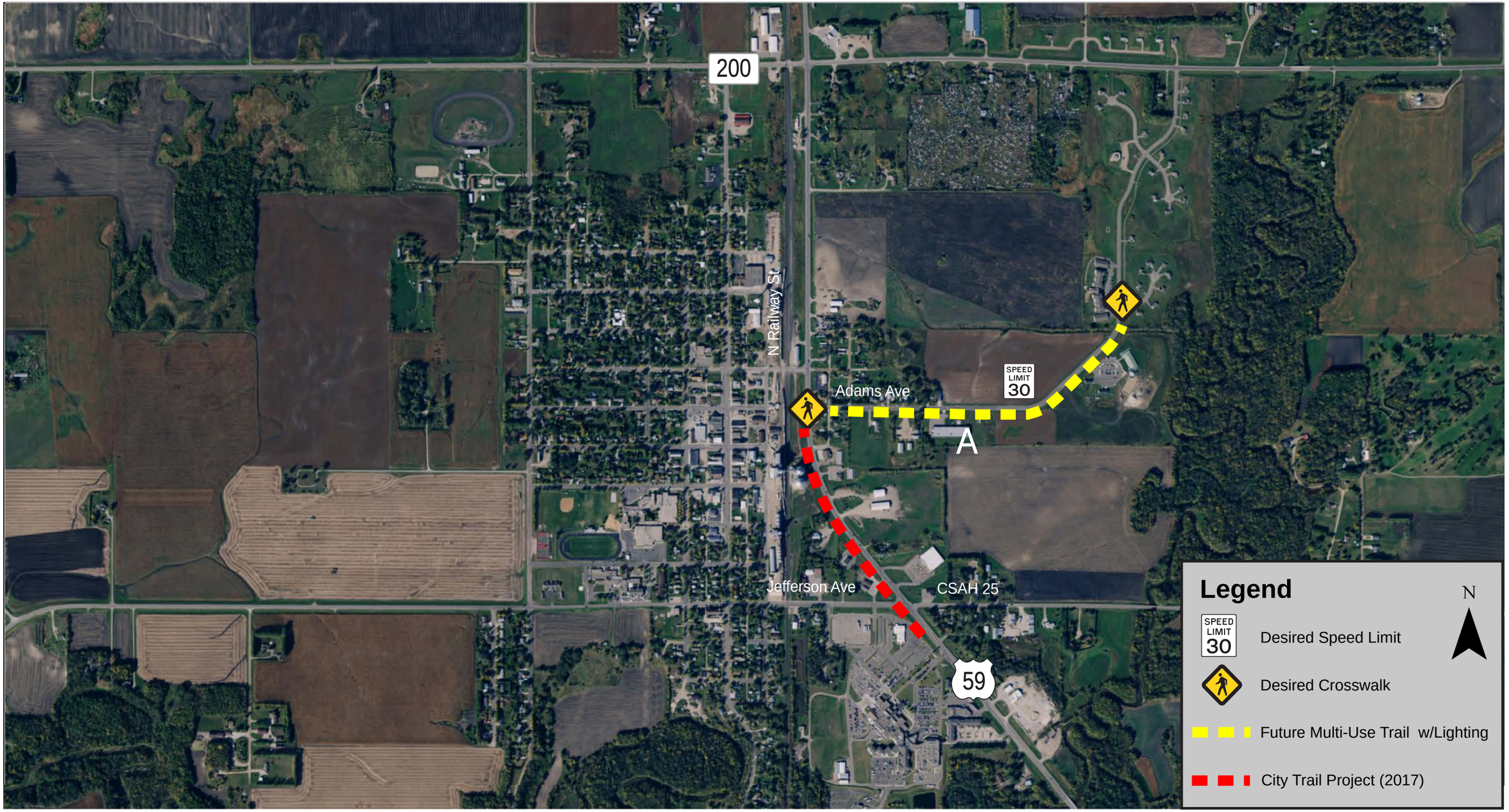
Figure 9.5 – City of Mahnomen Planned Improvements provides a map of the trail improvements that were discussed for the City. A separated trail west of US Highway 59 is currently planned for 2017. This trail would enhance connectivity to key destinations, primarily the Shooting Star Casino. Tying in the proposed along Adams Avenue provides an opportunity to flesh out the trail network and extend trail connectivity across both sides highway.

To extend trail continuity across the highway, additional safety measures should be taken. Currently there is no traffic signal at State Highway 200, Adams Avenue, or Jefferson Ave. Adams Avenue likely does not warrant a traffic signal currently. However, signalization north or south of the intersection, at State Highway 200 or Jefferson Ave, would benefit pedestrian/bicycle traffic crossing the highway. If signalization is not warranted, pedestrian-actuated flashers could be installed to alert through-traffic of pedestrian activity.

Table 9.6 – Mahnomen Trail Facility

ITEM ID	DESCRIPTION	MILES	UNIT COST		TOTAL
			TRAIL/SIDEWALK	LIGHTING	
A	10' Multi-use Trail with lighting along Adams Ave	0.65	$226,709	$106,000	$216,261

GRAND TOTAL: $216,261


200
N Railway St
Adams Ave
SPEED LIMIT 30
A
Jefferson Ave
CSAH 25
59
Legend
N
SPEED LIMIT 30
Desired Speed Limit
Desired Crosswalk
Future Multi-Use Trail w/Lighting
City Trail Project (2017)
0
0.25
0.5
Miles

MNTH 200

MNTH 200 provides not only vehicular traffic connections between reservation communities it is a high trafficked regional pedestrian route. Pedestrians use MNTH 200 as a main walkway to get to/from work, social and recreational purposes. Lane and shoulder widths greatly impact traffic operations and safety. In its current design and layout MNTH 200 lacks sufficient shoulder width to accommodate pedestrian traffic. Shoulder widths are addressed within the Minnesota Department of Transportation Design Manual. Section 4-4.01 of the design manual states highway shoulders may serve many functions and offer many advantages, including:

1. Providing an area for emergency parking
2. Providing an area for evasive action and for recovery if the driver inadvertently strays beyond the travel lane.
3. Improving highway capacity and driver comfort
4. Improving lateral support and drainage for the pavement
5. Providing lateral clearance for highway appurtenances and for snow removal
6. Providing an area for pedestrians and bicyclists
7. Providing an area that can function as a turn lane or bypass lane, if so designed
8. Providing an area for maintaining roadway lights, signs or signals

Table 9.7 provides AASHTO guidelines for proper shoulder width on 2-lane rural highways.

Table 9.7 – Right Shoulder Width and Surface Type, 2-Lane or Undivided Multi-Lane Highways

			Design Speed (mph)	Width (ft)		Surface Type
				ADT		
				150-1499	1500-2999	
Rural Cross Section	Arterial	Minor	All	6.0 USABLE [1] 4.0 SURFACED	7.5 USABLE 6.0 SURFACED	BITUMINOUS, CONCRETE, AGGREGATE OR COMBINATION

[1] 6.0 ft per AASHTO guidelines for minimum width.

Local Connectivity

Goal 1 of this chapter describes the need for local connectivity. Because of the lack of existing trails and sidewalks within communities, pedestrians and bicyclists travel on highway/street shoulders. Improvements to the existing sidewalk and trail systems within the communities of the Reservation improve pedestrian and bicyclist safety. Individual existing and future trail system plans for each community have been identified earlier in this chapter. The prioritization of pedestrian and bicycle facilities has been identified by the White Earth Public Works Department as a main component of the 2045 White Earth Long Range Transportation Plan.

Regional Connectivity

The communities of Rice Lake, Naytahwaush, and Mahnomen specifically rely on MNTH 200 as a means to travel between Reservation communities to access employment, government & health services, and recreational destinations. Many pedestrians and bicyclists use MNTH 200 to access goods and services. Insufficient shoulder widths restrict safe pedestrian and bicycle travel. Sharp curves limit sight distances between pedestrians and vehicles. Intersections lack lighting that would enhance safety. A complete inventory of roadway safety issues can be found in the MNTH 200 Road Safety Audit completed by the White Earth Public Works Department and made available upon request.

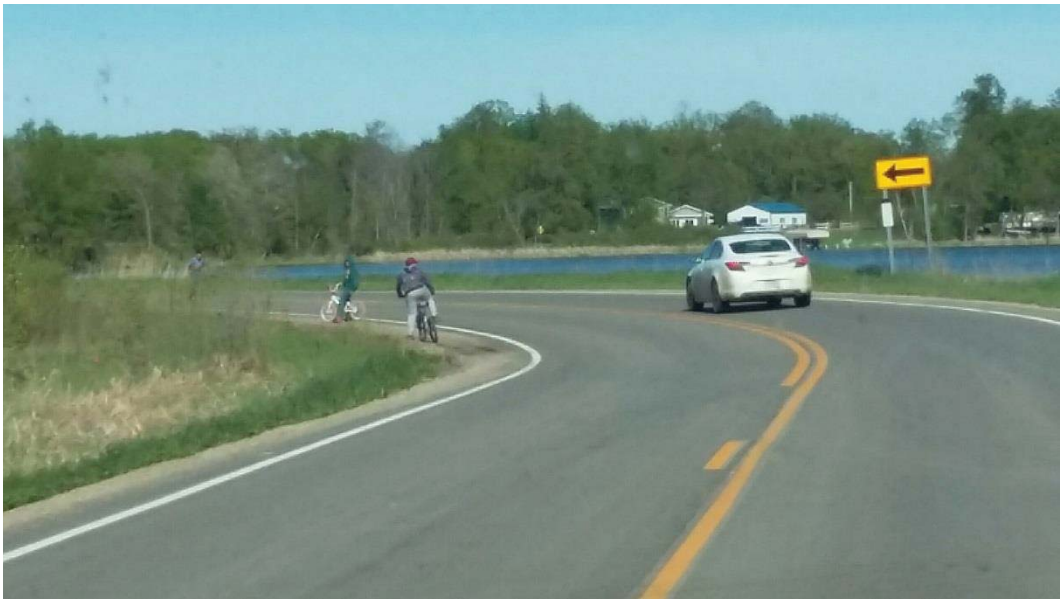


Table 9.8 – Pedestrian and Bicycle Funding Opportunities

Key: $ = Funds may be used for this activity (restrictions may apply). $* = See program-specific notes for restrictions. ~$ = Eligible, but not competitive, unless part of a larger project															
	Pedestrian and Bicycle Funding Opportunities U.S. Department of Transportation Transit, Highway and Safety Funds														
Activity of Project Type	TIGER	TIFIA	FTA	ATI	CMAQ	HSIP	NHPP	STBG	TA	RTP	SRTS	PLAN	NHTSA	NHTSA	FLTTP
Acces enhance to public transportation (includes benches, bus pads)	$	$	$	$	$		$	$	$						$
Bicycle helmets (project or training related)								$	$SRTS		$		$*		
Bicycle helmets (safety promotion)								$	$SRTS		$				
Bridges/overcrossings for pedestrian and/or bicyclists	$	$	$	$	$*	$	$	$	$	$	$				$
Bus shelters and benches	$	$	$	$	$		$	$	$						$
Crosswalks (new or retrofit)	$	$	$	$	$*	$	$	$	$	$	$				$
Historic preservatrion (pedestrian and bicycle and transit facilities)	$	$	$	$				$	$						$
Lighting (pedestrian and bicyclist scale associated with pedestrian/bicyclist project)	$	$	$	$		$	$	$	$	$	$				$
Paved shoulders for pedestrian and/or bicyclists use	$	$			$*	$	$	$	$		$				$
Recreational trails	~$	~$						$	$	$					$
Safety education and awareness activities and programs to inform pedestrians, bicyclists, and motorists on ped/bike safety								$SRTS	$SRTS		$	$*	$*	$*	
Shared use paths/transportation trails	$	$	$	$	$*	$	$	$	$	$	$				$
Sidewalks (new or retrofit)	$	$	$	$	$	$	$	$	$	$	$				$
Signed pedestrian signs or bicycle routes	$	$	$	$	$		$	$	$		$				$
Traffic calming	$	$	$			$	$	$	$		$				$
Trail bridges	$	$			$*	$	$	$	$	$	$				$
Trail construction and maintenance equipment								$RTP	$RTP	$					

Abbreviations

TIGER: Transportation Investment Generating Economic Recovery Discretionary Grant Program
TIFIA: Transportation Infrastructure Finance and Innovation Act (Loans)
FTA: Federal Transit Administration Capital Funds
ATI: Associated Transit Improvement (1% set aside of FTA)
CMAQ: Congestion Mitigation and Air Quality Improvement Program
HSIP: Highway Safety Improvement Program
NHPP: National Highway Performance Program
STBG: Surface Transportation Block Grant Program
TA: Transportation Alternatives Set-Aside (formerly Transportation Alternative Program)
RTP: Recreation Trails Program
SRTS: Safe Routes to School Program/Activities
PLAN: Statewide Planning and Research (SPR) or Metropolitan Planning funds
NHTSA 402: State and Community Highway Safety Grant Program
NHTSA 405: National Priotity Safety Programs (Nonmotorized safety)
FLTTP: Federal Lands and Tribal Transportation Programs (Federal Lands, Access Program, Federal Lands Transportation Program, Tribal Transportation Program, Nationally Significant Federal Lands and Tribal Projects

10 Long-Range Financial Plan

This chapter merges the Road System Preservation Plan (Chapter 6) and the Community Sidewalks and Trails Plan (Chapter 9). It provides a general plan for prioritizing both types of projects from year to year. Road and trail projects are primarily funded through White Earth's BIA allocation for transportation infrastructure and can be incorporated into the Tribal Transportation Improvement Plan (TTIP). Transit improvements are not included in this chapter because they are funded through different revenue streams.

Projects are broken down in four-year increments, as for the Tribal Transportation Improvement Plan (TTIP). The most recent TTIP itemizes improvements from 2017-2020. **(See Appendix I)** Projects proposed in the Long-Range Transportation could be constructed during this time, but to simplify things, it is assumed that that the current TTIP will be implemented intact, and that new projects will be considered beginning in 2021. This means that the projects discussed in the Long-Range Transportation Plan can be considered for construction beginning in 2021.

Currently White Earth budgets about $1.5 million a year for road improvements. Of this, approximately $400,000 to $500,000 is used annually for road maintenance. In order to not over-budget for road construction projects, Long-Range Financial Plan assumes a budget of $1 million per year, or $4 million in four-year TTIP period.

This budget is expected to grow year-over-year with the rate of inflation. Likewise, project costs are expected to grow in the future. However, because each project cost can be expressed as a fraction of the yearly budget, the effect of inflation is essentially canceled. Thus, the current 2017 budget – $1 million – and cost estimates are expressed in constant dollars for the 20-year period from 2021-2040.

The cost of each road preservation project is itemized as given in Chapter 6. White Earth will pay the entirety of this cost. The cost for trails and sidewalks, however, is expected to be funded primarily through grant receipts, such as the Safe Routes to Schools program and other available opportunities. A summary of available funding sources is given in **Table 9.8– Pedestrian and Bicycle Funding Opportunities** in the previous chapter**.** White Earth's share of the cost for pedestrian and bicycle facilities will vary depending on which grants it pursues and wins. For simplicity, it is assumed that White Earth will provide a 20 percent local match for every pedestrian/bicycle enhancement. This 20 percent fraction is itemized in the financial plan, and the remaining cost is ignored.

The primary factors that are considered when scheduling improvements are cost and need. These elements are detailed for roads and trails in Chapters 6 and 9, respectively. An additional consideration relates to fairness. Most of the roads in White Earth's inventory have a local function, and all of the proposed trail sidewalks and trails are community-focused. Because each project will benefit one specific community more than others, equity is also a factor in prioritization. Projects in developing communities should not automatically supersede projects in other areas, for example, although it is hoped that new development planning will prioritize trail and sidewalk infrastructure similar to what has been proposed in existing developments.

Projects are presented in 4-year groupings, as they would be in the TTIP:

- 2021-2024 (Short Term)
- 2025-2028 (Short/Mid Term)
- 2029-2032 (Mid Term)
- 2033-2036 (Mid/Long Term)
- 2037-2040 (Long Term)

These groupings are not intended to be set in stone, but they do help make the projects list more digestible and facilitate the equitable distribution of projects. In general, bicycle and pedestrian projects were prioritized for the beginning of the plan, because these have the potential to yield a large return on investment and improve the quality of life. Most resurfacing projects were scheduled toward the end of the plan, because the majority of roads with adequate roadbeds also have good surfaces or are programmed for resurfacing in the current TTIP. Roads with higher ADTs were prioritized for earlier improvements. Reconstruction projects were prioritized throughout the plan. These projects represent the greatest commitment of financial resources, so practical constraints were given careful consideration. With limited funding, many roads in poor condition were not programmed, often because they are known hunting routes. This list will require continual review as projects are formally programmed in future TTIP.

The financial plan is provided in **Tables 10.1 through 10.5** on the following pages. Notes are provided for consideration.

Table 10.1 – Fiscally Constrained Infrastructure Plan (Short Term)

PROPOSED TRAIL IMPROVEMENTS (2021-2024						
Trail ID	Facility Name	Project Description	Project Length (Miles)	Notes	Cost Estimate (2017 $)	
					Total Cost	20% Local Match
White Earth Plan Item C	Mission Road	Lighted shoulder walkway	1.7	• High priority / low cost. Project could be constructed without additional financing	$272,690	$54,538
Mahnomen Plan Item A	Adams Avenue	10' Multi-use trail with lighting	0.65	• High priority / low cost. Project could be constructed without additional financing • Possible cost-share with City of Mahnomen	$216,261	$43,232
Naytahwaush Plan Item B	County Road 4	10' Multi-use trail with lighting	1.25	• High priority / medium cost • Requires coordination with Mahnomen County Highway department	$415,886	$83,177
Rice Lake Plan Item C	Trail to Pow-Wow grounds	10' Multi-use trail with lighting	0.2		$66,542	$13,308
Pine Point Plan Item A	Pow-wow Highway	10' Multi-use trail with lighting	2.5	• Project could be moved to Near/Mid Term if financing not available	$831,773	$166,355
Rice Lake Plan Item A	Lower Rice Lake Road	10' Multi-use trail with lighting	2.0	• Project could be moved to Near/Mid Term if financing not available	$665,773	$133,155
				TRAILS TOTAL	**$2,468,925**	**$493,785**

PROPOSED ROAD IMPROVEMENTS (2021 -2024)						
Trail ID	Facility Name	Project Description	Project Length (Miles)	Notes	Cost Estimate (2017 $)	
					Total Cost	20% Local Match
8 (10)	Snider Lake Road	Reconstruct	2.8	• Aggregate	$918,478	N/A
13 (10)	Auginaush Road	Reconstruct	~3.0	• Reconstruct remaining portion of route to CSAH 13; Bituminous	$2,181,618	
180 (10)	Ball Park Road	Reconstruct	0.5	• Bituminous	$317,464	

Trail ID	Facility Name	Project Description	Project Length (Miles)	Notes	Cost Estimate (2017 $)	
					Total Cost	20% Local Match
189 (10)	John Sullivan Road	Resurface	0.4	• Aggregate	$32,856	189 (10)
223 (10)	East Mahnomen Housing	Resurface	0.1	• Aggregate	$8,214	223 (10)
				ROADS TOTAL	**$3,458,630**	**N/A**
				GRAND TOTAL	**$5,927,555**	**$3,952,415**

Table 10.2 – Fiscally Constrained Infrastructure Plan (Short/Mid Term)

PROPOSED TRAIL IMPROVEMNTS (2025-2028)						
Trail ID	Facility Name	Project Description	Project Length (Miles)	Notes	Cost Estimate (2017 $)	
					Total Cost	20% Local Match
White Earth Plan Item F	Miscellaneous Sidewalk Installation		2.6	• Lighting could be considered optional in some locations. Eliminating lighting would save significant costs. • Property easements required	$614,957	$122,991
Naytahwaush Plan Item D	Miscellaneous Sidewalk Installation		1.4		$331,131	$66,226
Pine Point Plan Item B	Miscellaneous Sidewalk Installation		0.6		$142,913	$28,583
Rice Lake Item D	Miscellaneous Sidewalk Installation		0.6		$142,913	$28,583
White Earth Plan Item D	County Road 21	10' Multi-use trail with lighting	1.35	• Requires coordination with Becker County	$451,424	$90,285
Naytahwaush Plan Item A	North Twin Lake Road	10' Multi-use trail with lighting	1.0	• Property easements required	$332,709	$66,542
Rice Lake Plan Item A	Lower Rice Lake Road	10' Multi-use trail with lighting	2.0	• Optional projects if not constructed in Short Term (high priority)	$665,773	$133,155
Pine Point Plan Item A	Pow-wow Highway	10' Multi-use trail with lighting	2.5		$831,773	$166,355
				TRAILS TOTAL (OPTIONAL TOTAL)	**$2,016,047 ($3,513,593)**	**$403,209 ($702,719)**

PROPOSED ROAD IMPROVEMENTS (2025-2028)						
Route / Segment ID	Facility Name	Project Description	Project Length (Miles)	Notes	Cost Estimate (2017 $)	
					Total Cost	20% Local Match
19 (10)	Berry Corner Road	Reconstruct	5.7	• Entire segment may not be practical or feasible • Partial segment (does not include snowmobile trail portion of route)	$2,395,744	N/A
208 (10)	Bass Lake Road	Reconstruct	0.8	• Existing ADT warrants bituminous; however, the County/Township segments of this route are gravel. Given cost is for aggregate. Coordinate with other entities.	$336,243	N/A

Route / Segment ID	Facility Name	Project Description	Project Length (Miles)	Notes	Cost Estimate (2017 $)	
					Total Cost	20% Local Match
208 (20)	Bass Lake Road	Reconstruct	0.9	• Poor roadbed with above average surface quality in 2017. • Frequent flooding issues • ADT forecast is 243 • Cost given is for aggregate	$378,275	N/A
215 (10)	East South Twin Lake Road	*Construct	1.7	• Currently proposed in White Earth's inventory. Construction dependent on land development opportunities/constraints in Naytahwaush. If development is unlikely, replace with project/s with similar cost.	$557,648	N/A
				ROADS TOTAL	**$3,458,630**	
				GRAND TOTAL	**$5,861,089**	**$3,939,125**

Table 10.3 – Fiscally Constrained Infrastructure Plan (Mid Term)

PROPOSED TRAIL IMPROVEMENTS (2029-2032)						
Trail ID	Facility Name	Project Description	Project Length (Miles)	Notes	Cost Estimate (2017 $)	
					Total Cost	20% Local Match
White Earth Plan Item E	Miscellaneous 10' multi-use trails (unlighted)		1.7	• Paving these "cut-across" trail projects could limit future development. If the Tribe takes a "wait-and-see" approach, the trails are more likely to be integrated cohesively into the community's growth plans. It may be suitable to construct some of the identified trail segments as all-purpose roads, given the shape of future development.	$340,064	$68,013
Naytahwaush Plan Item C	Miscellaneous 10' multi-use trails (unlighted)		1.35		$306,057	$61,211
Pine Point Item C	Miscellaneous 10' multi-use trails (unlighted)		0.15		$34,006	$6,801
Rice Lake Item B	Miscellaneous 10' multi-use trails (unlighted)		2.0	• Rice Lake has some of the most natural trail extensions, providing access to the river and pow-wow grounds. Improving these segments could be prioritized once the Lower Rice Lake Trail is constructed.	$453,418	$90,684
Naytahwaush Item E	Miscellaneous Street Lighting		0.65	• Other communities / housing areas may also desire street lighting improvements	$68,900	$13,780
				TRAILS TOTAL	**$1,202,445**	**$240,489**

PROPOSED ROAD IMPROVEMENTS (2029-2032)						
Route / Segment ID	Facility Name	Project Description	Project Length (Miles)	Notes	Cost Estimate (2017 $)	
					Total Cost	20% Local Match
63 (10)	Crane Road	Mill/Overlay	0.5	• ADT forecast 518	$93,152	N/A
64 (10)	Gull Road	Mill/Overlay	0.3	• ADT forecast 417	$55,891	
69 (10)	Eagle Road	Mill/Overlay	0.2	• ADT forecast 598	$37,261	
133 (10)	Mission Road	Mill/Overlay	1.7	• Could occur at the same time that lighted shoulder walkway is constructed • ADT forecast 1,490	$316,717	

Route / Segment ID	Facility Name	Project Description	Project Length (Miles)	Notes	Route / Segment ID	
					Total Cost	20% Local Match
133 (20)	Mission Road	Mill/Overlay	0.5	• Project could occur at the same time that lighted shoulder walkway is constructed (Short Term)	$95,498	N/A
154 (10)	Nokomis Drive	Mill/Overlay	0.4	• ADT forecast 632	$74,522	
164 (10)	White Earth South Housing	Mill/Overlay	0.4	• ADT forecast 412	$74,522	
164 (10)	White Earth South Housing	Mill/Overlay	0.2		$37,261	
174 (10)	Clinic Entrance Road	Mill/Overlay	0.4	• ADT forecast 1,106	$74,522	
179 (10)	Naytahwaush Community Center	Mill/Overlay	0.3	• ADT forecast 913	$55,891	
220 (10)	North Naytahwaush Road	Mill/Overlay	0.3	• ADT forecast 772	$55,891	
230 (10)	Mahnomen College Road	Mill/Overlay	0.5	• ADT forecast 521	$93,152	
230 (10)	Mahnomen College Road	Mill/Overlay	0.3	• ADT forecast 1,088	$55,891	
5 (10)	White Earth Bass Lake Road	Reconstruct	0.2	• Aggregate	$84061	N/A
7 (10)	North Twin Lake Road	Reconstruct	0.3	• Repaved in 2017-2020; roadbed needs repair	$190,478	
7 (20)	North Twin Lake Road	Reconstruct	1.7	• Repaved in 2017-2020; roadbed needs repair	$1,079,378	
20 (10)	South Net Lake Access	Reconstruct	0.7	• Aggregate	$229,620	
181 (10)	Naytahwaush Roads/Forestry	Reconstruct	0.2	• Aggregate	$65,606	
201 (10)	Big Rush Lake Road	Reconstruct	1.9	• Aggregate	$360,831	
210 (10)	Norcross Lake Road	Reconstruct	1.1	• Aggregate	$623,253	
				ROADS TOTAL	**$3,753,398**	**N/A**
				GRAND TOTAL	**$3,993,887**	**$4,955,843**

Table 10.4 – Fiscally Constrained Infrastructure Plan (Mid/Long Term)

PROPOSED ROAD IMPROVEMENTS (2033-2036)					
Route / Segment ID	**Facility Name**	**Project Description**	**Project Length (Miles)**	**Notes**	**Cost Estimate**
60 (10)	Rattle Snake Circle	Mill/Overlay	0.4	• ADT forecast 496	$74,522
61 (10)	Marten Drive	Mill/Overlay	0.1	• ADT forecast 496	$18,630
71 (10)	Second Ave	Mill/Overlay	0.2	• ADT forecast 302	$37,261
73 (10)	Center Street	Mill/Overlay	0.4	• ADT forecast 277	$74,522
158 (10)	Pow-wow Highway	Mill/Overlay	2.4		$447,130
172 (10)	Elderly Center/Head Start Road	Mill/Overlay	0.5	• ADT forecast 378	$93,152
8 (10)	Snider Lake Access Road	Reconstruct	0.3	• Aggregate	$98,408
10	Sargent Lake Road	Reconstruct	3.1	• Aggregate	$1,302,949
26 (10)	Roy Lake Access Road	Reconstruct	0.5	• Aggregate	$164,014
28 (10)	White Earth Lake Access Road	Reconstruct	0.3	• Aggregate	$98,408
186 (10)	Little Elbow Lake Road	Reconstruct	1.8	• Aggregate	$590,450
187 (10)	Victory Way Drive	Reconstruct	1.2	• Aggregate	$393,634
204 (10)	Little Elbow River Road	Reconstruct	2.8	• Aggregate	$918,478
229 (10)	White Earth Lake Spur	Reconstruct	0.2	• Aggregate	$65,606
				TOTAL	**$4,079,077**

Table 10.5 – Fiscally Constrained Infrastructure Plan (Long Term)

PROPOSED ROAD IMPROVEMENTS (2037-2040)					
Route / Segment ID	**Facility Name**	**Project Description**	**Project Length (Miles)**	**Notes**	**Cost Estimate**
21	Ladoux Road	Mill/Overlay	0.9	• Resurfaced in 2017-2020	$171,896
23	Strawberry Lake Road	Resurface Aggregate	3.2	• Resurfaced in 2017-2020	$350,400
23	Strawberry Lake Extension	Resurface Aggregate	1.6	• Resurfaced in 2017-2020	$175,200
29	Elkhorn Road	Resurface Aggregate	0.7	• ADT forecast 96	$57,498
40	Chippewa Ranch Road	Mill/Overlay	0.3	• ADT forecast 181	$55,891
62	Loon Drive	Mill/Overlay	0.1	• ADT forecast 179	$18,630
51 (10)	Pine Point 477th Ave	Mill/Overlay	0.1	• Pine Point projects should be programmed for the same construction season for efficiency reasons • Resurfaced in 2017-2020	$18,630
53 (10)	Pine Point 282nd Street	Mill/Overlay	0.1		$18,630
54 (10)	Pine Point Old School Road	Mill/Overlay	0.3		$55,891
55 (10)	Pine Point Break Road	Mill/Overlay	0.3		$55,891
56 (10)	Pine Point 283rd Street	Mill/Overlay	0.1		$18,630
150 (20)	Pine Point 282nd Street	Mill/Overlay	0.1		$18,630
151	Pine Point 478th Ave	Mill/Overlay	0.2		$37,261
65	Beaver Trail	Mill/Overlay	0.3	• ADT forecast 210	$55,891
70	First Avenue	Mill/Overlay	0.2	• ADT forecast 93	$37,261
72	Third Avenue	Mill/Overlay	0.1	• ADT forecast 302	$18,630
74	N/A	Mill/Overlay	0.3	• ADT forecast 786	$55,891
75	N/A	Mill/Overlay	0.2	• ADT forecast 937	$37,261

Route / Segment ID	Facility Name	Project Description	Project Length (Miles)	Notes	Cost Estimate
76	N/A	Mill/Overlay	0.6	• ADT forecast 1,248	$111,782
77	N/A	Mill/Overlay	0.6	• ADT forecast 1,640	$111,782
78	N/A	Mill/Overlay	0.3	• ADT forecast 115	$55,891
79	N/A	Mill/Overlay	0.3	• Resurfaced in 2017-2020	$55,891
82	North Elbow Lake Road	Mill/Overlay	0.3	• Resurfaced in 2017-2020	$55,891
83	Elbow Lake 400th Ave	Mill/Overlay	0.3	• ADT forecast 114	$55,891
90	Wild Rice Loop	Mill/Overlay	0.6	• Resurfaced in 2017-2020	$11,782
100	Callaway Street 2nd Ave	Mill/Overlay	0.2	• ADT forecast 202	$37,261
120	Water Tower Loop	Mill/Overlay	0.6	• Resurfaced in 2017-2020	$111,782
161	Wolf Clan Lane	Mill/Overlay	0.3	• ADT forecast 303	$55,891
162	Black Duck Trail	Mill/Overlay	0.3	• ADT forecast 93	$55,891
163	Lynx Lane	Mill/Overlay	0.2	• ADT forecast 255	$37,261
165	White Earth East Housing	Mill/Overlay	0.2	• Resurfaced in 2017-2020	$37,261
141	Rice Lake Community Center Road	Mill/Overlay	0.5	• Resurfaced in 2017-2020	$93,152
175	Clinic Service Road	Mill/Overlay	0.2	• ADT forecast 115	$37,261
178	Rediscovery Center Spur Road	Mill/Overlay	0.2	• Resurfaced in 2017-2020	$37,261
190	Red Adams Road	Resurface Aggregate	0.3	• ADT forecast 114	$24,642
227	West Ogema Housing	Mill/Overlay	0.1	• ADT forecast 261	$18,630
227	Ogema Housing Road	Mill/Overlay	0.1		$18,630
231	White Earth Fire and Ambulance Road	Mill/Overlay	0.1	• ADT forecast 114	$18,630

Route / Segment ID	Facility Name	Project Description	Project Length (Miles)	Notes	Cost Estimate
236	Lower Rice Lake Trail Loop	Resurface Aggregate	0.2		$16,428
247	West Mahnomen College Road	Mill/Overlay	0.2		$37,261
248	East Mahnomen College Road	Mill/Overlay	0.2		$37,261
249	South Mahnomen College Road Loop	Mill/Overlay	0.1		$18,630
				TOTAL	**$4,079,077**

APPENDICES

Appendix A – Public Survey Summary

Survey Process

The White Earth Nation and SRF Consulting Group, Inc., conducted a Long-Range Transportation Plan (LRTP) update to identify and address critical existing needs and anticipated future transportation needs on the White Earth Reservation. The process for the plan's development includes a variety of public involvement opportunities, including a survey. The White Earth LRTP survey was aimed to gain an understanding of the existing perception of the region and desires for the future.

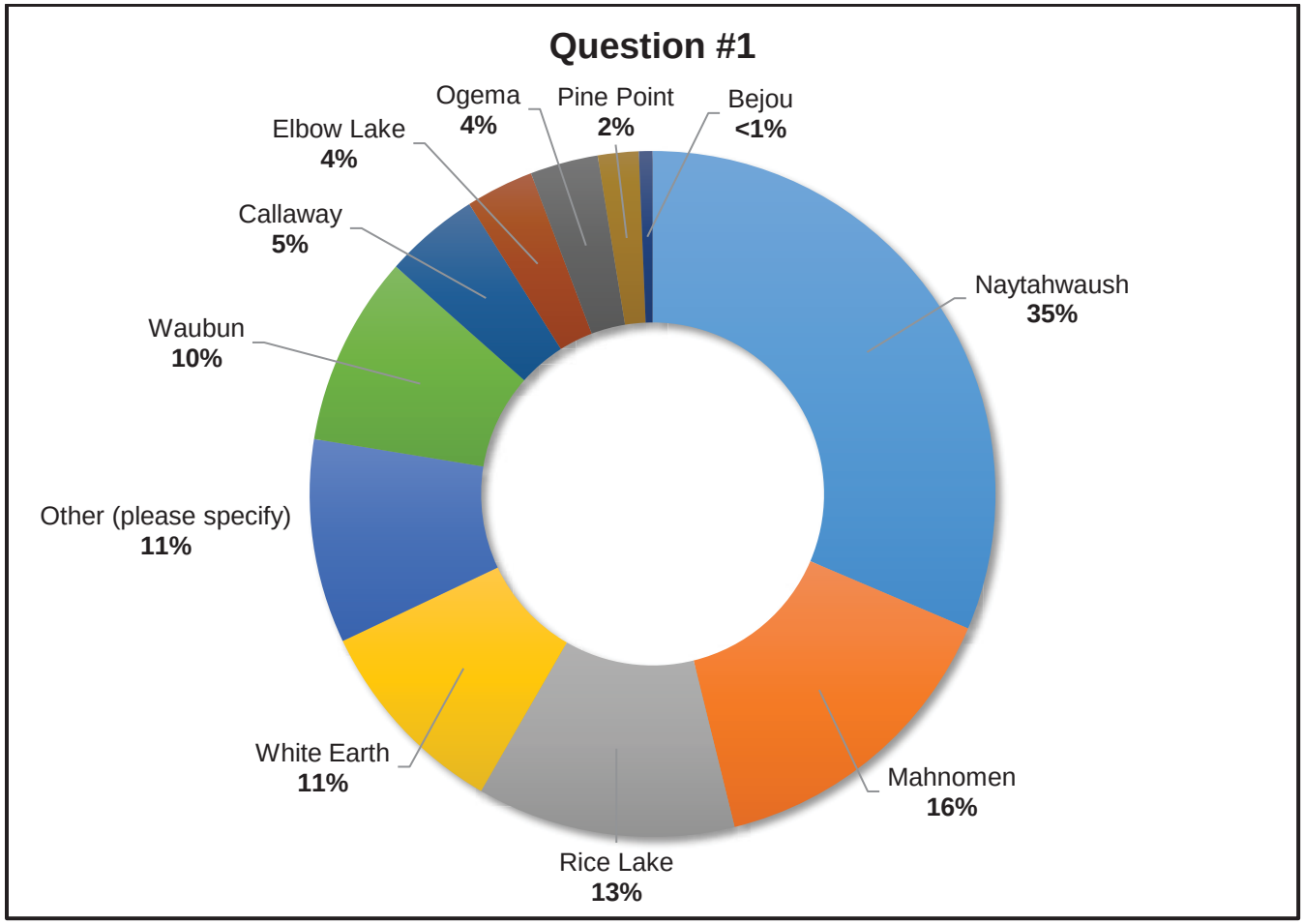
With a total of 17 questions, the survey asked a range of questions covering such topics as commutes, transportation infrastructure concerns, transit, and general demographic information. The survey was disseminated through Survey Monkey via email blasts and as handouts at public workshops. Results from Survey Monkey were collected from December 5, 2016 to January 19, 2017. A total of 158 responses were collected over the six (6) week collection period. The average question response rate (those choosing to answer verses skipping a question) was 97 percent. The overall results of the survey are summarized in this document.

Survey Participants

A total of 158 responses were received for the White Earth LRTP Survey. Below is a brief outline of characteristics of those who responded.

- Participants live in/near (**Top 3**): Naytahwaush (35%), Mahnomen (16%), and Rice Lake (13%)
- 61% of participants were female, 38% male, and <1% rent their place of residence
- 87% of participants were a tribal member or descendent
- 56% of participants fall within the age cohorts of 30 to 39 or 50 to 59
- The median age of participants falls within the 40 to 49 age cohort

Question 1 – Which Community do you live in/closest to?

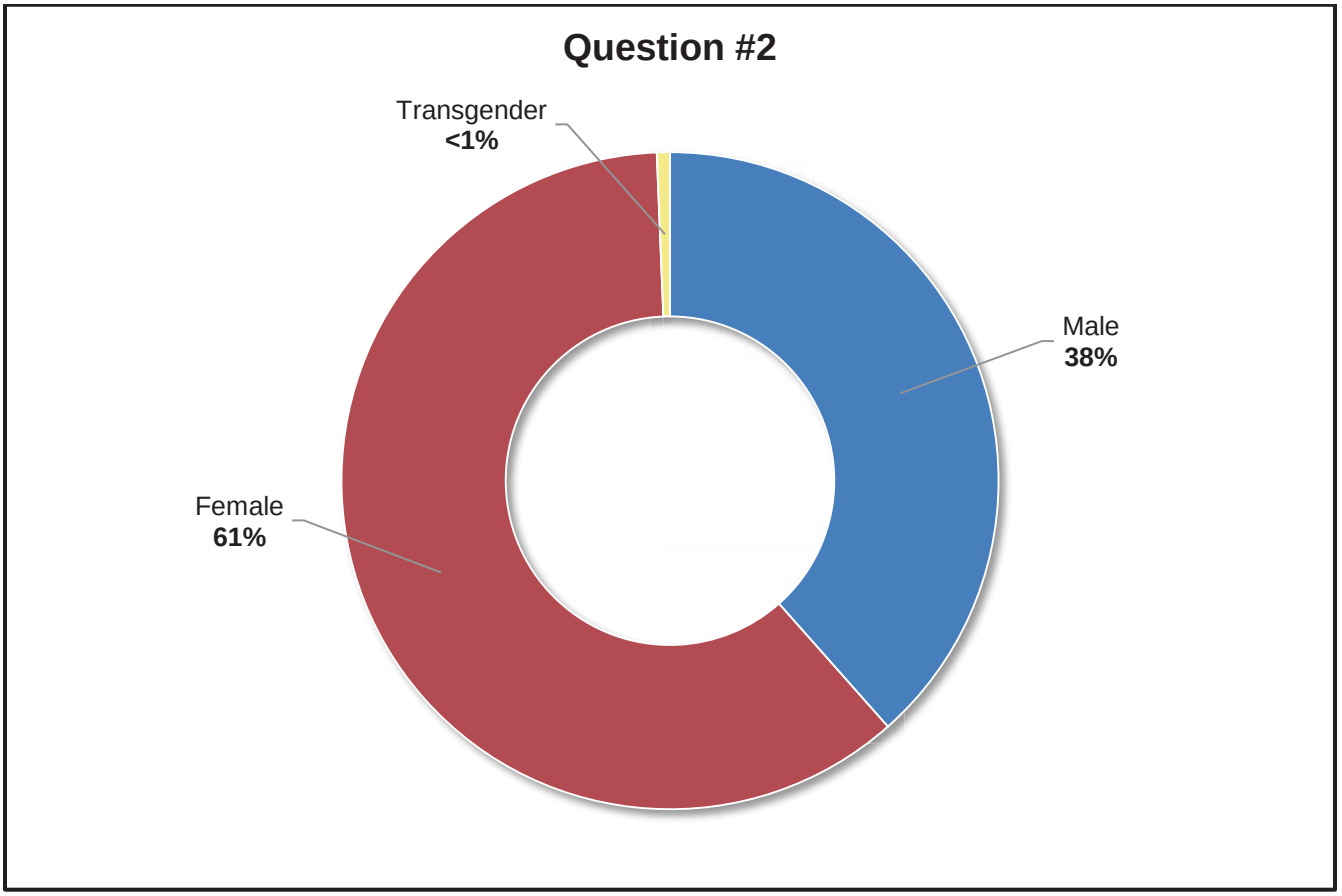


The figure above illustrates the distribution of participants based upon their place of residence. The most common responses to this question were: **Naytahwaush (35%), Mahnomen (16%), and Rice Lake (13%)**. For the 11% that responded with "Other," communities identified by participants consisted of: Cass Lake, Detroit Lakes, Pine Bend, Fosston, Lake Park, Ebro, Beaulieu, Bagley, and Roy Lake. Although receiving the 2nd lowest response rate, likely attributable to participants' concerns of identifying place of residence, the results are still considered valuable since it provides a general geographic representation of the participants. **Review of the responses conclude that the majority of participants live within the northern half of the reservation with close proximity to Highway 200.**

Response Breakdown

Response Rate: 89% (2nd Lowest)
Skipped Rate: 11% (2nd Highest)
Written Responses: 15

Question #2 – Please identify your sex/gender.



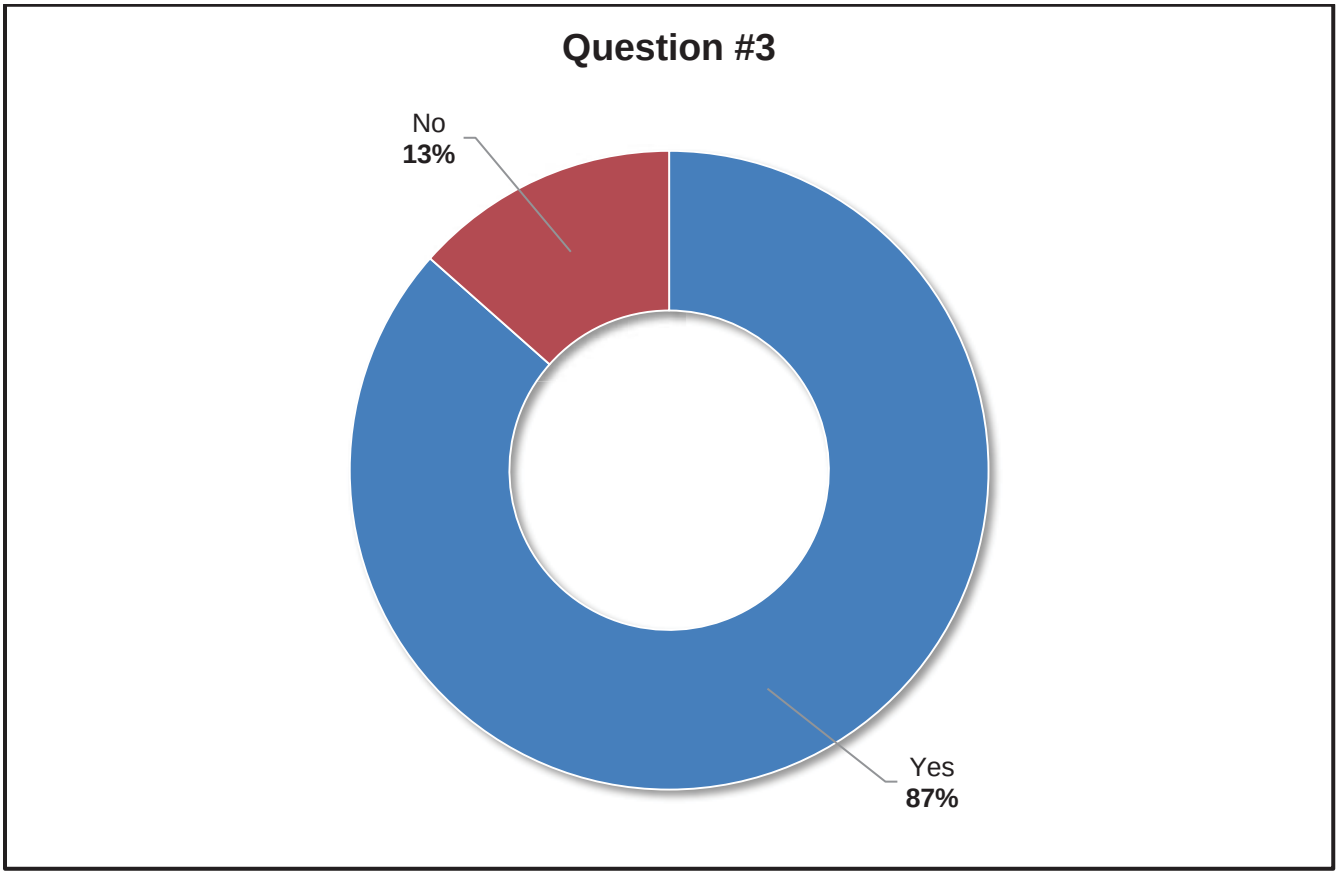
The figure above illustrates the distribution of participants based upon their sex/gender. The responses to this question consists of the following: **Female (61%), Male (38%), and Transgender (<1%)**. **Review of the responses clearly conclude that the majority of participants were female.**

Response Breakdown

Response Rate: 99%
Skipped Rate: 1%

Written Responses: N/A

Question #3 – Are you a Tribal member or descendent?

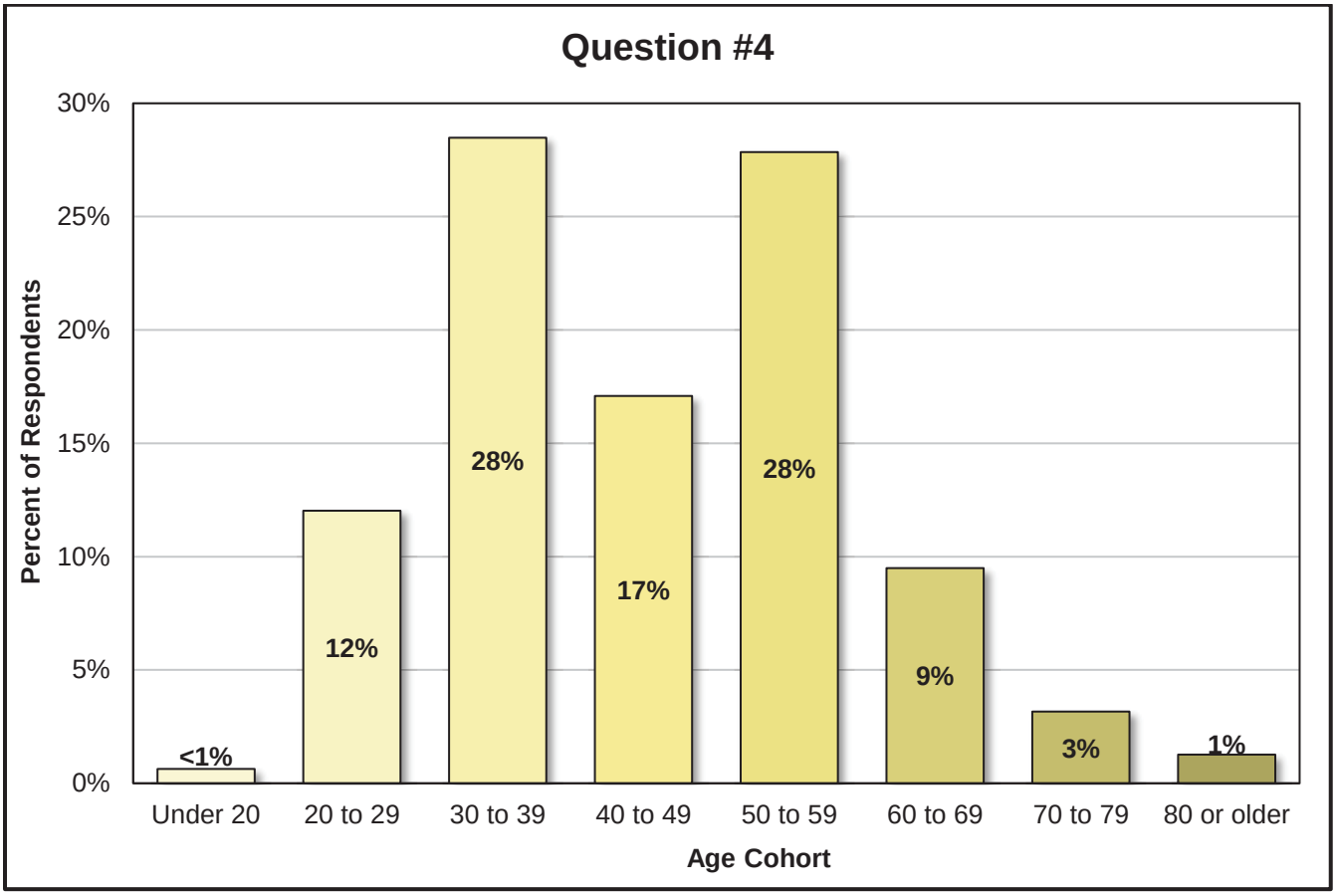


The figure above illustrates the distribution of participants based upon their response as a tribal member or descendent. The responses to this question consists of the following: **Yes (87%) and No (13%). Review of the responses clearly conclude that the majority of participants are tribal members or descendants.**

Response Breakdown

Response Rate: 99%
Skipped Rate: 1%
Written Responses: N/A

Question #4 – Identify your age group.

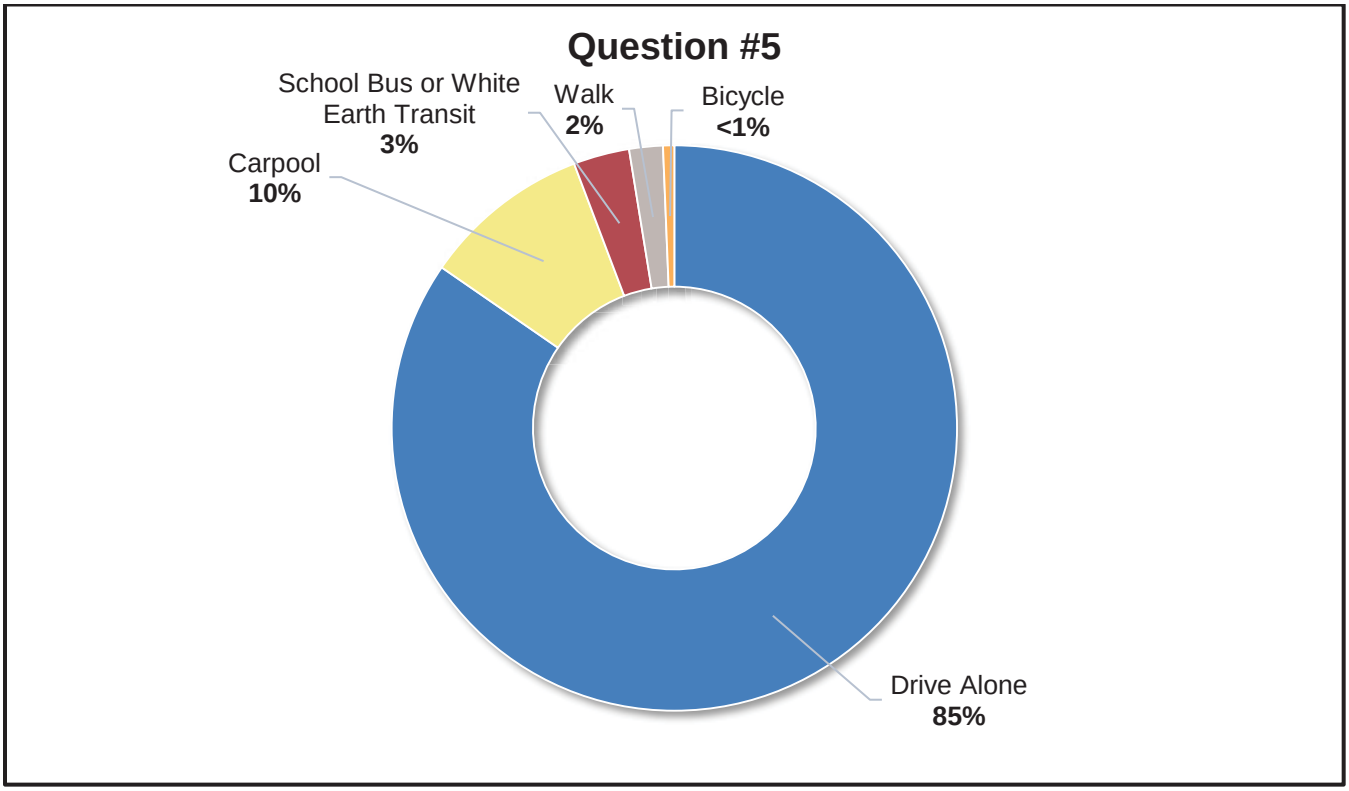


The figure above illustrates the distribution of participants based upon their identified age cohort. The majority of participants fell between the age cohorts of either 30 to 39 or 50 to 59. For those who participated, the median age falls within the 40 to 49 age cohort. This question is one of only two that generated a 100 percent response rate. **Review of the responses reveal the consideration that the majority of participants and their responses are derived from those from specific generations (1957 to 1986).**

Response Breakdown

Response Rate: 100% (Tied for 1st Highest)
Skipped Rate: 0% (Tied for 1st Lowest)
Written Responses: N/A

Question #5 – How do you typically travel to/from work or school?

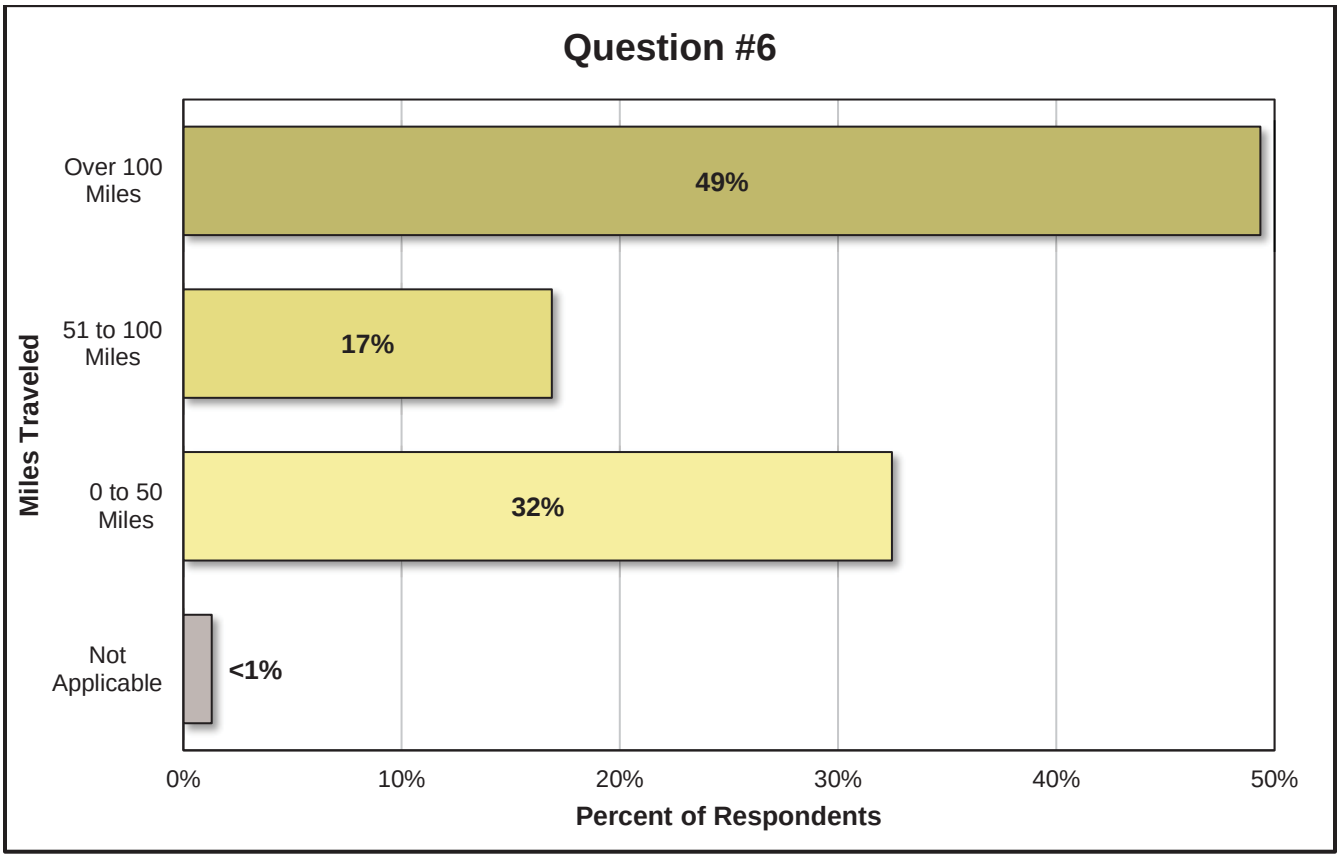


The figure above illustrates the distribution of participants based upon how they travel to and from work or school. The most common responses to this question were: **Drive Alone (85%), Carpool (10%), and School Bus or White Earth Transit (3%)**. When comparing the results of this survey to the American Community Survey (ACS), there has been a clear trend since 2012 of an increase of travelers "driving alone," while the other modes of travel have decreased. Review of the responses and acknowledgment of the trend can suggest two concerns regarding transportation infrastructure. First, if the trend of driving alone continues to grow, roadway infrastructure may undertake more of a burden. Consequently, more roadway improvements or maintenance may be needed. Secondly, investigating the potential reasons for the decrease in other modes of transportation may reveal other transportation infrastructure or safety needs.

Response Breakdown

Response Rate: 99%
Skipped Rate: 1%
Written Responses: N/A

Question #6 – Please estimate the number of work related miles you travel in a typical week.



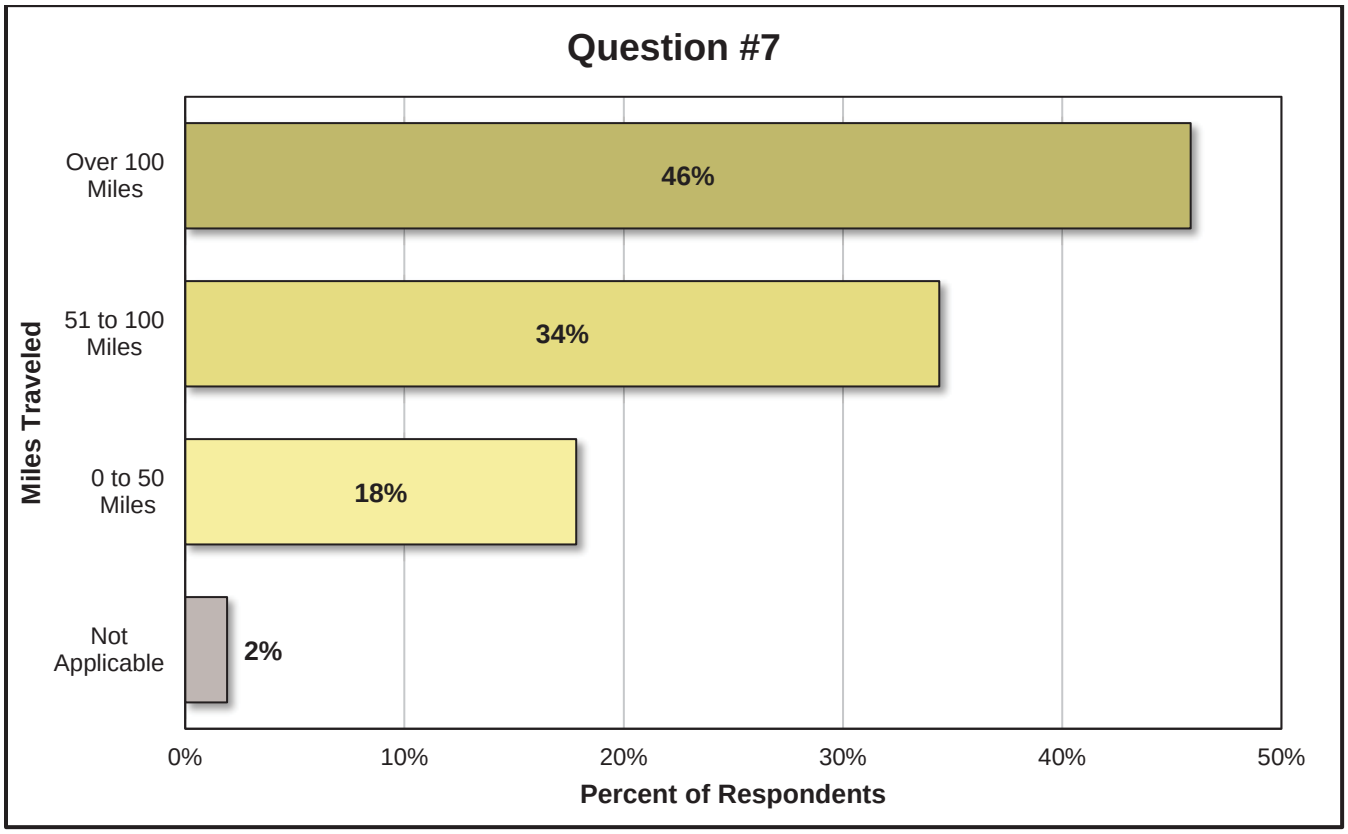
The figure above illustrates the participants' average weekly miles traveled for work. **Almost half of the participants travel at least 100 miles a week or roughly 20+ miles per day for work.** When you consider the results from this question and the previous, there is a clear relationship between those who drive alone and travel over 100 miles a week. This suggests that roadway infrastructure is likely impacted the most on a daily basis.

**Many respondents indicated that they traveled well over 100 miles a week. If "Over 200 miles" had been an optional response, several respondents would have checked that option.*

Response Breakdown

Response Rate: 99%
Skipped Rate: 1%
Written Responses: N/A

Question #7 – Please estimate the number of shopping and recreational miles you travel in a typical week.



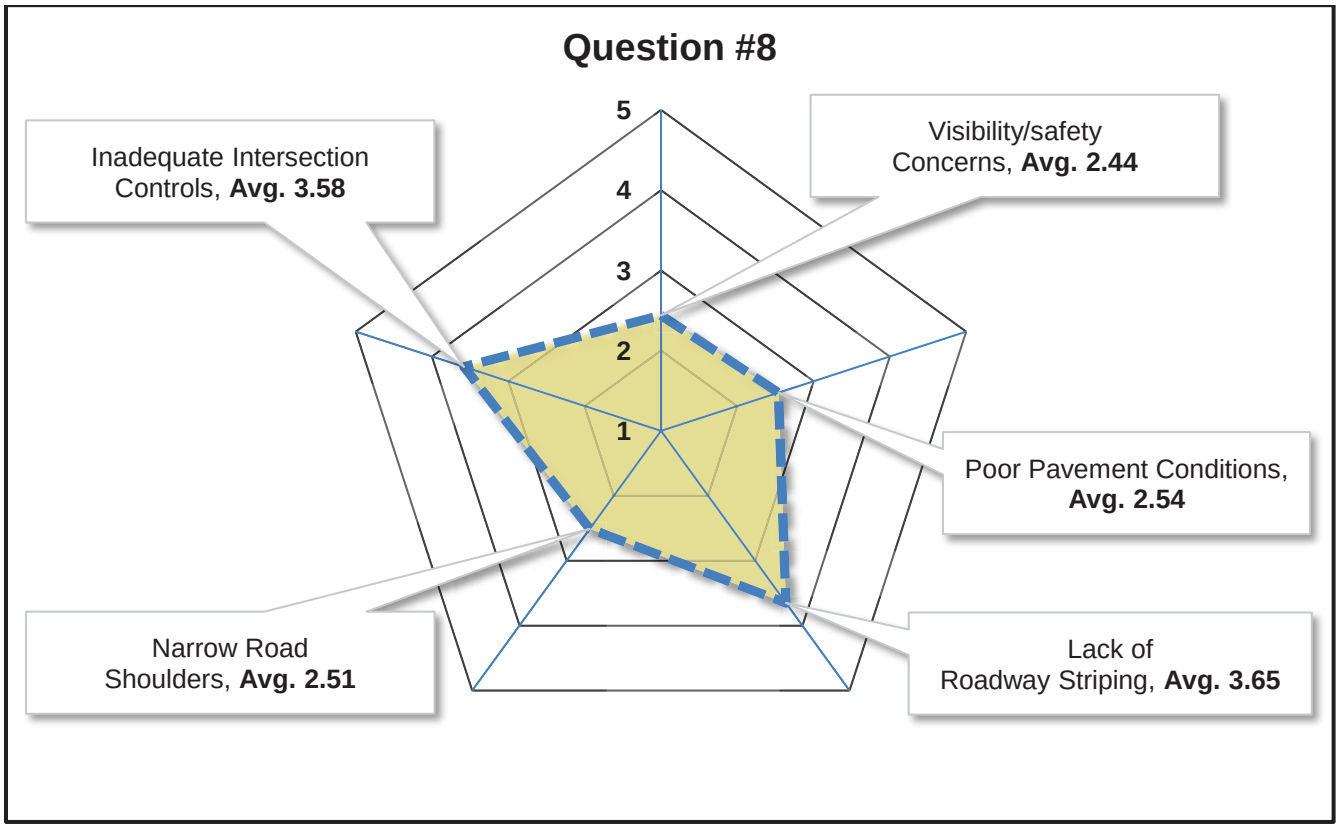
The figure above illustrates the participants' average weekly miles traveled for shopping and recreational purposes. **Almost half of the participants travel at least 100 miles a week or roughly 20+ miles per day for shopping or recreation.** When comparing the results of this question to the previous, there is a clear difference regarding the skew in miles. There is a 14% increase in participants driving over 50 miles a week for shopping and recreation than for work. This finding suggests the commercial and recreational amenities in the area are not as accessible as places for work, resulting in longer travel times.

Response Breakdown

Response Rate: 99%
Skipped Rate: 1%
Written Responses: N/A

TRANSPORTATION INFRASTRUCTURE CONCERNS

Question #8 – Please rank the following issues from 1 to 5 in terms of significance based on your personal view. (1 = Most Significant, 5 = Least Significant)

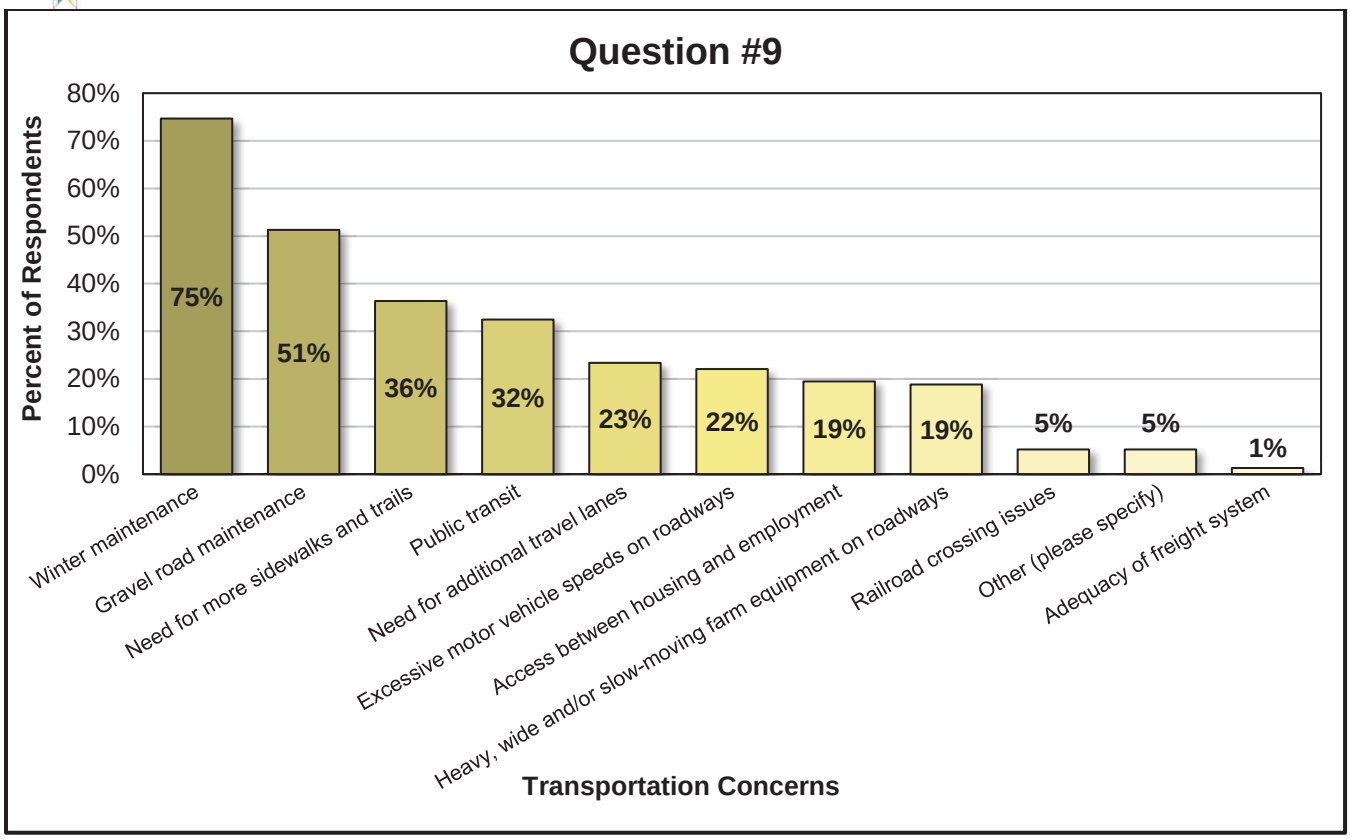


The figure above illustrates the participants' average rank for each of the identified issues. In the figure, the closer a point is to the center, the more significant it is considered by the participants. The top issues considered as "most significant" include: **Visibility/Safety Concerns, Narrow Road Shoulders, and Poor Pavement Conditions**. The identified concerns from the public can help shape the prioritization of roadway improvement or maintenance projects. As a note, the findings from this question are also significant since it is one of only two questions to receive a 100% response rate.

Response Breakdown

Response Rate: 100% (Tied for 1st Highest)
Skipped Rate: 0% (Tied for 1st Lowest)
Written Responses: N/A

Question #9 – Please indicate your top three areas of concern related to transportation on the White Earth Reservation.

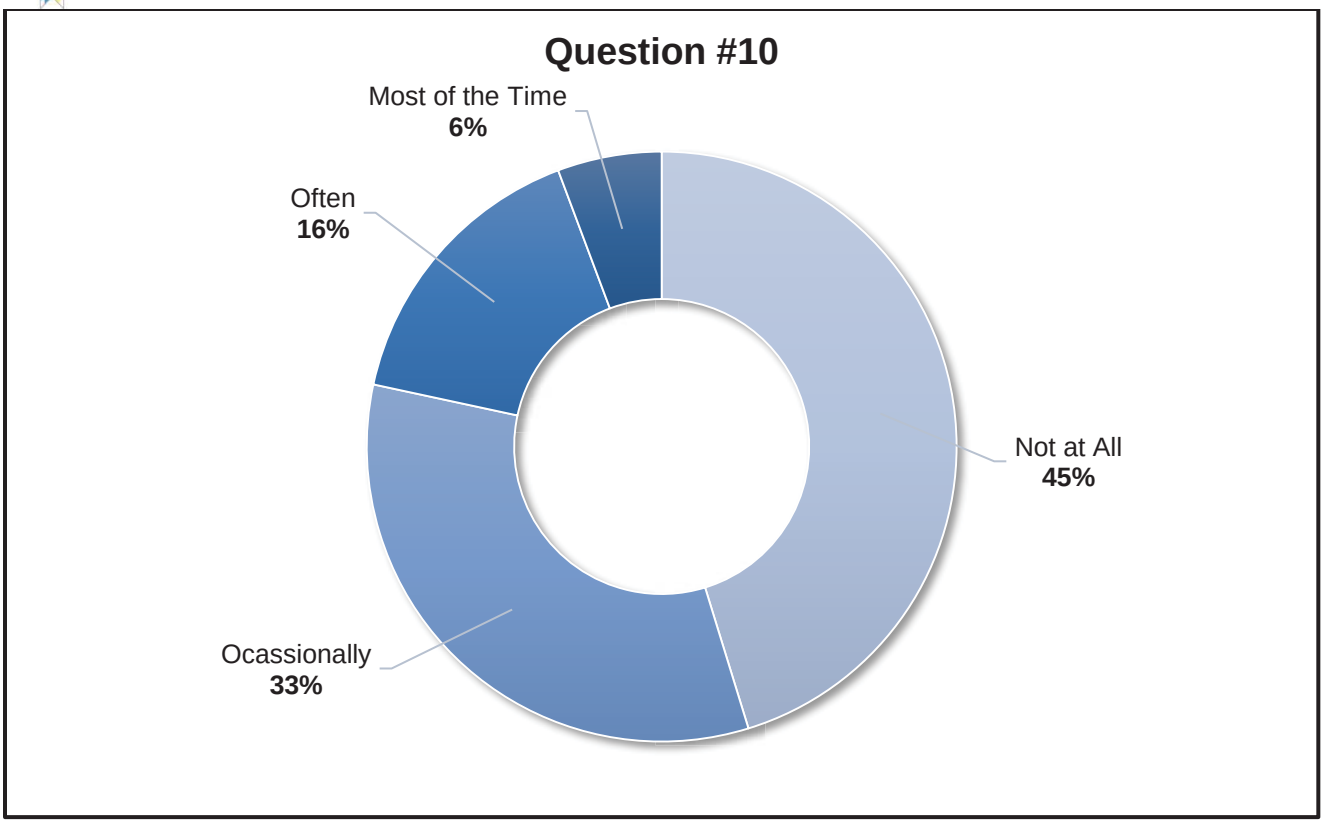


The figure above illustrates the participants' top three concerns regarding transportation in general. Of the participants, the majority selected "**winter maintenance**" and "**gravel road maintenance**" as one of their top concerns. Approximately one-third of participants included "need for more sidewalks and trails" or "public transit" in their top three concerns. In five percent of cases participants entered a written response. These "other" responses focused primarily on the need for better transit availability and accessibility. The concerns identified from the public can help shape the prioritization of general transportation improvement or maintenance projects.

Response Breakdown

Response Rate: 98%
Skipped Rate: 2%
Written Responses: 8

Question #10 – To what extent do crime/safety issues influence your morning and/or evening travel?

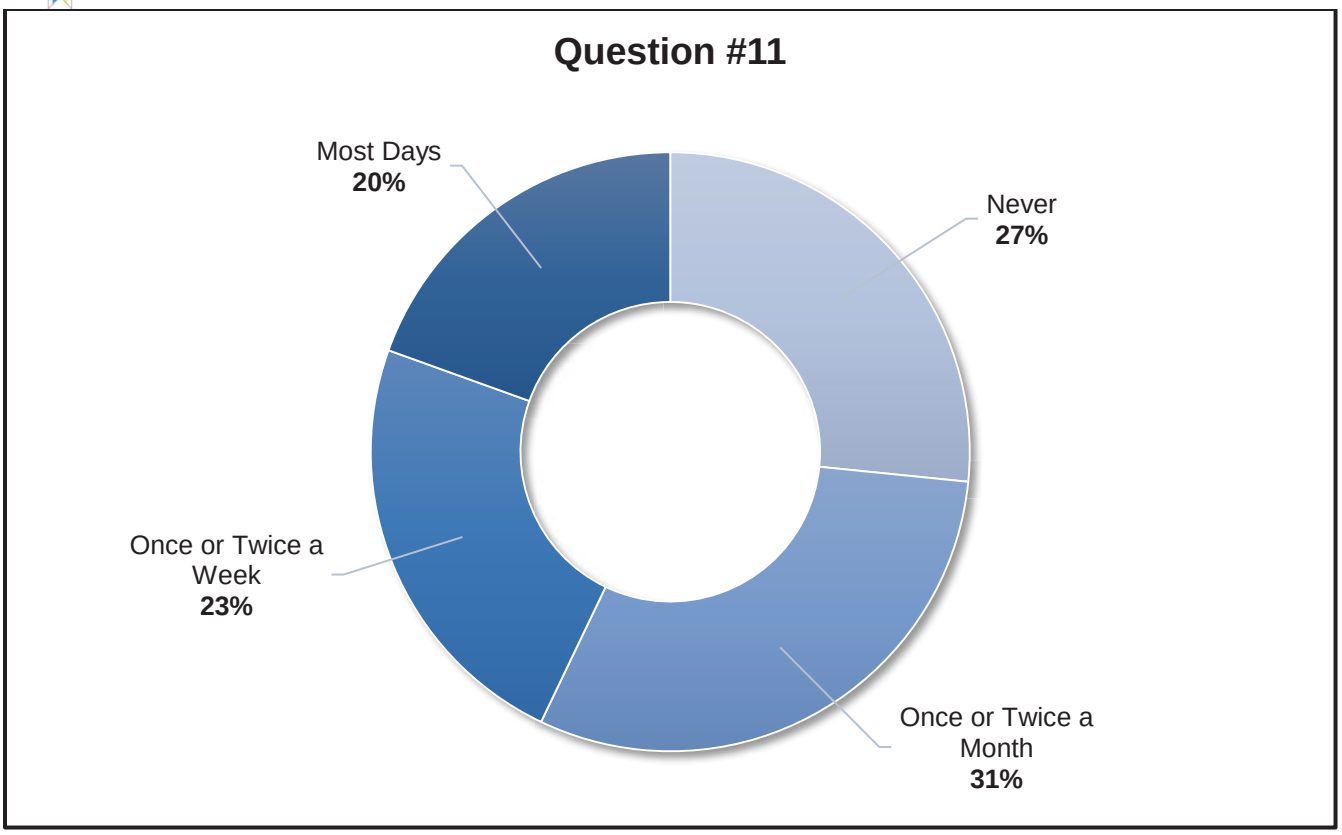


The figure above illustrates the distribution of participants based upon the extent crime or safety issues influence their travels. **While 45 percent of participants do say crime and safety do not impact their travels at all, 55 percent did say that crime and safety does impact their travels at least occasionally.** The finding from this question can help justify the need for potential safety improvements to existing transportation infrastructure.

Response Breakdown

Response Rate: 99%
Skipped Rate: <1%
Written Responses: N/A

Question #11 – How often do you bike or walk a distance of 1 mile or greater?

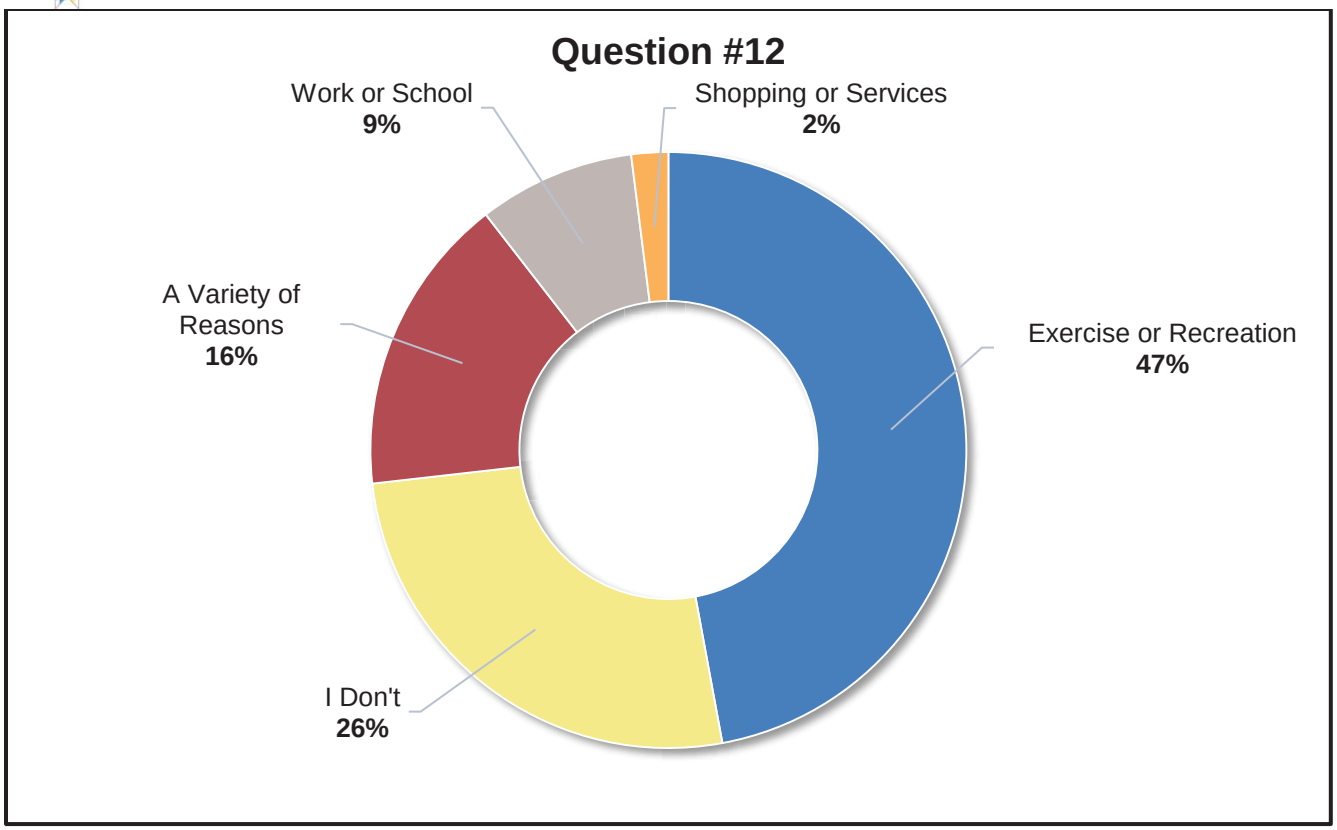


The figure above illustrates the distribution of participants based upon how often they walk or bike more than a mile. Results from this question are unique due to the nearly equal distribution of responses for each option. **If broken down further however (do vs. do not walk/bike), only 27 percent said they never travel over a mile while 74 percent said they do walk or bike over a mile at least once or twice a month.** These findings stress the significance of biking and walking infrastructure within the reservation and the need to maintain them.

Response Breakdown

Response Rate: 97%
Skipped Rate: 3%
Written Responses: N/A

Question #12 – Why do you bike or walk a distance of 1 mile or greater?

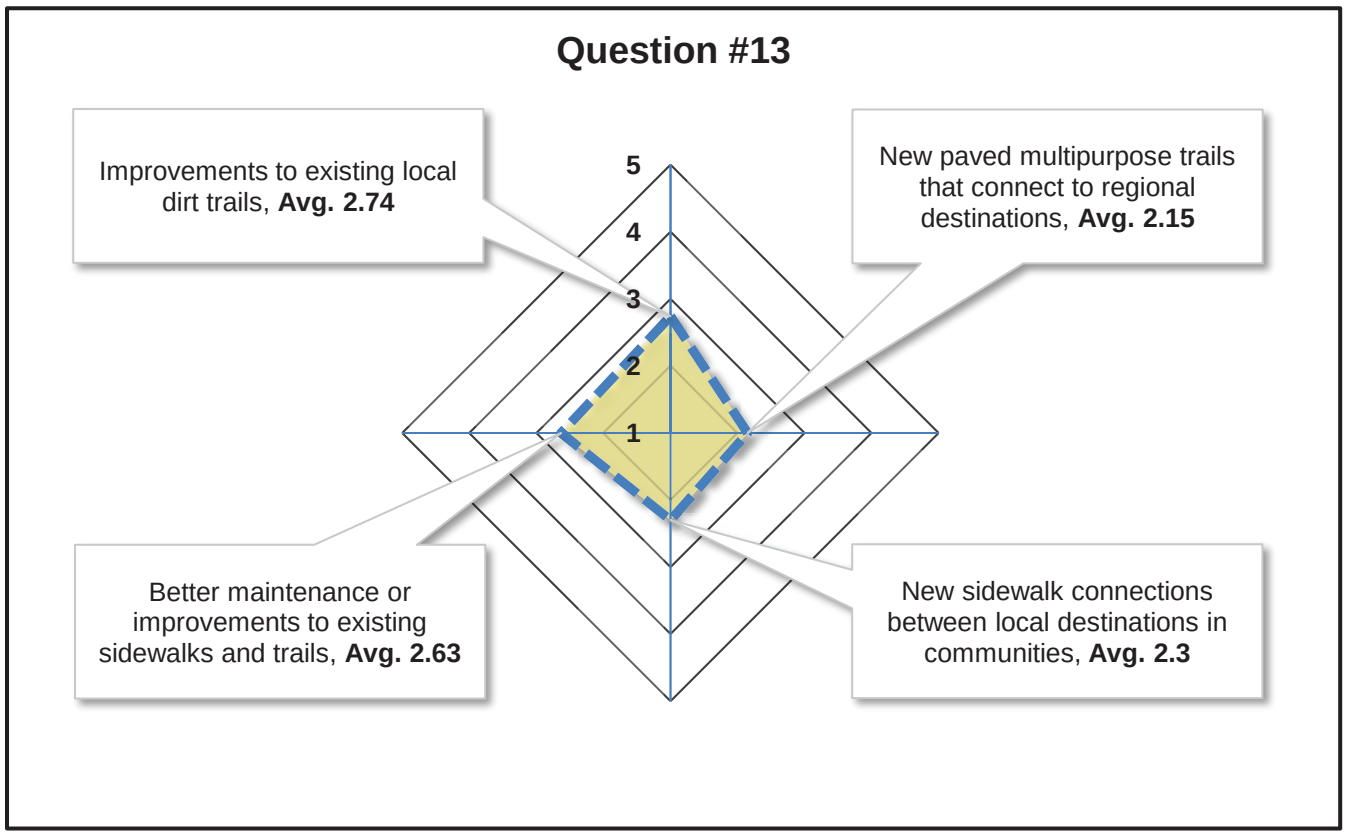


The figure above illustrates the distribution of participants based upon why they walk or bike more than a mile. Almost half of the participants said "**Exercise or Recreation**" is reason they walk or bike at least a mile. This question also provides some quality control for the previous question. In the previous question 27 percent said they never walk or bike a mile or more, while 26 percent said they do not for this question. Suggesting, the participants only had roughly a one percent margin of error in terms of consistency in their responses. The findings from this question reinforces the significance of biking and walking infrastructure within the reservation and the need to maintain them.

Response Breakdown

Response Rate: 97%
Skipped Rate: 3%
Written Responses: N/A

Question #13 – White Earth Reservation is considering making improvements to sidewalks and trails. Please rank your desire for the following item from 1 to 4. (1 = Most desirable, 4 = Least Desirable)

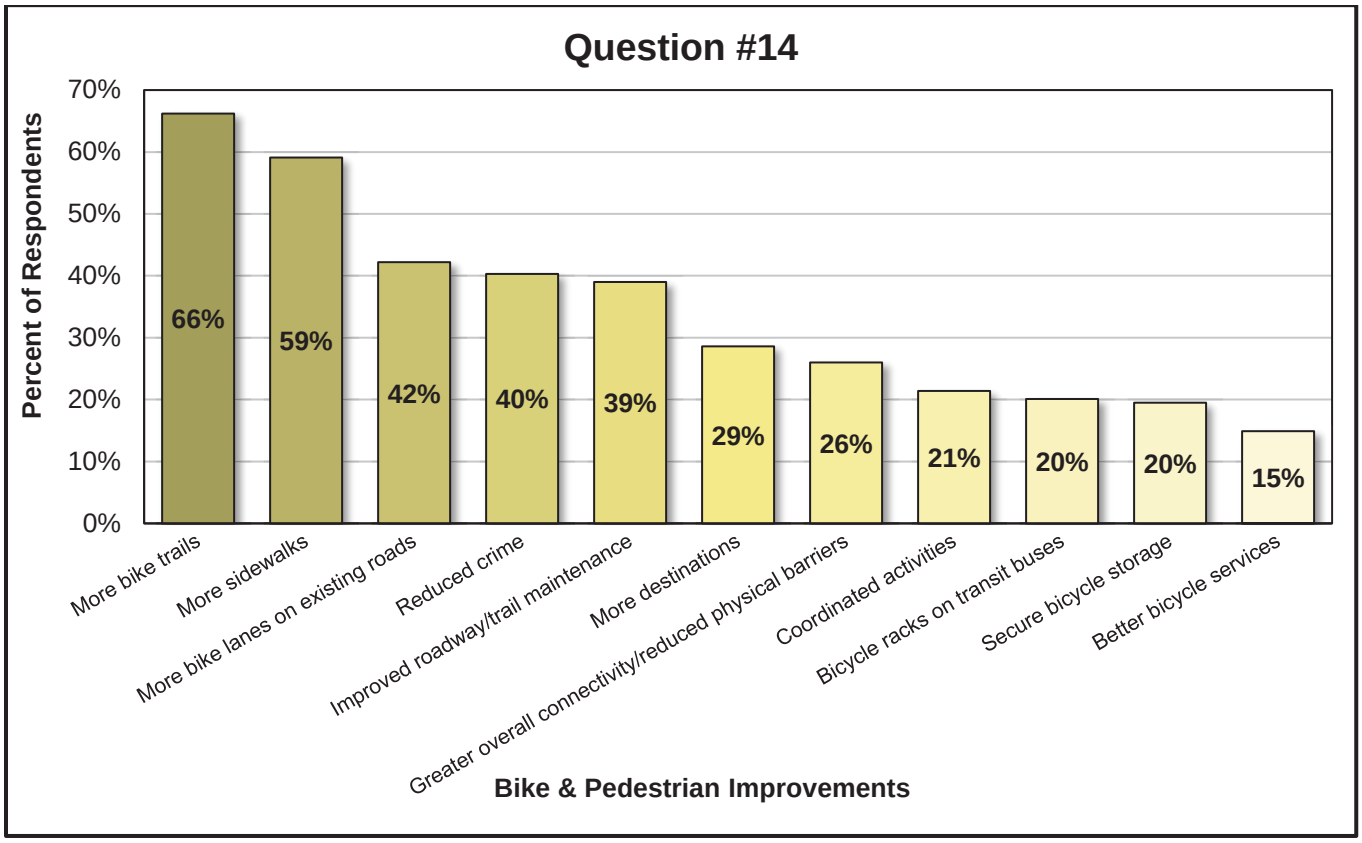


The figure above illustrates the participants' average rank for each of the identified improvements. In the figure, the closer a point is to the center, the more significant it is considered by the participants. The top issues considered as "most desirable" were "**New paved multipurpose trails that connect to regional destinations**" and "**New sidewalk connections between local destinations in communities**." The identified improvements from the public can help shape the prioritization of projects in the reservation. There is a clear preference from the public that "new" trails and sidewalks are needed compared to maintaining or improving "existing" trails and sidewalks at this time.

Response Breakdown

Response Rate: 96%
Skipped Rate: 4%
Written Responses: N/A

Question #14 – What improvements would most encourage walking and bicycling? Check all that apply.

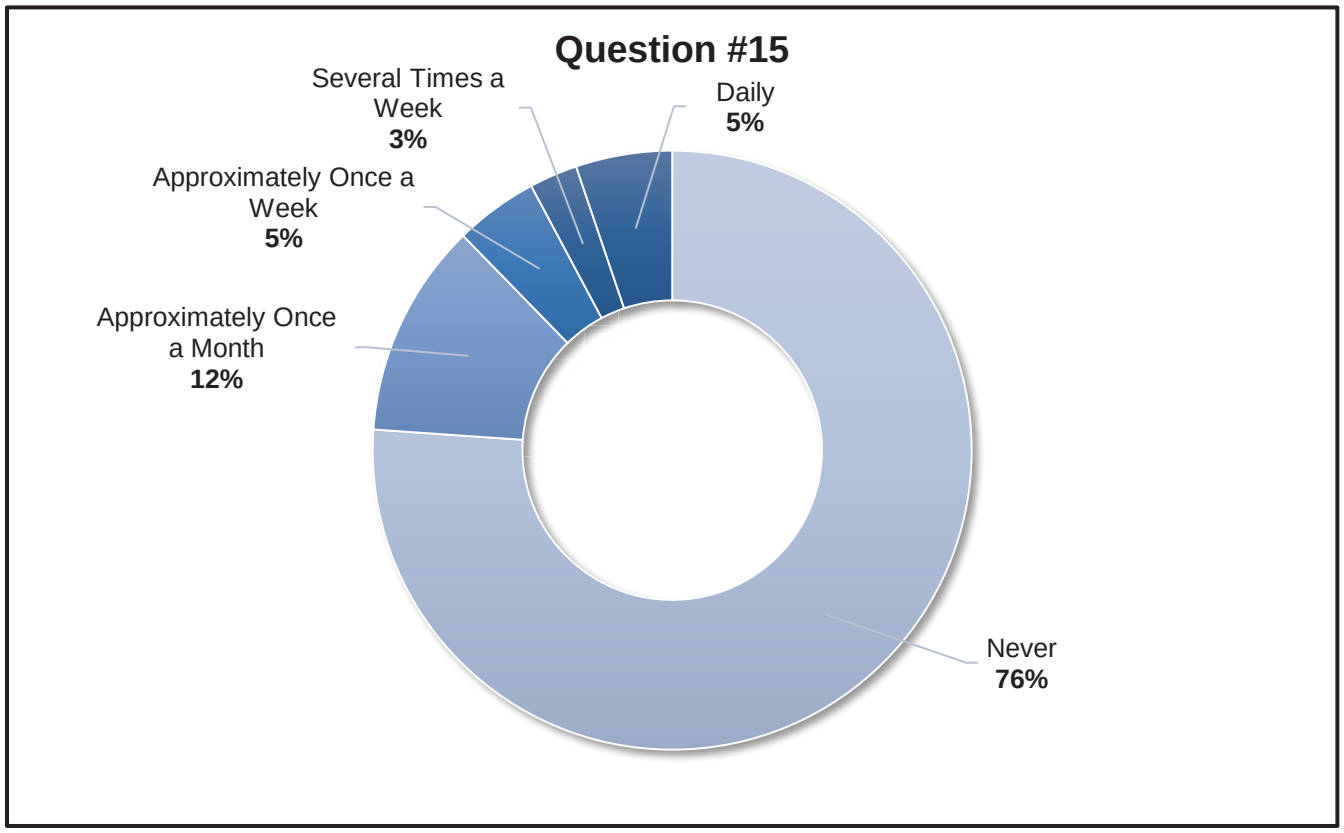


The figure above illustrates the improvements the participants believe should be encouraged. Of the participants, the majority selected "**More bike trails**" and "**More sidewalks**" as one of the improvements that should be encouraged. The results found from this question reinforces the clear preference from the public that "new" trails and sidewalks are needed, followed then by maintenance of "existing" trails and sidewalks.

Response Breakdown

Response Rate: 98%
Skipped Rate: 2%
Written Responses: N/A

Question #15 – How frequently do you use the White Earth Transit System?

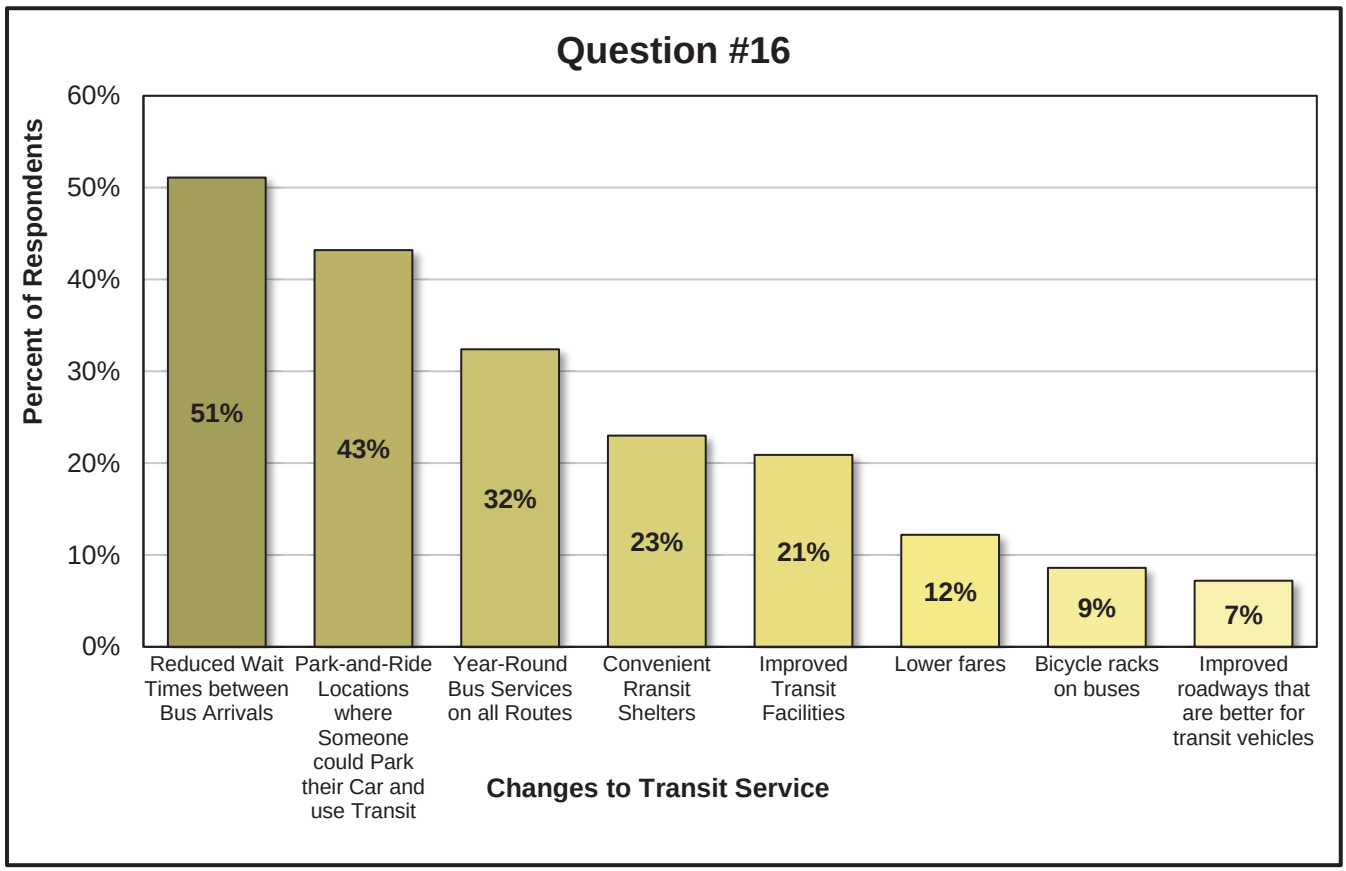


The figure above illustrates the distribution of participants based upon how often they use the White Earth Transit System. **While roughly 24 percent of participants said they do use the system, 76 percent said they never use it.** The finding although at first glance appears low for transit use, that fact that one in four participants use the system at least once a month is significant.

Response Breakdown

Response Rate: 98%
Skipped Rate: 2%
Written Responses: N/A

Question #16 – What changes to transit service would make you ride the bus more often? Please select up to two. Feel free to answer even you don't use White Earth Transit.

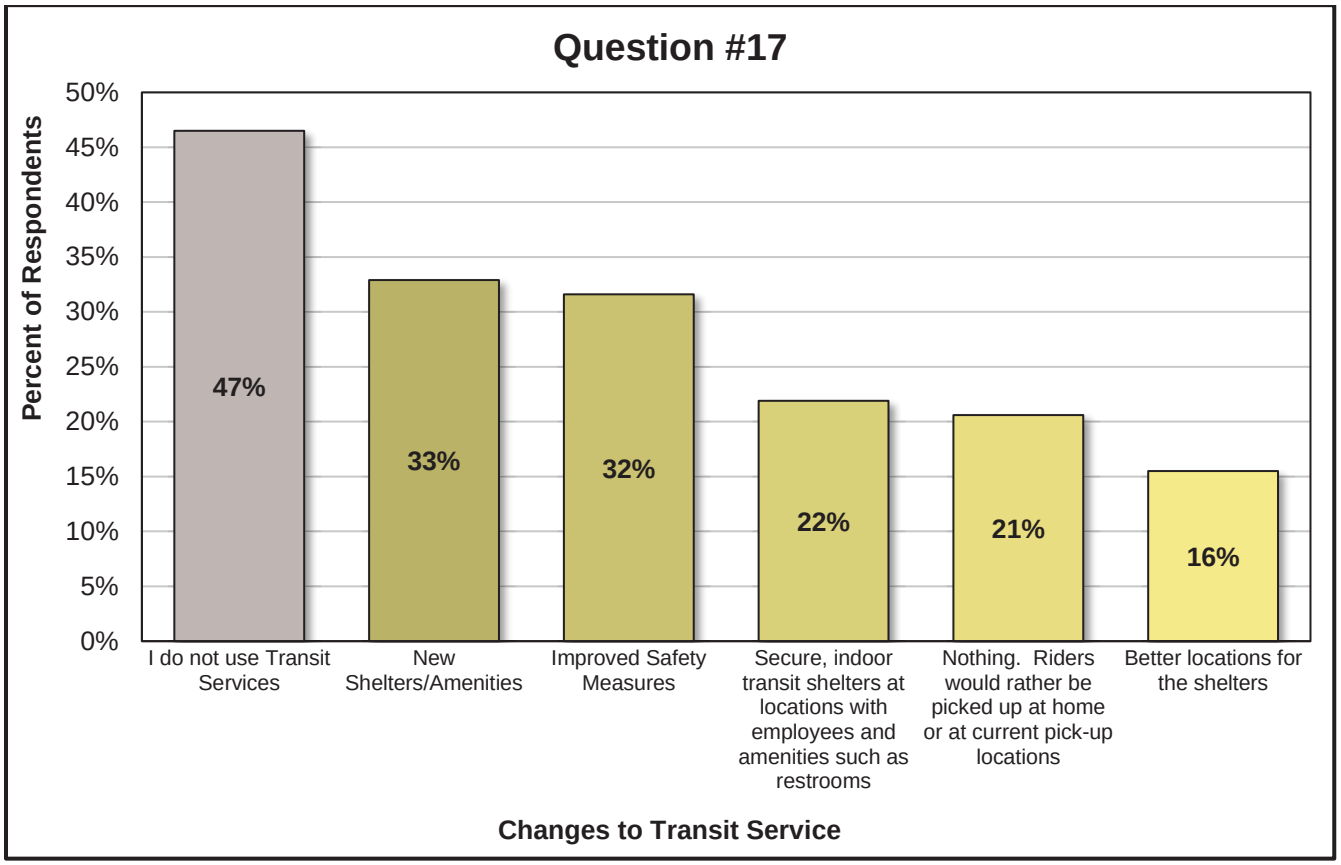


The figure above illustrates the changes to transit service the participants would like to see. Given the direction to select up to two, the options that received the most positive feedback include: "**Reducing wait times between bus arrivals"** and "**Park-and-Ride locations where someone could park their car and use transit**." The preferred changes as identified by the public may help direct methods for improving the transit system.

Response Breakdown

Response Rate: 88% (1st Lowest)
Skipped Rate: 12% (1st Highest)
Written Responses: N/A

Question #17 – What can be done to increase use of transit shelters? Please mark all that apply.



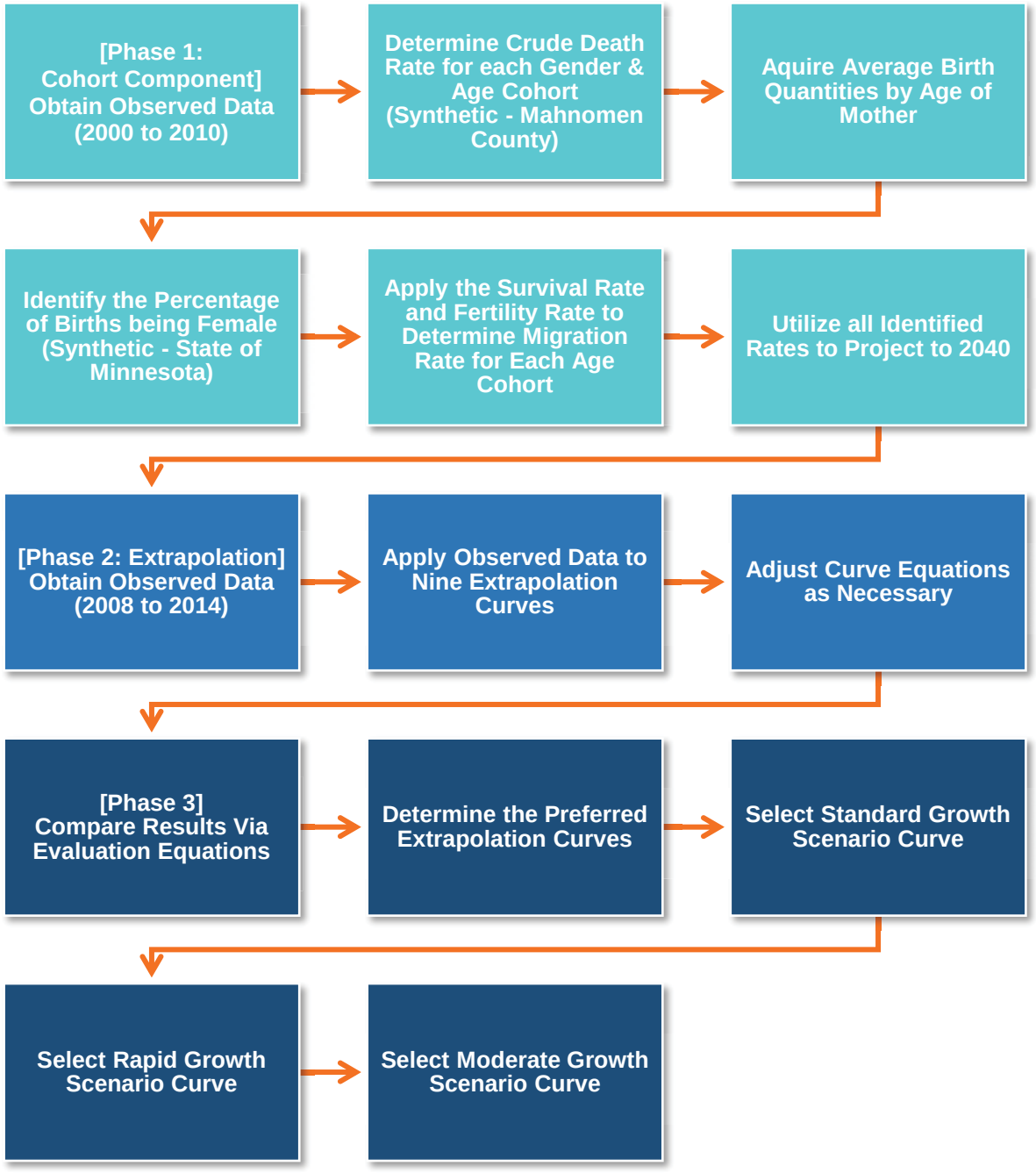
The figure above illustrates the changes to transit shelters the participants would like to see. The options that received the most positive feedback include (excluding those that do not use it): "**News Shelters/Amenities**" and "**Improved Safety Measures**." The preferred changes as identified by the public may help direct methods for improving transit shelters.

Response Breakdown

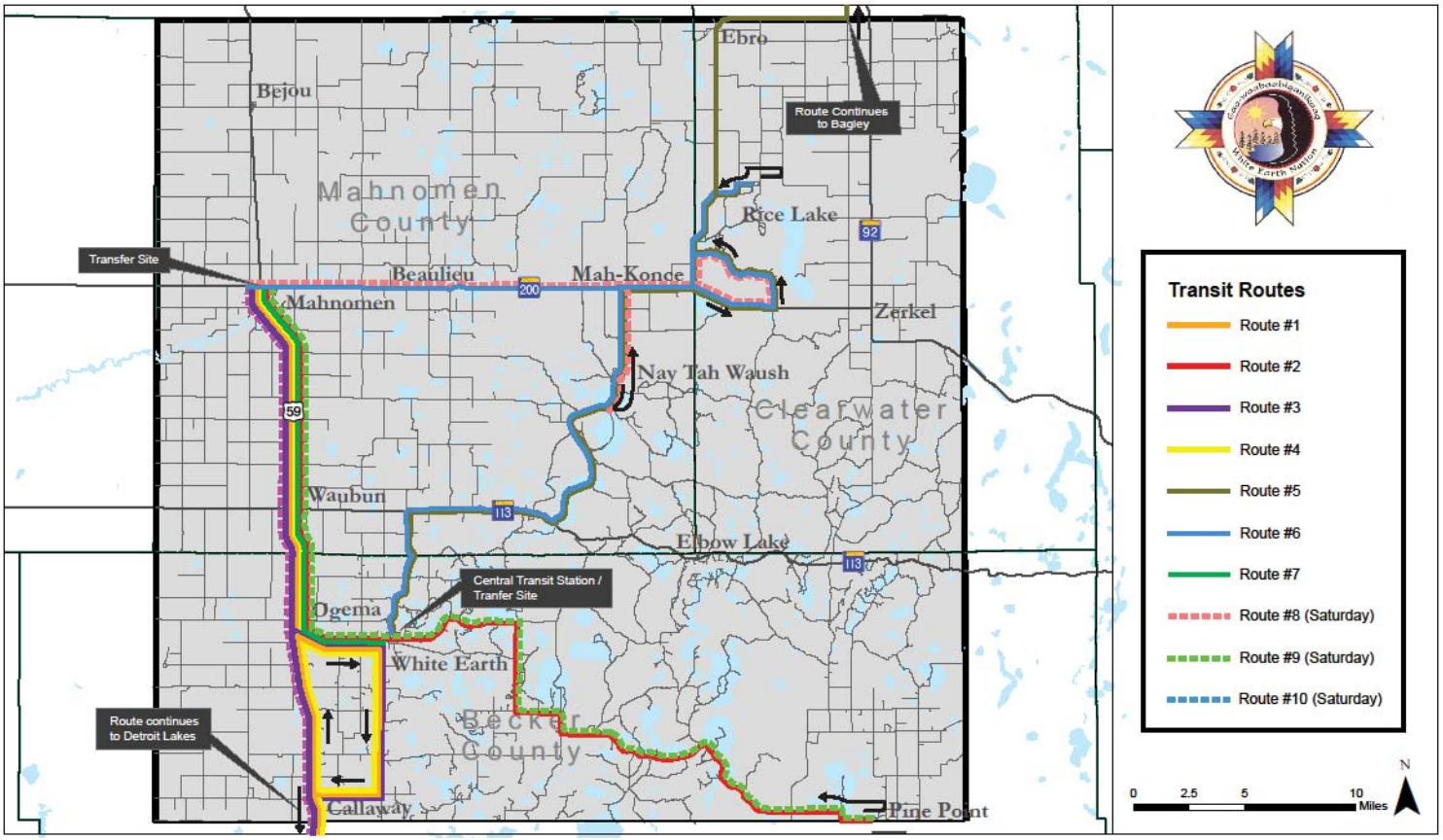
Response Rate: 98%
Skipped Rate: 2%

Written Responses: N/A

Appendix B – Population Projection Methodology



Appendix C – Current Transit Route Maps and Schedules



Departure times may vary due to weather conditions or deviations

Route#1 Detroit Lakes/White Earth	
Location	Departure
White Earth> Detroit Lakes	**AM**
White Earth/ IHS/ Transfer Rt 2	10:15-10:30
Callaway Stops	10:45
Detroit Lakes Stops/Depot	11:00
Detroit Lakes> White Earth	**AM**
Detroit Lakes Stops/Depot	11:15
Callaway Stops	11:30
White Earth Stops / Transfer Rt 2	11:45-12:10
White Earth > Detroit Lakes	**PM**
White Earth Stops /Transfer Rt 2,6	12:10
Callaway Stops	12:25
Detroit Lakes Stops/Depot	12:40-1:05
Detroit Lakes> White Earth	**PM**
Detroit Lakes Stops/Depot	1:05
Callaway Stops	1:15
White Earth Stops	1:35
White Earth > Detroit Lakes	**PM**
White Earth/ Transfer RT 2	1:50
Callaway Stops	2:00
Detroit Lakes Stops/Depot	2:20
Detroit Lakes> White Earth>Mah	**PM**
Detroit Lakes Stops/Depot	2:35
Callaway Stops	2:45
White Earth Stops /Rt 6 > Mahnomen	3:35
Mahnomen>WE>Detroit Lakes	**PM**
Mahnomen Stops/Casino Transfer 2,6	4:08
White Earth Stops/ IHS/RTC	4:35
Callaway Stops	4:50
Detroit Lakes Stops/Depot	5:15
Detroit Lakes> White Earth	**PM**
Detroit Lakes Stops/Depot	5:15
Callaway Stops	5:30
Ogema /Transfer Rt 4	5:55
White Earth Stops/Transit Station End	6:15
Route 8 SATURDAY ROUTES ONLY	**DEPARTURE**
Rice Lake/Naytahwaush	6:00-7:15
Arrive At SSC	7:45
Depart SSC > NTW> RL> End	4:08
Route 8 SATURDAY ROUTES ONLY	**DEPARTURE**
Pine Point > WE	6:15-6:30
White Earth > SSC	7:45
Arrive At SSC	7:45
Depart SSC > WE > PP> End	4:08
Route 10 SATURDAY ROUTES ONLY	**DEPARTURE**
Detroit Lakes Depot	6:45
MHN/SSC	7:30
MH/SSC Depart for DL	8:00
Depart Detroit Lakes Depot	3:00
Arrive SSC	3:45
Depart SSC	4:08
Detroit Lakes Depot End	5:00

Route # 2 Pine Point/Ponsford/MHN	
Location	Departure
Pine Point>White Earth	**A M**
Pine Point Area Stops	6:15
White Earth/ IHS	7:15
Ogema/M&W Store/DCH	7:30
Ogema>Mahnomen	**A M**
Ogema/M&W Store /DCH	7:30
Waubun Stops	7:25
Mahnomen Stops/ SSC	7:45
Mahnomen>White Earth	**AM**
Mahnomen Stops/SSC	8:15
Waubun Stops	8:25
White Earth Stops	8:45
White Earth> Pine Point	**A M**
White Earth Stops	8:45
Strawberry Lake Store	9:00
Pine Point Area Stops	9:45
Pine Point>White Earth	**A M**
Pine Point Area Stops	9:45
White Earth /IHS/ Transfer RT 1	10:30
Ogema/M&W Store/DCH	10:40
Ogema>Mahnomen	**A M**
Ogema/M&W Store/DCH	10:40
Waubun Stops	10:50
Mahnomen Stops/Transfer Rt 6	11:15
Mahnomen>White Earth	**AM**
Mahnomen Stops/SSC	11:15
Waubun Stops	11:25
Ogema/M&W Store/DCH	11:40
White Earth/ IHS/ Transfer Rt 1	12:30
White Earth> Pine Point	**PM**
White Earth/ Transfer Rt 1, 6	12:10
Strawberry Lake Store	12:30
Pine Point Area Stops	1:00
Pine Point>White Earth	**P M**
Pine Point Area Stops	1:10
White Earth /IHS/ Transfer Rt 1	1:50
Ogema/M&W Store/DCH	2:20
Ogema>Mahnomen	**PM**
Waubun Stops	2:30
Mahnomen Stops/ SSC	2:45
Waubun Stops / School	3:30
Mahnomen> White Earth	**PM**
Mahnomen Stops/ SSC Transfer 1,6	**4:10**
Waubun Stops	4:25
White Earth Stops	4:35
White Earth> Pine Point	**PM**
White Earth Stops	4:35
Strawberry Lake Store	4:45
Pine Point Area Stops	5:15
Transit Station End	5:30

Route # 3 Detroit Lakes/Mahnomen	
Location	Departure
Detroit Lakes > White Earth	**AM**
Detroit Lakes Depot only	6:45
Callaway Stops	7:00
White Earth Stops / IHS	7:15-7:30
White Earth>Detroit Lakes>Casino	**AM**
White Earth Stops	8:45
MON,WED&FRI ONLY	
Detroit Lakes -Depot only	9:30
Shooting Star Casino	10:15
Mahnomen	**AM**
Mahnomen Stops / Transfer Rt 6,2	10:30>12:00
Mahnomen Stops / Transfer Rt 6	1:00>2:20
Shooting Star Casino	2:30
Mahnomen>Detroit Lakes	**PM**
Shooting Star Casino/WE/DL	3:00-3:30
Detroit Lakes -Depot only	4:00
Detroit Lakes > White Earth	**PM**
Detroit Lakes- Depot only	4:05
White Earth Stops/Transit Station End	4:30

Route # 4 Detroit Lakes shopping	
Location Tues. Thurs. Only	Departure
MAHNOMEN	**A M**
Riverland Apt	8:00
Valley View commons	8:07
Mahnomen	8:15
Waubun	8:25
Ogema/Dreamcatchers	8:35
Bilmidit/Izilwin	8:50
Round House	9:00
Congregate	9:10
Leave WE	9:20
Walmart	9:50
B & G Thrift Store	10:00
Walmart	11:00
Load Bus	11:15
B & G Store	11:25
Return To WE	11:30
WE Drop Off	12:15
Mahnomen Drop Off	12:45
Return To WE End	1:00

Route # 5 NTW/ RL/ Elbow Lake	
	AM/PM
White Earth Stops	6:50-7:15
Elbow Lake Community Center	8:00
Naytahwaush Complex / Transfer Rt 6	8:45
NTW / Ricelake / NTW/ Transfer Rt 6	8:45-10:15
NTW/Rice Lake / NTW/ Transfer Rt 6	11:30-12:45
NTW/Rice Lake / NTW/ Transfer Rt 6	12:45-2:45
NTW/Rice Lake / NTW/ Transfer Rt 6	2:45-4:15
NTW>Elbow Lake	4:15-4:45
Elbow Lake > WE	4:45-5:15
WE End	5:30

Route # 6 Rice Lake/ NTW/ Mah	
Location	Departure
Rice Lake > Naytahwaush	**AM**
Rice Lake Transit Station	6:05
Rice Lake Community	6:15
Naytahwaush Complex	7:10
Naytahwaush> Naytahwaush	**AM**
Mahnomen SSC/ Transfer Rt 2	7:45-8:05
Naytahwaush Complex / Transfer Rt 5	8:45
Naytahwaush >Mahnomen	**AM**
Mahnomen SSC	9:15-9:30
Naytahwaush Complex /Transfer Rt 5	10:15
Mahnomen SSC	11:30
Mahnomen/ WE/ NTW	**AM**
Mahnomen/ Shooting Star Casino	11:30
Mahnomen> WE> PP>DL Transfer Rt 1, 2	11:40
Mahnomen> Naytahwaush	12:10
Naytahwaush >Mahnomen	**PM**
Naytahwaush Complex / Transfer Rt 5	12:40-1:00
Mahnomen/ Shooting Star Casino	1:40-2:00
Mahnomen> Naytahwaush	**PM**
Mahnomen Shooting Star Casino	2:00
Naytahwaush Complex / Transfer Rt 5	2:45
Naytahwaush > Mahnomen	**PM**
Naytahwaush Complex / Transfer Rt 5	3:10
Mahnomen/ Shooting Star Casino	3:45-4:10
Mahnomen> Naytahwaush	**PM**
Mhn/ Shooting Star Casino Transfer 1,2	**4:10**
Naytahwaush Complex	4:50
Naytahwaush> Rice Lake> W.E.	**PM**
Naytahwaush Complex	5:30
Rice Lake Transit Station	5:40
Rice Lake Community Center	6:00
White Earth Transit Staion End	6:45-7:00

Route # 7 White Earth> Mah	
	AM
White Earth Stops	6:00
Mahnomen Stops	6:30-7:00
White Earth Stops/ Transfer Rt 3,2	7:45-8:30
Mahnomen Stops	9:00-10:00
White Earth Stops /Transfer/ RT 1 End	10:30
White Earth/Mahnomen	**PM**
White Earth Stops / Transfer Rt 3	4:00>4:30
Ogema /M&W Store / DCH	4:45
Ogema>Mahnomen	**PM**
Ogema/M&W Store/DCH	4:45
Waubun Stops	4:55
Mahnomen Stops/Casino	5:15> 5:30
Mahnomen>White Earth	**PM**
Mahnomen Stops/Casino	5:30
Waubun Stops	5:45
Ogema /M&W Store / DCH/ Transfer Rt 1	5:55
Mahnomen/SSC	6:20
White Earth End	6:45

LEGEND= SSC=Shooting Star Casino MHN=Mahnomen DCH= Dream Catcher Homes DL= Detroit Lakes WE= White Earth NTW= Naytahwaush IHS= Indian Health Service PP=Pine Point RTC= Tribal Headquarters EL= Elbow Lake RL= Rice Lake RT= Route TRFR= Transfer

Appendix D – Non-FTA Federal Programs that Support Transit

Program Title	Program Benefit	Program Purpose	Eligibility
United States Department of Agriculture			
Food stamp Employment and Training Program	Advanced payment for fuel/bus fare	Access to education, training, employment services and employment	Low-income (ages 16 to 59)
Department of Education			
21st Century Community Learning Centers	Contract for student transportation service	Access to educational services and programs	Students from low-income families
Assistance for Education of All Children with Disabilities	Purchase and operate vehicles, Contract for service	Access to educational services and programs	Children with disabilities
Centers for Independent Living	Referral, assistance and training in **use of public transportation**	Access to program services for general trips	Persons with significant disabilities
Independent Living services for Older Individuals who are blind	Referral, assistance and training in **use of public transportation**	Access to program services for general trips	Person 55-years or older with significant visual impairment
Supported Employment Services for Individuals with Severe Disabilities	Bus tokens	Access to employment, employment services, and vocational rehab services	Persons with significant disability
Vocational Rehabilitation Grants	Bus tokens	Access to employment, employment services, and vocational rehab services	Persons with physical and mental impairments
Department of Health and Human Services			
Community services Block Grant Programs	Taxi vouchers and bus tokens	General trips	Low-income persons
Developmental Disabilities Projects for National significance	Transportation information	General trips	Persons with developmental disabilities

Head start	Purchase and operate vehicles, contract with providers, coordinate with local education agencies	Access to educational services	Children from low-income families
Refugee and Entrant Assistance Discretionary Grants	Bus passes	Access to educational and employment services	Refugees
Refugee and Entrant Targeted Assistance	Bus passes	Access to educational and employment services	Refugees
Refugee and Entrant Assistance Voluntary Programs	Bus passes	Access to educational and employment services	Refugees
Temporary assistance to Needy families	Any transportation related use, matching portion of JARC grants	General trips	Families with minor children
Grants for supportive Services and Senior Centers	Contract for services	Senior program service access, medical and general trips	Person 60 years and older
Program for American Indian, Alaskan Native, and Native Hawaiian Elders	Purchase and operate vehicles	Medical and general trips	American Indian, Alaskan Native and Native Hawaiian elders
Medicaid	Bus tokens and brokerage services	Access to health care	Low-income persons (generally, but state defines)
State Children's Health Insurance Program	Any transportation related use	Access to health care	Children from low-income families (state determines eligibility)
Community Health Centers	Bus tokens/passes, transportation coordinators, and drivers	Access to health care	Medically underserved population
Healthy Communities Access Program	Improve coordination of transportation	Access to health care	Uninsured/underinsured populations
Healthy Start Initiative	Bus tokens, taxi vouchers	Access to health care	Persons with significant perinatal health disparities
Maternal and Child Services Grants	Any transportation related use	Access to health care	Mothers, infants and children from low-income families
Rural Health Care, Rural health Network and Small Care Provider Program	Purchase vehicles and bus passes	Access to health care	Medically underserved populations
Community Mental Health Services Block Grants	Purchase vehicles and bus passes	Access to health care	Medically underserved populations
Substance Abuse Prevention and Treatment Block Grant	Any transportation related use	Access to health care	Persons with substance related disorder and/or recovering substance related disorder

United States Department of Labor			
Job Corps	Bus tickets	Access to Job Corps sites and employment services	Low-income youth
Native American Employment and Training	Bus tokens, transit passes	Access to employment	Unemployed American Indians and other persons of Native American decent
Senior Community Service Employment Program	Mileage reimbursement, reimbursement for travel costs, and payment for costs of transportation	Access employment	Low-income persons 55-year old and older
Trade Adjustment Assistance - Workers	Transit fare	Access to training	Persons found to be impacted by foreign trade, increase imports or shift in production
Welfare to Work Grants to Federally Recognized Tribes	Any transportation related use (no vehicle purchase)	Access to employment and employment services	American Indians and other persons of Native American decent who are long-term welfare recipients or are low- income
Welfare to Work Grants to States and Localities	Any transportation related use (no vehicle purchase)	Access to employment and employment services	Long-term welfare recipients or are low-income
Work Incentive Grants	Encourage collaboration with transportation providers	Access one-stop services	Persons with disabilities who are eligible for employment and training services under WIA
Workforce Investment act Adult Program	Bus tokens/vouchers	Access to training	People on public assistance and low-income individuals
Workforce Investment Act Youth Activities	Public transportation	Access to training and other support services	Youth with low individual or family incomes
Youth Opportunity Grants	Bus tokens	Access program services	Youth from high poverty areas, empowerment zones or enterprise communities
Homeless Veterans' Reintegration Project	Bus tokens	Access to employment	Homeless veterans
Veterans' Employment Program	Bus tokens	Access to employment	Veterans
Department of Veterans Affairs, Veterans Benefits Administration			
Veterans Medical Care Benefits	Contract for services	Access to health care	Veterans with disabilities or low-incomes

Appendix E – Meeting Summaries

Location:	White Earth Public Transit Administrative Offices
Date:	12/8/2016
Subject:	Transit Planning
Attendees:	Ken Bakken, Transit Director; Joe Kapper, SRF

Purpose of Meeting

Follow up on earlier conference call to gather input for transit component of White Earth Long-Range Transportation Plan.

Summary of Meeting

I. Introductions
   a. Ken Bakken has been working with White Earth Transit for about nine years. Has held positions as driver and dispatcher. Has been manager for approx. 16 months.

II. Fleet/Facilities
   a. Generally happy with vehicles available on MnDOT state bid.
   b. Looking for opportunities to coordinate the development of new facilities with other tribal departments. Potential new facility in Waubun.
      i. Waubun facility will include cold storage, offices, passenger lounge.
      ii. Heavy maintenance and body work will stay in White Earth.
   c. Shelter needs
      i. Need to evaluate shelter locations and types (weather protection, accessibility, safety/security)
      ii. Many are not ADA compliant
   d. In the process of converting to propane fuel, school district also runs propane on its vehicles. Will add fueling facility in Waubun.

III. Planning priorities
   a. Looking to establish a new route serving Bagley
   b. Collaboration with Tri-Valley Transit to establish regional routes
   c. Analyze low ridership on Elbow Lake Route
      i. Are there ways to increase ridership?

ii. Do we dedicate a dial-a-ride service to this area instead of a deviated fixed route?

d. Have a significant share of commute trips, need to make sure we are accommodating job connections.
e. Sheltered workshop site in Bagley

IV. Operations
a. Weather cancellations
i. Coordinate with public works and tribal council to make a determination to cancel service
ii. Due to road conditions, portions of routes may be closed.
iii. Have a "code red" system to communicate to PD and customers
iv. Mutual aid to help people when power is out (transportation and shelter)
b. Communication systems have been consolidated and transit is on the 500 MHz network with 911 and public safety.
c. At peak, transit system has 8-10 buses in service

V. Transit Coordination
a. Becker County is shifting from pure dial-a-ride to a deviated fixed route service model
b. Long-term should reach out to Paul Bunyan Transit
c. Interested in mobility management concept – explained how it can be funded with FTA grants
d. Will reach out to neighboring transit systems to identify coordination opportunities.
e. Have attempted to coordinate with Jefferson Lines in the past, but on time performance of intercity bus was poor so they discontinued this program.
f. Transit system contacts:
i. Cynthia Pic – Tri Valley cpic@tvoc.org
ii. Rusty Haskins – Becker County rdhaski@co.becker.mn.us
iii. Ryan Damlo – Becker County (see website)

VI. Training and Safety
a. White Earth Transit participates in the full suite of Minnesota RTAP training programs and uses Don Mohawk as the primary contact for any immediate training issues.
b. Maintenance training at North Central Bus
c. Good relationship with vendors, participates in statewide cooperative purchases.
d. Have attended MPTA and National Tribal Transportation Conference

Actions Needed

Actions Needed	Responsibility
Reach out to neighboring transit systems via conference call	SRF
Send Ken PD of Mobility Manager	SRF
Send any outstanding data from initial request	White Earth Transit
Draft of transit component of LRTP	SRF

Appendix F – Public Involvement

Public involvement is crucial to the acceptance and successful implementation of any transportation plan. The goal of public outreach is to educate stakeholders and general public about the LRTP, provide opportunities for input, and create a process to gain support for the recommendations within the plan. To ensure interested members of the communities were included in key decision-making building support within the tribal community was crucial in gaining a better understanding of transportation related issues. The following approaches were used to accomplish these objectives:

Stakeholder Group Meeting

Meeting Minutes

SRF No. 9357

Location:	Richwood Room, Shooting Star Events Center, Mahnomen Minnesota
Client:	White Earth Reservation – Department of Transportation
Date:	10:00 a.m. – 2:00 p.m. October 4, 2016
Subject:	Long Range Transportation Plan (LRTP) – Stakeholder Group Meeting
Attendees:	See Attached List
From:	Jamie Wark, Project Manager
Copy:	Cindy Gray – Principal Planner and David Sweeney – Community/Transportation Planner

Purpose of Meeting

The purpose of the Long Range Transportation Plan – Stakeholder Group Meeting was to introduce the SRF Consulting Group planning team to key stakeholders that had been identified by the White Earth Department of Transportation and SRF Consulting Group for the purpose of gathering feedback from representatives of tribal transportation interests. Coordination with stakeholders is crucial to align planning objectives, identify practical constraints to plan implementation, and solidify public consensus for specific planning outcomes.

Summary of Meeting

The kick-off Stakeholder Meeting took place in the Richwood Room of the Shooting Star Casino Events Center. There were 19 attendees excluding SRF staff. The SRF team consisted of three (3) planners, including Cindy Gray, Jamie Wark, and Dave Sweeney. Mike Bowman, Assistant Director of White Earth Public Works, began the meeting by introducing himself. He discussed the roll that SRF would play in the development of the Long Range Transportation Plan (LRTP). Mike then handed the presentation over to Jamie Wark, SRF Consulting Group. Jamie described the general LRTP process, including specific plan elements that would be incorporated into the Tribe's LRTP. He discussed the purpose of updating the LRTP, the proposed project schedule, and the purpose of the stakeholder group meeting.

The SRF team then presented the following information with small group input activities following each topic:

- Existing Conditions and Future Growth

- Roadway Network Condition, Connectivity, and Continuity Issues
- Transportation Safety Issues
- Multi-Modal Transportation (White Earth Transit Authority, Bicycles, and Pedestrians)

Each discussion topic included a 15-20 minute group activity. Individual stakeholders were divided into three groups of 5-7 people. Each group was given a series of maps to identify future residential, commercial, and/or industrial growth areas; roadway condition, continuity, and connectivity issues; crash and safety issues; and multi-modal services and facilities. Each group was given the opportunity to present their finding to the remaining groups. During the discussion that followed, SRF team members documented the opportunities, issues, and concerns that were raised.

Following the presentation, the SRF team discussed the next steps in development of the plan. These steps include:

- Processing the data from the group activities and developing an issues map
- Hosting public engagement events to gather feedback from reservation residents
- Developing forecasts of future traffic on reservation roadways
- Conducting a second stakeholder meeting (to be determined)

ACTIONS NEEDED

- Process data gathered at first stakeholder group meeting
- Develop traffic projections
- Create Plan outline and prepare draft plan
- Host public kiosk events and survey community members

Actions Needed	Responsibility
Process data gathered at first stakeholder group meeting	SRF staff
Develop traffic projections	SRF staff
Create Plan outline and prepare draft plan	SRF staff
Host public kiosk events and survey community members	SRF staff

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SRF Project # 9357

Stakeholder Group Meeting
White Earth Transportation Plan Update
October 4, 2016
Richwood Conference Room
Shooting Star Casino and Event Center
10:00 to 2:00 p.m.

SIGN-IN SHEET

#	Name	Agency	Contact Info: Email/phone
1	Lee Murray	Mahnomen Fire Dept	218 261 1553
2	Tom Bray	Tri-Valley opp. council	218-686-5010 thomas@tvoc.org
3	Cindy Gjerswold	TRI-Valley Opp.	218-280-6258
4	Darin Loesch	MNDOT	218-755-6054
5	Mary Safgren	MnDOT	218-846-7987
6	Shiloh Wahl	MnDOT	218-846-3630
7	Steve Cairns	Bagley Schools	218-694-6184
8	Dan Sauve	Clearwater County	218-694-6132
9	Rusty Hoskins	Becker County	218 847-1674
10	Michael Tripplett	White Earth Ec Dev	218-983-3285 x5906
11	Jim Olson	Becker County	218-847-4633
12	Mitchell Berg	Mahnomen City	281-935-2573
13	Jamie Wark	SRF Consulting Group	701-237-0010
14	Dave Sweeney	SRF Consulting Group	701-237-0013
15	Cindy Gray	SRF Consulting Group	701-237-0013

SRF Project # 9357

Stakeholder Group Meeting
White Earth Transportation Plan Update
October 1, 2016
Richwood Conference Room
Shooting Star Casino and Event Center
10:00 to 2:00 p.m.

SIGN-IN SHEET

#	Name	Agency	Contact Info: Email/phone
1	Mallard Bowman	White Earth DOT	Mallard.Bowman@whiteearth-nsn.gov
2	Kibby Sullivan	W.E. CHR transportation	Kibby.Sullivan@WE-NSN.gov
3	DeVon Green	White Earth Ambulance	devon.green@whiteearth-nsn.gov
4	Kenneth Bakken	WE. Transit	Kenneth.Bakken@WhiteEarth-NSN.gov
5	Ryan Damlo	Becker County Transit	218-637-5972 rdamlo@co.becker.mn.us
6	Marcia Nelstrom	W.E. Natural Resources	marcia.nelstrom@whiteearth-nsn.gov
7	Katherine Warren	WE DOR Land Office	Katherine.warren@whiteearth-nsn.gov
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OPEN HOUSE/KIOSK EVENTS

Record of Meeting

SRF No. 9357

Location:	Shooting Star Casino and Event Center, Naytahwaush Community Service Center, Rice Lake Community Center and WERTC Tribal Headquarters
Client:	White Earth Reservation – Department of Transportation
Date:	9:00 a.m. – 4:30 p.m. December 7-8, 2016
Subject:	Long Range Transportation Plan (LRTP) – Open House/Kiosk Events
Attendees:	See Attached List
From:	Jamie Wark, Project Manager
Copy:	Cindy Gray – Principal Planner and David Sweeney – Community/Transportation Planner, Mike Bowman – Assistant Director White Earth Public Works Division

Purpose of Meeting

The purpose of the Open House/Kiosk events was to gather transportation service feedback via a tribal transportation service tailored questionnaire. Information was gathered on a variety of transportation related issues. Public Involvement is vital in gaining a better understanding of everyday transportation related issues from tribal and non-tribal commuters.

Summary of Meeting

Individual open house events were held in the Rice Lake Community Center Wednesday December 7, 2016 from 9:00 a.m. to 12:30 p.m. and in the Naytahwaush Community Service Center from 1:30 p.m. to 4:30 p.m.

The SRF team consisted of three (3) planners, including Cindy Gray, Jamie Wark and Dave Sweeney. Jeff Vivier, Director of White Earth Public Works, attending the open house event. SRF staff set up display boards to inform community members of the open house. SRF staff prepared electronic tablets to conduct a transportation related survey via SurveyMonkey. Community members were asked to complete the 17-question survey and provide feedback on transit related issues and ways to improve existing services by participating in a dot exercise. Each open house participant was asked to identify highways and stretches of roads that are in need of safety improvements, lack necessary signage, and/or are in need of maintenance or reconstruction.

Rice Lake Community Center: There were 14 open house participants excluding SRF.

Naytahwaush Community Service Center: 39 open house participants completed the transportation related survey and transit service dot exercise excluding SRF staff.

Open house events were held again on Thursday December 8, 2016 at the Shooting Star Hotel and Event Center from 9:00 a.m. to 12:00 p.m. and in the RTC Tribal Headquarters from 1:30 p.m. to 4:30 p.m.

Shooting Star Hotel and Event Center: 23 community members chose to participate in the open house event excluding SRF staff.

RTC Tribal Headquarters: There were 40 open house participants who completed the transportation related survey along with transit improvement exercise.

A final open house event was held Friday December 9, 2016 at the Shooting Star Casino Event Center from 4:00 p.m. to 9:00 p.m. 35 individuals participated in the survey and transit service dot exercise.

ACTIONS NEEDED

Actions Needed	Responsibility
Process data gathered from open house participants	SRF staff
Identify areas of improvement for transit services	SRF staff
Identify roadway safety concerns	SRF staff
Host community council meetings to discuss bike and pedestrian issues	SRF & White Earth Roads Department staff

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SRF Consulting Group, Inc. | Engineers Planners Designers

SRF Project # 09357

Pop Up Meeting/Open House/Kiosk Event
White Earth Long Range Transportation Plan Update
Wednesday, December 7, 2016
Rice Lake Community Center
9:00 a.m. to 12:00 p.m.

SIGN-IN SHEET

#	Name	Mailing Address	Email/Phone
1	Steve Clark	29091 Cty R 7	steve clark @ white earth-nsn. gov
2	Angela L. Neeland	26605TO Wild Rice Loop/ P.O. Box 418 Bagley, MN 56621 Fargo ND	angela-neeland @ yahoo.com
3	Jamie Wake	One North Second St 226 Fargo ND 58103	701-237-0010
4	Cindy Gray	One North Second St 226 Fargo ND 58103	701-237-0010
5	Dave Sweeney	SAME AS ABOVE	701-237-0010
6			
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SRF Consulting Group, Inc. | Engineers Planners Designers

SRF Project # 09357

Pop Up Meeting/Open House/Kiosk Event
White Earth Long Range Transportation Plan Update
Wednesday, December 7, 2016
Rice Lake Community Center
9:00 a.m. to 12:00 p.m.

SIGN-IN SHEET

#	Name	Mailing Address	Email/Phone
1	Cindy Gray	1 N. 2nd St N Fargo ND 58102	cgray@srfconsulting.com 701-367-9447
2	Clarence Beaulieu	25724 Lower RLRD. Bagley MN 56621	mary fredrick
3	Mary Fredrickson	Home Health White Earth	mary.fredricksone@whiteearth-nsn.gov
4	Kathy Clark	29091 County 7 Bagley, MN.	Kathy.clark@whiteearth-nsn.gov
5	Mayne Rousu	PO Box 134 Bagley MN	wrousu@gutel.com
6		Bagley 39483 CO7	ChuckHvezda@whiteearth.gov
7		BAGley MN 56621	839-4172

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Pop Up Meeting/Open House/Kiosk Event
White Earth Long Range Transportation Plan Update
Wednesday, December 7, 2016
Rice Lake Community Center
9:00 a.m. to 12:00 p.m.

SIGN-IN SHEET

#	Name	Mailing Address	Email/Phone
1	Paulette Clark	17323 300th Ave Lengby MN 56651	DKclark3084@yahoo.com
2	Ronald Beaupre	-	RICE LAKE
3	Stephanie) Clark		Stephanie.Clark@whiteearth-nsn.gov
4	Lacey Auginaush	12410 State Hwy #200 Mahnomen MN 56557	laceyauginaush@gmail.com
5	Denice Iverson	P.O Box 172 Bagley, MN 56621	218/766/6525
6	Jeff, Vivick	636 Linwood Dr NW Bagley, MN	j.vivick@hotmail.com.
7	Star Stevens	Bagley MN 56621 26242 Waterlily Loop	message only 218-694-2762

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Pop Up Meeting/Open House/Kiosk Event
White Earth Long Range Transportation Plan Update
Wednesday, December 7, 2016
Naytahwaush Community Service Center
1:30 to 4:30 p.m.

SIGN-IN SHEET

#	Name	Mailing Address	Email/Phone
1	Anthony Wadena	PO Box 641 Bagley, MN 56621	Anthony.wadena@whiteearth-nsn.gov
2	Kim Bjerk	P.O Box 22 Naytahwaush	kimbj7@live.com
3	Lynette Londo	29216 260th St Naytahwaush MN 56566	Lynette.Londo@whiteearth-nsn.Gov
4	Tully Wark	15241 290th Ave Leonard MN 56651	tully.wark@whiteearth-nsn.gov
5	Tim Rindahl	2886 284th St Waubun MN 56589	Tim.Rindahl@whiteearth.nsn.gov
6	Cheryl Rindahl	2886 284th St Waubun MN. 56589	218-261-0182
7	Michelle Stevens	330 State Hwy 200 Mahnomen MN 56557	218.261.0599

SRF Project # 09357

Pop Up Meeting/Open House/Kiosk Event
White Earth Long Range Transportation Plan Update
Wednesday, December 7, 2016
Naytahwaush Community Service Center
1:30 to 4:30 p.m.

SIGN-IN SHEET

#	Name	Mailing Address	Email/Phone
1	Doris Weaver	30057 260th St Naytahwaush, MN 56566	
2	Gloria Lafrinierre	14815 St. Rd 59 Bagley MN 56621	gloria.lafrinierre@whiteearth-nsn.gov
3	Michael S Bowman SR	36671 Maple Dr. White Earth MN 56591	Michael.BowmanSR@whiteearth-nsn.GOV 701-237-0010
4	Cindy Gray	SRF One N. 2nd St Fargo ND 58102	CGray@srfconsulting.com
5	David T Sweeney	SRF	dSweeney@srfconsulting.com
6	Shane Burnette	N 100 1st Ave Naytahwaush MN 56566	Shane.Burnette@Whiteearth-nsn.gov
7	Janice Goodwin	11650 Elbo Drive Bagley, MN 56621	218-556-7082

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Pop Up Meeting/Open House/Kiosk Event
White Earth Long Range Transportation Plan Update
Wednesday, December 7, 2016
Naytahwaush Community Service Center
1:30 to 4:30 p.m.

SIGN-IN SHEET

#	Name	Mailing Address	Email/Phone
1	Chris Ellis	P.O. BOX 127 NTW, MN 56566	
2	Myra Accobee	29341 260th St NTW	Myra.Accobee@whiteearth-NSN.gov
3	Laura Trachner	PO Box 267 Mahnomen	ltrachner@me.com
4	Pamela Keezer	PO Box 108 NTW	pam.keezer@gmail.com
5	Coreen Roy	P.O. Box 38 Naytahwaush, MN	coroy21@gmail.com
6	Paula Johnson	1553 300th Ave Lengby MN 5651	218 358 0085
7	Jeff Vivier	636 Leonard Drive NW Bagley, MN 56621	Eugene.Vivier@whiteearth-NSN.gov

SRF Project # 09357

Pop Up Meeting/Open House/Kiosk Event
White Earth Long Range Transportation Plan Update
Wednesday, December 7, 2016
Naytahwaush Community Service Center
1:30 to 4:30 p.m.

SIGN-IN SHEET

#	Name	Mailing Address	Email/Phone
1	Teresa Soyring	1310 Pleasant Ave Waubun MN. 56589	TeresaSoyring@whiteearth-nsn.gov 218-401-0101
2	Angel Stevens	26645 Wild Rice Loop Bagley MN 56621	angel.stevens@whiteearth-nsn.gov 556 6629
3	Krista Goodwin	11886 CoRd Drive Bagley MN, 56621	Krista.Goodwin@whiteearth-nsn.gov (218) 368-0324
4	Jon Weaver	609 1st Street NW Mahnomen, MN 56557	(218) 902-0443 JonWeaver@whiteearth-NSN.gov
5	DARRELL D. WINTER	24402 Co. Rd # 149 DETROIT LAKES, MN. 56501	darrell.winter@whiteearth-nsn.gov (218) 234-0468
6	Liz Andersen	PO Box 85 Naytahwaush, MN 56566	lizmarieandersen@yahoo.com
7	Shelly Weaver	PO Box 104 Naytahwaush MN 56566	Shelly.Weaver@whiteearth-nsn.gov

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White Earth Long Range Transportation Plan Update
Wednesday, December 7, 2016
Naytahwaush Community Service Center
1:30 to 4:30 p.m.

SIGN-IN SHEET

#	Name	Mailing Address	Email/Phone
1	Mackenzie Wark	3550 St. Hwy 200 Mahnomen MN 56557	mackenzie.wark@whiteearth-nsn.gov
2	David Greene	1403 310th Ave Mahnomen MN 56557	
3	Melissa Keezer	28872 284th St Waubun MN 56589	melissa.keezer@whiteearth-nsn.gov
4	Jeff Wark	3170 Bass Lake Rd. Naytahwaush, MN 56566	218-902-0359
5	Michelle Frederick	PO Box 305 26614 Lower Rice Lake Rd. Bagley, MN. 56621	michelle.frederick3@whiteearth 935.5554
6	Paulette Nelson	P.O. Box 572 Mahnomen MN 56557	Paulette.Nelson@whiteearth
7	Christopher Sr	29341 260TH St Naytahwaush 56566	

SRF Project # 09357

Pop Up Meeting/Open House/Kiosk Event
White Earth Long Range Transportation Plan Update
Wednesday, December 7, 2016
Naytahwaush Community Service Center
1:30 to 4:30 p.m.

SIGN-IN SHEET

#	Name	Mailing Address	Email/Phone
1	Krista Bigbear	12562 290th St. Bagley, MN 56621	kristajo09@gmail.com 218 280-5282
2	Darwin Bigbear	PO Box 3 Mahnomen MN 56557	218 261 1415
3	Sia Adkins	1927 260th Av Mahnomen MN 56557	218-280-3346
4	Cindy Gray	SRF Consulting Group	701-237-0010
5	Dave Sweeney	SRF Consulting Group	701-237-0010
6	Jamie Wark	SRF Consulting Group	701-237-0010
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Wednesday, December 7, 2016
Naytahwaush Community Service Center
1:30 to 4:30 p.m.

SIGN-IN SHEET

#	Name	Mailing Address	Email/Phone
1	Rebecca Estey	3123 Estey rd. Mahnomen, MN 56557	218-902-0514
2			
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Pop Up Meeting/Open House/Kiosk Event
White Earth Long Range Transportation Plan Update
Thursday, December 8, 2016
Shooting Star Casino & Event Center
9:00 a.m. to 12:00 p.m.

SIGN-IN SHEET

#	Name	Mailing Address	Email/Phone
1	NONA TOWNSEND	2203 320th AVE Mahnomen MN 56557	218 261 1672
2	Ronald Olue Sr	415 South main Street Mahnomen MN 56557	218-241-1585
3	Don Melina	1324 1st St W Auburn MN 56689	Don Melina@yahoo.com
4	Gabriel Benton	1609 Lambert Rd. Lengby, MN 56651	218-280-2711
5	Nancy Kettle	25525-465 Ave Pavis Ford Mn.	218-841-0101
6	Elizabeth Westbrook	SAME AS ABOVE	218-407-5174
7	Patty Straub	2656 320th St Waubun, MN	218 473-2136

SRF Project # 09357

Pop Up Meeting/Open House/Kiosk Event
White Earth Long Range Transportation Plan Update
Thursday, December 8, 2016
Shooting Star Casino & Event Center
9:00 a.m. to 12:00 p.m.

SIGN-IN SHEET

#	Name	Mailing Address	Email/Phone
1	LaDonna Anderson	Elbow Lake Village	(218)734-2351
2	Shelly Mertens	33274 Co Rd 109 Ogema	218-849-4300
3	Beverly Karsten	27259 Cty Rd 4 Naytahwaush MN 56566	~~218-850-3885~~
4	Kelly K Strangle	PO Box 10 Nay T. MN 56564	218-850-3885
5	Scott Garner	1405 1st St Waubun MN 56589	218-261-3288
6	Ron Fairbanks	1613 Tamarack Rd. Lengby 56651	218 533 0342
7	Michael A Whitman	40548 Hwy 34 #129 Bimaadiziwin White Earth	218-983-3358

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White Earth Long Range Transportation Plan Update
Thursday, December 8, 2016
Shooting Star Casino & Event Center
9:00 a.m. to 12:00 p.m.

SIGN-IN SHEET

#	Name	Mailing Address	Email/Phone
1	Aaron Wittnebel	2020 2nd St., Lake Park, MN 56554	Aaron.Wittnebel@wetcc.edu
2	Corney Pemberton	PO Box 116 Mahnomen mn 56557	cpemberton@starcasino.com
3	Teddy Busse	2562 Cty Rd 14 Mahnomen MN 56557	tbusse@starcasino.com
4	Dan Lafriniere	Po Box 161 N-t-W 56566	dlafriniere@Starcasino.com
5	Kristy Melina	2273 230th Ave Unit 274 Mahnomen 56557	Kmelina@Starcasino.com
6	Casey Francis	2871 284th St Waubun MN 56589	Caseyf62@hhhealth.net
7	Mike Smith	Pensford, MN	cjmSmith@Starcasino.com

SRF Project # 09357

Pop Up Meeting/Open House/Kiosk Event
White Earth Long Range Transportation Plan Update
Thursday, December 8, 2016
Shooting Star Casino & Event Center
9:00 a.m. to 12:00 p.m.

SIGN-IN SHEET

#	Name	Mailing Address	Email/Phone
1	Darla Kier	3181 Co Rd 4 Waubun MN	darla.kier@whiteearth-nsn.gov
2	Dianne Kier	2235 College rd	dmKier@gmail.com
3	Jamie Wark	SRF Consulting	701-237-0010
4	Cindy Gray	SRF	701-237-0010
5	Dave Sweeney	SRF	701-237-0010
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Pop Up Meeting/Open House/Kiosk Event
White Earth Long Range Transportation Plan Update
Thursday, December 8, 2016
Tribal Council Headquarters
1:30 p.m. to 4:30 p.m.

SIGN-IN SHEET

#	Name	Mailing Address	Email/Phone
1	Dussi Kier	39569 Ogema MN 56569	10130228@msn.com imsn@gmail.com
2	Emily Annette	212 Wisconsin Street Callaway 56521	mle1annette@gmail.com
3	Donna Lefebvre	35500 Eagle View Rd White Earth	donna.lefebvre@whiteearth-nsn.gov
4	Seth ONeill	35500 EAGLE VIEW RD WE	Seth.oneill@whiteearth-nsn.gov
5	Bill Steeh	38588 Co Rd 21 Waubun MN 56589	William.Steeh@whiteearth-nsn.gov
6	Darwin Shaugabay	P.O Box 123 307 New Circle Dr. Naytahwaush MN 56566	darshaugabay69@gmail.com
7	Virginia Smith	2233 Zhaawaanong So. Mahnomen, MN 56557	virginia.smith@whiteearth-nsn.gov

SRF Project # 09357

Pop Up Meeting/Open House/Kiosk Event
White Earth Long Range Transportation Plan Update
Thursday, December 8, 2016
Tribal Council Headquarters
1:30 p.m. to 4:30 p.m.

SIGN-IN SHEET

#	Name	Mailing Address	Email/Phone
1	John Bekkerus	13440 Frazee Rd. Frazee MN 56544	JBekkerus@outlook.com
2	Kaelyn Maine	1136 McKinley Ave DL MN 56501	218 849 7602
3	Mary DuSan	119 N 5th St Mahnomen 56557	218 261 2160
4	Britani Ferencik	1020 400th St Twin Valley MN 565584	bferencik1121@gmail.com 218-415-0558
5	Curtis Rogers	610 5th St. N Mahnomen, MN	218-401-2260
6	Felicia Finch	PO Box 41 Waubun, MN 56589	felicia.finch@whiteearth-nsn.gov
7	Floyd DeGroat	301 Willow St. E Detroit Lakes, MN 56501	Floyd.degroat@gmail.com

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SRF Project # 09357

Pop Up Meeting/Open House/Kiosk Event
White Earth Long Range Transportation Plan Update
Thursday, December 8, 2016
Tribal Council Headquarters
1:30 p.m. to 4:30 p.m.

SIGN-IN SHEET

#	Name	Mailing Address	Email/Phone
1	Ken Coleman	713 17th St E Fosston MN 56542	dogstyle1946rs@gmail.com
2	Tracy Goodwin	PO Box 236 WE MN 56591	tracyngoodwin74@gmail
3	Kimberly O'Brien	39193 265th Ave. Waubun MN 56589	Kimberly.O'Brien@whiteearth-nsn.gov
4	Cayla Olson		
5	Sarah Lafriniere	31991 Cothay Rd, Rochert, MN 56578	roobaysue24@hotmail.com
6	Megan Bakken	35131 210th Ave Ogema MN 56569	megan.bakken@whiteearth-nsn.gov
7	Janis Rock	15335 CTY 44 Lagrande MN 56461	janisrock@yahoo.com

SRF Project # 09357

Pop Up Meeting/Open House/Kiosk Event
White Earth Long Range Transportation Plan Update
Thursday, December 8, 2016
Tribal Council Headquarters
1:30 p.m. to 4:30 p.m.

SIGN-IN SHEET

#	Name	Mailing Address	Email/Phone
1	Laura Lee Thompson	PO Box 441 White Earth MN	218 204 1008
2	Scott Donlid	PO Box 321 Thompson, ND	763-360-8046
3	Tom Uran Jr.	38819 Waterfront LN. Waubun MN 56589	218 - 473-3208
4	Veronica Cyr	PO Box 52, Callaway, MN 56521	218-849-0173
5	Aimee McVeigh	PO Box 177 Ogema, MN 56569	218 401 0327
6	Ron Lang	PO Box 233 Ogema	218-204-1413
7	Bernard Wadena	29659 260th Street, NTW	218-983-4646

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Pop Up Meeting/Open House/Kiosk Event
White Earth Long Range Transportation Plan Update
Thursday, December 8, 2016
Tribal Council Headquarters
1:30 p.m. to 4:30 p.m.

SIGN-IN SHEET

#	Name	Mailing Address	Email/Phone
1	Doreen Clark	Po Box 265 White Earth	218-401-0933
2	Lana Mason	P.O. Box 52 Callaway	218-849-3722
3	Lorin Fox	28192 County 7 Bagley	
4	Laurie York	21665 State Hwy 113 East Waubun	218-401-1207
5	Gerald Shaugobay	31257/350 ST Ogema MN	201-1329
6	Cindy Gray	SRF Consulting Group	701-237-0010
7	Dave Sweeney	SRF Consulting Group	701-237-0010

SRF Consulting Group, Inc. | Engineers Planners Designers

SRF Project # 09357

Pop Up Meeting/Open House/Kiosk Event
White Earth Long Range Transportation Plan Update
Thursday, December 8, 2016
Tribal Council Headquarters
1:30 p.m. to 4:30 p.m.

SIGN-IN SHEET

#	Name	Mailing Address	Email/Phone
1	Larry Olson	2444 N TWIN RD Naytahwaush MN	218 983 3285 larry.olson@whiteearth-nsn.gov
2	Kenneth BAKKEN	35131 210th Ave	218-204-0384 Kenneth.Bakken@whiteearth-nsn.gov
3	Nahaa Graff	3050 State Hwy 200 Mahnomen	218-384-6323
4	Mary Otto	32204 Cty Hwy 34 Ogema MN	mary.otto@whiteearth-nsn.gov 218-983-3289
5	Terri Dairo	2780 Brothers Point Rd Waubun	terri.dairo@whiteearth-nsn.gov
6	Marlene Myhre	318 1st St SW Mahnomen, MN 56557	218 261-0505 marlenea.myhre@gmail.com
7	DAVID GOODMAN	1513 TAMARACK RD. LENGBY MN. 56651	dave.goodman@whiteearth-nsn.gov

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SRF Project # 09357

Pop Up Meeting/Open House/Kiosk Event
White Earth Long Range Transportation Plan Update
Thursday, December 8, 2016
Tribal Council Headquarters
1:30 p.m. to 4:30 p.m.

SIGN-IN SHEET

#	Name	Mailing Address	Email/Phone
1	Jamie Wark	SRF Consulting Group	701-237-0010
2			
3			
4			
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COMMUNITY COUNCIL MEETINGS

SRF Consulting Group, Inc. | Engineers Planners Designers

Record of Meeting

SRF No. 9357

Location:	Naytahwaush, Pine Point, White Earth, Rice Lake Minnesota
Client:	White Earth Reservation – Department of Transportation
Date:	January 12 and January 19, 2016
Subject:	Long Range Transportation Plan (LRTP) – Community Council Meetings
Attendees:	See Attached List
From:	Jamie Wark, Project Manager
Copy:	Cindy Gray – Principal Planner and Dave Sweeney – Community/Transportation Planner

Purpose of Meeting

The purpose of the Long Range Transportation Plan – Community Council Meeting was to discuss pedestrian and bicycle safety throughout four communities within the White Earth Reservation. Representatives from the White Earth Public Works Department and SRF Consulting Group met with community council members from the following communities:

- Naytahwaush
- Pine Point
- White Earth
- Rice Lake

Summary of Meeting

Community council meetings took place on Thursday January 12, 2016 and Thursday January 19, 2016. Individual meetings were held in the communities of Naytahwaush and Pine Point the evening of January 12. Two additional meetings were held in the communities of White Earth and Rice Lake the evening of January 19.

Naytahwaush Community Council

5 members of the Naytahwaush Community Council participated in the community council meeting. Members were asked to identify existing trails throughout the community of Naytahwaush. Community maps were provided and used to locate trails. Community council members were asked to identify existing and proposed trails

in an effort to improve pedestrian and bicyclist safety throughout Naytahwaush. The following trail improvements and/or construction were identified:

- 10' bituminous multi-use trail along Mahnomen CSAH 4 from the southern edge of the community to North Twin Lake Road/BIA Road 7.
- Sidewalk construction with street lighting along Tower Road from northern residential project development to Naytahwaush Community Service Center.
- 10' bituminous multi-use trail with lighting along Valley Trail with connection to Mahnomen CSAH 4.
- Multi-use trail from north residential project development through wooded area to Giwanakimin Supportive Housing.
- Construction of 4' concrete sidewalk throughout housing developments.

Improvement and maintenance of existing Tank Trail (between Blair Rd and north projects).

Pine Point Community Council

- The Pine Point Community Council held their monthly meeting the evening of Thursday January 12, 2016. 5 community council members were on hand to help identify improvements for pedestrian and bicyclists within the community of Pine Point. The following community safety improvements were identified:
- 10' bituminous multi-use trail along Pow-wow Highway connecting the new residential housing units with the community.
- Elimination of vehicular traffic through back yards of housing developments.
- Sidewalk construction in new housing development.

White Earth Community Council

The White Earth Community Council Meeting was held Thursday January 19, 2016. Community safety topics were discussed and identified for the community of White Earth. Representatives from the White Earth Public Works Department were on hand to assist with the process of improving pedestrian and bicycle safety throughout the community. The following safety improvements were identified:

- Street lighting along Mission Road to COLA.
- Street lighting along Becker CSAH 34 from Tribal headquarters Road to intersection of Becker County Road 21 and County Road 21.
- Installation of crosswalk signage throughout community.
- Reinstallation of speed bumps throughout residential developments.
- Increased speed limit signage along Becker County Hwy 21 and Becker CSAH 34 entering community.

Rice Lake Community Council

The Rice Lake Community Council Meeting was held the evening of Thursday January 19, 2016. A total of 5 community council members were present to provide community safety ideas. There was a consensus among community council members that a multi-use trail would provide an increase in safety for pedestrian and bicyclists within the community of Rice Lake. A full list of safety improvements identified throughout the evening are listed below:

- 10' bituminous multi-use lighted trail with bridge from Rice Lake Community Center to Clearwater CSAH 7.
- Installation of speed limit signage entering Rice Lake from east edge of community.
- 10' bituminous multi-use trail from residential development located south of Rice Lake Community Center through wooded area connecting community with Rice Lake Dam Bridge.
- Speed bumps installed in residential developments
- 10' bituminous multi-use trail with lighting to pow-wow grounds.

ACTIONS NEEDED

Actions Needed	Responsibility
Process data obtained from each community council	SRF staff
Develop individual community pedestrian and bicycle safety plans with feed from WE Public Works Department	WE Public Works Department and SRF staff
Create public involvement documents for LRTP	SRF staff

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SRF Project # 09357

Community Council Meeting
White Earth Long Range Transportation Plan Update
Thursday, January 12, 2017
Naytahwaush Community Council
4:30 p.m. to 5:30 p.m.

SIGN-IN SHEET

#	Name	Mailing Address	Email/Phone
1	Cheryl Rindahl	28886 284th Street Waubun	
2	Tim Rindahl	28886 284th St	trrindahl@yahoo.com
3	Karen Weidena	Box 162 Naytahwaush 56566	936-5553
4	George Hatfield	P.O Box 241 Naytahwaush, MN 56566	218-401-1712
5	LeVinne Anderson	P.O Box 241 Naytahwaush, MN 56566	218-401-1712
6	Jamie Wurtz	SRF Consulting Group	jwurtz@srfconsulting.com
7	Dave Sweeney	SRF Consulting	dsweeney@srfconsulting.com

SRF Project # 09357

Community Council Meeting
White Earth Long Range Transportation Plan Update
Thursday, January 12, 2017
Pine Point Community Council
6:30 p.m. to 7:30 p.m.

SIGN-IN SHEET

#	Name	Mailing Address	Email/Phone
1	Edie Smith	PO Box 52 Ponsford, MN	esuzanne4776@Hotmail.com 218-252-4144
2	Gerald Roberts	Box 13 Ponsford MN 56575	218 204 0891
3	Mike Swan	27920 485th Ave Ponsford MN	swanmike@arvig.net 218-255-1738
4	Lyman R Roberts	P.O Box 33 Pouland, Mn. 56575	218-255-7085
5	Jamie Wurtz	SRF Consulting Group	jwurtz@srfconsulting.com
6	Dave Sweeney	SRF Consulting	dsweeney@srfconsulting.com
7			

SRF Project # 09357

Community Council Meeting
White Earth Long Range Transportation Plan Update
Thursday, January 19, 2017
White Earth Community Council
5:00 p.m. to 6:00 p.m.

SIGN-IN SHEET

#	Name	Mailing Address	Email/Phone
1	Sandy St Clair	P.O. Box 165 Ogema Mn 56569	(w) 218 936-2444 + 401-0714 (c) Sandra.St.Clair@whiteearth-nsn.gov 218 983 3263
2	Michael S. Baumann SR	P.O. Box 418 White Earth	michael.baumann sr@whiteearth-nsn.gov
3	Jamie Wade	SRF	jwade srfconsulting.com
4	David Sweeney	SRF	dsweeney@srfconsulting.com
5			
6			
7			

SRF Project # 09357

Community Council Meeting
White Earth Long Range Transportation Plan Update
Thursday, January 12, 2017
Rice Lake Community Council
6:30 p.m. to 7:30 p.m.

SIGN-IN SHEET

#	Name	Mailing Address	Email/Phone
1	Mickie Fox	12412 State Hwy 200, Mahnomen, Mn 56557	mickiefox62674@gmail.com 320-279-3238
2	Henry Fox	12412 State Hwy 200 Mahnomen Mn 56557	henryfox142@gmail.com 218-407-2729
3	Holly Thompson	PO BX 704 Bagley mn 56621	—
4	Sheila Stevens	14 Mile Angiline Road Bagley	sheilarscom@yahoo.com
5	Tom Aitchinson	P.O Box 704 Bagley MN 56621	Tom A. W.E. Dot.com
6	Mike Baumann SR	P.O. Box 418 White Earth	Michael.baumann-sr@whiteearth-nsn.gov
7	David Sweeney	SRF	dsweeney@srfconsulting.com

SRF Consulting Group, Inc. | Engineers Planners Designers

SRF Project # 09357

Community Council Meeting
White Earth Long Range Transportation Plan Update
Thursday, January 12, 2017
Rice Lake Community Council
6:30 p.m. to 7:30 p.m.

SIGN-IN SHEET

#	Name	Mailing Address	Email/Phone
1	Jamie Wurtz	SRF	jwurtz@srfconsulting.com
2			
3			
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STATE OF THE BAND ADDRESS

Location:	Shooting Star Casino and Event Center, Mahnomen, MN
Client:	White Earth Reservation – Public Works Division
Date:	9:00 a.m. – 1:00 p.m. April 5, 2018
Subject:	Long Range Transportation Plan (LRTP) – State of the Band Address
Attendees:	See Attached List
From:	Jamie Wark, Project Manager
Copy:	Cindy Gray – Principal Planner, David Sweeney – Community/Transportation Planner, Mike Bowman – Assistant Director White Earth Public Works Division

Purpose of Meeting:

The purpose of the event was to gather transportation network feedback via attendees of the State of the Band Address hosted by the White Earth Reservation Tribal Council as part of the public comment period for the White Earth Long Range Transportation Plan (LRTP).

Summary of Meeting:

The White Earth State of the Band Address was held at the Shooting Star Casino and Event Center Thursday, April 5, 2018. As part of the address each tribal department was invited to set up an educational/outreach booth to promote past accomplishments and provide information to the address attendees prior to the Tribal Chairman's address. Attendees of the address were provided an opportunity to visit each program's booth.

Jamie Wark representing SRF Consulting Group and Mike Bowman representing White Earth Public Works had present a draft copy of the LRTP at the departments booth as a part of the tribal event. A total of twenty-nine (29) individuals signed into the Public Works Division booth to review and provide comments on the Draft LRTP and discuss transportation related issues within the Reservation. A total of twelve (12) comments were gathered during the open house segment of the event. Comments collected during the event have been entered into a public comment table that is attached to this record of meeting document.

Action Needed:

Actions Needed	Responsibility
Update Issues Map for inclusion in LRTP	SRF staff
Incorporate comments received from State of the	SRF staff

Band attendees into community safety plans	
Update public involvement portion of LRTP to include public comments from State of the Band Address	SRF staff

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Comment No.	Source	Comment Type	Commenter	Comment
1	State of the Band Address	Written	Sam Crowell	Safety Issue – Vehicle do not stop at the intersection of Becker CR 37 & CR 143.
2	State of the Band Address	Written	Karen Kellerhuis	Walking paths that include lighting are needed in all communities. Example: College Road to Main Street in Mahnomen has no lighting and is very dangerous for pedestrians and bicyclists.
3	State of the Band Address	Written	Missy Fairbanks	Would like to see street lighting on Tower Road in Naytahwaush.
4	State of the Band Address	Written	Tully Wark	Concerns that I have are shown on issues map. Thanks for taking time to look at improving transportation safety within the reservation.
5	State of the Band Address	Written	Kris Manning	There is an overall lack of lighted walking paths/trails throughout the reservation.
6	State of the Band Address	Written	Gary Thompson	Auginaush Road is not fully paved. Would like to see it paved entirely to connect MNTH 200 to Clearwater CR 7. Vehicles have been damaged by lack of maintenance to unpaved portion of Auginaush Road.
7	State of the Band Address	Written	Bev Karsten	Would like to see walking paths in the Naytahwaush community/area. The lack of paths is a safety concern. Would also like to see transit services provided on holidays and evenings to provide rides for people who work on holidays and evenings.
8	State of the Band Address	Written	Jen McDougall	Realign the Elkhorn Road to south to avoid traveling through the resort.
9	State of the Band Address	Written	Al Fox	Regular maintenance on all tribal roads. Example: Bass Lake Road develops “wash boards”. Can agreements with county be looked at to make sure roads are kept up?
10	State of the Band Address	Written	Nora Jones	Extend proposed multi-use trail east of the intersection of Becker CR 124 & CR 44. Would like to rename road where son was struck to Josh Jones Road.

11	State of the Band Address	Written	Ed Snetsinger	Would like fire department access to tank trail (between Blair Road & north housing project area). Would also like to see a staging area for recreational user (sledding) along Mahnomen CSAH 4 near the eastern edge of Naytahwaush.
12	State of the Band Address	Written	Angel Stevens	Children at Play and/or Autistic Child signage is needed in Rice Lake Community. Speed limit signage is also need entering the community from the east and west roadways.

Appendix G – DETAILED UNIT COST ESTIMATE

UNIT COST - RECONSTRUCTION	
Class 4 - Rural Major Collector	
Aggregate	$420,306
Bituminous	$727,206
Class 5 - Rural Local	
Aggregate	$328,028
Bituminous	$634,928

UNIT COST - RESURFACING	
Class 5 - Rural Local Road	
Aggregate	$82,140.00
Bituminous	$186,304.00
Class 4 - Rural Major Collector	
Aggregate	$109,500.00
Bituminous	$190,996.00

MILL AND OVERLAY

Class 5

ITEM	COST/SY	QUANTITY	COST/MILE
	$2.00	16427	$32,854.00
4" overlay			$306,900.00
2" overlay			$153,450.00
			$186,304.00

Class 4

ITEM	COST/SY	QUANTITY	COST/MILE
2" mill	$2.00	18773	$37,546.00
4" overlay			$306,900.00
2" overlay			$153,450.00
			$190,996.00

ADD AGGREGATE

Class 5

ITEM	COST/CY	QUANTITY	COST/MILE
14"	$30.00	7300	$219,000.00
7"			$109,500.00

Class 4

ITEM	COST/CY	QUANTITY	COST/MILE
12"	$30.00	5476	$164,280.00
6"			$82,140.00

Appendix H – Becker, Clearwater and Mahnomen County Bridge Index

Mahnomen County Bridge Inventory

Structure Number	Township	Structure Crossing	Year Constructed	Sufficiency Rating	Status
44001	Pembina	Wild Rice	1973	88.3	
44002	Pembina	Wild Rice	1979	99.0	
44501	Rosedale	White Earth	1966	71.6	
44502	Pembina	Wild Rice	1966	85.1	
44504	Clover	Wild Rice	1981	100.0	
44505	Chief	Wild Rice	1980	94.9	
44506	Pembina	Wild Rice	1980	96.9	
44508	Island Lake	Wild Rice	1985	100.0	
44509	Chief	Wild Rice	1986	100.0	
44511	Pembina	Wild Rice	2005	100.0	
89591	Lake Grove	White Earth	1956	35.9	*Structurally Deficient
89601	Chief	Wild Rice	1930	26.0	*Structurally Deficient
91581	Oakland	White Earth	1977	97.6	
92592	Marsh Creek	Marsh Creek	1967	34.0	*Structurally Deficient
93182	Marsh Creek	Marsh Creek	1976	98.3	
93183	Marsh Creek	Marsh Creek	1976	80.0	
93263	Lake Grove	White Earth	1977	98.3	
95383	Rosedale	White Earth	1986	-	*Adequate
95384	Pembina	Spring Creek	1981	98.3	
95390	Marsh Creek	Marsh Creek	1985	97.3	
96053	Rosedale	White Earth	1988	98.3	
96094	Pembina	Spring Creek	1985	94.9	
96096	Popple Grove	Spring Creek	1986	94.9	
96159	Oakland	White Earth	1986	98.3	
97035	Rosedale	White Earth	1991	10.0	

97441	Marsh Creek	Marsh River	2003	97.1	
L6422	Oakland	White Earth	1965	62.7	*Structurally Deficient
L6629	Marsh Creek	Marsh Creek	1920	30.1	*Structurally Deficient
L8962	Rosedale	White Earth	1968	34.0	*Structurally Deficient
L9706	Lake Grove	White earth	1977	93.2	
L9837	Gregory	Marsh Creek	1978	94.9	
L9894	Rosedale	White Earth	1979	98.1	

Source: Minnesota Department of Transportation Bridge Inspection and Inventory Reports

**Minnesota Department of Transportation Bridge Reports*

Clearwater County Bridge Inventory

Structure Number	Township	Structure Crossing	Year Constructed	Sufficiency Rating	Status
15006	La Prairie	Wild Rice	1998	99.4	
15501	La Prairie	Wild Rice	1959	96.7	
15X01	La Prairie	Wild Rice	1998	99.4	
93149	La Prairie	Wild Rive	1975	94.6	
15003	Minerva	Wild Rice	1977	96.6	

Source: Minnesota Department of Transportation Bridge Inspection and Inventory Reports

Becker County Bridge Inventory

Structure Number	Township	Structure Crossing	Year Constructed	Sufficiency Rating	Status
03J17	Riceville	Buffalo River	2001	100.0	
03J20	Riceville	Buffalo River	2001	100.0	
03J26	Riceville	Buffalo River	2004	100.0	
03J36	Round Lake	Otter Tail	2011	96.2	
03J17	Riceville	Buffalo River	2001	100.0	

Source: Minnesota Department of Transportation Bridge Inspection and Inventory Reports

Appendix I – Fiscal Year 2017-2020 Tribal Transportation Improvement Plan

Name of Tribe	WHITE EARTH	Current Year Annual Transportation Allocation	$ 1,455,232

Tribal Transportation Improvement Plan

Priority	BIA Route #	Section	Project Length	Year of Constr	Road Name Location (Start and End Points) Description of Work	All Planning, Prelim Eng., Arch, Env, ROW Activities will be included as TOTAL PE costs per Project		Construction		Construction Engineering		Other	Total
						Estimated Cost	Who/How Work Done	Estimated Cost	Who/How Work Done	Estimated Cost	Who/How Work Done	Estimated Cost	Estimated Cost
1	75	10	0.2	2017	**Church Street West** West off of Mahnomen Co. Rd 4	$ 5,000		$ 50,000		$ 5,000			$ 60,000
2	78	10	0.3	2017	**Village Ave** North off of Church Drive West	$ 5,000		$ 70,000		$ 5,000			$ 80,000
3	79	10	0.3	2017	**Shore Ave** North off of Church Drive West - Mill/overlay	$ 5,000		$ 70,000		$ 5,000			$ 80,000
4	7	10	0.5	2017	**North Twin Lake Road** West off of Mahnomen Co Rd 4 - Paving	$ 5,000		$ 70,000		$ 5,000			$ 80,000
5	51	10	0.1	2017	**Amila Ave** North off of Pow Wow Hwy - Mill/Overlay	$ 5,000		$ 45,000		$ 5,000			$ 55,000
6	53	10	0.1	2017	**Migizi Ave** North off of Pow Wow Hwy - Mill/Overlay	$ 5,000		$ 35,000		$ 5,000			$ 45,000
7	54	10	0.3	2017	**Waboose Dr** North off of Pow Wow Hwy - Mill/Overlay	$ 5,000		$ 55,000		$ 5,000			$ 65,000
8	55	10	0.3	2017	**Mashkiki Ave** North off of Waboose, Migizi and Amila - Mill/Overlay	$ 5,000		$ 55,000		$ 5,000			$ 65,000
9	56	10	0.1	2017	**Nibi Ave** North off of Mashkiki St - Mill/Overlay	$ 5,000		$ 35,000		$ 5,000			$ 45,000
10	90	10	0.6	2017	**Wild Rice Loop** South Off of County Hwy 35 Paving/Reconstruct	$ 10,000		$ 222,232		$ 5,000			$ 237,232
11	133	10-20	2.2	2017	**Mission Road Lighting Improvement Project** South Off of County Hwy 35 Paving/Reconstruct	$ 1,000		$ 50,000		$ 1,000			$ 52,000
12	139	10	4.6	2017	**Old County Road 139** North of White Earth - COOP Project	$ 1,000		$ 100,000		$ 1,000			$ 102,000
13	171	10	0.5	2018	**Rice Lake Community Center Road** North off of County Hwy 35 Reclaim/Overlay	$ 10,000		$ 1,000		$ 1,000			$ 12,000
14	200	multiple	28.0	2018	**MN HWY 200 Phase II-Shoulder Widening & Improvements** East-West Route beginning at TH 59 at Mahnomen to Zerkel	$ 1,000							$ 1,000
15	178	10	0.2	2018	**Workforce Center Road** Mahnomen Co Rd 4 - Parking Lot - Paving	$ 5,000		$ 1,000		$ 1,000			$ 7,000
16	80	10	0.4	2018	**Church Lane** East off of Becker Co Rd 35 - Paving/Reconstruct			$ 1,000		$ 1,000			$ 2,000
17	81	10	0.3	2018	**Village Drive** East off of Becker Co Rd 35, connects to Church Ln - Paving			$ 1,000		$ 1,000			$ 2,000
18	82	10	0.3	2018	**North Elbow Lake Road** South off of T.H 113 - Paving/Reconstruct			$ 1,000		$ 1,000			$ 2,000
19	83	10	0.3	2018	**400th Ave** South off of North Elbow Lake Drive - Paving			$ 1,000		$ 1,000			$ 2,000
20	165	10	0.2	2018	**White Earth East Housing** South off of Co Rd. 34 - Paving/Reconstruct	$ 1,000							$ 1,000
NA	NA	NA	NA	2017	**TTP Transportation Transit** (TTP Construction Funds for TTP Transportation Transit)							$ 25,000	$ 25,000
NA	NA	NA	NA	2017	**TTP Transportation Planning** (TTP Construction Funds for TTP Transportation Planning)							$ 35,000	$ 35,000

					(TTP Construction Funds for TTP Transportation Planning)								
NA	NA	NA	NA	2018	**TTP Road Maintenance** (TTP Construction Funds for TTP Road Maintenance)							$ 400,000	$ 400,000
											FY18 Total		**$ 1,500,000**

Priority	BIA Route #	Section	Project Length	Year of Constr	Road Name Location (Start and End Points) Description of Work	All Planning, Prelim Eng., Arch, Env, ROW Activities will be included as TOTAL PE costs per Project		Construction		Construction Engineering		Other	Total
						Estimated Cost	Who/How Work Done	Estimated Cost	Who/How Work Done	Estimated Cost	Who/How Work Done	Estimated Cost	Estimated Cost
1	139	10	4.6	2019	**Old County Road 139** North of White Earth - COOP Project			$ 100,000		$ 1,000			$ 101,000
2	171	10	0.5	2019	**Rice Lake Community Center Road** North off of County Hwy 35 Reclaim/Overlay			$ 100,000		$ 1,000			$ 101,000
3	200	multiple	59.4	2019	**MN HWY 200 Phase II-Shoulder Widening & Improvements** East-West Route beginning at TH 59 north of Mahnomen	$ 1,000		$ 10,000					$ 11,000
4	178	10	0.2	2019	**Workforce Center Road** Mahnomen Co Rd 4 - Parking Lot - Paving			$ 1,000		$ 1,000			$ 2,000
5	80	10	0.4	2019	**Church Lane** East off of Becker Co Rd 35 - Paving/Reconstruct			$ 1,000		$ 1,000			$ 2,000
6	81	10	0.3	2019	**Village Drive** East off of Becker Co Rd 35, connects to Church Ln - Paving			$ 10,000		$ 1,000			$ 11,000
7	82	10	0.3	2019	**North Elbow Lake Road** South off of T.H 113 - Paving/Reconstruct			$ 10,000		$ 1,000			$ 11,000
8	83	10	0.3	2019	**400th Ave** South off of North Elbow Lake Drive - Paving			$ 10,000		$ 1,000			$ 11,000
9	165	10	0.2	2019	**White Earth East Housing** South off of Co Rd. 34 - Paving/Reconstruct	$ 1,000		$ 100,000		$ 10,000			$ 111,000
10	23	10-20	4.8	2019	**Strawberry Lake Road** North off of Becker Co. Hwy 34 - Paving	$ 10,000		$ 400,000		$ 20,000			$ 430,000
11	120	10	0.6	2019	**Water Tower Loop** North offf of County Hwy 35 Paving/Reconstruct	$ 10,000		$ 50,000		$ 5,000			$ 65,000
12	12	10	4.7	2019	**Blair Road** South off of T.H. 200	$ 10,000		$ 100,000		$ 5,000			$ 115,000
13	21	10	0.9	2019	**Ladoux Road** West off of Becker Co Hwy 35	$ 10,000		$ 54,000		$ 5,000			$ 69,000
NA	NA	NA	NA	2019	**TTP Transportation Transit** (TTP Construction Funds for TTP Transportation Transit)							$ 25,000	$ 25,000
NA	NA	NA	NA	2019	**TTP Transportation Planning** (TTP Construction Funds for TTP Transportation Planning)							$ 35,000	$ 35,000
NA	NA	NA	NA	2019	**TTP Road Maintenance** (TTP Construction Funds for TTP Road Maintenance)							$ 400,000	$ 400,000
											FY19 Total		**$ 1,500,000**

Priority	BIA Route #	Section	Project Length	Year of Constr	Road Name Location (Start and End Points) Description of Work	All Planning, Prelim Eng., Arch, Env, ROW Activities will be included as TOTAL PE costs per Project		Construction		Construction Engineering		Other	Total
						Estimated Cost	Who/How Work Done	Estimated Cost	Who/How Work Done	Estimated Cost	Who/How Work Done	Estimated Cost	Estimated Cost
1	200	multiple	59.4	2020	**MN HWY 200 Phase II-Shoulder Widening & Improvements** East-West Route beginning at TH 59 north of Mahnomen	$ 1,000		$ 8,000					$ 9,000
2	23	10-20	4.8	2020	**Strawberry Lake Road** North off of Becker Co. Hwy 34 - Paving -Phase Project	$ 1,000		$ 10,000		$ 10,000			$ 21,000

NA	NA	NA	NA	2017	**TTP Road Maintenance** (TTP Construction Funds for TTP Road Maintenance)							$ 400,000	$ 400,000
											FY17 Total		**$ 1,455,232**

Priority	BIA Route #	Section	Project Length	Year of Constr	Road Name Location (Start and End Points) Description of Work	All Planning, Prelim Eng., Arch, Env, ROW Activities will be included as TOTAL PE costs per Project		Construction		Construction Engineering		Other	Total
						Estimated Cost	Who/How Work Done	Estimated Cost	Who/How Work Done	Estimated Cost	Who/How Work Done	Estimated Cost	Estimated Cost
1	75	10	0.2	2018	**Church Street West** West off of Mahnomen Co. Rd 4			$ 1,000		$ 1,000			$ 2,000
2	78	10	0.3	2018	**Village Ave** North off of Church Drive West			$ 1,000		$ 1,000			$ 2,000
3	79	10	0.3	2018	**Shore Ave** North off of Church Drive West - Mill/overlay			$ 1,000		$ 1,000			$ 2,000
4	7	10	0.5	2018	**North Twin Lake Road** West off of Mahnomen Co Rd 4 - Paving			$ 1,000		$ 1,000			$ 2,000
5	51	10	0.1	2018	**Amila Ave** North off of Pow Wow Hwy - Mill/Overlay			$ 1,000		$ 1,000			$ 2,000
6	53	10	0.1	2018	**Migizi Ave** North off of Pow Wow Hwy - Mill/Overlay			$ 1,000		$ 1,000			$ 2,000
7	54	10	0.3	2018	**Waboose Dr** North off of Pow Wow Hwy - Mill/Overlay			$ 1,000		$ 1,000			$ 2,000
8	55	10	0.3	2018	**Mashkiki Ave** North off of Waboose, Migizi and Amila - Mill/Overlay			$ 1,000		$ 1,000			$ 2,000
9	56	10	0.1	2018	**Nibi Ave** North off of Mashkiki St - Mill/Overlay			$ 1,000		$ 1,000			$ 2,000
10	90	10	0.6	2018	**Wild Rice Loop** South Off of County Hwy 35 Paving/Reconstruct			$ 1,000		$ 1,000			$ 2,000
11	133	10-20	2.2	2018	**Mission Road Lighting Improvement Project** South Off of County Hwy 35 Paving/Reconstruct			$ 75,000		$ 1,000			$ 76,000
12	139	10	4.6	2018	**Old County Road 139** North of White Earth - COOP Project	$ 1,000		$ 100,000		$ 1,000			$ 102,000
13	171	10	0.5	2018	**Rice Lake Community Center Road** North off of County Hwy 35 Reclaim/Overlay	$ 1,000		$ 100,000		$ 1,000			$ 102,000
14	200	multiple	59.4	2018	**MN HWY 200 Phase II-Shoulder Widening & Improvements** East-West Route beginning at TH 59 north of Mahnomen	$ 1,000		$ 10,000					$ 11,000
15	178	10	0.2	2018	**Workforce Center Road** Mahnomen Co Rd 4 - Parking Lot - Paving	$ 1,000		$ 10,000		$ 10,000			$ 21,000
16	80	10	0.4	2018	**Church Lane** East off of Becker Co Rd 35 - Paving/Reconstruct			$ 100,000		$ 10,000			$ 110,000
17	81	10	0.3	2018	**Village Drive** East off of Becker Co Rd 35, connects to Church Ln - Paving			$ 100,000		$ 10,000			$ 110,000
18	82	10	0.3	2018	**North Elbow Lake Road** South off of T.H 113 - Paving/Reconstruct			$ 100,000		$ 10,000			$ 110,000
19	83	10	0.3	2018	**400th Ave** South off of North Elbow Lake Drive - Paving			$ 100,000		$ 10,000			$ 110,000
20	165	10	0.2	2018	**White Earth East Housing** South off of Co Rd. 34 - Paving/Reconstruct	$ 10,000		$ 100,000		$ 10,000			$ 120,000
21	23	10-20	4.8	2018	**Strawberry Lake Road** North off of Becker Co. Hwy 34 - Paving	$ 10,000		$ 128,000		$ 10,000			$ 148,000
NA	NA	NA	NA	2018	**TTP Transportation Transit** (TTP Construction Funds for TTP Transportation Transit)							$ 25,000	$ 25,000
NA	NA	NA	NA	2018	**TTP Transportation Planning**							$ 35,000	$ 35,000

					(TTP Construction Funds for TTP Transportation Planning)								
NA	NA	NA	NA	2018	**TTP Road Maintenance** (TTP Construction Funds for TTP Road Maintenance)							$ 400,000	$ 400,000
											FY18 Total		**$ 1,500,000**

Priority	BIA Route #	Section	Project Length	Year of Constr	Road Name Location (Start and End Points) Description of Work	All Planning, Prelim Eng., Arch, Env, ROW Activities will be included as TOTAL PE costs per Project		Construction		Construction Engineering		Other	Total
						Estimated Cost	Who/How Work Done	Estimated Cost	Who/How Work Done	Estimated Cost	Who/How Work Done	Estimated Cost	Estimated Cost
1	139	10	4.6	2019	**Old County Road 139** North of White Earth - COOP Project			$ 100,000		$ 1,000			$ 101,000
2	171	10	0.5	2019	**Rice Lake Community Center Road** North off of County Hwy 35 Reclaim/Overlay			$ 100,000		$ 1,000			$ 101,000
3	200	multiple	59.4	2019	**MN HWY 200 Phase II-Shoulder Widening & Improvements** East-West Route beginning at TH 59 north of Mahnomen	$ 1,000		$ 10,000					$ 11,000
4	178	10	0.2	2019	**Workforce Center Road** Mahnomen Co Rd 4 - Parking Lot - Paving			$ 1,000		$ 1,000			$ 2,000
5	80	10	0.4	2019	**Church Lane** East off of Becker Co Rd 35 - Paving/Reconstruct			$ 1,000		$ 1,000			$ 2,000
6	81	10	0.3	2019	**Village Drive** East off of Becker Co Rd 35, connects to Church Ln - Paving			$ 10,000		$ 1,000			$ 11,000
7	82	10	0.3	2019	**North Elbow Lake Road** South off of T.H 113 - Paving/Reconstruct			$ 10,000		$ 1,000			$ 11,000
8	83	10	0.3	2019	**400th Ave** South off of North Elbow Lake Drive - Paving			$ 10,000		$ 1,000			$ 11,000
9	165	10	0.2	2019	**White Earth East Housing** South off of Co Rd. 34 - Paving/Reconstruct	$ 1,000		$ 100,000		$ 10,000			$ 111,000
10	23	10-20	4.8	2019	**Strawberry Lake Road** North off of Becker Co. Hwy 34 - Paving	$ 10,000		$ 400,000		$ 20,000			$ 430,000
11	120	10	0.6	2019	**Water Tower Loop** North offf of County Hwy 35 Paving/Reconstruct	$ 10,000		$ 50,000		$ 5,000			$ 65,000
12	12	10	4.7	2019	**Blair Road** South off of T.H. 200	$ 10,000		$ 100,000		$ 5,000			$ 115,000
13	21	10	0.9	2019	**Ladoux Road** West off of Becker Co Hwy 35	$ 10,000		$ 54,000		$ 5,000			$ 69,000
NA	NA	NA	NA	2019	**TTP Transportation Transit** (TTP Construction Funds for TTP Transportation Transit)							$ 25,000	$ 25,000
NA	NA	NA	NA	2019	**TTP Transportation Planning** (TTP Construction Funds for TTP Transportation Planning)							$ 35,000	$ 35,000
NA	NA	NA	NA	2019	**TTP Road Maintenance** (TTP Construction Funds for TTP Road Maintenance)							$ 400,000	$ 400,000
											FY19 Total		**$ 1,500,000**

Priority	BIA Route #	Section	Project Length	Year of Constr	Road Name Location (Start and End Points) Description of Work	All Planning, Prelim Eng., Arch, Env, ROW Activities will be included as TOTAL PE costs per Project		Construction		Construction Engineering		Other	Total
						Estimated Cost	Who/How Work Done	Estimated Cost	Who/How Work Done	Estimated Cost	Who/How Work Done	Estimated Cost	Estimated Cost
1	200	multiple	59.4	2020	**MN HWY 200 Phase II-Shoulder Widening & Improvements** East-West Route beginning at TH 59 north of Mahnomen	$ 1,000		$ 8,000					$ 9,000
2	23	10-20	4.8	2020	**Strawberry Lake Road** North off of Becker Co. Hwy 34 - Paving -Phase Project	$ 1,000		$ 10,000		$ 10,000			$ 21,000

Name of Tribe	WHITE EARTH	Current Year Annual Transportation Allocation	$ 1,455,232

Tribal Transportation Improvement Plan

Priority	BIA Route #	Section	Project Length	Year of Constr	Road Name Location (Start and End Points) Description of Work	All Planning, Prelim Eng., Arch, Env, ROW Activities will be included as TOTAL PE costs per Project		Construction		Construction Engineering		Other	Total
						Estimated Cost	Who/How Work Done	Estimated Cost	Who/How Work Done	Estimated Cost	Who/How Work Done	Estimated Cost	Estimated Cost
1	75	10	0.2	2017	**Church Street West** West off of Mahnomen Co. Rd 4	$ 5,000		$ 50,000		$ 5,000			$ 60,000
2	78	10	0.3	2017	**Village Ave** North off of Church Drive West	$ 5,000		$ 70,000		$ 5,000			$ 80,000
3	79	10	0.3	2017	**Shore Ave** North off of Church Drive West - Mill/overlay	$ 5,000		$ 70,000		$ 5,000			$ 80,000
4	7	10	0.5	2017	**North Twin Lake Road** West off of Mahnomen Co Rd 4 - Paving	$ 5,000		$ 70,000		$ 5,000			$ 80,000
5	51	10	0.1	2017	**Amila Ave** North off of Pow Wow Hwy - Mill/Overlay	$ 5,000		$ 45,000		$ 5,000			$ 55,000
6	53	10	0.1	2017	**Migizi Ave** North off of Pow Wow Hwy - Mill/Overlay	$ 5,000		$ 35,000		$ 5,000			$ 45,000
7	54	10	0.3	2017	**Waboose Dr** North off of Pow Wow Hwy - Mill/Overlay	$ 5,000		$ 55,000		$ 5,000			$ 65,000
8	55	10	0.3	2017	**Mashkiki Ave** North off of Waboose, Migizi and Amila - Mill/Overlay	$ 5,000		$ 55,000		$ 5,000			$ 65,000
9	56	10	0.1	2017	**Nibi Ave** North off of Mashkiki St - Mill/Overlay	$ 5,000		$ 35,000		$ 5,000			$ 45,000
10	90	10	0.6	2017	**Wild Rice Loop** South Off of County Hwy 35 Paving/Reconstruct	$ 10,000		$ 222,232		$ 5,000			$ 237,232
11	133	10-20	2.2	2017	**Mission Road Lighting Improvement Project** South Off of County Hwy 35 Paving/Reconstruct	$ 1,000		$ 50,000		$ 1,000			$ 52,000
12	139	10	4.6	2017	**Old County Road 139** North of White Earth - COOP Project	$ 1,000		$ 100,000		$ 1,000			$ 102,000
13	171	10	0.5	2018	**Rice Lake Community Center Road** North off of County Hwy 35 Reclaim/Overlay	$ 10,000		$ 1,000		$ 1,000			$ 12,000
14	200	multiple	28.0	2018	**MN HWY 200 Phase II-Shoulder Widening & Improvements** East-West Route beginning at TH 59 at Mahnomen to Zerkel	$ 1,000							$ 1,000
15	178	10	0.2	2018	**Workforce Center Road** Mahnomen Co Rd 4 - Parking Lot - Paving	$ 5,000		$ 1,000		$ 1,000			$ 7,000
16	80	10	0.4	2018	**Church Lane** East off of Becker Co Rd 35 - Paving/Reconstruct			$ 1,000		$ 1,000			$ 2,000
17	81	10	0.3	2018	**Village Drive** East off of Becker Co Rd 35, connects to Church Ln - Paving			$ 1,000		$ 1,000			$ 2,000
18	82	10	0.3	2018	**North Elbow Lake Road** South off of T.H 113 - Paving/Reconstruct			$ 1,000		$ 1,000			$ 2,000
19	83	10	0.3	2018	**400th Ave** South off of North Elbow Lake Drive - Paving			$ 1,000		$ 1,000			$ 2,000
20	165	10	0.2	2018	**White Earth East Housing** South off of Co Rd. 34 - Paving/Reconstruct	$ 1,000							$ 1,000
NA	NA	NA	NA	2017	**TTP Transportation Transit** (TTP Construction Funds for TTP Transportation Transit)							$ 25,000	$ 25,000
NA	NA	NA	NA	2017	**TTP Transportation Planning** (TTP Construction Funds for TTP Transportation Planning)							$ 35,000	$ 35,000

NA	NA	NA	NA	2017	**TTP Road Maintenance** (TTP Construction Funds for TTP Road Maintenance)							$ 400,000	$ 400,000
											FY17 Total		**$ 1,455,232**

Priority	BIA Route #	Section	Project Length	Year of Constr	Road Name Location (Start and End Points) Description of Work	All Planning, Prelim Eng., Arch, Env, ROW Activities will be included as TOTAL PE costs per Project		Construction		Construction Engineering		Other	Total
						Estimated Cost	Who/How Work Done	Estimated Cost	Who/How Work Done	Estimated Cost	Who/How Work Done	Estimated Cost	Estimated Cost
1	75	10	0.2	2018	**Church Street West** West off of Mahnomen Co. Rd 4			$ 1,000		$ 1,000			$ 2,000
2	78	10	0.3	2018	**Village Ave** North off of Church Drive West			$ 1,000		$ 1,000			$ 2,000
3	79	10	0.3	2018	**Shore Ave** North off of Church Drive West - Mill/overlay			$ 1,000		$ 1,000			$ 2,000
4	7	10	0.5	2018	**North Twin Lake Road** West off of Mahnomen Co Rd 4 - Paving			$ 1,000		$ 1,000			$ 2,000
5	51	10	0.1	2018	**Amila Ave** North off of Pow Wow Hwy - Mill/Overlay			$ 1,000		$ 1,000			$ 2,000
6	53	10	0.1	2018	**Migizi Ave** North off of Pow Wow Hwy - Mill/Overlay			$ 1,000		$ 1,000			$ 2,000
7	54	10	0.3	2018	**Waboose Dr** North off of Pow Wow Hwy - Mill/Overlay			$ 1,000		$ 1,000			$ 2,000
8	55	10	0.3	2018	**Mashkiki Ave** North off of Waboose, Migizi and Amila - Mill/Overlay			$ 1,000		$ 1,000			$ 2,000
9	56	10	0.1	2018	**Nibi Ave** North off of Mashkiki St - Mill/Overlay			$ 1,000		$ 1,000			$ 2,000
10	90	10	0.6	2018	**Wild Rice Loop** South Off of County Hwy 35 Paving/Reconstruct			$ 1,000		$ 1,000			$ 2,000
11	133	10-20	2.2	2018	**Mission Road Lighting Improvement Project** South Off of County Hwy 35 Paving/Reconstruct			$ 75,000		$ 1,000			$ 76,000
12	139	10	4.6	2018	**Old County Road 139** North of White Earth - COOP Project	$ 1,000		$ 100,000		$ 1,000			$ 102,000
13	171	10	0.5	2018	**Rice Lake Community Center Road** North off of County Hwy 35 Reclaim/Overlay	$ 1,000		$ 100,000		$ 1,000			$ 102,000
14	200	multiple	59.4	2018	**MN HWY 200 Phase II-Shoulder Widening & Improvements** East-West Route beginning at TH 59 north of Mahnomen	$ 1,000		$ 10,000					$ 11,000
15	178	10	0.2	2018	**Workforce Center Road** Mahnomen Co Rd 4 - Parking Lot - Paving	$ 1,000		$ 10,000		$ 10,000			$ 21,000
16	80	10	0.4	2018	**Church Lane** East off of Becker Co Rd 35 - Paving/Reconstruct			$ 100,000		$ 10,000			$ 110,000
17	81	10	0.3	2018	**Village Drive** East off of Becker Co Rd 35, connects to Church Ln - Paving			$ 100,000		$ 10,000			$ 110,000
18	82	10	0.3	2018	**North Elbow Lake Road** South off of T.H 113 - Paving/Reconstruct			$ 100,000		$ 10,000			$ 110,000
19	83	10	0.3	2018	**400th Ave** South off of North Elbow Lake Drive - Paving			$ 100,000		$ 10,000			$ 110,000
20	165	10	0.2	2018	**White Earth East Housing** South off of Co Rd. 34 - Paving/Reconstruct	$ 10,000		$ 100,000		$ 10,000			$ 120,000
21	23	10-20	4.8	2018	**Strawberry Lake Road** North off of Becker Co. Hwy 34 - Paving	$ 10,000		$ 128,000		$ 10,000			$ 148,000
NA	NA	NA	NA	2018	**TTP Transportation Transit** (TTP Construction Funds for TTP Transportation Transit)							$ 25,000	$ 25,000
NA	NA	NA	NA	2018	**TTP Transportation Planning**							$ 35,000	$ 35,000

					(TTP Construction Funds for TTP Transportation Planning)									
NA	NA	NA	NA	2018	**TTP Road Maintenance** (TTP Construction Funds for TTP Road Maintenance)							$ 400,000	$ 400,000
											FY18 Total		**$ 1,500,000**

Priority	BIA Route #	Section	Project Length	Year of Constr	Road Name Location (Start and End Points) Description of Work	All Planning, Prelim Eng., Arch, Env, ROW Activities will be included as TOTAL PE costs per Project		Construction		Construction Engineering		Other	Total
						Estimated Cost	Who/How Work Done	Estimated Cost	Who/How Work Done	Estimated Cost	Who/How Work Done	Estimated Cost	Estimated Cost
1	139	10	4.6	2019	**Old County Road 139** North of White Earth - COOP Project			$ 100,000		$ 1,000			$ 101,000
2	171	10	0.5	2019	**Rice Lake Community Center Road** North off of County Hwy 35 Reclaim/Overlay			$ 100,000		$ 1,000			$ 101,000
3	200	multiple	59.4	2019	**MN HWY 200 Phase II-Shoulder Widening & Improvements** East-West Route beginning at TH 59 north of Mahnomen	$ 1,000		$ 10,000					$ 11,000
4	178	10	0.2	2019	**Workforce Center Road** Mahnomen Co Rd 4 - Parking Lot - Paving			$ 1,000		$ 1,000			$ 2,000
5	80	10	0.4	2019	**Church Lane** East off of Becker Co Rd 35 - Paving/Reconstruct			$ 1,000		$ 1,000			$ 2,000
6	81	10	0.3	2019	**Village Drive** East off of Becker Co Rd 35, connects to Church Ln - Paving			$ 10,000		$ 1,000			$ 11,000
7	82	10	0.3	2019	**North Elbow Lake Road** South off of T.H 113 - Paving/Reconstruct			$ 10,000		$ 1,000			$ 11,000
8	83	10	0.3	2019	**400th Ave** South off of North Elbow Lake Drive - Paving			$ 10,000		$ 1,000			$ 11,000
9	165	10	0.2	2019	**White Earth East Housing** South off of Co Rd. 34 - Paving/Reconstruct	$ 1,000		$ 100,000		$ 10,000			$ 111,000
10	23	10-20	4.8	2019	**Strawberry Lake Road** North off of Becker Co. Hwy 34 - Paving	$ 10,000		$ 400,000		$ 20,000			$ 430,000
11	120	10	0.6	2019	**Water Tower Loop** North offf of County Hwy 35 Paving/Reconstruct	$ 10,000		$ 50,000		$ 5,000			$ 65,000
12	12	10	4.7	2019	**Blair Road** South off of T.H. 200	$ 10,000		$ 100,000		$ 5,000			$ 115,000
13	21	10	0.9	2019	**Ladoux Road** West off of Becker Co Hwy 35	$ 10,000		$ 54,000		$ 5,000			$ 69,000
NA	NA	NA	NA	2019	**TTP Transportation Transit** (TTP Construction Funds for TTP Transportation Transit)							$ 25,000	$ 25,000
NA	NA	NA	NA	2019	**TTP Transportation Planning** (TTP Construction Funds for TTP Transportation Planning)							$ 35,000	$ 35,000
NA	NA	NA	NA	2019	**TTP Road Maintenance** (TTP Construction Funds for TTP Road Maintenance)							$ 400,000	$ 400,000
											FY19 Total		**$ 1,500,000**

Priority	BIA Route #	Section	Project Length	Year of Constr	Road Name Location (Start and End Points) Description of Work	All Planning, Prelim Eng., Arch, Env, ROW Activities will be included as TOTAL PE costs per Project		Construction		Construction Engineering		Other	Total
						Estimated Cost	Who/How Work Done	Estimated Cost	Who/How Work Done	Estimated Cost	Who/How Work Done	Estimated Cost	Estimated Cost
1	200	multiple	59.4	2020	**MN HWY 200 Phase II-Shoulder Widening & Improvements** East-West Route beginning at TH 59 north of Mahnomen	$ 1,000		$ 8,000					$ 9,000
2	23	10-20	4.8	2020	**Strawberry Lake Road** North off of Becker Co. Hwy 34 - Paving -Phase Project	$ 1,000		$ 10,000		$ 10,000			$ 21,000

3	120	10	0.6	2020	**Water Tower Loop** North offf of County Hwy 35 Paving/Reconstruct	$ 10,000	$ 250,000	$ 10,000		$	270,000
4	12	10	4.7	2020	**Blair Road** South off of T.H. 200	$ 10,000	$ 500,000	$ 10,000		$	520,000
5	21	10	0.9	2020	**Ladoux Road** West off of Becker Co Hwy 35- Mill/Overlay	$ 10,000	$ 200,000	$ 10,000		$	220,000
NA	NA	NA	NA	2020	**TTP Transportation Transit** (TTP Construction Funds for TTP Transportation Transit)				$ 25,000	$	25,000
NA	NA	NA	NA	2020	**TTP Transportation Planning** (TTP Construction Funds for TTP Transportation Planning)				$ 35,000	$	35,000
NA	NA	NA	NA	2020	**TTP Road Maintenance** (TTP Construction Funds for TTP Road Maintenance)				$ 400,000	$	400,000
								FY20 Total		**$**	**1,500,000**

Project Information:

BIA Route #	List all routes that will be worked on.
Section	List only those sections that will be worked on along with corresponding length
Location	List start and end points of where work will be performed (road names, rivers, end, etc.)
Description of Work	List as much detail as you can including existing road type and work to be performed

Estimated Cost: Provide dollar amounts that you estimate will be required for each project/phase utilizing new funds from that year only. Prior year money obligated to contract should not be listed here.

Who/How Work Done: Possible Choices

BIA	BIA will perform direct service (DS) work for the Tribe as outlined in a Retained Service Agreement (RSA) as approved/signed by the Tribe and BIA. (Self Determination, G2G, and Self Gov Tribes can all elect to receive these services)
638	Self Determination Tribe will enter into a P638 contract with the BIA and either perform work with in-house staff or subcontract work out to consultant/contractor.
Coop	Tribe can receive funding through a P638 contract, G2G, or Self Gov Agreement. Tribe will then enter into a 2-party (Coop) agreement with County, State, Township etc. who will usually serve as the lead agency for the project.
Tribe	Tribe administers program/project through a Self Governance or G2G Agreement.