Existing Conditions Report

Coulee Region Transportation Study

"Innovative Solutions for the 21st Century"

Planning and Environment Linkages (PEL)

WisDOT Project I.D. 1630-08-00

9/25/15

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Existing Conditions Report

Coulee Region Transportation Study
"Innovative Solutions for the 21st Century"
Planning and Environment Linkages

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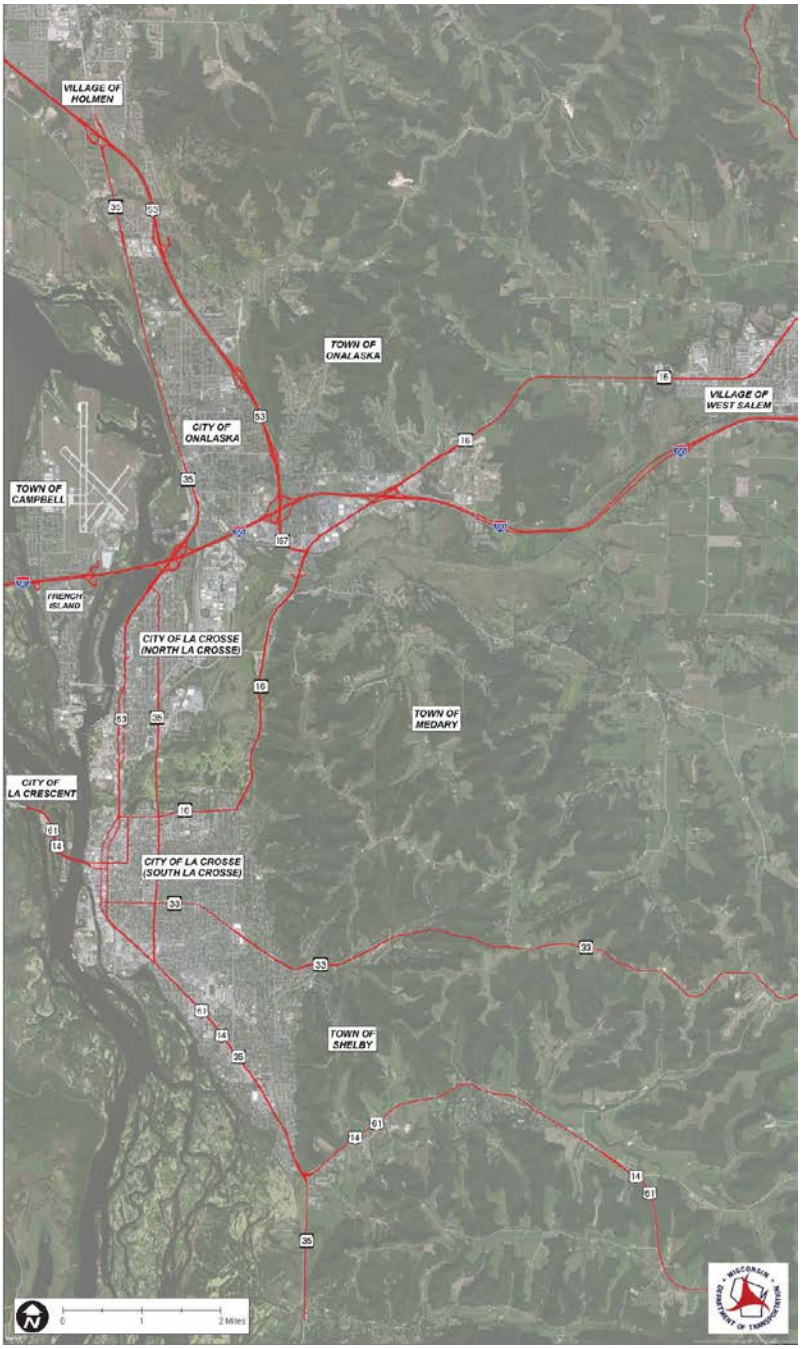
1.0 Introduction and Purpose

1.1 Introduction

The study area for the Coulee Region Transportation Study is comprised of numerous municipalities including the cities of La Crosse, WI, Onalaska, WI, and La Crescent, MN, as well as surrounding towns and villages including the villages of Holmen and West Salem and the towns of Campbell, Holland, Medary, Shelby, West Salem, and Onalaska. Figure1-1 shows a map of the Coulee Region study area.

Figure 1-1 – Study Location Map



The Coulee Region has a unique geography defined by a number of notable landforms. With the Mississippi River on the western border of the region and a series of bluffs to the east, east-west expansion is restricted in the Coulee Region. North-south roads are limited to major thoroughfares through the main metropolitan area. US 53, WIS 35, WIS 33, WIS 16, and US 14/61 serve as the major transportation routes linking municipalities within the Coulee Region. The Coulee Region is also strategically located in close proximity to many large surrounding cities such as Chicago, Minneapolis, and Madison. Table 1-1 presents distances between the city of La Crosse and large cities within the Midwest.

Table 1-1 – Comparing Coulee Region and Regional Large Cities

	Population	Distance (miles) from city of La Crosse to:	Travel Time (hours) from city of La Crosse to:
La Crosse County	116,713		
City of La Crosse	51,522		
Chicago	2,700,000	282	4.5
Dubuque	58,253	117	2.3
Madison	243,344	141	2.3
Milwaukee	599,164	210	3.1
Minneapolis	400,070	154	2.6
St. Louis	318,416	495	7.0

1.2 Study Background

The “Coulee Connections Study” (WisDOT ID # 1630-08-00) has been an ongoing, comprehensive effort to address the La Crosse area’s transportation system since 2006. The Coulee Connections area is a broad geographic area within La Crosse County, WI that is bordered by I-90 on the north, US 53 on the west, WIS 16 on the east (north of La Crosse Street), WIS 35 on the east (south of La Crosse Street), and US 14/61 on the south (see Figure 1-1).

The Coulee Connections Study focused on resolving long-term transportation issues between I-90 and US 14/61. The focus of the study had been to address current and projected congestion and safety concerns to, from, and through the La Crosse area.

This area has been repeatedly and extensively studied over the past three decades. An Environmental Impact Statement (EIS) was conducted for this area in the late 1990’s and the project was referred to as the “La Crosse North-South Transportation Corridor Study”. The EIS evaluated a range of alternatives and selected a Preferred Alternative (Alternative 5B-1). The anticipated environmental impacts for the EIS were documented in the Final Environmental Impact Statement (FEIS) which was issued a Record of Decision (ROD) in 1998. The project was never constructed.

The *2035 La Crosse and La Crescent Metropolitan Area Transportation Plan* was updated in 2010 and recommended the construction of a portion of the original Alternative 5B-1, which was the northern part of the adopted alignment (12th Avenue extended from I-90 to WIS 16 and WIS 157 extended from I-90 to Gillette Street) and to initiate a traffic corridor study to determine the most feasible improvements south of Gillette Street.

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Rather than updating the original EIS, The Wisconsin Department of Transportation (WisDOT) has directed their efforts to conducting a Planning and Environment Linkages (PEL) Study called the Coulee Region Transportation Study. A PEL Study is an FHWA-recommended planning initiative and is also part of the 2012 federal surface transportation bill, Moving Ahead for Progress in the 21st Century (MAP-21). MAP-21 enhances FHWA's existing environmental process by clarifying previous practices and approaches as well as establishing new streamlining measures. They will be codified at 23 U.S.C 139. MAP-21 implementing regulations, policy, and guidance are in development, as necessary. New regulations, policy, and guidance may require changes to the Plan and other aspects of the environmental review process.

1.3 Purpose of the Existing Conditions Report

The purpose of the Existing Conditions Report is to analyze existing transportation issues and concerns in the Coulee Region. This report will focus on the region's economic importance, vehicle traffic, multimodal transportation usage (bicycle, pedestrian, and transit activity), and safety of the current transportation system.

2.0 Economic Importance

2.1 Classification and Function

According to the WisDOT's *Connections 2030 Long-Range Multimodal Transportation Plan* (adopted October 2009), the Coulee Region is part of a system of high priority statewide multimodal intercity corridors. La Crosse is a regional hub of transportation, with major routes that connect the Coulee Region with other major cities in Wisconsin including Eau Claire, Madison, and Milwaukee. These routes also serve as important connectors between major cities in neighboring states such as the Twin Cities in Minnesota and Dubuque, Iowa[1].

Adequate transportation is one of the several key factors considered in site location for business and industry. Businesses rely on transportation for access to labor, materials, and customers in order to operate and survive. A strong transportation system is a factor that influences the ability of a region to attract businesses, expansions, retentions, and start-ups.

The Coulee Region's transportation system serves critical sectors of the economy and a large population center, carries significant travel activity for passenger and freight traffic, and serves an important role for other transportation modes. The region includes several major railroad lines, as well as a port, which support the movement of freight in and out of the Coulee Region and serve tourists. The city of La Crosse is home to three colleges, including a University of Wisconsin campus, where many students travel by foot and bicycle. La Crosse is also situated on the Great River State Trail and La Crosse River State Trail, which draw bicyclists and other outdoor enthusiasts to the region. The following sections describe the relationship of the Coulee Region's transportation network to the local, regional, and statewide economy.

2.2 Institutional, Industry, and Business Access

The transportation system in the Coulee Region is used to ship goods and provide access to employment, schools, and shopping. Due to geographic constraints of the La Crosse area, east-west expansion space is limited. Many people live outside of the major metropolitan area and commute inwards to the cities of La Crosse and Onalaska for work, school, shopping, and recreation. Many of the users of these centers rely on the major thoroughfares, US 53, WIS 35, WIS 16, and US 14/61, which run in the north-south direction through the region.

These major north-south corridors provide important connections to La Crosse area employment centers and businesses. Of the top ten employers in La Crosse County, the city of La Crosse is home to the majority, and the city of Onalaska continues to grow at a rapid rate in both population and businesses.

La Crosse has three major upper level education centers which attract students from all over the tri-state area. The University of Wisconsin – La Crosse has a population of 10,558 students and the University is one of the largest employers in La Crosse County[2]. Viterbo University has an enrollment of 2,812 students in addition to their 285 full and part time employees[3], while Western Technical College has a total enrollment of 5,392 students.[4]

La Crosse County is also a tourist destination. Its position on the Mississippi River allows tourists to reach it by river boats that visit the port in Riverside Park in the city of La Crosse. The unique landscapes and various outdoor recreation opportunities attract many out of-town visitors it. The

[1] http://www.dot.wisconsin.gov/projects/state/2030-maps.htm#lac
[2] http://www.uwlax.edu/Admissions/Fast-facts/
[3] http://www.viterbo.edu/about/quick-facts
[4] https://www.cappex.com/colleges/Western-Technical-College#quickFacts

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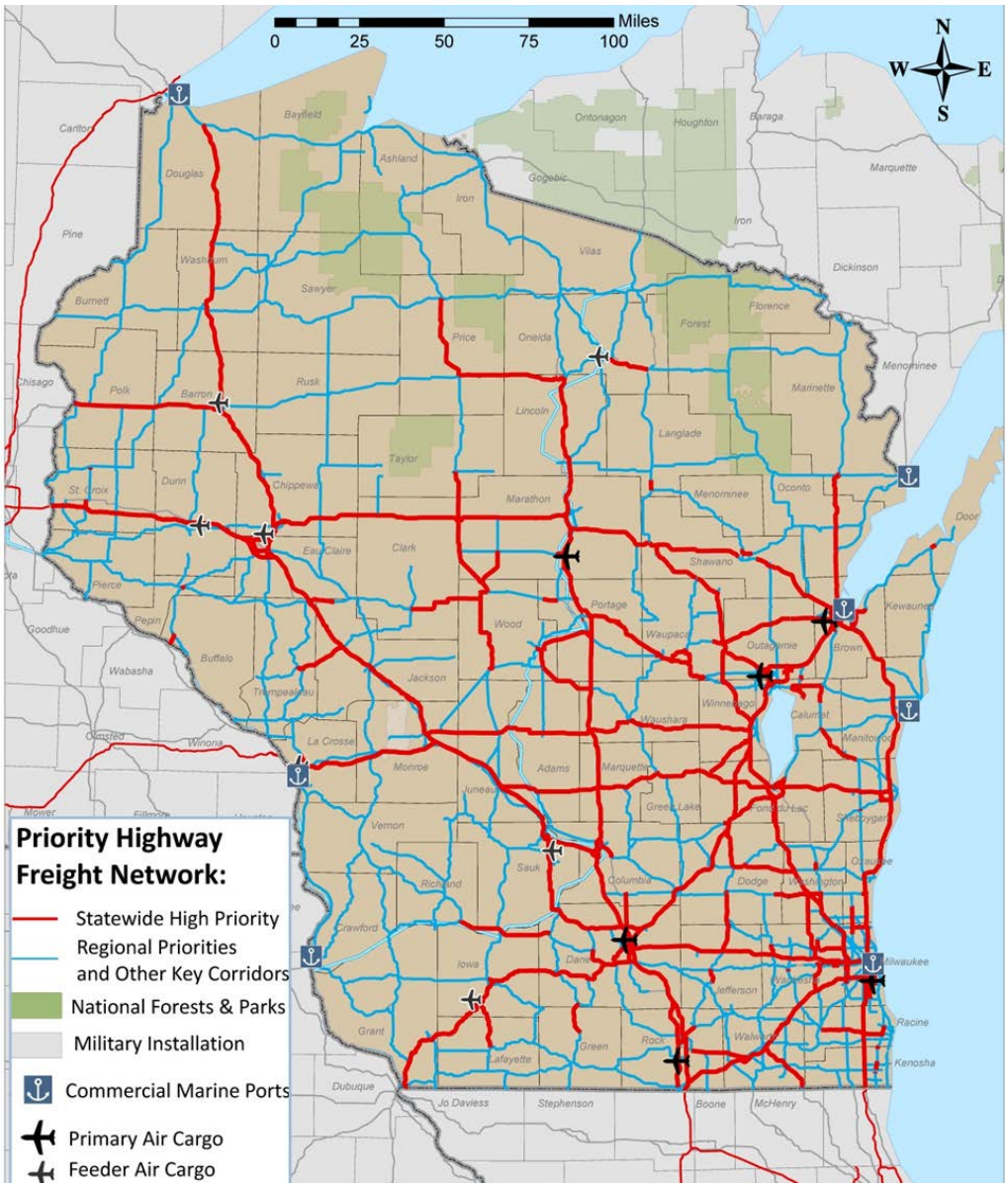
La Crosse Center, located in the heart of downtown La Crosse, is a destination in the Midwest for conventions and entertainment. La Crosse hosts many festivals every year. In addition to its nationally known Oktoberfest, the city also holds an annual Irishfest and Riverfest, among many others, which draw people to the area on a yearly basis.

2.3 Commodity Flow

The WisDOT report, *Multimodal Freight Network-2012 Interim Activities Report*, identified the section of I-90 that runs through the La Crosse area as a high priority freight corridor based on commodity flow characteristics and high volumes of trucks. Figure 2-1 shows the state's *Draft Priority Highway Freight Network*.

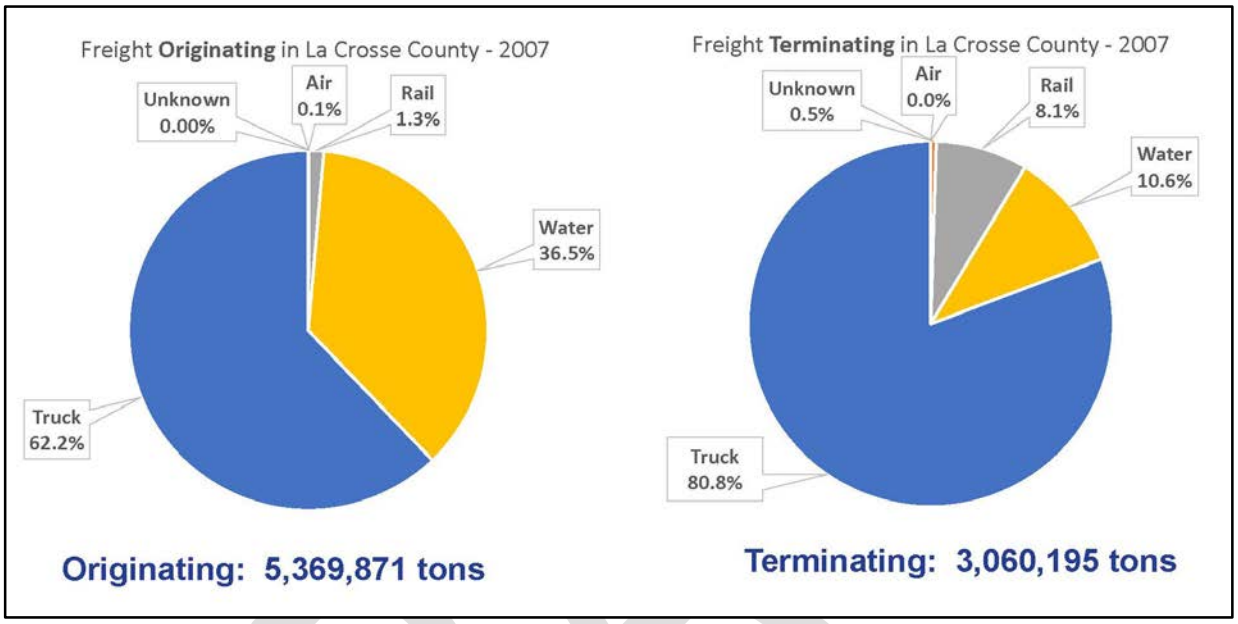
Figure 2-1 – Draft Priority Highway Freight Network[5]



[5] WisDOT Multimodal Freight Network-2012 Interim Activities Report

As of 2007, the amount of freight originating in La Crosse County was more than 5.3 million tons, while the amount of freight terminating in La Crosse County was just over 3 million tons[6]. Of the originating freight, 62.2% was transported by truck and 36.5% by water. Air and rail made up the other 1.3%. Of terminating freight, 80.8% was transported by truck, 10.6% by water, 8.1% by rail, and 0.5% by unknown modes[7]. Figure 2-2 summarizes this information.

Figure 2-2 – La Crosse County Freight Summary[8]



- Truck freight accounts for a large percentage of inbound and outbound totals. In 2012, US 53 transported $811,570,289 worth of freight, WIS 16 transported $145,175,521, and WIS 35 transported $252,516,530[9].

- The La Crosse port handles nearly 1.2 million metric tons of commodities annually. Products commonly shipped in and out of La Crosse include: rock salt, coal, pig iron, liquid caustic soda, cement, asphalt, iron ore, aggregate, cottonseed, manufactured machinery, and farm products[10].

[6] 2007 Commodity Flow Surveys c/o WisDOT
[7] 2007 Commodity Flow Surveys c/o WisDOT
[8] 2007 Commodity Flow Surveys c/o WisDOT
[9] WisDOT Planning and Economic Development, February 2015
[10] La Crosse County Comprehensive Plan; Part 2

3.0 Summary of Coulee Region Travel Trends

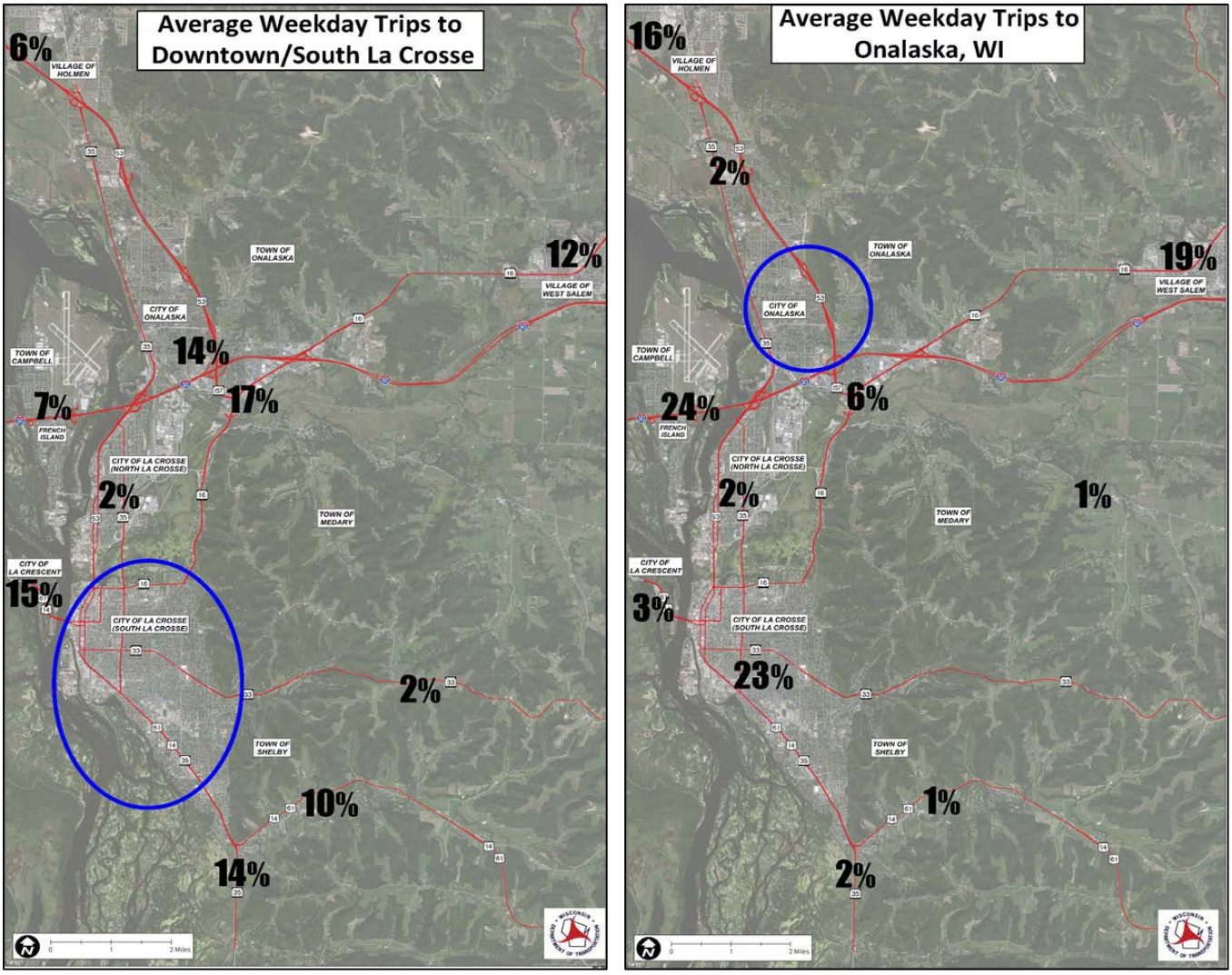
3.1 Origin – Destination (O-D) Existing Conditions

The following is a summary of traffic volume, freight origin and destination analysis, and commodities breakdown within the study area.

As part of a separate project, an O-D study was performed for WisDOT throughout the Coulee Region. The purpose of the study, which was dated July 3, 2013, was to update the region's travel demand model to more accurately depict local and regional travel patterns. Sixty-five (65) BluFAX units were deployed throughout La Crosse County. In addition, road tubes were placed at some deployment location to collect general traffic data during the same time period. The complete data set was then broken down into key traffic destinations and their origins. After breaking down the data, the city of Onalaska and downtown La Crosse were identified as the two (2) major destinations. Figure 3-1 shows the origins of trips destined for the downtown La Crosse area and the City of Onalaska by percentages.

As can be seen in Figure 3-1, origins for trips to Onalaska and downtown La Crosse are well dispersed, with significant percentages of total traffic coming from the north, east, south and west.

Figure 3-1 – Origin – Destination – Downtown La Crosse & City of Onalaska



3.2 Traffic Volumes

As part of the traffic data collection program, WisDOT collects roadway segment volumes at multiple locations in the study area. These counts are updated on a three (3) year schedule. The most recent data collection in the city of Onalaska occurred in 2014. In addition to these counts WisDOT maintains additional Automatic Traffic Recorder (ATR) sites that collect daily segment volumes within the study area. The most recently collected data was used to establish segment Level of Service (LOS). The data in Table 3-1 shows volumes collected on each of the three (3) north/south corridors in 2014.

Table 3-1 – Central La Crosse Segment Volumes

Count Year	US 53 (Rose Street)	WIS 35 (George Street)	WIS 16	Combined Volumes
	Site ID 320458 + 320461	Site ID 326122	Site ID 320296	
2014	29,000	21,800	36,200	87,000

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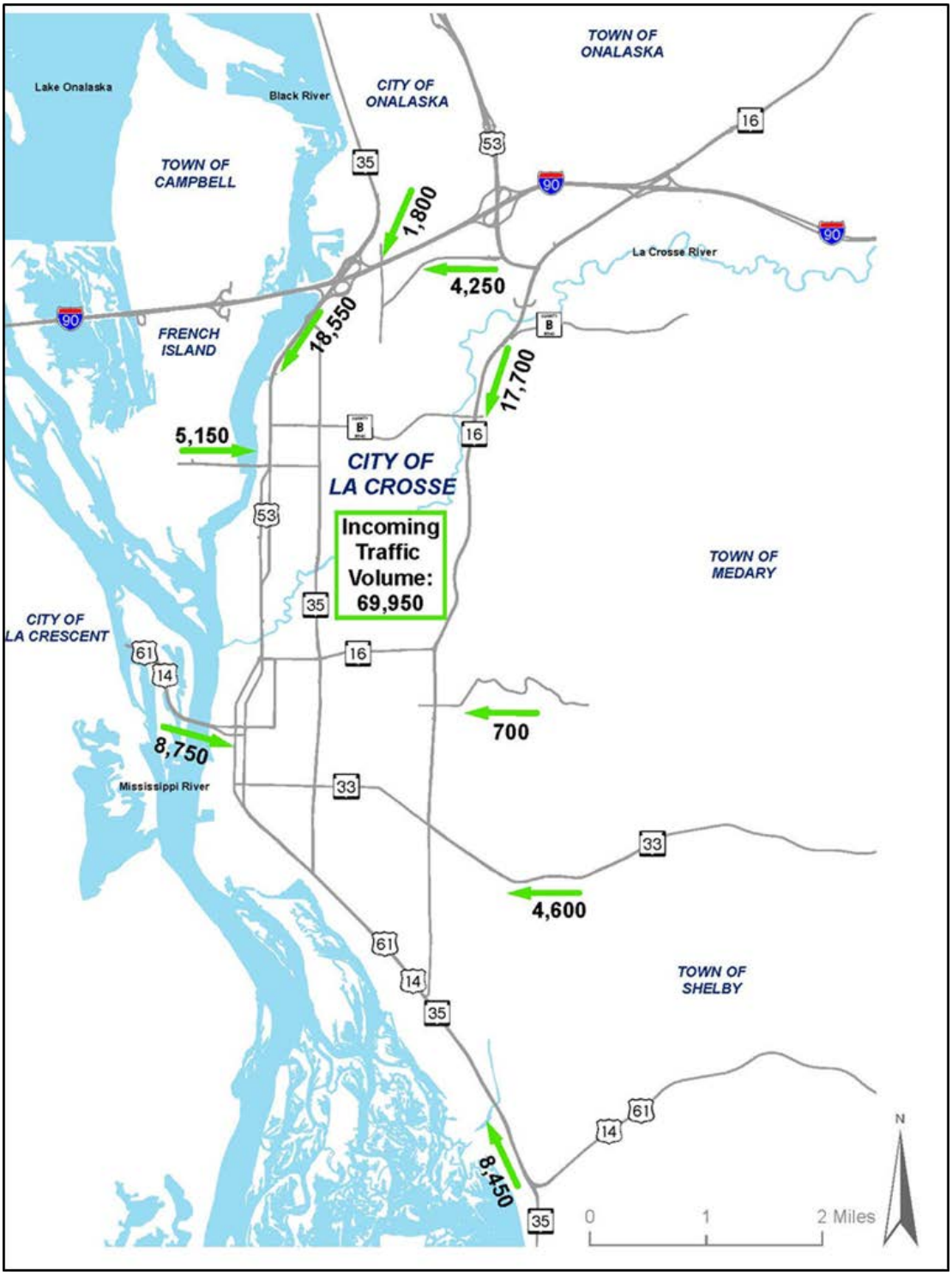
Figure 3-2 – Incoming Traffic Volume



As can be seen in Table 3-1 there are currently 87,000 cars traveling along the three north/south corridors per day on average. Figure 3-2 shows that 69,650 vehicles enter the city from external locations such as Onalaska and West Salem. The difference in vehicles using the north/south routes and vehicle entering from external locations shows that approximately 20,000 vehicles per day are marking internal trips from north La Crosse to south La Crosse and vice versa.

In addition, turning movement counts have been collected at over 40 signalized intersections in the study limits. These volumes are used in modeling the intersections and for forecasting future growth of traffic.

3.3 Capacity and Congestion

Currently, there are several locations throughout the study area that are experiencing moderate to extreme congestion during the PM peak hour. As can be seen on Figure 3-2, WIS 16 from La Crosse Street to WIS 157 is experiencing the worst congestion, with the segment showing LOS F (extreme congestion) and the intersections of WIS 16 at both Gillette Street and County B also performing at LOS F. The intersections of WIS 16 at both WIS 157 and La Crosse Street are currently operating at LOS E, which indicates severe congestion.

In addition to the WIS 16 corridor, two (2) other intersections within the study area are operating at LOS E (WIS 33 and Losey Boulevard, US 53 and La Crosse Street). Three (3) additional intersections are operating at LOS D which indicates moderate congestion. Those intersections are US 53 and WIS 35, US 14/61 and WIS 35, and WIS 16 and County OS.

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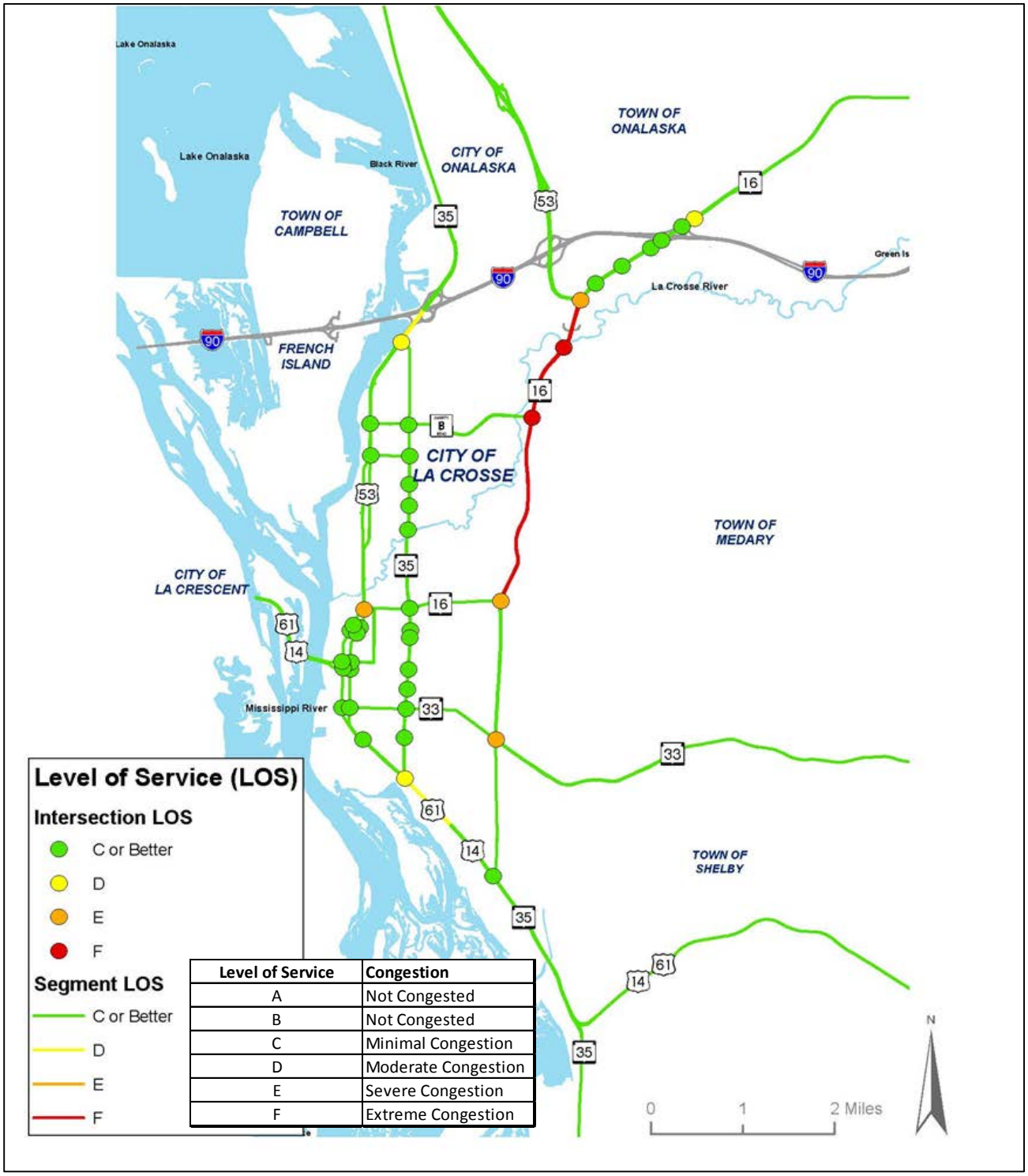
Figure 3-3 – Capacity and Congestion



4.0 Bicycle and Pedestrian

4.1 Summary

Wisconsin is rated the ninth most bike friendly state in the nation by the League of American Bicyclists and has large number of bicycle friendly businesses per capita [11]. The city of La Crosse has also been awarded as a Silver-Level designation as a bicycle friendly community by the Bicycle Federation of Wisconsin. La Crosse and the surrounding areas are actively seeking to provide better bicycle and pedestrian accommodations. There is increased public opinion about improving the conditions for bicycles and pedestrians to increase livability in the Coulee Region and to reduce traffic volumes. The city of La Crosse is well suited for bicycles and pedestrians as the developed area is relatively flat and much of the city is organized in a grid pattern. However, connecting sidewalks, on-road bicycle accommodations, and wayfinding signage between bike trails/paths and the downtown area are in need of improvement. According the La Crosse Area Planning Committee, multimodal forms of transportation are in need of better connections so they may work together more efficiently.

According to the city of La Crosse's *Bicycle and Pedestrian Master Plan*, the city has a relatively good existing sidewalk network. With the exception of certain new developments that may lack good connectivity, most of the residential parts of town have sidewalks. The primary concern raised for pedestrians and cyclists was difficult street crossings. The main north-south thoroughfares in the city have heavy traffic and high speeds, and vehicles yielding to people in crosswalks has been a problem. Of the major roads through La Crosse, the most challenging streets to cross include Losey Boulevard, West Avenue, and US 14 (Mormon Coulee Road/South Ave). The city has added new "yield to pedestrian" signs and two rectangular rapid flashing beacons (RRFB) which have slightly helped ease concerns about crossing streets.

As stated by the *Bicycle and Pedestrian Master Plan,* there are many on-road safety concerns for bicyclists; therefore, a large number of adult cyclists ride on the sidewalk in busy areas. Although sidewalk riding is safer for children, larger full speed bicycles on the sidewalk causes safety issues between cyclists and pedestrians. The LAPC's *Coulee Vision 2050* details the desire of the region to implement a Complete Streets policy which would improve the facilities for non-motorized vehicles, support healthy communities, and assist in reducing vehicle traffic. This document also includes plans that highlight mixed use development to help promote infill of the existing downtown area and reduce urban sprawl[12].

4.2 Bicycle Volumes

According the *Bicycle and Pedestrian Master Plan*, La Crosse County conducted annual 12-hour bicycle traffic counts at locations where bicycle improvements were made. This count was funded by the Communities Putting Prevention to Work grant. Findings showed that bicycle travel at select locations doubled between 2010 and 2012. Table 4-1 shows these counts and their locations.

[11] http://bikeleague.org/bfa/search/map?bfaq=la+crosse%2C+wi

[12] http://lapc.org/Content/Plans/Plan%20documents/Coulee%20Vision%202050/Coulee%20Vision%202050%20FINAL%20Report%204-30-2013%20web%20viewing%20version.pdf

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Table 4-1 – Bicycle Traffic Counts

Location	2010	2012
7th Street & Main Street	83	152
7th Street and & Farnam Street	56	109
Nokomis Avenue & Clinton Street	77	221
3rd Street & Main Street (Onalaska)	61	77
Total	**277**	**559**

According to U.S. Census data, the number of people commuting by bike to work in the La Crosse region decreased by 24.6% between 1990 and 2000. The U.S. Census Bureau's American Community Survey also reported that the number of people commuting to work by bicycle more than doubled from 2000 to 2007; however, biking and walking to work decreased 11% and 20% respectively between 2007 and 2010. A survey conducted as part of the LAPC's *Coulee Regional Bicycle Plan* revealed that 92% of riders were on the sidewalk.

For students who live within walking or biking distance to school, a Safe Routes to School program exists which helps children safely travel between school and home. A survey of parents conducted at nine schools as part of the *Coulee Regional Bicycle Plan* revealed that for students who live close to school but do not bike or walk, the main reason was parental safety concerns. The top two concerns reported by parents were large amounts of automobile traffic and safety of intersection crossings[13].

Inventory Analysis:
The *Bicycle and Pedestrian Master Plan* for the city of La Crosse identifies 21 miles of off-street multi-use trails within city limits. Most of these trails are part of a larger network and include hundreds of miles of trails. There are approximately 6.5 miles of bike lanes, 3.9 miles of marked shared lanes, and 0.44 miles of contra-flow bike lanes on La Crosse's 266 miles of roadway. Bike parking included 54 racks with a capacity for 275 bicycles throughout the city in addition to the bike lockers available at the Municipal Transit Utility (MTU) station.

According to the city's GIS database of sidewalks, 60% of the streets in La Crosse have sidewalks on one or both sides of the street. In order to aid pedestrians in street crossings, there are 266 marked crosswalk locations, and 24 of them are mid-block crossings. Pedestrian refuge islands have been installed in multiple locations throughout the city to improve safety while crossing busy streets such as West Avenue near the UW campus.

4.3 Existing Facilities, Plans, and Ongoing Projects

The Coulee Region is a destination for bicyclists from many areas. There is an abundance of off-road recreational bike paths such as the Great River State Trail that travels 24 miles through various landscapes along the Mississippi River Valley and connects to the La Crosse River State Trail, which also runs for more than 20 miles between Sparta and La Crosse. From the La Crosse River State Trail, bicyclists can access the Elroy-Sparta State Trail which travels more than 30 miles through five towns, and boasts three tunnels on its stretch through various landscapes. On the other side of the Mississippi River, The Apple Blossom Loop is just one example of bicycle

[13] http://www.cityoflacrosse.org/DocumentCenter/View/7152

trails in La Crescent, MN and offers beautiful scenery and varying terrain. La Crosse also has various on-street bike paths and facilities, including several bicycle racks downtown and bike lockers at the MTU Grand River Station.

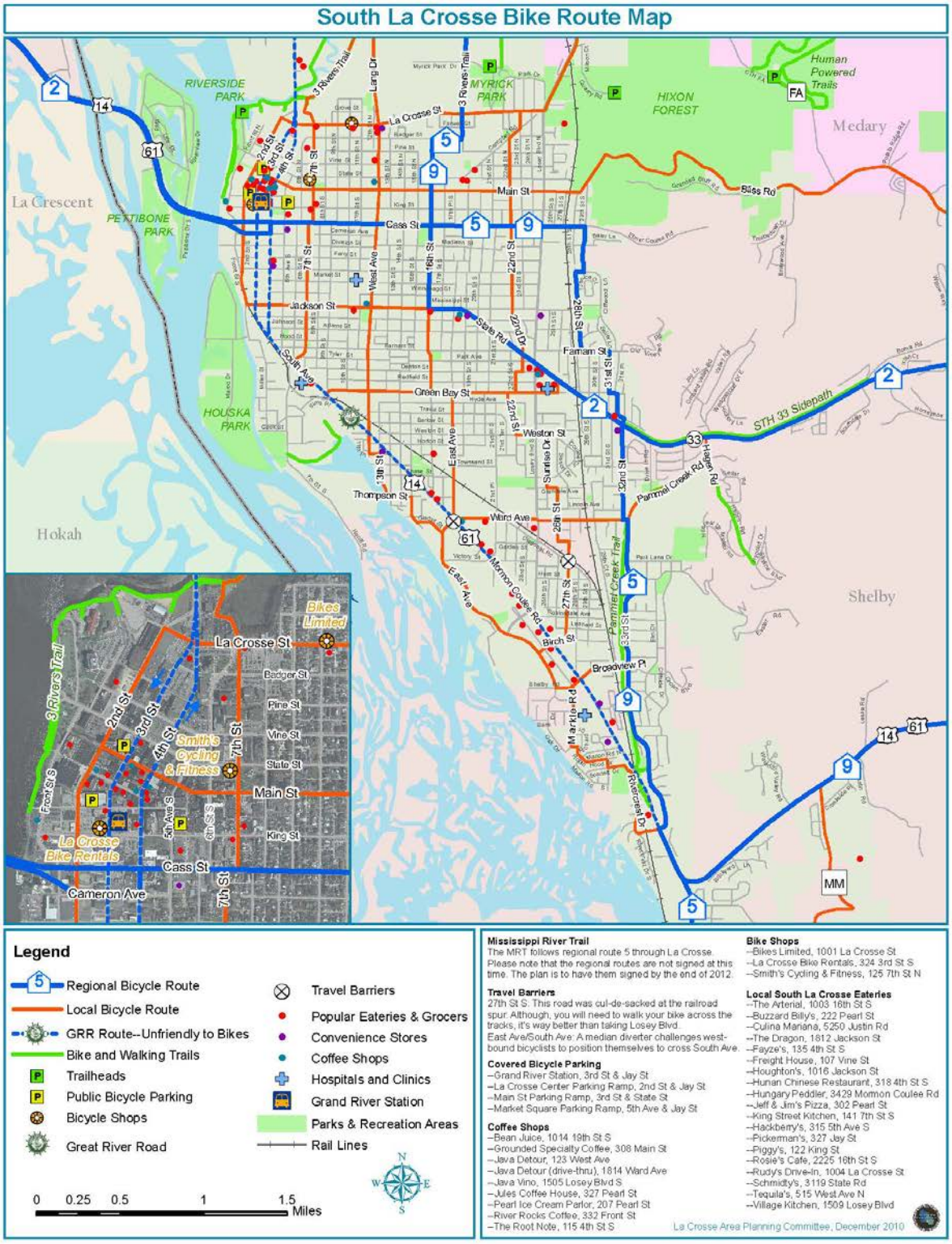
Many bicycle paths are multi-use trails that can be utilized by pedestrians and hikers as well. The Coulee Region's bluffs and scenic overlooks include a number of trails for a variety of transportation modes other than motor vehicles. Hixon Forest contains several trails that span multiple bluffs and are suitable for both mountain bikers and hikers. Many trail maps exist for various parts of the Coulee Region, Figures 4-1 and 4-2 show La Crosse area bicycle route maps from the LAPC's Coulee Regional Bike Plan. In 2012, the city of La Crosse created a Bicycle and Pedestrian Master Plan that was intended to improve the bicycle and pedestrian transportation network throughout the city of La Crosse and move the city to a gold designation as established by the League of American Bicyclists. A Safe Routes to School (SR2S) Plan has also been created by the city and contains information regarding pedestrian infrastructure. La Crosse was awarded a Federal Transportation Enhancement Grant from the Wisconsin Department of Transportation to finance 80% of the cost with the remaining 20% being financed with federal funds from the Community Development Block Grant Program.

A Steering Committee was formed to assist in the preparation of the plan and to broaden community involvement. The committee is comprised of individuals who either work with bicycle and pedestrian issues, are part of an organization that is involved with bicycling and pedestrian activities, or is a private citizen who actively bikes or walks. The Steering Committee worked with the City Planning Department to prepare a Request for Proposals to consultants with a specific expertise in the preparation of bicycle-pedestrian master plans. A Final Plan was approved in November 2012.

A Feasibility Study is also ongoing in La Crosse to determine whether a bike share program could be successful in the city. These bike share programs are present in approximately 50 cities in North America, including Madison, Milwaukee, Minneapolis, and Des Moines and they have plans to expand. So far, cities of comparable size to La Crosse have not implemented such programs. Barriers include city sizes, population density and locations, unsafe bike corridors, and funding as bike share programs are not money making ventures. The study is being backed by the city of La Crosse Planning Commission and YMCA[14], and is planned to take place over the course of 2015[15].

[14] http://www.news8000.com/news/city-of-la-crosse-to-back-ymca-on-bike-share-feasability-study/22437598
[15] http://lacrossetribune.com/news/local/study-la-crosse-bike-share-feasible-street-improvements-needed/article_de9233b1-4987-5da4-8e61-d444e7993d94.html

Figure 4-1 – South La Crosse Area Bicycle Route Map[16]



[16] La Crosse Area Planning Committee, December 2010

Figure 4-2 – North La Crosse Area Bicycle Route Map[17]

[17] La Crosse Area Planning Committee, December 2010

5.0 Transit

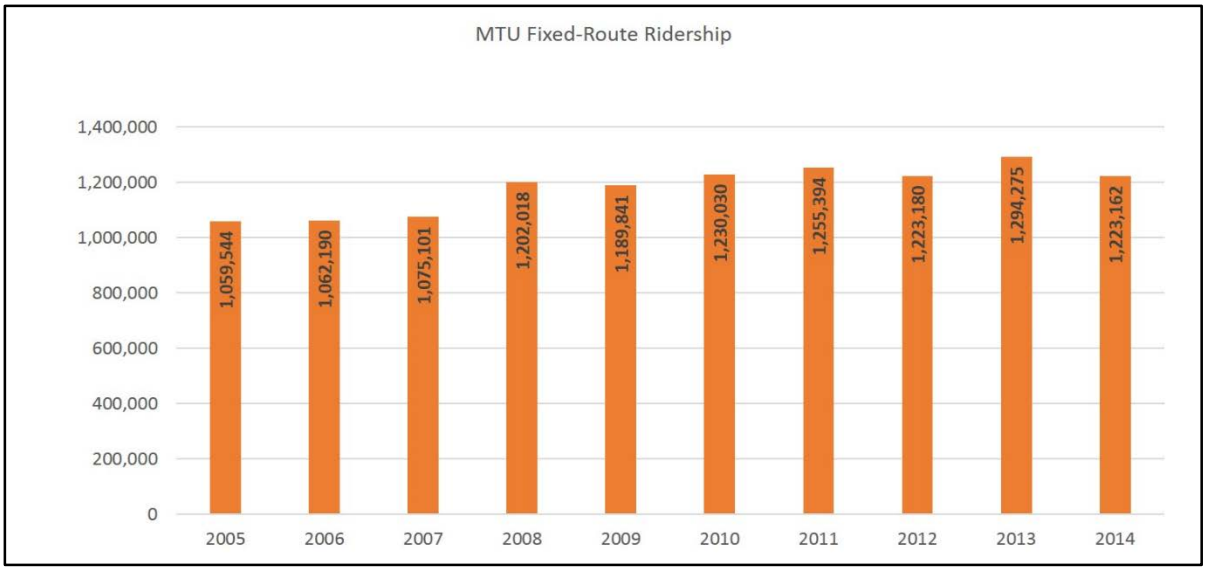
5.1 Summary

Certain transit opportunities are present within the Coulee Region, such as the MTU bus routes between and within Onalaska and La Crosse, shared ride taxi services, Jefferson Lines bus services, and La Crosse County Rural Transit. Despite the existence of these services, ridership and usage remains relatively low while the use of single occupancy vehicles has increased. Many of the area's employers are located within the cities of La Crosse and Onalaska, while a large portion of the employees live in more rural areas such as Holmen, West Salem, and new developments in Onalaska. The result is a large amount of commuter traffic in the region during peak hours.

5.2 Metro Transit

Transit in the La Crosse area is mostly provided by the MTU which is owned and operated through the city of La Crosse. MTU accounts for most of the bus usage in La Crosse County, and ridership is shown in Figure 5-1. There are nine active bus routes within the area of La Crosse, French Island, and limited parts of Onalaska and La Crescent[18]. In addition to the MTU busses, Jefferson Lines, La Crosse Rural Transit, and shared taxi services exist.

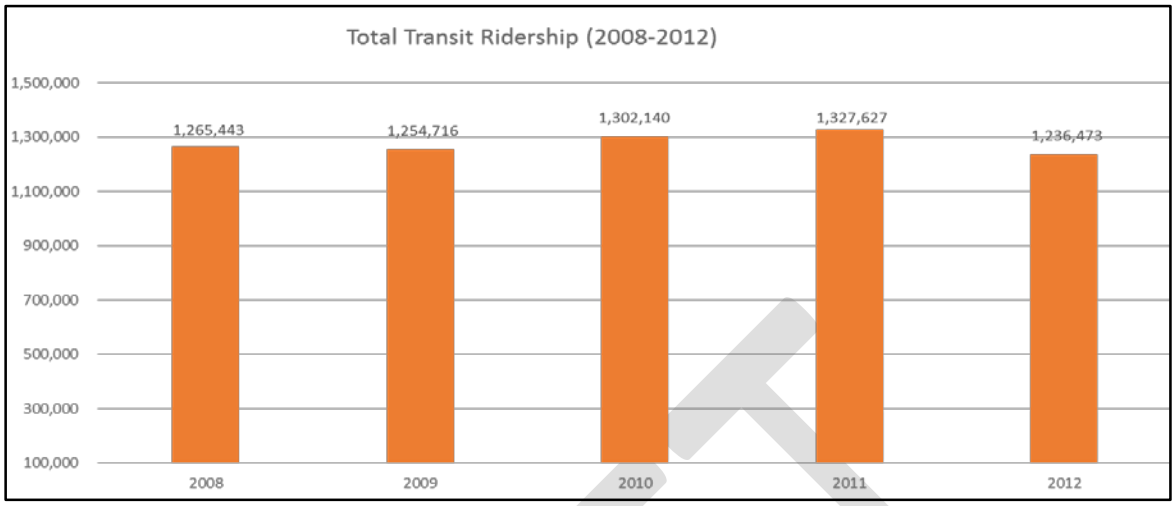
Figure 5-1 – MTU Ridership[19]



According to the La Crosse Area Planning Committee, total transit ridership has remained fairly steady since 2008 at approximately 1.2-1.3 million boardings per year as shown in Figure 5-2.

[18] http://www.cityoflacrosse.org/index.aspx?NID=19
[19] US Federal Transit Administration – National Transit Database & City of La Crosse Municipal Transit Utility

Figure 5-2 – La Crosse County Transit Ridership[20]



5.3 Other Modes of Transit

Rural Taxi Service

A large number of La Crosse County residents live outside of urban centers. Rural commuters have more difficulties finding convenient transit options, however options do exist. La Crosse County Rural Transit began shared ride taxi service in March 2008 and services several cities in the county including Bangor, Rockland, and Holland. They run every day including holidays at hours convenient for commuters.

Onalaska/Holmen/West Salem Public Transit (OHWSPT)

The Onalaska/Holmen/West Salem Public Transit Taxi Program is a demand response door-to-door transportation system. The shared ride taxi service provides transportation to all citizens and meets Americans with Disabilities Act accessibility requirements. Fares are determined by the city of La Crosse. Passengers may transfer between MTU to OHWSPT at Valley View Mall for no cost for the transfer. This program also provides local airport service.

Jefferson Lines

The Jefferson Lines bus service is an intercity bus service that provides trips westbound to Minneapolis and eastbound to Milwaukee[21].

Park and Ride

Only one state operated Park and Ride exists, and is located west of La Crosse and Onalaska on I-90 in West Salem[22].

[20] La Crosse Area Planning Committee
[21] http://www.lapc.org/content/plans/HSR/HSR.htm
[22] http://www.dot.wisconsin.gov/travel/parkride/lacrosse.htm

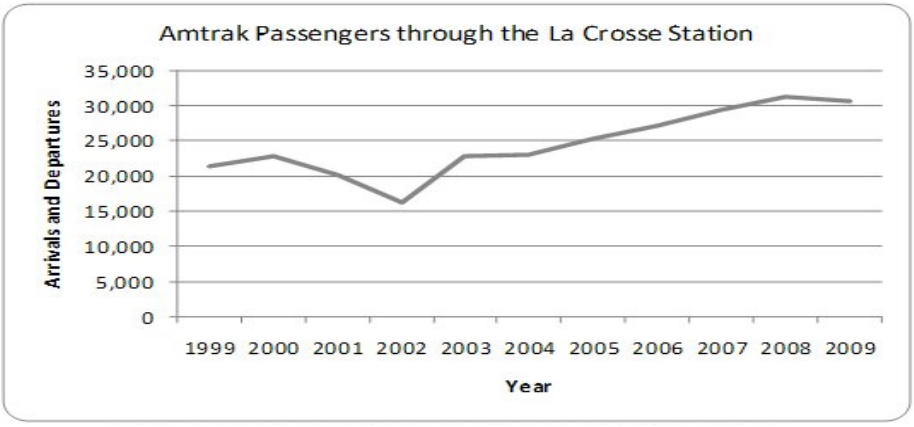
Scenic Mississippi Regional Transit (S.M.R.T)

These SMRT buses are handicapped accessible with bike carriers. Each time the bus is boarded the rider pays a flat $3.00 fee regardless of distance traveled. SMRT also offers discount punch cards for frequent riders. This bus runs weekdays and services Crawford, Vernon, and La Crosse counties with several stops in each county. The focus of this regional bus transit service is for commuters, elderly and disabled residents, the general public, and potential tourism related travel[23].

Amtrak

Amtrak trains operate within many parts of the United States. The La Crosse station is located in north La Crosse and is easily accessible. It provides the option for passengers to connect to many other cities in the United States via one mode of travel. According to the LAPC, La Crosse Amtrak ridership increased steadily from 1999 to 2009 and has experienced only small fluctuations, which is shown in Figure 5-3. In 2010 Amtrak reported nationwide record ridership[24]. Mixed reviews exist about the Amtrak experience as trips can be somewhat costly and have about the same travel time as a personal vehicle[25].

Figure 5-3 – Amtrak Ridership[26]



Connections between different modes of transportation are lacking in the Coulee Region. For example there is no regular bus service to the Amtrak station, which could prove difficult for Amtrak riders who do not live within walking distance to the Amtrak station. Wayfinding signage for destinations such as the Amtrak station and trail heads is also a recurring recommendation for the city of La Crosse.

[23] http://www.ridesmrt.com/
[24] http://www.lapc.org/content/plans/HSR/HSR.htm
[25] http://www.amtrak.com/home
[26] High Speed Rail Planning for the La Crosse Area, La Crosse Area Planning Committee

6.0 Environmental Resources

The Coulee Region has a variety of valuable natural and cultural resources which play important roles in the area. As stated in the Coordination Plan, once the PEL study moves into the NEPA process, environmental resources will be addressed more completely. Cooperating agencies will use their knowledge and expertise to assist the lead agencies in identifying issues of concern regarding the project's potential impacts, and provide meaningful and timely input throughout the environmental review process. Cooperating agencies will also be invited to sign a Memorandum of Understanding (MOU). The purpose of the MOU is to foster a proactive working relationship between the FHWA, WisDOT, and federal and state environmental agencies and tribes through the PEL process. This cooperation on environmental review and study delivery activities is anticipated to avoid delays and duplication later in the NEPA process, head off potential conflicts, and ensure that planning and study development decisions reflect environmental values. The signatories of the MOU are committed to providing appropriate information and performing meaningful and efficient environmental analyses that are pertinent to the decision-making process on the Coulee Region Transportation Study.

6.1 Natural Resources

The geography and geology of the region has created an environment with unique features including bluffs, wetlands, rivers, forests, and prairies that feature a variety of threatened and endangered species and environments. The many parks and conservation areas are a destination for conservation groups and outdoor enthusiasts. The area's history and environment have largely been shaped by its location on the confluence of the Mississippi River, Black River, and La Crosse River. Several large regional bike trails cross through the Coulee Region, which double as snowmobile trails in the winter. These recreational routes draw people to the area all year round. Several of the resources in the area can be viewed on a map in Figure 6-1.

6.2 Cultural Resources

The Coulee Region has been evolving since its foundation in the 1880's; therefore, there are many historical and cultural destinations and aspects of the area. La Crosse and the surrounding area has also been a hub for transportation, shipping, industry, tourism and more due to its waterfront location. Historic properties and neighborhoods are dispersed throughout the region and the annual festivals draw large crowds from all over the country. The history of the region has also been shaped by the Native American Tribes that once populated the area, which is how many of the cities in the area were named. A vibrant downtown, a diverse population, annual festivals such as Riverfest and Oktoberfest, and community centers and organizations all play important roles in the culture of the Coulee Region[27]. Several of the resources in the area can be viewed on a map in Figure 6-1.

6.3 Environmental Justice

A separate Environmental Justice Plan was developed simultaneously with the Existing Conditions Report. The Environmental Justice Plan highlights census tracts within La Crosse county that have high percentages of low income or minority populations based on census data provided by the United States Census Bureau. Future NEPA studies will identify Environmental Justice Populations that may be affected by some strategies developed from the study.

[27] http://lacrossehistory.org/

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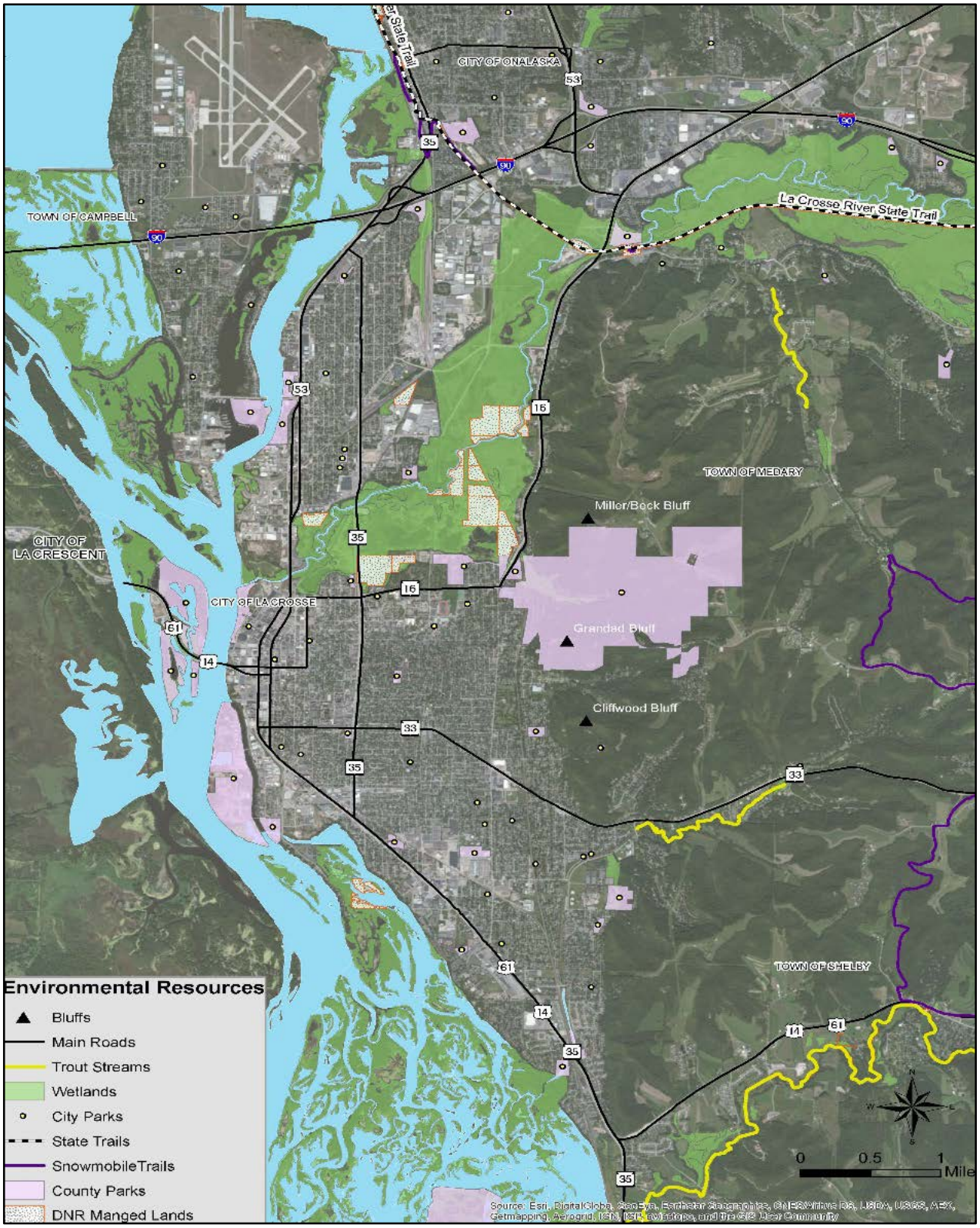
Figure 6-1 – Environmental Resource Map



7.0 Traffic Safety Analysis

7.1 Summary of Crash Analysis

Seven corridors were identified as primary corridors for servicing traffic in and around the city of La Crosse. These corridors are US 14/61, US 53, WIS 16, WIS 33, WIS 35, WIS 157, and Losey Boulevard. A five (5) year crash analysis was performed on these corridors for the years 2009 – 2013 and yielded a total of 4,411 reportable crashes, or an average of 882 crashes per year. Approximately one (1) out of every three (3) crashes involved some level of injury, with six (6) crashes resulting in a fatality. Of the six (6) fatal accidents, four (4) of them involved pedestrians being struck by motor vehicles at various locations.

Each corridor was broken into segments for calculating crash rates. Crash rates for each segment were compared to similar highways and roadways across Wisconsin. The crash rates in the city of La Crosse vary from under to over the statewide averages for their respective type of roadway. They have been broken into three color codes (green, red, yellow) to represent if they are below, over, or at/near the statewide crash average. Crash rates for each segment are shown in Table 7-1 and a map of each segment compared to average crash rates can be seen in Figure 7-1.

Table 7-1 – Segment Crash Rates for Primary Corridors

Corridor/Segment	2009	2010	2011	2012	2013	Total Crashes (2009-2013)	Segment Length	AADT	Crash Rate	Statewide Average Segment Crash Rates
WIS 16 - County OS to WIS 157	98	102	97	99	120	516	1.60	24,700	715	291
WIS 16 - WIS 157 to Gillette St	57	51	59	69	79	315	1.33	35,400	367	291
WIS 16 - Gillette St to La Crosse St	51	40	50	64	42	247	2.10	35,800	180	291
Losey Blvd - La Crosse St to Mormon Coulee Road	81	73	79	80	90	403	3.00	21,100	349	291
US 53 - I-90 to Clinton St	52	60	56	48	53	269	2.25	23,600	278	291
US 53 SB (Copeland Ave One Way) - Clinton St to Buckner Pl	14	18	17	28	18	95	1.02	16,200	315	291
US 53 NB (Rose St One Way) - Clinton St to Buckner Pl	17	13	23	29	26	108	1.02	15,200	382	291

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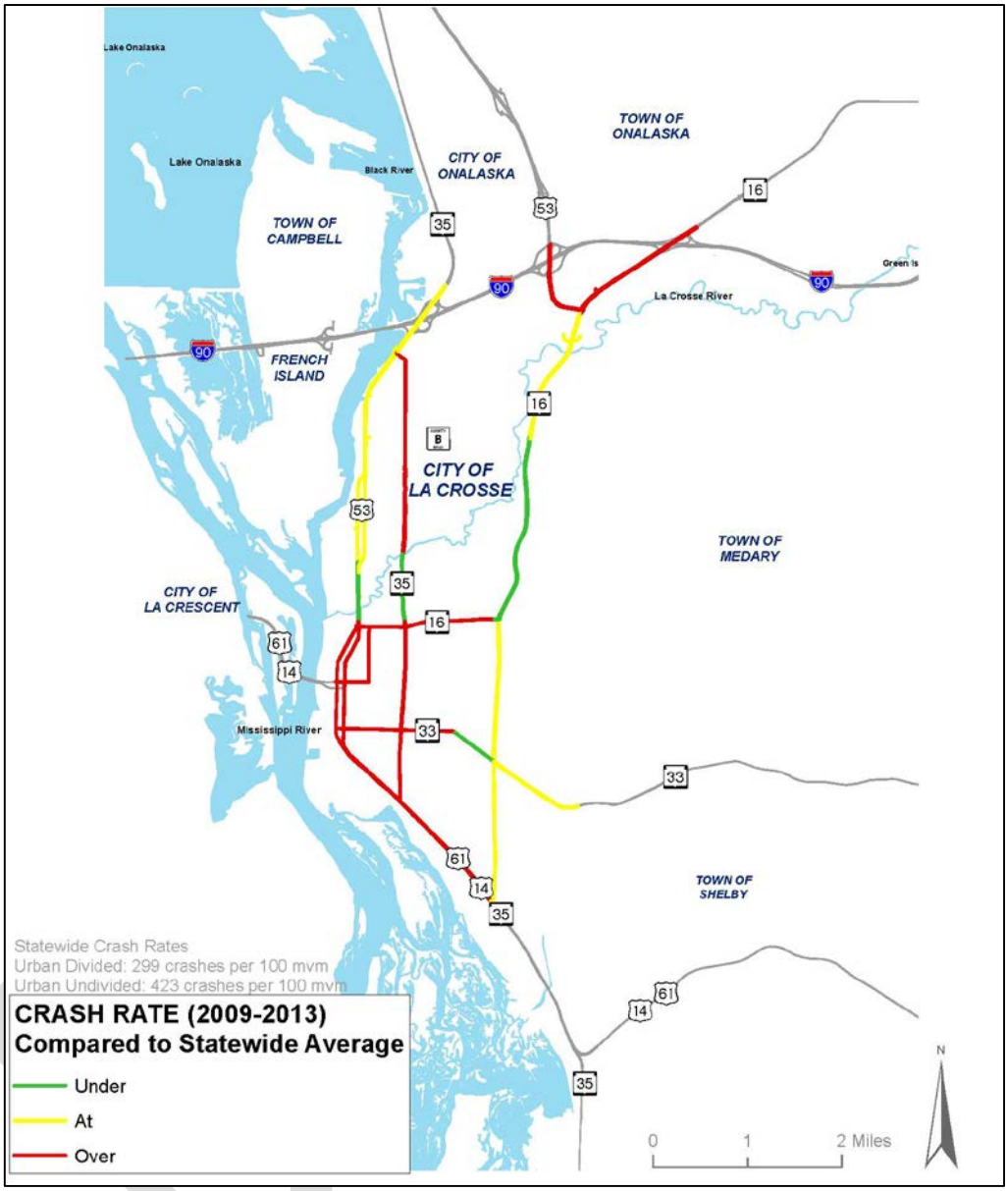
Table 7-1 (Continued)

US 53 - Buckner Pl to La Crosse St	11	14	14	11	20	70	0.63	28,200	218	291
US 53 SB (3rd St One Way) - La Crosse St to Hood St	61	58	52	62	39	272	1.43	13,800	755	291
US 53 NB (4th St One Way) - La Crosse St to Hood St	64	54	40	57	55	270	1.37	14,400	750	291
US 14 - Hood St to Ward Ave	40	43	44	44	47	218	1.50	17,100	466	291
US 14 - Ward Ave to Losey Blvd	20	22	19	24	24	109	0.73	19,100	428	435
WIS 35 - US 53 to Gillette St	26	28	20	20	29	123	0.93	11,800	614	435
WIS 35 - Gillette St to St. Cloud St	23	27	27	23	29	129	0.74	17,800	537	291
WIS 35 - St. Cloud St to Monitor St	23	21	19	11	20	94	0.42	18,500	663	291
WIS 35 - Monitor St to La Crosse St	0	0	0	0	0	0	0.83	21,800	0	435
WIS 35 - La Crosse St to WIS 33	49	48	59	53	65	274	1.25	20,000	601	291
WIS 35 - WIS 33 to US 14	18	21	12	28	16	95	0.63	9,700	852	435
WIS 16 (La Crosse St) - Losey Blvd to 7th St	43	64	44	51	42	244	1.35	10,300	962	435
WIS 16 (7th St) - La Crosse St to Cass St	9	7	5	7	7	35	0.57	3,500	961	435
WIS 16 (Cass St) - 7th St to 4th St	13	14	19	11	9	66	0.25	7,500	1929	435
WIS 33 - 3rd St to 19th St	37	38	33	30	18	156	1.25	9,100	751	435
WIS 33 - 19th St to Losey Blvd	8	3	3	3	0	17	0.50	9,100	205	435
WIS 33 - Losey Blvd to City Limits	11	19	9	11	15	65	0.70	14,400	353	435
WIS 157 - I-90 to WIS 16	41	43	48	43	46	221	0.94	27,600	467	291

Figure 7-1 – Segment Crash Rates Map



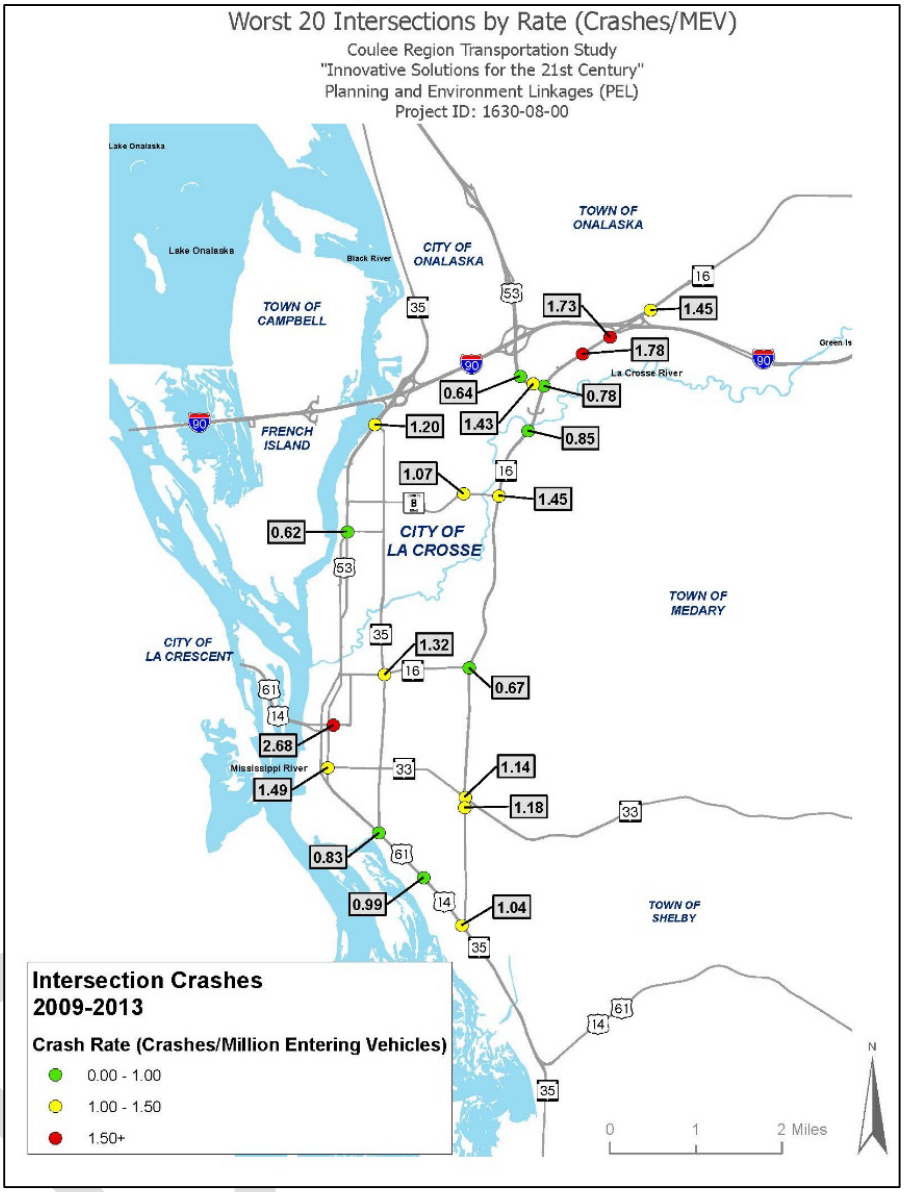
The segments located in downtown La Crosse typically reported the highest crash rates in comparison to the statewide averages. Other areas of note include WIS 157 between I-90 and WIS 16, WIS 16 between I-90 and WIS 157, and WIS 35 between US 53 and Monitor Street.

The intersections with the 20 highest crash rates are shown in Table 7-2 and a map of these intersections compared to the average intersection crash rate threshold of 1.5 can be seen in Figure 7-2.

Table 7-2 – Existing Intersection Crash Rates

Rank	Main Street		Cross Street		2009-2013 Statistics		
	HWY	Street Name	HWY	Street Name	Total Crashes	Average Per Year	Crash Rate
1	16	Cass Street		5th Avenue	48	9.6	2.68
2	16			Theater Road	88	17.6	1.78
3	16			Kinney Coulee Road S / Pralle Road	96	19.2	1.73
4	53	4th Street		Jackson Street	41	8.2	1.49
5	16			Gillette Street	109	21.8	1.45
6	16			CTH OS/Main Street/Kinney Coulee Road N	86	17.2	1.45
7	157			CTH PH	76	15.2	1.43
8	35	Lang Drive/West Ave	16	La Crosse Street	84	16.8	1.32
9	53	Rose Street	35	George Street	78	15.6	1.20
10		Losey Blvd		Green Bay Street	50	10	1.18
11		Losey Blvd	33	State Road	72	14.4	1.14
12		Gillette Street		River Valley Drive	32	6.4	1.07
13		Losey Blvd	14	Mormon Coulee Road	62	12.4	1.04
14	14	South Avenue		Ward Avenue/East Avenue	50	10	0.99
15	16			CTH B / Conoco Road	60	12	0.85
16	14	South Avenue	35	West Avenue	41	8.2	0.83
17	16		157		66	13.2	0.78
18		Losey Blvd	16	La Crosse Street	44	8.8	0.67
19	157			CTH SS	46	9.2	0.64
20	53	Rose Street		Clinton Street	41	8.2	0.62

Figure 7-2 – Intersection Crash Rates Map



Intersection crash rates varied significantly around the city of La Crosse. The highest intersection crash rates typically were found in the downtown area and on WIS 16 between Gillette Street and County OS.

7.2 Background and Methodology

MV4000 crash data for 2009-2013 were acquired from the Wisconsin Department of Transportation and through the use of the Wisconsin Traffic Operations and Safety Laboratory (TOPS).

<u>Crash Analysis Methodology</u>

Segments of a roadway and intersections each have their own respective methods of calculating crash rates.

Segment crash rates are calculated in accordance with the 2013 Statewide Average Crash Rates memo that is provided by WisDOT. For roadway segments, crash rates are calculated as the number of crashes per hundred million vehicle miles traveled (HMVMT) for each respective meta-manager peer group. The WisDOT memo identifies twelve distinctive meta-manager peer groups based on the roadway location (urban or rural), the access control (freeway, expressway, or other), the roadway cross section (divided or undivided), and the annual average daily traffic (AADT). Using the data provided in the MV4000 tables and applying engineering judgment, crashes were approximately located along each corridor. Roadway segments were then created based on the guidelines provided in the WisDOT memo and AADT volumes for the 5-year study period were calculated using WisDOT provided traffic forecasts and the WisDOT traffic count maps. The calculated segment crash rates were then compared to the meta-manager peer group 5-year average crash rates to identify deficiencies.

For intersections, crash rates are calculated as the number of crashes per million entering vehicles (MEV). The AADT used in the calculation of intersection crash rates is the total vehicles entering the intersection from all directions. The AADT's used for calculating the intersection crash rates were determined through the use of turning movement counts where available and by calculating a directional volume from the WisDOT traffic count maps. WisDOT considers an intersection crash rate of 1.5 crashes per MEV as a threshold for evaluation. Rates above 1.5 typically warrant considerations of improvements. Rates from 1.0 to 1.5 typically warrant watching. Intersections that exceed either of these thresholds will be discussed in Section 7.4.

Concurrent Studies/Construction Projects

There are several ongoing studies and planned construction projects in the city of La Crosse that lie with the limits of the Coulee Region Transportation Study area. Any recommendations, safety analysis, and other elements of these studies will be reviewed and addressed as needed during the development of recommendations for the city of La Crosse.

7.3 Crash Analysis

Results

The analysis of crashes throughout the city of La Crosse looked at a variety of roads including city streets, state highways, and U.S. highways. Based on the segment crash analysis, 17 of the segments analyzed are above the statewide average for their meta-manager peer groups and four (4) of the segments are at or near the statewide average. Table 7-1 shows a breakdown of the segment crashes and rates. Based on the intersection crash analysis, three (3) of the intersections analyzed are above the threshold for evaluation of 1.5 crashes per MEV. Ten (10) of the intersections are approaching this threshold for evaluation, with a crash rate over 1.0 crashes per MEV. Table 7-2 shows a breakdown of the intersection crashes and crash rates.

According to the *Bicycle and Pedestrian Master Plan*, pedestrians in La Crosse have been struck and killed by motorists traveling on roadways as recently as 2012. Many of these incidents occurred where there were no accommodations for pedestrians. On several occasions, pedestrians waiting for buses or attempting to cross the street are difficult to see by approaching motorists who are unable to stop in the presence of pedestrians on major roads. These observations highlight the need to make improvements to La Crosse roadways that enhance the visibility of pedestrians to motorists but also encourage safe behavior that is consistent with state law. Between 2005 and 2010, 43 pedestrians and 66 bicyclists were involved in crashes in La Crosse. Figure 7-3 is a map from the *Bicycle and Pedestrian Master Plan* which displays crash locations between 2007 and 2009. Crashes that involved bicycles or pedestrians were noted in

the traffic study. Intersections that involved two or more pedestrian or bicycle crashes from 2009-2013 include:

- Gillette Street and River Valley Road
- Fourth Street and Jackson Street
- WIS 35 and WIS 16
- Losey Blvd. and Green Bay Street
- Losey Blvd. and US 14
- Losey Blvd. and WIS 33

Crashes involving pedestrians and bicyclists increased between 2007 and 2010. This may be due to several factors including increased bicycling and walking or increased reporting. Data on the number of people walking and bicycling are not available on an annual basis, so it can be difficult to determine the exact cause. It should be noted that the census data indicates that bicycling volumes are increasing at a rate greater than crashes. Hit and runs average between one and four crashes per year. Incidents involving bicycles and pedestrians tend to occur in the afternoon and evening hours, between 4:00 and 5:00pm, when many people are commuting[28].

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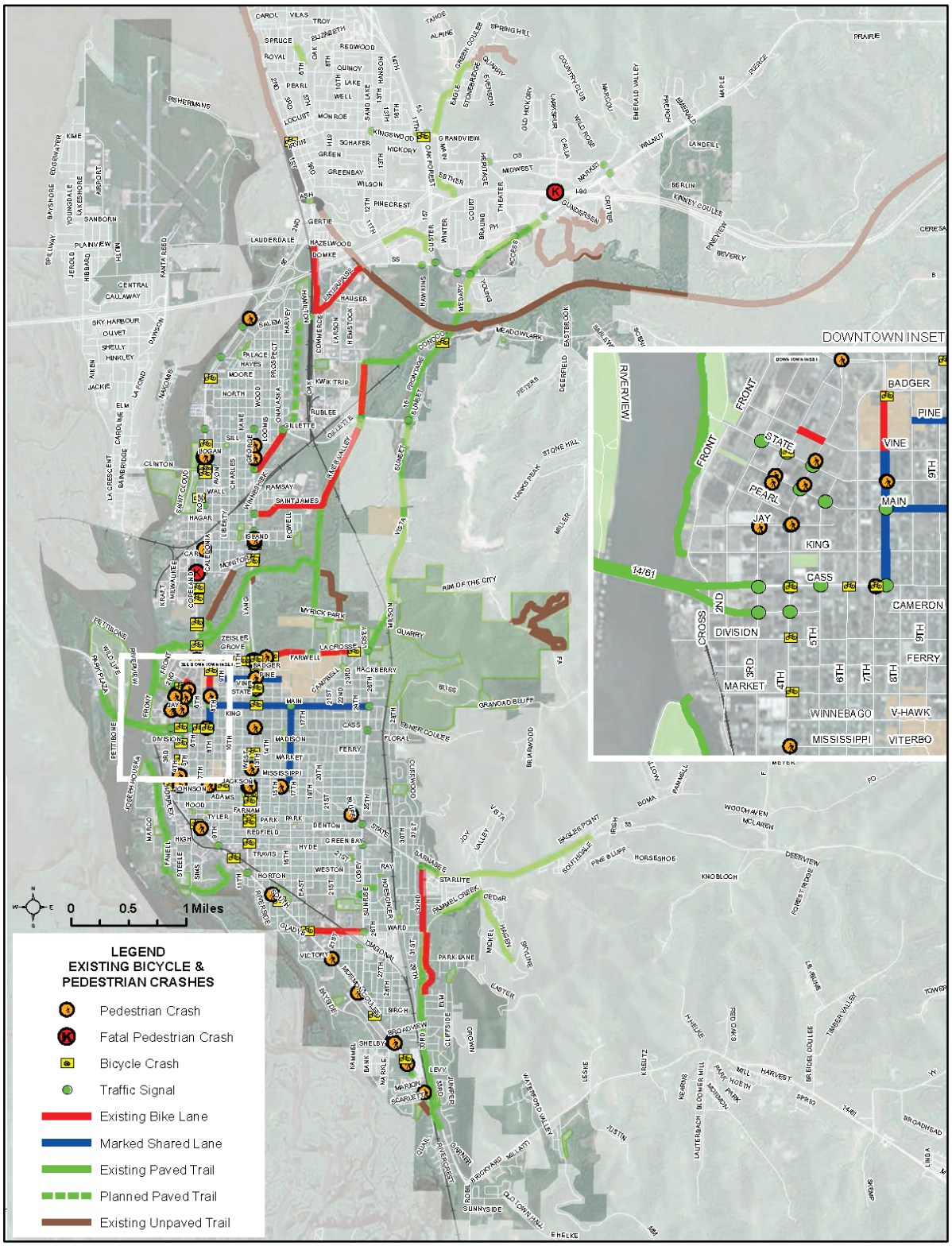
[28] http://www.cityoflacrosse.org/DocumentCenter/View/7152

Figure 7-3 – Bike/Ped Crashes in La Crosse[29]



[29] Bicycle and Pedestrian Master Plan, City of La Crosse, 2012

7.4 High Crash Rate Intersections

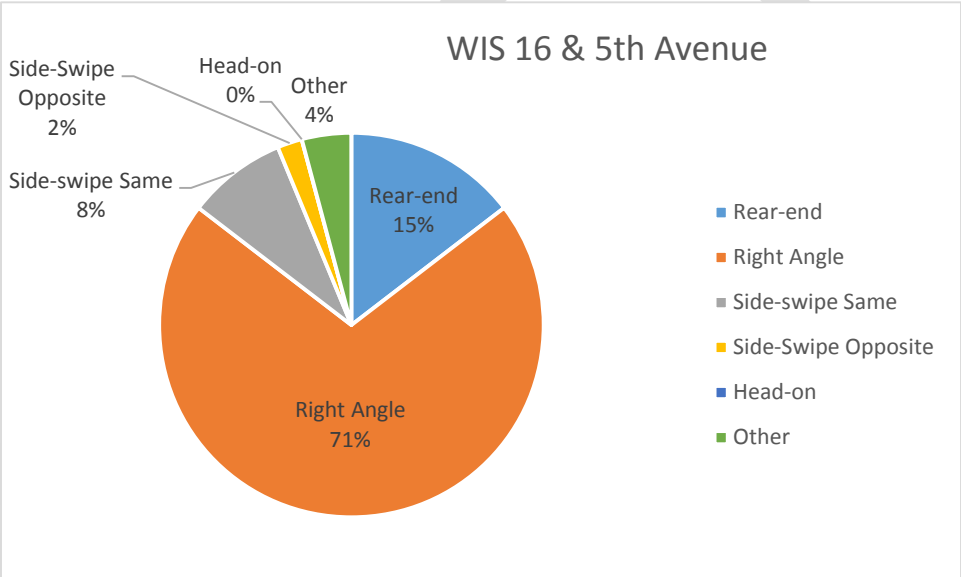
The top ten highest total crash rates for intersections in the study area from 2009-2013 include the following:

1. WIS 16 (Cass Street) & 5th Avenue

The WIS 16 (Cass Street) & 5th Avenue intersection had a total of 48 crashes occur between 2009 and 2013, including 11 injury crashes. This resulted in a total crash rate of 2.68 crashes per MEV, the highest among the intersections analyzed as part of the Coulee Region Transportation Study PEL. An injury crash rate of 0.62 injury crashes per MEV was experienced at this signal-controlled intersection.

Angle crashes accounted for 71 percent of the total crashes at this signal-controlled intersection. Figure 7-4 shows a breakdown of the types of crashes that occurred at the WIS 16 (Cass Street) & 5th Avenue intersection.

Figure 7-4 – Crashes at WIS 16 (Cass Street) & 5th Avenue Intersection

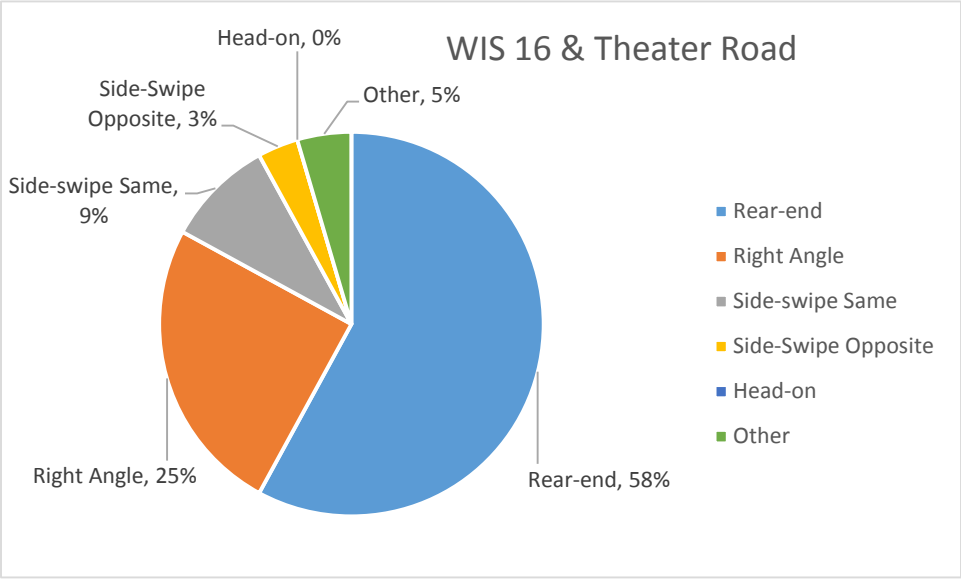


2. WIS 16 & Theater Road

The WIS 16 & Theater Road intersection had a total of 88 crashes occur between 2009 and 2013, including 25 injury crashes. This resulted in a total crash rate of 1.78 crashes per MEV, the second highest among the intersections analyzed as part of the Coulee Region Transportation Study. An injury crash rate of 0.51 injury crashes per MEV was experienced at this signal-controlled intersection.

Rear end crashes accounted for 58 percent of the crashes that occurred at this signal-controlled intersection. Figure 7-5 shows a breakdown of the types of crashes that occurred at the WIS 16 & Theater Road intersection.

Figure 7-5 – Crashes at WIS 16 & Theater Road

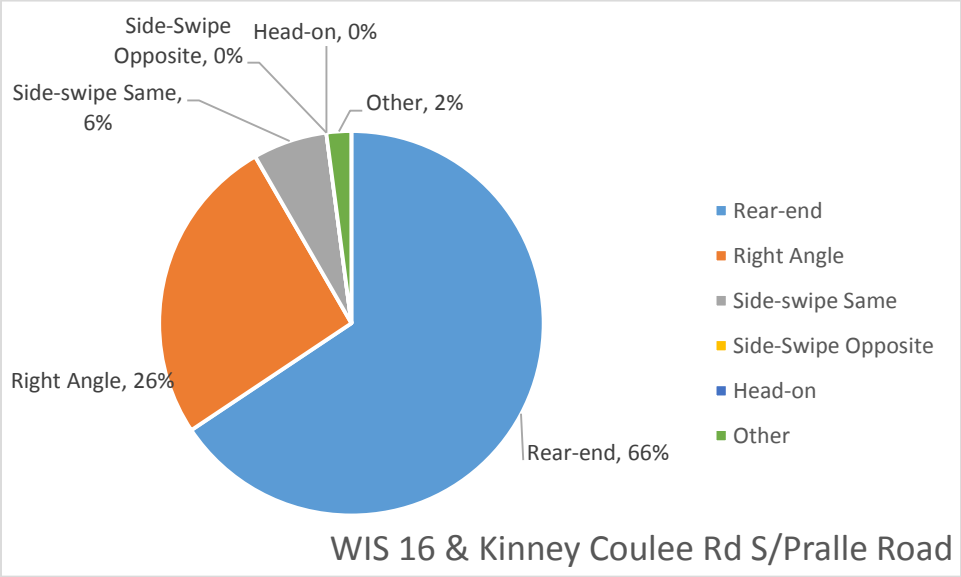


3. WIS 16 & Kinney Coulee Road S/Pralle Road

The WIS 16 & Kinney Coulee Road South/Pralle Road intersection had a total of 96 crashes occur between 2009 and 2013, including 27 injury crashes. This resulted in a total crash rate of 1.73 crashes per MEV, the third highest among the intersections analyzed as part of the Coulee Region Transportation Study PEL. An injury crash rate of 0.49 injury crashes per MEV was experienced at this signal-controlled intersection.

Rear end crashes accounted for 66 percent of the crashes that occurred at this signal-controlled intersection. Figure 7-6 shows a breakdown of the types of crashes that occurred at the WIS 16 & Kinney Coulee Rd S/Pralle Road intersection.

Figure 7-6 – Crashes at WIS 16 & Kinney Coulee Rd S/Pralle Road

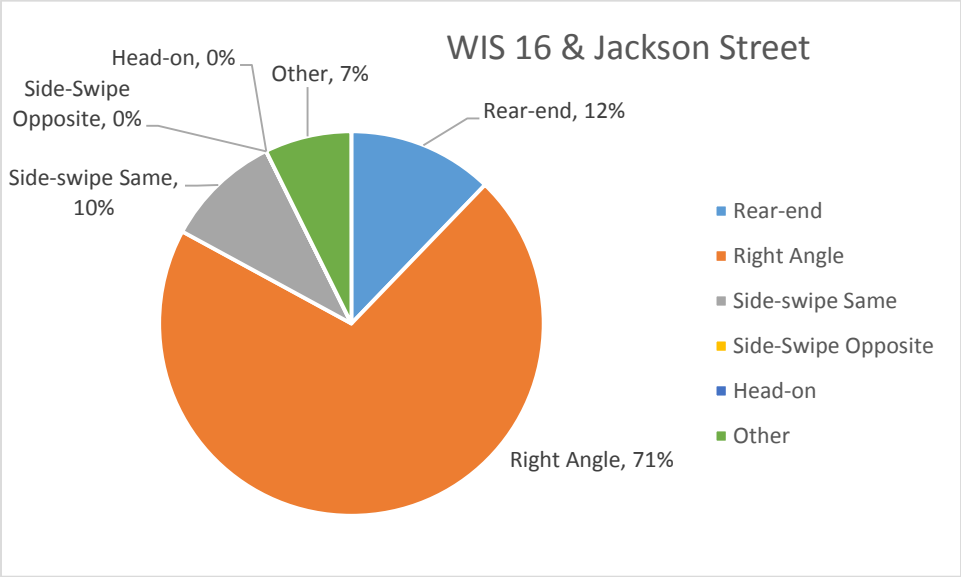


4. WIS 16 & WIS 33 (Jackson Street)

The WIS 16 & Jackson Street intersection had a total of 41 crashes occur between 2009 and 2013, including 20 injury crashes. This resulted in a total crash rate of 1.49 crashes per MEV, the fourth highest among the intersections analyzed as part of the Coulee Region Transportation Study. A high injury crash rate of 0.73 injury crashes per MEV was experienced at this signal-controlled intersection, the highest rate among the intersections analyzed.

Right angle crashes accounted for 71 percent of the crashes that occurred at this signalized intersection. Figure 7-7 shows a breakdown of the types of crashes that occurred at the WIS 16 & Jackson Street intersection.

Figure 7-7 – Crashes at WIS 16 & Jackson Street

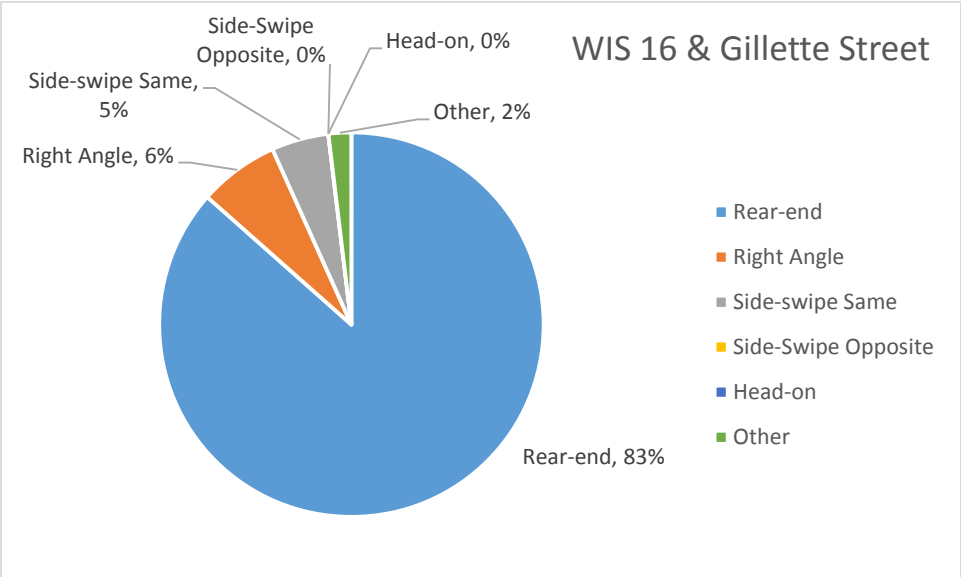


5. WIS 16 & Gillette Street

The WIS 16 & Gillette Street intersection had a total of 109 crashes occur between 2009 and 2013, including 28 injury crashes. This resulted in a total crash rate of 1.45 crashes per MEV, the fifth highest among the intersections analyzed as part of the Coulee Region Transportation Study. An injury crash rate of 0.37 injury crashes per MEV was experienced at this signal-controlled intersection.

Rear end crashes accounted for 83 percent of the crashes that occurred at this signalized intersection. This was the highest rate of rear-end crashes among the intersections analyzed. Figure 7-8 shows a breakdown of the type of crashes that occurred at the WIS 16 & Gillette Street intersection.

Figure 7-8 – Crashes at WIS 16 & Gillette Street

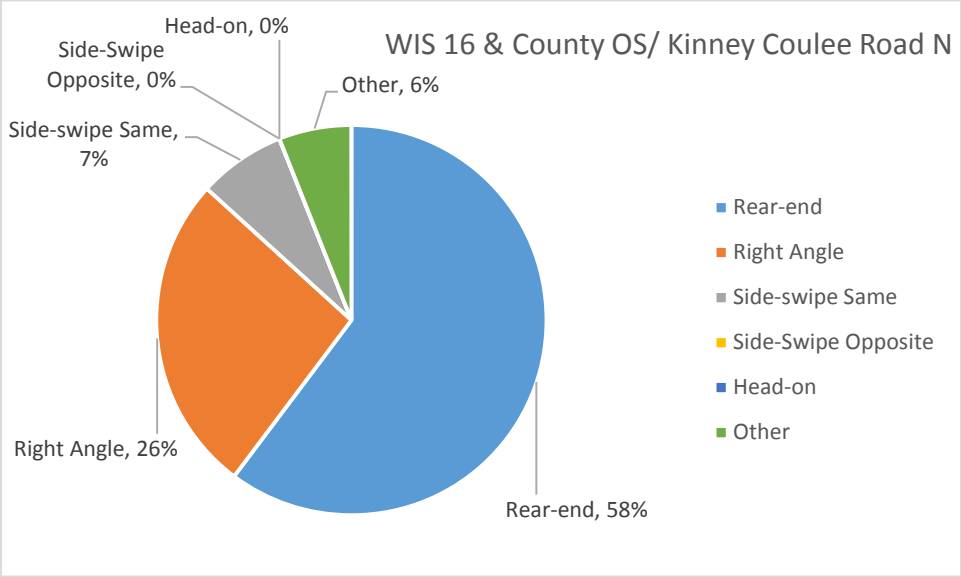


6. WIS 16 & County OS/Kinney Coulee Road N

The WIS 16 & County OS/Kinney Coulee Road N intersection had a total of 86 crashes occur between 2009 and 2013, including 26 injury crashes. This resulted in a total crash rate of 1.45 crashes per MEV, the sixth highest among the intersections analyzed as part of the Coulee Region Transportation Study. An injury crash rate of 0.44 injury crashes per MEV was experienced at this signal-controlled intersection.

Rear end crashes accounted for 58 percent of the crashes that occurred at this signal controlled intersection. Figure 7-9 shows a breakdown of the type of crashes that occurred at the WIS 16 & County OS/Kinney Coulee Road N intersection.

Figure 7-9 – Crashes at WIS 16 & County OS/Kinney Coulee Road N

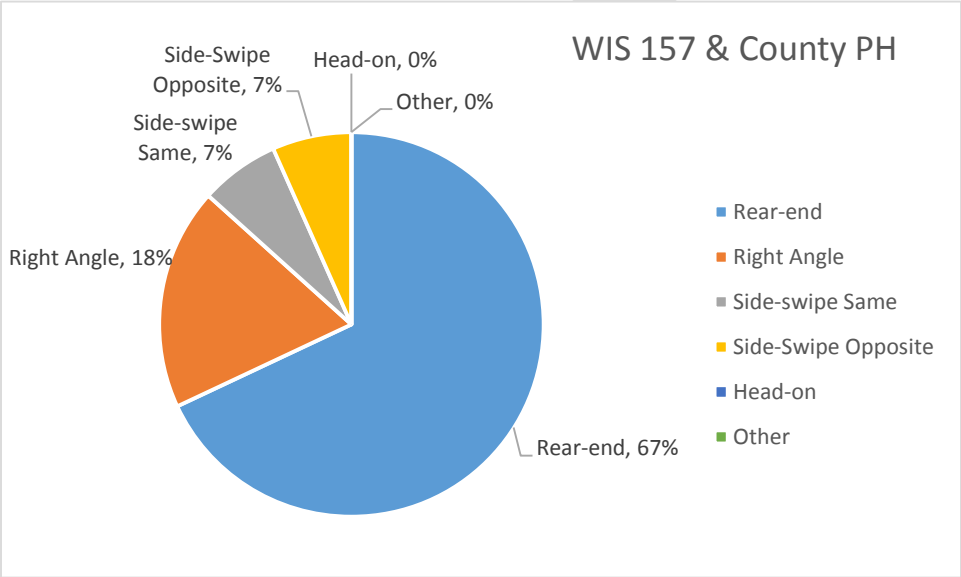


7. WIS 157 & County PH

The WIS 157 & County PH intersection had a total of 76 crashes occur between 2009 and 2013, including 31 injury crashes. This resulted in a total crash rate of 1.43 crashes per MEV, the seventh highest among the intersections analyzed as part of the Coulee Region Transportation Study PEL. An injury crash rate of 0.58 injury crashes per MEV was experienced at this signal-controlled intersection.

Rear-end crashes accounted for 67 percent of the crashes that occurred at this signal controlled intersection. Figure 7-10 shows a breakdown of the type of crashes that occurred at the WIS 157 & County PH intersection.

Figure 7-10 – Crashes at WIS 157 & County PH

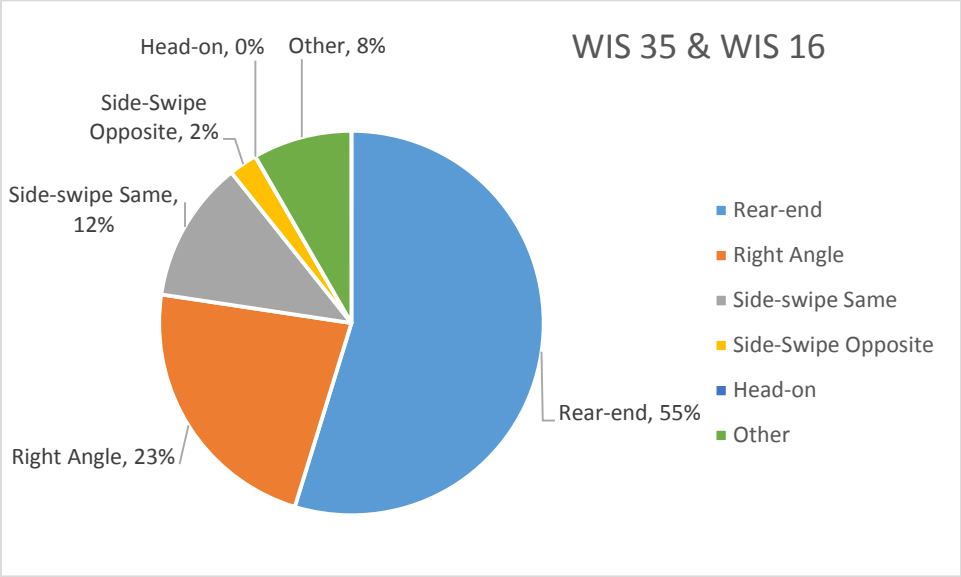


8. WIS 35 & WIS 16

The WIS 35 & WIS 16 intersection had a total of 84 crashes occur between 2009 and 2013, including 36 injury crashes. This resulted in a total crash rate of 1.32 crashes per MEV, the eighth highest among the intersections analyzed as part of the Coulee Region Transportation Study PEL. An injury crash rate of 0.57 crashes per MEV was experienced at this signal-controlled intersection.

Rear end crashes accounted for 55 percent of the crashes that occurred at this signal controlled intersection. Figure 7-11 shows a breakdown of the types of crashes that occurred at the WIS 35 & WIS 16 intersection.

Figure 7-11 – Crashes at WIS 35 & WIS 16

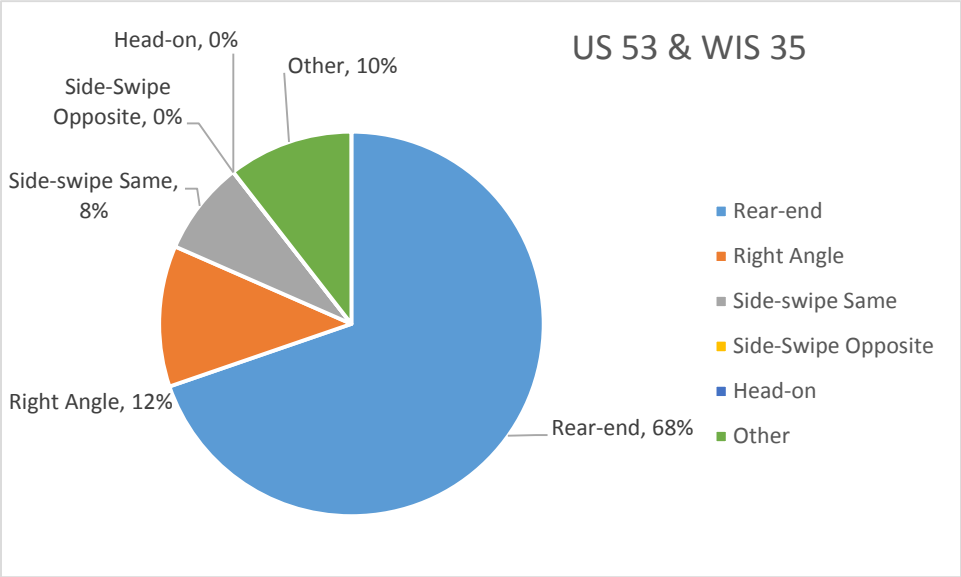


9. US 53 & WIS 35

The US 53 & WIS 35 intersection had a total of 78 crashes occur between 2009 and 2013, including 23 injury crashes. This resulted in a total crash rate of 1.20 crashes per MEV, the ninth highest among the intersections analyzed as part of the Coulee Region Transportation Study PEL. An injury crash rate of 0.35 crashes per MVE, the lowest of the intersections analyzed, was experienced.

Rear-end crashes make up 68 percent of the total crashes that occurred at this signal controlled intersection. Figure 7-12 shows a breakdown of the types of crashes that occur at the US 53 & WIS 35 intersection.

Figure 7-12 – Crashes at US 53 & WIS 35



10. Losey Boulevard & Green Bay Street

The Losey Boulevard & Green Bay Street intersection had a total of 50 crashes occur between 2009 and 2013, including 18 injury crashes. This resulted in a total crash rate of 1.18 crashes per MEV, the tenth highest among the intersections analyzed as part of the Coulee Region Transportation Study. An injury crash rate of 0.43 injury crashes per MEV was experienced at this signal-controlled intersection.

Rear-end crashes accounted for 38 percent of the crashes that occurred at this signal controlled intersection. Figure 7-13 shows a breakdown of the types of crashes that occur at the Losey Boulevard & Green Bay Street intersection.

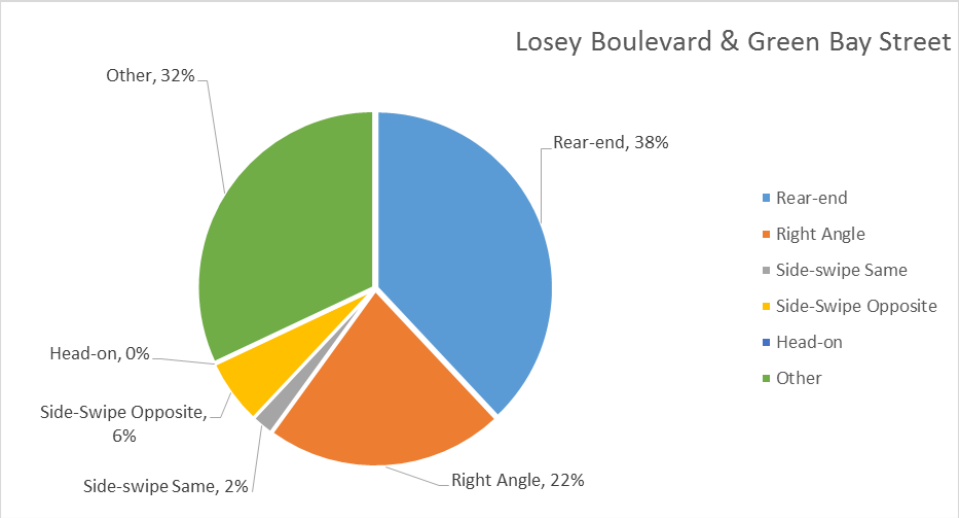



Figure 7-13 – Crashes at Losey Boulevard & Green Bay Street