

Transportation

Introduction

The purpose of the Transportation Plan element of the Comprehensive Plan is to provide guidance to the City of Rice Lake, as well as existing and future landowners in preparing for future growth and development. As such, whether an existing roadway is proposed for upgrading or a land use change is proposed on a property, this plan provides the framework for decisions regarding the nature of roadway infrastructure improvements necessary to achieve safety, adequate access, mobility, and performance of the existing and future roadway system. The primary goal of this plan is to establish local policies, standards, and guidelines to guide major transportation investments and policy decisions.

Transportation is a critical element in Comprehensive Plans. Modes of transportation are needed for the movement of goods and people, which keeps a community vibrant and economically sound. Transportation can also be source of concerns however, specifically in the form of traffic safety, dust, noise, and access.

Goals and Objective

Overall, this plan is intended to provide safe, efficient transportation opportunities throughout the community. The plan recommends the City of Rice Lake work with St. Louis County, Arrowhead Transit, and other regional agencies to address the recommendations put forward in this plan. Specific goals include:

Goal: As new development or redevelopment occurs, provide an integrated, internally-connected, efficient street system.

Objectives:

- Discourage the creation of permanently long streets with only a single access point (i.e., dead-end streets, looping streets and elongated cul-de-sacs).
- Encourage design and land uses that support a range of transportation choices
- Guide future development to roadways capable of accommodating resulting traffic.
- Develop roadways and street systems with consideration for safety, speeds, congestion, impact and noise pollution

Goal: Ensure Rice Lake's system of local roadways is well coordinated with MN DOT and St. Louis County roadway system.

Objectives:

- Develop a capital improvement program to ensure adequate funding for priority roadway concerns.
- Cooperate with County and State jurisdictions to keep through-traffic on arterials at minimum disruption of local circulation and residents.

Goal: Encourage the development of a multi-modal transportation system.

Objectives:

- Use roadway design to establish bike and pedestrian friendly streets and compliment recreational trails.
- Provide pedestrians and other non-motorized vehicles links to existing state and regional trail systems.

Goal: Support the development of regional and local transit options, where financially feasible.

Objectives:

- Support efforts to provide additional public transit opportunities in Rice Lake.

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Goal: Preserve the safety of regional air traffic.

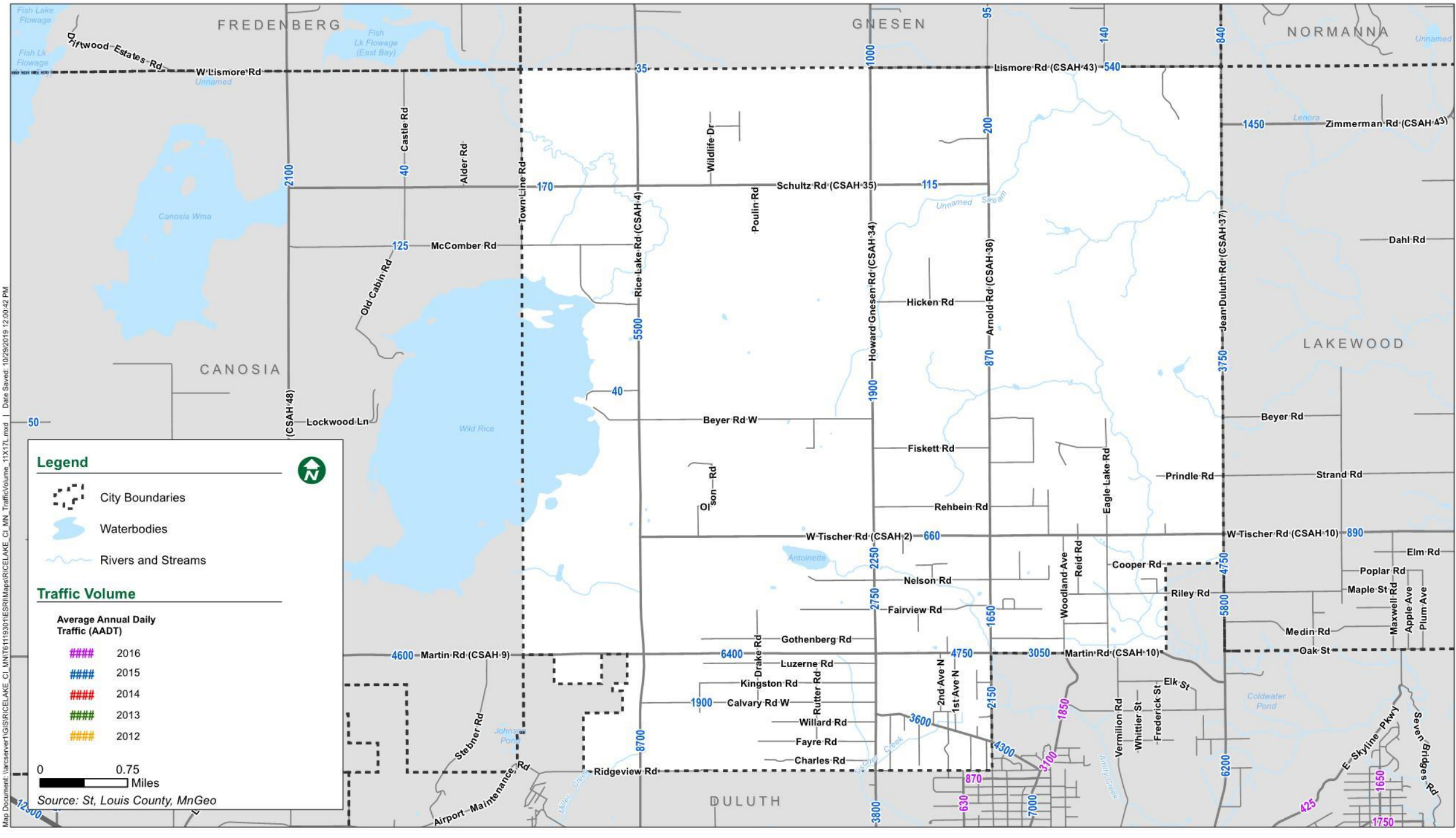
Objectives:

- Coordinate with the Duluth Airport Authority to protect the Duluth International Airport from encroachment by incompatible land uses.
- Continue to participate on the Joint Airport Zoning Board.
- Participate in the Duluth Airport Authority's Master Planning Process.
- Address Federal and State safety standards when planning the design of any object related to or affecting navigable airspace.

Roadway System

Current Conditions

The most basic characteristic of a given roadway is the volume of traffic that it carries. Existing traffic volumes on roadways within Rice Lake are presented below. This is the most current MnDOT data for traffic on these roads.

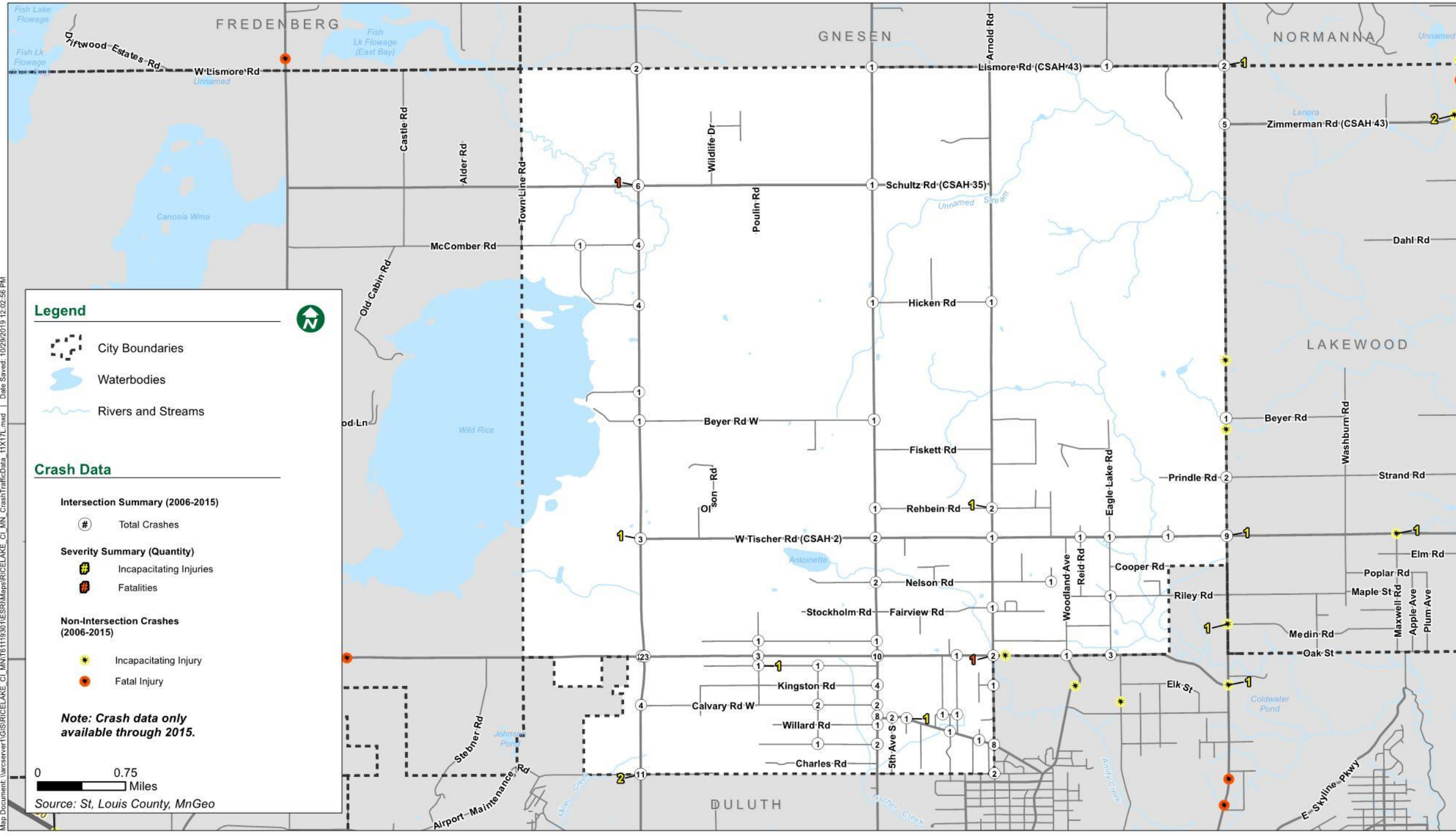


Roadway safety is a central focus in all transportation planning efforts. To assist in the evaluation of crashes, MnDOT maintains a database of crash records from around the state of Minnesota. These records identify the location, severity, and circumstances associated with each crash. This dataset was reviewed to identify the number, location and severity of crashes

Rural intersections are often the location of safety issues for drivers, bicyclists, and pedestrians. Intersections with the highest crash rates are:

- Rice Lake Road and Schultz Rd (CSAH 35) 6 Crashes (1 fatality)
- Ridgeview Road and Rice Lake Road 11 Crashes (2 incapacitating)
- Rice Lake Road and Martin Road 23 Crashes
- Howard Gnesen Road and Martin Road 10 Crashes
- Jean Duluth Road and West Tischer Road 9 Crashes (1 incapacitating)
- Martin Rd and Arnold Road 2 Crashes (1 fatality)

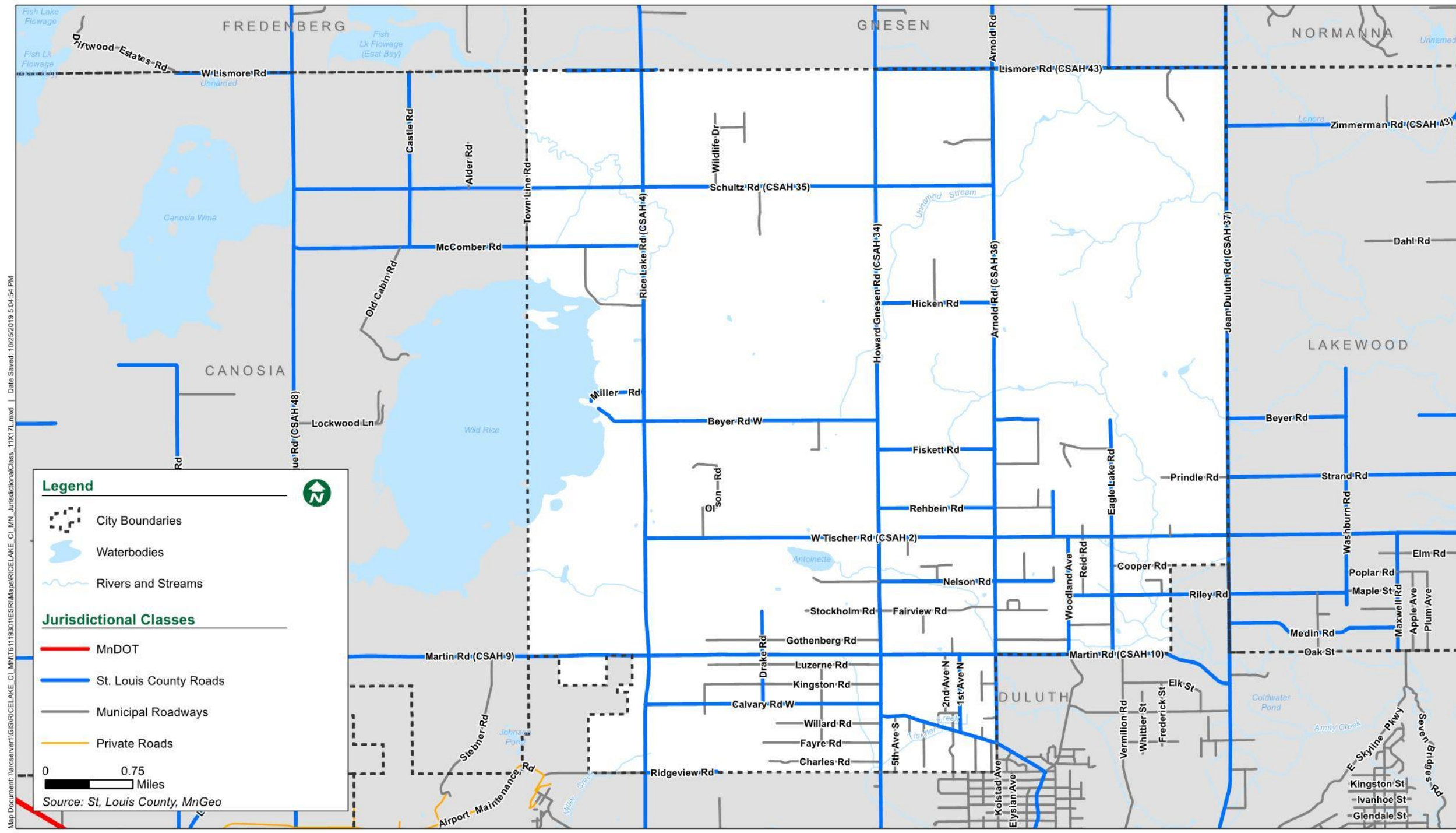
A high crash rate and or fatal or incapacitating injuries suggest unsafe road conditions. Rice Lake should work with St. Louis County to examine intersection safety control alternatives, including traffic control lights, dedicated turn lanes, the installation of roundabouts, or other safety alternatives, at high-traffic-volume and/or high-crash-rate intersections.



Jurisdictional Classification

Roadways are classified based on which level of government owns and has jurisdiction over them. Roadways are either under the jurisdiction of MnDOT, St. Louis County, or the City of Rice Lake. MnDOT maintains no roads within the City of Rice Lake. The Existing Roadway Jurisdiction map depicts the roadway jurisdictional classification on the following page. Roadway jurisdiction directly relates to functional classification of roadways. Generally, roadways with higher mobility functions (such as arterials) should fall under the jurisdiction of a regional level of government. Recognizing that these roadways serve greater areas resulting in longer trips and higher volumes, jurisdiction of Principal Arterial and Minor Arterial roadways should fall under the jurisdiction of the state and county, respectively. Similarly, roadways with more emphasis on local circulation and access (such as collectors) should fall under the jurisdiction of the local government unit. These roadways serve more localized areas and result in shorter trip lengths and lower volumes.

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Functional Classification

The functional classification system is a roadway network that distributes traffic from neighborhood streets to collector roadways, then to minor arterials, and ultimately the Metropolitan Highway System. Roads are categorized based on the degree to which they provide access to adjacent land uses and lower level roadways versus providing higher-speed mobility for “through” traffic. Functional classification is a cornerstone of transportation planning. Within this approach, roads are located and designed to perform their designated function.

The current roadway functional classification for Rice Lake is shown in the Functional Classification map. The Rice Lake roadway system presently consists of the following roadway classifications:

- Minor arterial
- Major collector
- Minor collector
- Local street

Minor Arterials

Roadways of this classification typically link urban areas and rural Principal Arterials to larger towns and other major traffic generators capable of attracting trips over similarly long distances. Minor arterials service medium-length trips, and their emphasis is on mobility as opposed to access in urban areas. They connect with principal arterials, other minor arterials, and collector streets. Connections to local streets should be avoided if possible. Minor arterials are responsible for accommodating thru-trips, as well as trips beginning or ending outside the Rice Lake area. Minor arterial roadways are typically spaced approximately $\frac{1}{2}$ to 1 mile in developed areas and approximately 1 to 2 miles in developing areas.

Major Collectors

Roadways of this classification typically link neighborhoods together within a city or they link neighborhoods to business concentrations. A balance between mobility and access is desired. Major collector street connections are predominately to minor arterials, but they can be connected to any of the other four roadway functional classes. Local access to major collectors should be provided via public streets and individual property access should be avoided. Generally, major collector streets are predominantly responsible for providing circulation within a city. Major collectors are typically spaced approximately $\frac{1}{4}$ to $\frac{3}{4}$ mile in developed areas and approximately $\frac{1}{2}$ to 1 mile in developing areas.

Minor Collectors

Roadways of this classification typically include city streets and rural township roadways, which facilitate the collection of local traffic and convey it to major collectors and minor arterials. Minor collector streets serve short trips at relatively low speeds. Their emphasis is focused on access rather than mobility. Minor collectors are responsible for providing connections between neighborhoods and the major collector/minor arterial roadways. These roadways should be designed to discourage short-cut trips through the neighborhood by creating jogs or other traffic calming measures, in the roadway.

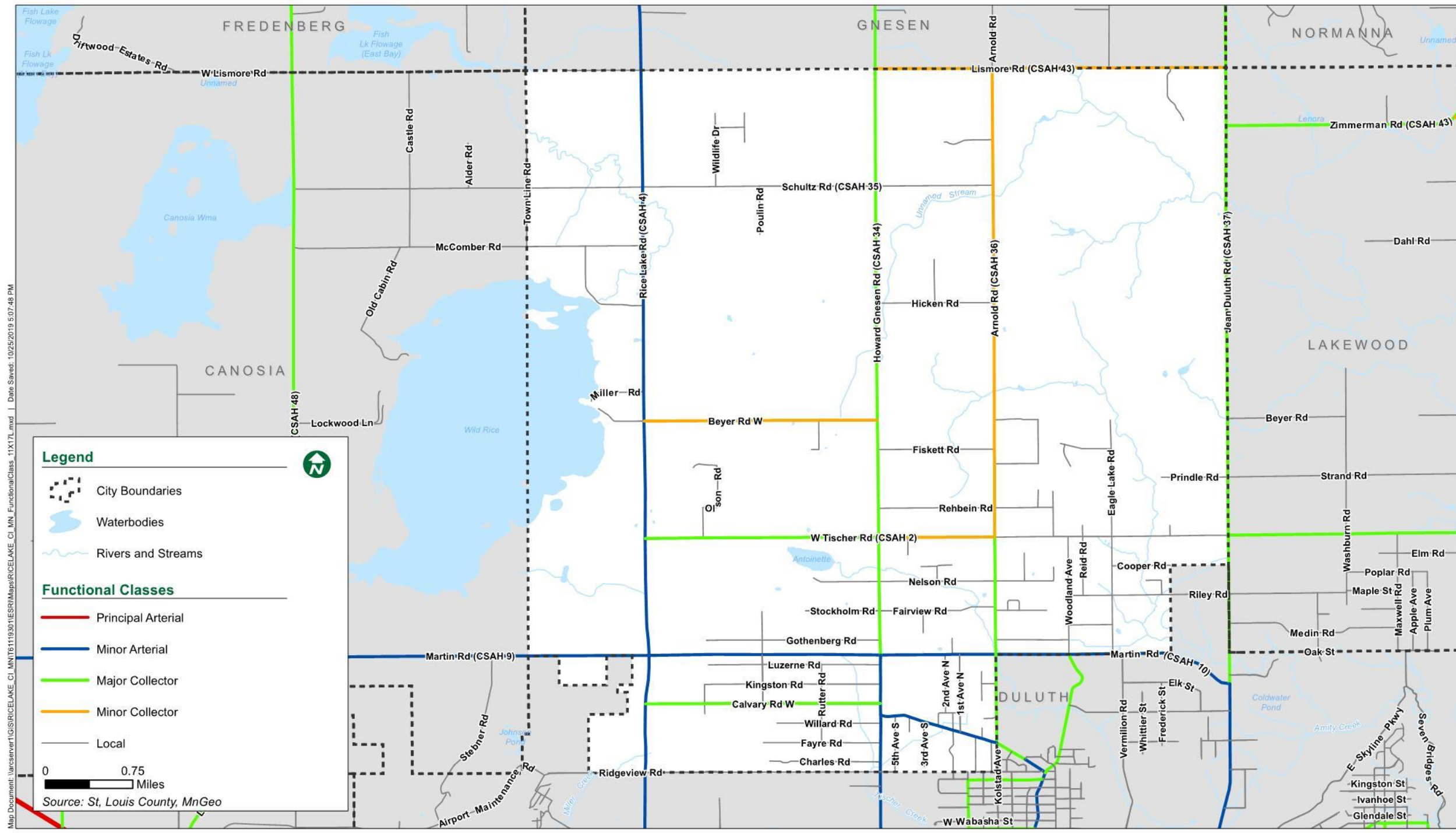
Local Streets

Roadways of this classification are those streets not classified as an arterial or collector. Similar to minor collector streets, local streets typically include neighborhood city streets which provide direct access to individual residences and businesses and convey traffic to minor collectors, major collectors, and minor arterials. As with minor collectors, local streets serve short trips at relatively low speeds and their emphasis is increasingly focused on access rather than mobility. Accordingly, local streets do not include through traffic movements. As with many communities, many of the roadways within the City of Rice Lake are classified as local streets.

Transportation planning involves standards for the functional street types in Rice Lake. These standards, shown in the table below, provide guidance on the design and operation of each street.

	Arterial	Collector	Local
Location	At neighborhood edges	On edges or within neighborhoods	Within neighborhoods
Property access to street	Limited	Spaced access	Direct access
Traffic control	Signals & stop signs where warranted	Signals & stop signs where warranted	Traffic control/calming where warranted
On-street parking	Not permitted	Restricted by width	Restricted by width
Land use connections	Inter-city	Connects neighborhoods	Connects blocks
System connections	To arterials	To arterials/collectors	To collectors/locals
Service performed	Long trips	Within city – links to rural county	Short trips within city
Traffic volume (trips/day)	3,000-10,000	500-3,000	< 500

At times, it may be necessary to reconsider how a roadway's function has changed or could better serve a community. A re-designation of a roadway's functional classification is under the authority of the agency which owns the given road. Based on roadway analysis completed for 2040, this plan makes no recommendations for changes to the existing functional classification. Rice Lake should continue to regularly review city roads for reclassification of roads in the future.



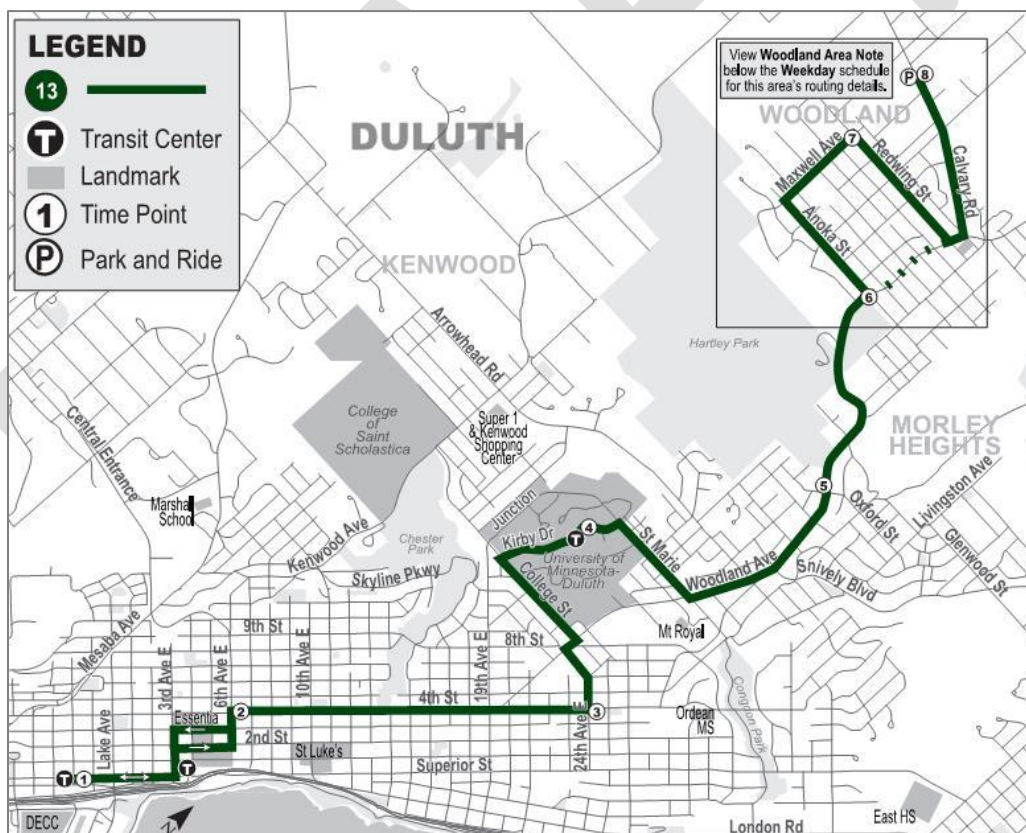
Non-Motorized Transportation

While the City of Rice Lake is rural in nature, many areas create a demand for bicycle and pedestrian activity. This demand is spurred by existing and planned trail infrastructure and the land use characteristics, especially during the summer months.

When road improvement projects are considered, the city review the surrounding land use context to understand existing bicycle and pedestrian needs. In some cases, pedestrian and bicycle facilities may need to be considered in project development to support local community needs and to create a safe environment for bicyclists and pedestrians. The city will continue to work with local and regional partners to determine these needs.

Transit

The Duluth Transit Authority (DTA) operates the Woodland Park and Ride, located on the south side of East Calvary Road between Raymond Avenue and Chicago Avenue in Rice Lake. DTA Route 13 is a fixed route service from the park and ride, through the University of Minnesota, to downtown Duluth. Route 13 operates approximately every 30 minutes from 4:30 am to 11:00 pm on weekdays, and hourly from approximately 7:00 am to 7:00 pm on weekends.

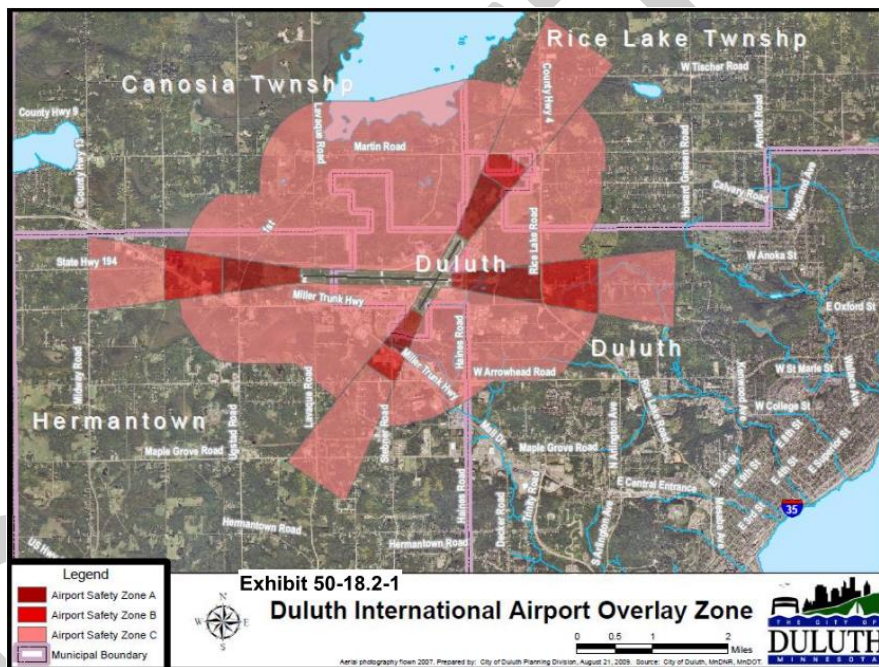


Source: Duluth Transit Authority

Dial-A-Ride services are available to city residents via Arrowhead Transit. Pick-ups are available at Rice Lake City Hall twice a month. Route parameters within Hermantown are east of Ugstad Road and north of Morris Thomas Road

Aviation

The Duluth International Airport (DLH) provides services for commercial, general aviation, and military use. While not within the City limits, the airport is located directly adjacent to the southwest corner of the City. Because of its proximity, the City is impacted by the Airport Safety Zone Boundaries set forth by Minnesota Department of Transportation Aeronautics to protect against hazards to air navigation and to limit population and building density in the runway approach areas to protect life and property in case of an accident. These controls include controlling the height of structures adjacent to the Airport. In addition, any person(s) proposing a structure 200 feet or more above ground level located within the City shall notify and obtain the approval of the Federal Aviation Administration (FAA) and the MnDOT. Any proposed construction or alteration must include notification to the FAA should such activity contain a potential hazard to air navigation or electronic interference. These requirements are defined by federal regulations code CRF – Part 77.

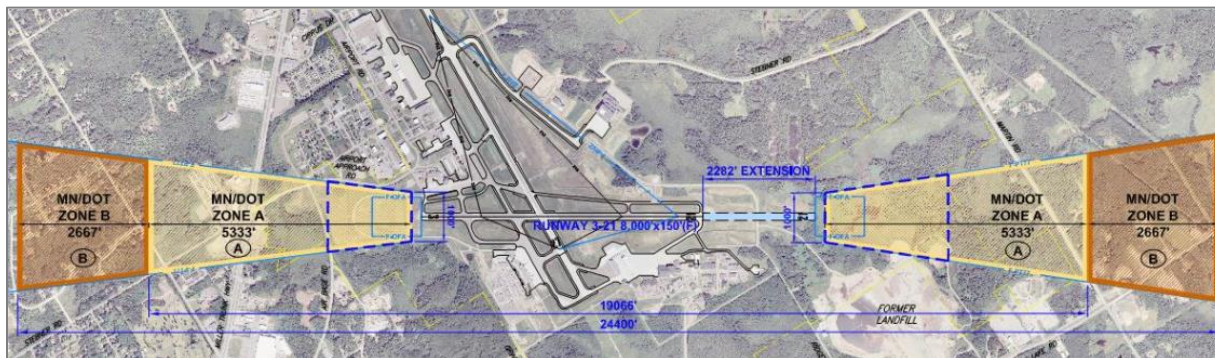


Source: City of Duluth

The Duluth International Airport Joint Zoning Board administers the special zoning regulations within the hazard area surrounding the Duluth International Airport. The Joint Airport Zoning Board consists of representatives from adjoining cities and townships, including two representatives from Rice Lake.

The Duluth Airport Authority is in the process of preparing a Master Plan (Vision 2040) to help the airport meet community needs through 2040. A key focus area of this master plan will be the existing north-south Runway 3/21. Runway 3/21 currently serves as a crosswind runway, providing another option for pilots when winds do not favor Runway 9/27. Runway 3/21 is also used when Runway 9/27 is unavailable due to construction or other conditions. Currently, general aviation aircraft and commercial airlines use Runway 3/21 when conditions warrant. The 148th Fighter Wing does not use Runway 3/21 as the existing infrastructure does not meet their requirements.

A 2015 study reviewed several options for the expansion of Runway 3/21. The preferred option (Option E) includes an extension to obtain a future 8,000' runway length.



Source: Duluth Airport Authority, 2015 Duluth International Airport Master Plan Update

Expansion of this runway will have a direct impact on the City of Rice Lake. This expansion will expand the Airport Safety Zone boundaries in Rice Lake. This may impact potential land uses.

The Vision 2040 Master Plan will evaluate if Runway 3/21 adequately meets the needs of existing and future users. If it does not adequately meet the needs, alternatives for improvement will be evaluated. Many factors will contribute to the evaluation of the runway in the Master Plan. Some of these factors include: Federal Aviation Administration (FAA) and Minnesota Department of Transportation (MnDOT) design standards, user needs, environmental considerations, infrastructure constraints, financial feasibility, community goals and input and stakeholder input.