

7 Transportation

A transportation system supports the growing economy of a community, which provides opportunities for its residents and visitors. These opportunities enhance the community's standard of living. Of particular importance in smaller communities is the local road system, since it generally has the greatest direct input and investment by the local government.

A well-designed road system can result in many benefits and long term cost savings for a community. Being an integral aspect of the town, it plays a major role in the efficiency, safety and overall desirability of the community as a place to live and work.

7.1 Existing Road Systems

In analyzing the road system, several aspects and factors should be examined to discern possible shortcomings as well as plan for future needs. Analysis of traffic patterns through the examination of the road system, review of traffic counts, study of accident reports, discussion with individuals at the local, county and state levels, and finally, a field survey of the roads can assist in providing possible recommendations relevant to the system.

To begin the analysis for the Town of Presque Isle, an examination of the existing configuration or pattern of the road system is in order. As Map 7-1 depicts, the town's road configuration does not follow the typical rural roadway pattern of primarily north-south and east-west roads. Rather, the abundance of natural features within the town, including its many lakes, creeks, and forested areas tend to direct roadway patterns.

The road system is composed of two levels of government jurisdiction. These include the town system encompassing the local roads and the County system of trunk highways. Map 7-1 identifies the existing road patterns. The map illustration identifies that the local roads comprise the greatest mileage. However, in terms of the functional role and the amount of traffic carried by each type, CTH B, CTH W, CTH M, CTH P and Crab Lake Road are the most significant.

7.2 Classifications

The three levels of jurisdictional roadway, state and federal, county, and local, often times are considered to approximate the functional classification of roads used for planning and design purposes. The division of roadways into the functional classes, arterials and collectors, represents a breakdown relative to the principal service the roadway is intended to serve. The functional classification is generally the basis of funding, constructing, and maintaining the various levels of roadway. This classification for rural areas often results in the use of the state and federal roads as arterials, while county and town roads serve as collectors within the system (see Map 7-1).



Wisconsin Department
of Transportation

Transportation Map for the Town of Presque Isle



MAP 7-1

Vilas County UW-Extension 6/12/01

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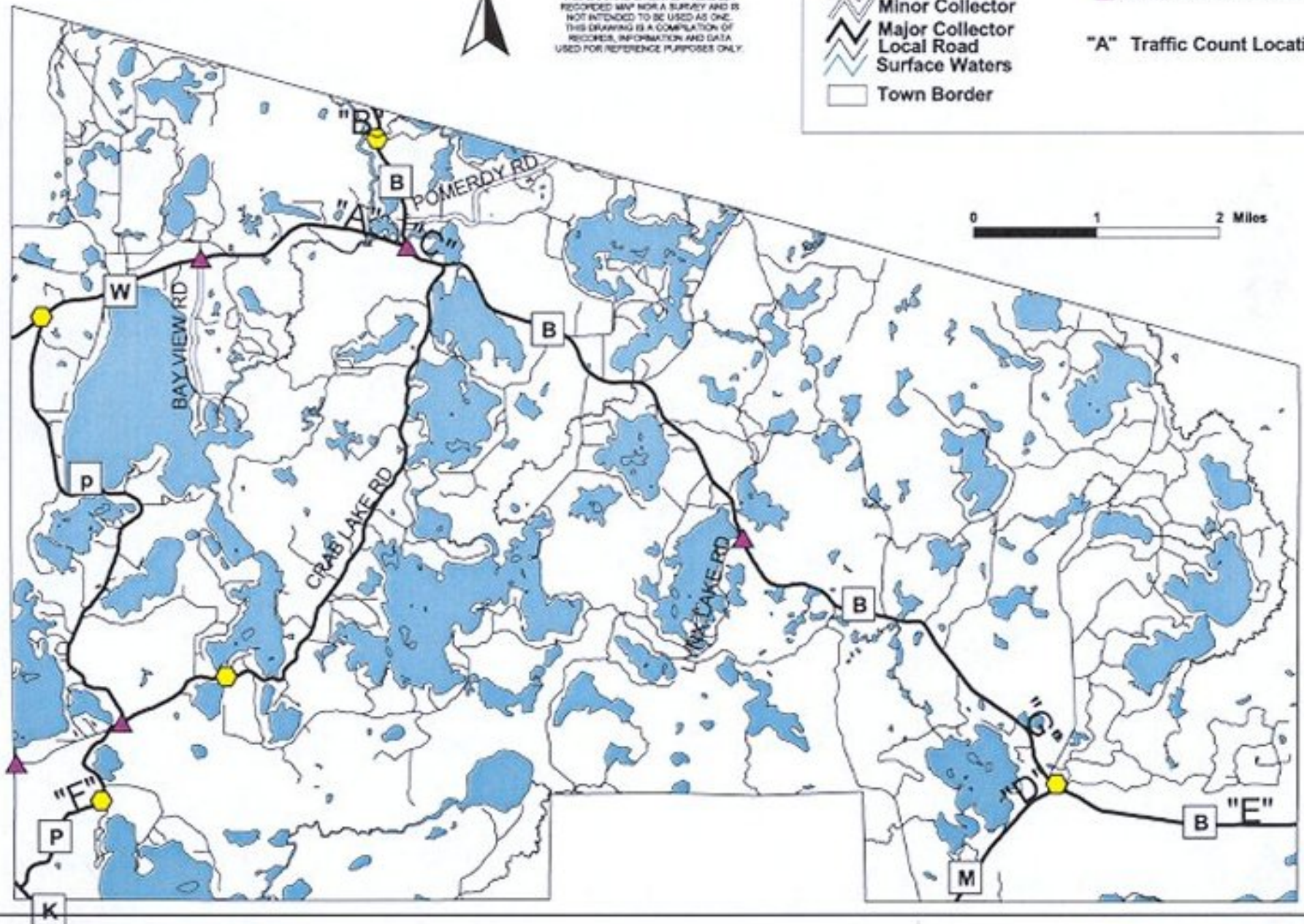


Roads

- Principal Arterial
- Minor Arterial
- Minor Collector
- Major Collector
- Local Road
- Surface Waters
- Town Border

Crashes

- 1 Intersection Crashes
- 2 Intersection Crashes
- "A" Traffic Count Locations



Although the definitions are somewhat formal, they attempt to explain the principal role of each type of roadway. While the four classes appear to be set apart, the sharp distinctions are actually more subtle. For discussion and planning purposes, however, these more specific definitions are applied.

Principal Arterial (Freeways)

The principal function is to provide the most efficient movement for relatively large volumes of traffic at increased speeds. Movement to and from other road facilities is limited to controlled interchanges. Regional movement of traffic contributes an increasing portion of the traffic counts.

Minor Arterial

The principal function is to provide efficient traffic movement for larger volumes of traffic. Little or no direct access is strived for with non-local destinations comprising a major portion of the traffic.

Major Collector

The principal function is to provide an intermediary link between efficient movement of arterials and accessibility of local roadways. They serve to funnel or collect traffic from local roadways to arterials. More efficiency of movement is strived for in favor of accessibility.

Minor Collector (Local Roadways)

The principal function is to provide traffic with access to and from property. It is the grass roots classification where accessibility for vehicles and pedestrians is emphasized and efficiency of movement is secondary.

As previously noted, these functional classifications are generally equated with the jurisdictional divisions. In the more developed, larger urban communities, this relationship may not be as rigid, whereas the local community constructs and maintains all classes of the roadway system. In the typical rural transportation system, however, the jurisdictional and functional classifications maintain a closer relationship. The greatest emphasis of traffic in rural areas is generally on non-local efficient movement whereas local access is secondary due to relatively low population densities.

Based on the qualifications of the roadway classifications, the Town of Presque Isle has the service of 5 major collectors and 3 minor collectors. CTH B, CTH W, CTH M, CTH P and Crab Lake Road are major collectors. Bay View Road, Oxbow Road and Pomeroy Road are minor collectors.

To further assist in the classification of roads within the roadway system, the following table identifies the basic criteria used to determine the functional class of each road within a community. (See Table 7-1, Year 2010 Rural Area Highway Functional Classification Criteria.)

7.3 Traffic Counts

Annual average daily traffic counts (AADT's) for 1989, 1992, 1995 and 1998 for five locations in Presque Isle are presented in Table 7-2. In addition, the change in annual average daily traffic counts from 1989 to 1998 for these locations can be reviewed on Map 7-1.

**Table 7-1
Annual Average Daily Traffic Counts
Town of Presque Isle
1989-1998**

Location		1989	1992	1995	1998	% Change 1989-1998	% Change 1989-1998
A	CTH W west of CTH B	662	700	837	760	12.9	98
B	CTH B south of MI-WI state line	154	380	474	420	63.3	266
C	CTH B southeast of CTH W	576	770	1,131	970	40.6	394
D	CTH M southwest of CTH B	797	840	1,100	1,400	43.1	603
E	CTH B east of CTH M	442	470	542	800	44.8	358
F	CTH P north of CTH K	298	360	538	330	9.7	32
G	CTH B north of CTH M	403	490	583	680	40.7	277

Source: Wisconsin Dept. of Transportation

The highest daily traffic volumes in the four reference years are found on the major collector CTH M southwest of CTH B at location D (1,400). The largest increase in volume from 1989 to 1998 occurred along CTH B south of MI-WI state line, recording an additional 266 motor vehicles. CTH B east of CTH M also experienced a large increase in volume from 1989 to 1998, recording an additional 358 motor vehicles. CTH M southwest of CTH B also experienced a significant increase in volume of 603 vehicles.

Table 7-3 shows the projected Annual Average Daily Traffic Counts from base year 1998 to forecast year 2019. The largest volume increase is projected to occur on CTH P north of CTH K, by an additional 510 motor vehicles.

Table 7-2
Year 2010 Rural Area Highway Functional Classification Criteria

Functional Classification	Traffic Volume	<u>Basic Criteria</u>			Supplemental Criteria or must meet both of these plus 90% of traffic volume.
		Population Service	Land Use Service	Spacing	
Principal Arterial	>3,000	Connect places 50,000 with other places 50,000. Connect places 5,000 with places 50,000.	Provide access to 12 large attractions	Maximum 30 miles	None for Principal Arterials
Minor Arterial	>1,000	Connect places 5,000 with other places 5,000. Connect places 1,000 with places 5,000 or with principal arterials	Serve all traffic generating activities with an annual visitation 300,000 if not served by a principal arterial	Maximum 30 miles	1. Alternative population connection. 2. Major river crossing restrictive topography.
Major Collector	>500 (>2,000)	Connect places 1,000 with other places 1,000. Connect places 500 with places 1,000 or higher function route. Connect places 500 with other places 500 or higher function route. Connect places 100 with places 500 or higher function route.	Land use service index \geq 16. Provides access to smaller attractions (i.e., airports, schools factories, parks, etc.)	Maximum 10 miles	1. Alternate population connection. 2. Major river crossing. 3. Restrictive topography. 4. Interchange with freeway. 5. Parallel to a principal arterial.
Minor Collector	>200 (>800)	Connect places 100 with other places 100. Connect places 50 with places 100 or higher function route.	Land use service index \geq 8. Serves same type of attractions as major collector.	Maximum 10 miles	1. Alternative population connection. 2. One major river crossing. 3. Restrictive topography. 4. Interchange with freeway. 5. Parallel to a principal arterial.

Source: Wisconsin Department of Transportation.

Table 7-3
Projected Annual Average Daily Traffic Counts
Town of Presque Isle
1998-2019

Location		1998	1999	2009	2019	% Change 1998-2019	# Change 1998-2019
A	CTH W west of CTH B	760	810	900	980	22.4	220
B	CTH B south of MI-WI state line	420	480	570	650	35.4	230
C	CTH B southeast of CTH W	970	1,070	1,270	1,470	34.0	500
D	CTH M southwest of CTH B	1,400	1,300	1,560	1,810	22.7	410
E	CTH B east of CTH M	800	690	830	960	16.7	160
F	CTH P north of CTH K	330	580	720	840	60.7	510
G	CTH B north of CTH M	680	630	780	920	26.1	240

Source: Wisconsin Dept. of Transportation

7.4 Crash Locations

To further analyze the Town of Presque Isle' road system, the frequency, location of, and causes of motor vehicle crashes can be used to identify problem areas. The frequency of motor vehicle crashes tends to correlate directly with traffic volumes, however the design and condition of the road may also have an impact on the crash rate. Table 7-4, Motor Vehicle Crash Summary, displays the number of crashes for roads which have experienced three or more motor vehicle crashes from 1991 to 1998 as reported by the Department of Transportation, Division of Motor Vehicles. The "other" category includes all other crashes from locations that individually had less than three motor vehicle crashes from 1991 to 1998

**Table 7-4
Motor Vehicle Crash Summary
Town of Presque Isle
1991-1998**

Crash Location	1991	1992	1993	1994	1995	1996	1997	1998	Total
CTH B	7	8	7	12	12	8	4	4	62
CTH P	3	3	1	12	6	4	4	0	33
CTH W	0	2	1	8	8	8	4	1	32
Crab Lake Road	0	0	1	1	2	2	2	0	8
Bay View Road	1	1	1	2	0	0	0	0	5
Other*	3	4	3	0	6	2	8	1	27
Total	14	18	14	35	34	24	22	6	167

*Note: Denotes all locations with three or less crashes from 1991-1998.

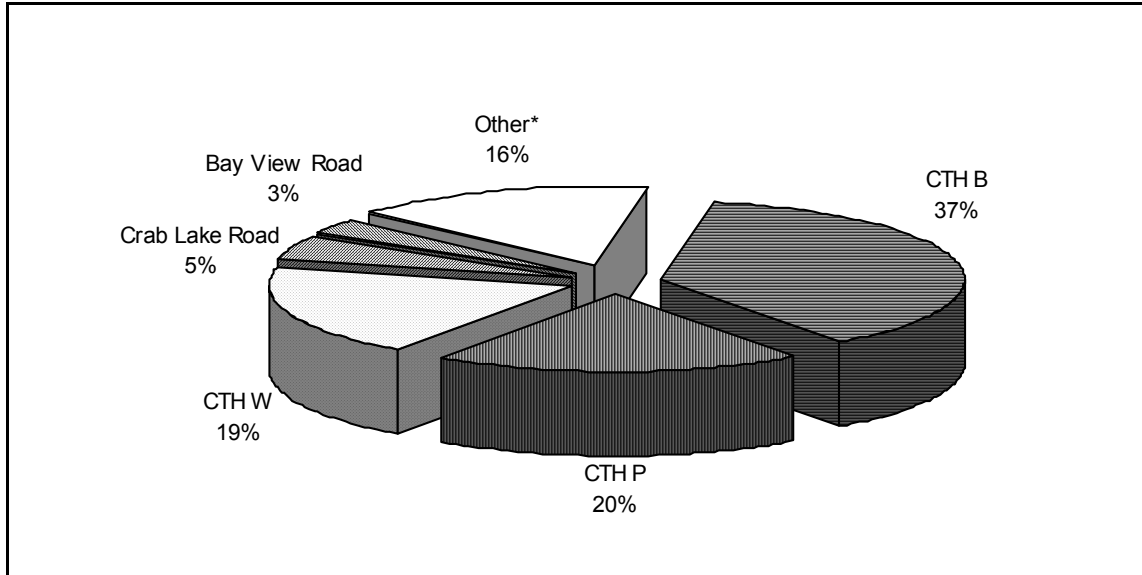
Source: Wisconsin Department of Transportation, Crash Listing, 1991-1998.

The Town of Presque Isle had 167 motor vehicle crashes from 1991 to 1998. As expected, the roadway with the greatest traffic volumes (CTH B, CTH P and CTH W) also had the greatest number of motor vehicle crashes. Figure 7-1 identifies the overall percentage of motor vehicle crashes experienced within Presque Isle between 1991 and 1998 by location.

County Trunk Highway B experienced 37% of the total number of motor vehicle crashes between 1991 and 1998. CTH P was the location of 20% of the town's motor vehicle crashes. County Trunk Highway W was the location of 19% of the town's motor vehicle crashes. As for local roads, the greatest number of traffic crashes occurred on Crab Lake Road, which experienced 5% of the total town's motor vehicle crashes. Bay View Road experienced 3% of the town's motor vehicle crashes.

Figure 7-1
Percent of Total Crashes by Location
Town of Presque Isle

Crashes 1

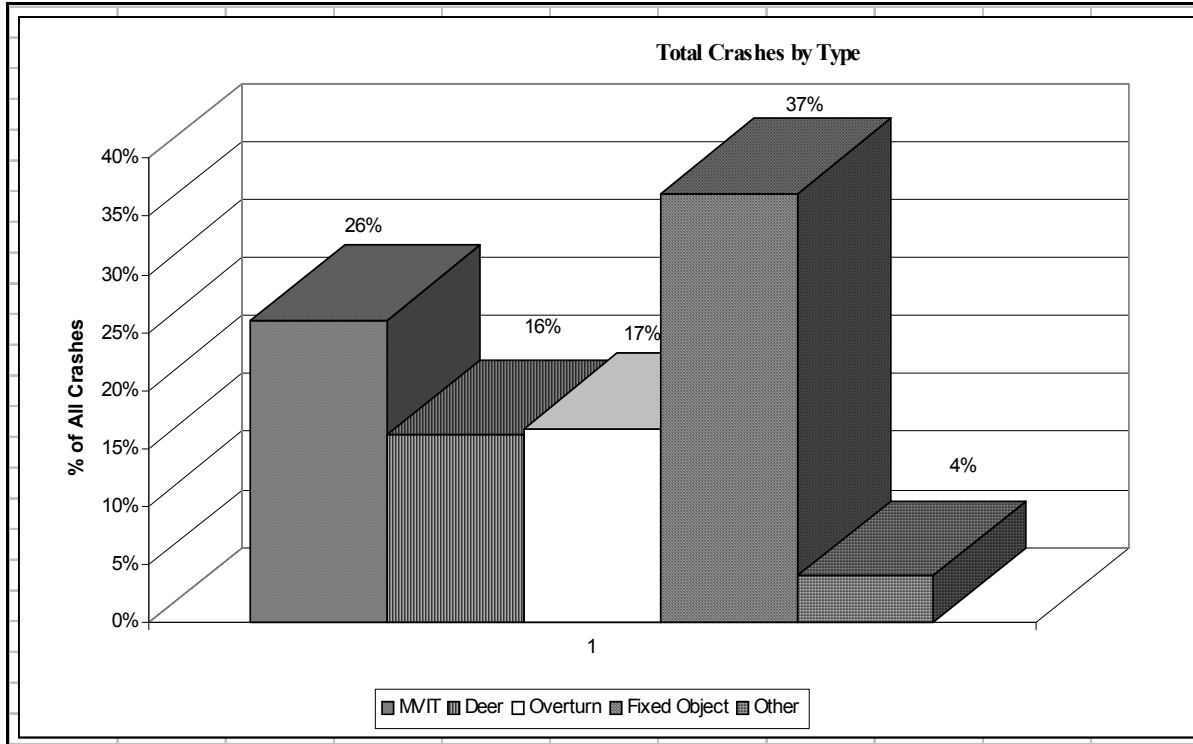


Source: Wisconsin Department of Transportation

In addition to analyzing the number of crashes per roadway, a review of the trends for intersection motor vehicle crashes can provide insight to problem areas within the town roadway system. Map 7-1 displays the locations of intersection crashes from 1991-1998. The intersections are classified by location and number of crashes, which range from one to two. The intersections of CTH B and CTH W, CTH B and Lynx Lake Road, CTH P and Crab Lake Road, CTH W and Bay View Road, and Papoose Lake Road and Papoose Landing had two crashes each from 1991-1998. The other intersections illustrated on Map 7-1 experienced one crash during 1991-1998 time frame. It should be understood however, that roadways with greater volumes of traffic have an increased risk of crashes, which is the case for the above-mentioned roadways.

Further analysis of motor vehicle crashes by type of crash provides greater detail into the cause of motor vehicle crashes within the Town of Presque Isle. Figure 7-2, Total Crash by Type, displays the types of crashes from 1991 to 1998.

**Figure 7-2
Total Crashes by Type
Town of Presque Isle
1991-1998**

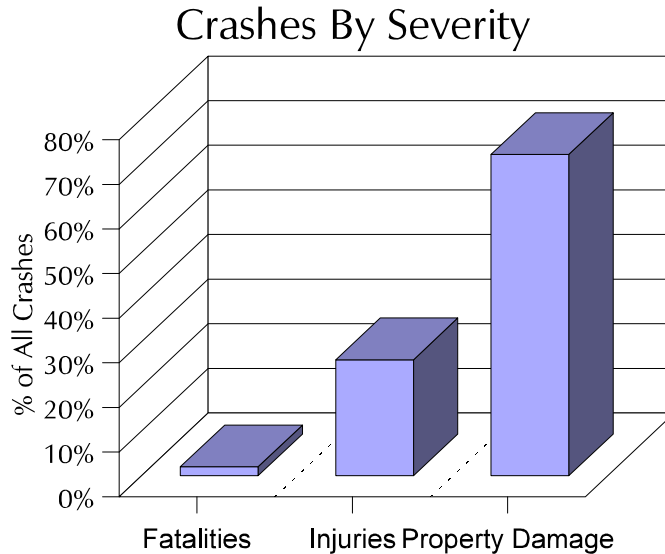


Source: Wisconsin department of Transportation

According to Figure 7-2, the greatest attributable cause, or type of crash, from 1991-1998 was the category Fixed Object, which comprised 37% of all crashes in the town. Fixed Objects include trees, ditches, utility poles, traffic signposts and mailboxes. The second most common crash type was Motor Vehicle in Transit (MVIT), which accounted for 26% of all crashes in the town. Overturn was the third most common crash type, and accounted for 17 of all crashes in the town. Deer comprised 16% of crashes, while the category Other comprised 4% of all crashes in the Town of Presque Isle. This category includes objects on the road, objects not fixed, parked vehicles and animals other than Deer.

The severity of the crashes is also a concern in determining if roadway conditions contributed to fatalities or injuries. Figure 7-3 displays the severity of all motor vehicle crashes from 1991 to 1998. The figure indicates that the greatest portion of all crashes (72%) result in property damage to the vehicle(s) involved. Injuries occurred among 26% of all crashes from 1991 to 1998. Two percent of the crashes in the Town of Presque Isle resulted in fatalities between 1991 and 1998.

**Figure 7-3
Severity of Motor Vehicle Crashes
Town of Presque Isle
1991-1998**



Source: Wisconsin Department of Transportation

7.5 Existing Street Conditions

To assess the condition of the town's roadways, Town Board members conduct an annual "road workshop". The workshop consists of the board members performing a visual assessment of all the town roads, during which all repairs, maintenance, etc. that are observed to be needed are identified. After completion of the visual assessment, the board members reconvene at the Town Hall to prioritize the work to be completed based on their observations.

7.6 Air Transportation

Air passenger services available to the Town of Presque Isle residents include the facilities in Rhinelander, Manitowish Waters, Minocqua and Boulder Junction. Manitowish Waters is located about 15 miles from Presque Isle. The facility is classified as a Basic Utility general aviation airport with no scheduled passenger service.

The Lakeland/Nobel F. Lee Airport in Minocqua is located approximately 25 miles south of Presque Isle. This facility provides seasonal air passenger service. The airport is classified as a Transport/Corporate airport.

Boulder Junction airport is located about 15 miles from Presque Isle, and classified as a Basic Utility general aviation airport. There is no scheduled or seasonal passenger service provided. The Rhinelander-Oneida County airport is located approximately 50 miles southeast of the Town of Presque Isle. This facility is classified as an Air Carrier/Air Cargo airport. The airport provides one commercial airline carrier: Mesaba air. This commercial carrier offers commuter flights to three Midwest airports including those located in Detroit, Michigan; Minneapolis, Minnesota; and Chicago, Illinois. The total commercial passenger traffic for the Rhinelander/Oneida County Airport for 1998 was 79,000 persons. Airport administration estimates 2000 air traffic to reach or surpass 92,000 persons. Additional passenger services at the airport include private air charters through the Rhinelander Flying Service.

7.7 Rail Transportation

Railroad facilities do not exist in the Town of Presque Isle. The Wisconsin Central Limited railroad located in Rhinelander is approximately 50 miles from the town. Cargo transportation rail lines are also located in the Hurley/Ironwood Michigan area.

7.8 Planned Transportation Improvements

County Highway Projects

The Vilas County Highway Commission indicated that there is paving, shouldering and regular maintenance scheduled on CTH "B", CTH "P" and CTH "W" for FY2001 in the Town of Presque Isle.

Local Roads Projects

The Town of Presque Isle indicated that there are a number of projects scheduled for FY2001. Big Lake Road is scheduled to be seal coated, Stateline Road is scheduled to get black topped and Pomeroy Road will be re-graded in FY2001.

7.9 Transportation Recommendations

Based on the information presented in this chapter, several recommendations are provided to the town to improve its transportation system.

- ◆ The town should initiate a Pavement Management System, which is simply a Capital Improvement Program geared specifically to the town's roads. The implementation of a more "formalized" technique would allow for more effective pavement management. In addition, it would provide the town with a detailed, defensible document to assist in making informed decisions regarding road maintenance and repair. The pavement management system should include the following:
 - ▶ A detailed inventory and description of all the roads within the town.
 - ▶ A detailed surface condition survey of all the roads within the town.

- ▶ Definition of the town's goals and objectives with respect to their road maintenance and repair.
- ▶ Establishment of a long-term maintenance schedule which prioritizes road maintenance and repair needs based on condition evaluations.

The most vital element in a pavement management system is the process used to evaluate road conditions. A method of evaluating roadway conditions is the PASER (Pavement Surface Evaluation and Rating) system. PASER system manuals for both asphalt and gravel road surfaces can be obtained from:

Wisconsin Transportation Information Center UW-Madison
 Room 741
 432 North Lake Street
 Madison, WI 53706
 Phone: 800-442-4615

The town currently conducts an annual visual assessment of its roadways based on the judgment of the Board to set maintenance priorities. No type of formalized rating system is used. Implementation of the PASER system would allow the town to formalize roadway assessments to improve consistency and accuracy, therefore improving the credibility of recommended improvements and allowing for better planning and decision making.

Specifically, this type of system would allow the town to 1) select appropriate treatments for each road section, 2) evaluate road sections competing for immediate attention, 3) anticipate future deterioration and apply inexpensive maintenance options while they are still feasible, and 4) justify budgets for roadway improvements that are adequate to keep the roads in good condition so they will remain less expensive over the long term.

- ◆ The town should consider purchasing software to assist in estimating the costs of road construction/maintenance. A program called "PASERWARE" is available through the Wisconsin Department of Transportation, which allows for the easy determination of estimated road construction/maintenance costs. The program works in conjunction with a completed PASER evaluation to calculate costs. For further information regarding this program, contact the Wisconsin Department of Transportation.
- ◆ The town should consider incorporating pedestrian signage into its pedestrian trail system.
- ◆ The town should limit the number of driveway access points on local streets to improve traffic flow and maintain safety. When constructed, driveways should be adequately spaced to minimize vehicle conflict.

- ◆ The town should require traffic impact studies for large-scale developments which have the potential to create on-site and off-site traffic problems.
- ◆ The town should consider developing an official map to govern the locations of future streets within the town.
- ◆ The town should ask to be placed on the public notification list of the District 7 Wisconsin Department of Transportation to have a more active role in long-range transportation planning and development in the area.
- ◆ The town should consider planning and developing multi-purpose trail systems that would provide increased safety for bicycles, pedestrians and snowmobiles along the roadway system.