

**PUBLIC UNDERSTANDING OF  
STATE HIGHWAY ACCESS MANAGEMENT ISSUES**

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## **I. INTRODUCTION**

### **A. BACKGROUND**

In 1997, the Minnesota Department of Transportation created the Office of Access Management (OAM) to study and report on issues related to the management of access to state highways. Transportation planners and engineers have long recognized that safety, accessibility to a highway, and the mobility a highway provides are interrelated. OAM is, among other things, studying how to communicate these issues to local municipalities which are served by state highways, to businesses that are located or wish to locate on a state highway, and especially to the general public, who are most directly affected.

The activities of OAM represent a pro-active effort to address a continuing problem: the reduced level of service that results when development, particularly commercial development, occurs along a state highway without proper consideration of access issues. The goal is to achieve a "win-win" solution where mobility on the state highway is retained at the same time that appropriate and convenient access is provided to adjacent development.

## B. STUDY OBJECTIVES

The objective of this study was to understand public attitudes towards several issues related to access management. Specifically:

1. How do users perceive the role and function of specific highways experiencing significant development and increasing traffic?
2. What do citizens perceive are the problems with these roadways?
3. Given that: some people live or work next to the road, some people are trying to get to the businesses alongside the road, and some people are just passing through, what is the proper balance between access and mobility?
4. Do citizens recognize that poorly managed access to a state highway causes congestion and safety problems?
5. Who is perceived to have responsibility for managing the use of the roadway with respect to mobility, access, and safety?
6. Should existing and future businesses conform to limited access policies regarding state highways in the interest of maintaining mobility and safety?
7. How do these answers differ among the following three customer segments? Residents of the immediate vicinity, residents of the market area, travelers passing through, commuters, and/or recreational travelers?

Focus groups in four study areas were held to answer these questions. During each group, respondents discussed their use of the studied highway, their perceptions of the roadway's purpose and their views on how access to

businesses can best be handled without compromising mobility in the area. They were asked to describe how the roadway has changed and what impact those changes have had on their driving habits and the safety/risks of traveling in the study area.

## C. METHODOLOGY

The study methodology selected reflects the complexity of the general topic of access management and the general lack of prior research in this subject area. These two factors make it difficult to design an effective questionnaire. Therefore, holding a series of focus groups was deemed a more effective method for gaining a sense of how the general public responds to the issues identified.

Focus groups are a form of "quantitative" market research. It is very effective in understanding overall tendencies. Specific percentages of how many people feel one way vs. another requires a methodology, such as a questionnaire. But an effective questionnaire requires a prior understanding of what people might answer. To the knowledge of Mn/DOT staff, previous research on the issues listed has not been performed, and, therefore, there is no prior understanding to serve as a reference point. The focus group methodology is ideal in this situation.

The focus group methodology is also extremely useful in decomposing complex issues. There is time in a focus group, that is not available in a questionnaire, to explain things, to use visual aids to help participants understand the issues, and, most importantly, to dig below the surface to probe in-depth the attitudes and beliefs of the respondents. But while the focus group allows a variety of opinions to be aired, it is still intended that conversations that occur in a focus group be distilled into generalities that can be tested later in a quantitative approach.

Focus groups were conducted throughout the State of Minnesota during the second half of January, and the beginning of February, 1998. Four segments of state highway were selected as follows (see Figures 1 through 4 in Appendix):



- 1) Duluth                      T.H. 194/U S 53
- 2) Ham Lake                 T.H. 65
- 3) Elk River                 US 10/U S 169
- 4) St. Bonifacius         T.H. 7

Three focus groups were held for each study area as follows:

A) Duluth

- 1) Residents of the neighborhoods immediately adjacent to the roadway.
- 2) Other residents of northwest Duluth and Hermantown.
- 3) Residents of Eveleth/Virginia who travel to Duluth regularly, mostly for shopping, medical, and social/entertainment reasons.

B) Ham Lake

- 1) Residents of Ham Lake who live within two miles of T.H. 65.
- 2) Other residents of Ham Lake.
- 3) Residents of Cambridge and surrounding areas who regularly travel through Ham Lake, mostly to commute to jobs.

C) Elk River

- 1) Residents of the neighborhoods immediately adjacent to the roadway.
- 2) Residents of the rest of Elk River plus the rural area surrounding the city.
- 3) Residents of the Twin Cities who regularly travel north through Elk River, mostly for recreational purposes.

D) St. Bonifacius

- 1) Residents of the neighborhoods immediately adjacent to the roadway.
- 2) Residents of the rest of St. Bonifacius plus the rural area surrounding the city.
- 3) Residents of Hutchinson who travel to the Twin Cities regularly, mostly for business, shopping, and social/entertainment reasons.

The actual people attending the focus groups were invited by telephone. A sample of phone numbers for each study area was acquired and each number called without any prior notification of the household members. When someone from a given household answered the phone, they were told that they were being asked to participate in a research study and they were asked a series of screening questions to determine if they fit the profile established for one of the focus groups. If that person fit the profile, they would then be asked if they could attend a focus group. It usually requires a large number of phone calls to fill 10-12 seats in a focus group.

While no targets were set, an effort was made to recruit an equal number of men and women and to have a representative distribution of ages. Respondents needed to be between 21 and 75, be a licensed driver, and be a resident of the study area for five years. Particular occupants were excluded including Mn/DOT employees; city, county or state government employees; elected officials; architects; land use planners; landscape architects; highway and municipal engineers, and transportation planners.

Respondents for this study were each paid \$50 and provided with a meal, if the group was held during a meal time, or with some form of snack, for groups held at other times.

Cook Research & Consulting, Inc., was responsible for the recruiting process and group moderating. They also contributed to the final report.

## II. DETAILED FINDINGS

### A. Duluth -- U S Highway 53/State Highway 194

#### 1. Description of Study Area

- ! The study area includes Highway 194 (Miller Trunk Highway) from Ugstad Road in Hermantown to the Methodist Church in Duluth known as the "Copper Top" church, situated near Mesaba Avenue. This is also the location of Mn/DOT District 1 Headquarters. Part of this roadway segment is also designated Highway 53. The study segment is seven miles long.

The stretch of Highway 194 under study can be divided into two principal parts: east of Arlington Avenue and west of Arlington Avenue. The eastern portion is four-lane undivided, urban design. Portions of this road also include a continuous center left turn lane. Small businesses, including McDonald's and Burger King, are on either side of the road. The western portion is four-lane divided, rural design, with controlled access. Businesses are larger and include the Miller Hill Shopping Mall and retail outlets, such as Best Buy, Target, K-Mart, Kohl's, Wal-Mart, Menards, and Cub Foods. Traffic signals occur at regular intervals along the entire segment.

#### 2. General Attitudes/Behavior

The Duluth/Virginia area sessions were divided into three separate groups according to where the respondents live. The groups represented residents who live within two or three minutes of the Miller Hill Mall, those who live approximately three to four miles from the Mall, and residents of Iron Range communities who travel

into the Duluth/Hermantown area and travel east on Highway 194 into Duluth.

a. Respondents' Use of Roadway

Respondents from Duluth proper understandably travel the Miller Trunk Highway more often than those who live outside the area. Residents typically travel the studied roadway three or four times per week while running errands, or on a daily commute to or from work. Participants from the Virginia area may take Highway 53 into Duluth at least weekly or two to three times per month to shop, for medical appointments, on business, or simply for entertainment.

The roadway purpose has changed over time as driving behavior has changed. The Miller Hill Mall and the surrounding businesses now act as a regional center that not only has replaced downtown Duluth but also has a larger trade area, extending to the Iron Range. Virginia residents acknowledge traveling to Duluth much more often than was customary in the 50's and 60's and identify several trip purposes including seeing friends and family, shopping, and, in particular, obtaining medical services.

b. Roadway Purpose

The respondents believe that the primary purpose of the Miller Trunk Highway is to provide access to businesses in the main shopping area. This access is provided to residents from the entire trade area, not only Duluth but a large area surrounding Duluth. A few maintain that the Highway's original, and more important, purpose was to serve as a link to the Iron Range, since the commercial business establishments did not exist when the roadway was built. However, the roadway no longer functions as an inter-regional corridor, especially since travelers from the Twin Cities to the Iron Range and areas north, can easily bypass Duluth

entirely. The studied roadway does continue to provide the primary connection to Duluth and the interstate highway system for residents northwest of Duluth.

c. Traffic Flow vs. Access to Businesses

The group members agree that providing safe access to businesses does and should take precedence over the swift and steady flow of traffic along Highway 53. They are resolute, however, in their views that direct highway access is not an acceptable method of entering and leaving businesses on state highways. Without exception, the respondents say that frontage or service roads are preferable to direct access driveways, from both a safety and a convenience standpoint. Although the participants are aware that business owners may hesitate to give up direct access, a point is made that businesses with private entrances which are difficult to navigate seem to "change hands" frequently. Another observation is made that Miller Trunk Highway carries as many vehicles stopping to shop as those simply traveling through the area on the way to other destinations. Frontage roads would act as a "filter" and separate the two different types of traffic. Doing so is expected to improve traffic flow, thereby increasing safety.

Turn lanes are also said to improve the accessibility of businesses, since they provide drivers with an opportunity to slow down in preparation for upcoming turns and to get safely out of the flow of traffic. Several participants say that they will not attempt to turn left off Miller Trunk highway unless there is a turn lane and/or a traffic light. Some group members have consciously decided not to patronize businesses where they cannot comfortably enter, park, and exit. Similarly, lanes that allow vehicles to gradually accelerate and merge into the traffic flow on Highway 194 are

thought to be important safety features. The area near Menards at Arrowhead Road is cited as being particularly dangerous in this regard. On the other hand, the turn lanes and stop lights are said to provide adequate access to the Miller Hill Mall,

### 3. Perceived Changes in Study Area

#### a. Changes to Roadway

Having lived in the area for at least the past five years, the respondents are all well acquainted with the studied roadway. The predominant change during that time period is a significant growth in the volume of traffic. The increased congestion leads some participants to feel that the roadway is being strained beyond its capacity. Comments are made that the congestion is noticeably worse since the Cub Foods store opened three years ago, especially on Sundays when the store is particularly busy.

Other changes along the area of focus include the addition of several stop lights, the upgrading of the road in front of the Mall to a divided highway, and the widening of the road by adding turn lanes. For the most part, these changes are thought to have improved the overall mobility in the area. For example, the center turn lane added to Central Entrance between Blackman and Arlington Avenues is said to "keep traffic moving." Comments are made in this vein that the center lane was an "excellent idea" and suggestions are made that it should be extended, at least through the entire length of Central Entrance. The intersection of Central Entrance and Mesaba is also said to be greatly improved since it was "opened up." Although there is some irritation expressed regarding the signal lights slowing and regulating traffic, most group members see them as safety devices. The light at Lavaque

Road, in particular, has reportedly made the intersection safer and is believed to have reduced the number of accidents in the area.

b. Changes in Land Use

The changes in land use primarily relate to the development of commercial businesses, especially between Arrowhead and Anderson Roads. A comment is made that there are no problems with congestion or traffic "once you get west of Menards." Some group members feel that the rapid growth in the area has resulted in planning problems. They feel that too many businesses have been built without proper consideration given to access. The development of businesses located in or near the mall complex has had little effect due to the use of stop lights, turn lanes, and service roads. Conversely, it is reportedly the free standing establishments with private entrances that create hazards. Remarks are also made that "everything is on the hill now" and that "downtown is dead."

c. Land Use/Roadway Relationship

The relationship between the roadway and land use is most apparent in the visual interest of the Miller Hill and Central Entrance area. Group members describe the stretch of roadway as "ugly," "distracting," and "too busy." Some respondents in the Virginia group point out that it is necessary to "keep your eyes on the road" and concentrate on driving when traveling through the area, since the traffic is fast paced and changes in the road occur quickly.

#### 4. Roadway Usefulness

##### a. How Well Does the Road Work?

When asked how well the road works, most participants say that Highway 194 achieves its intended purpose which, in this case, is to provide access to the commercial development along the roadway. They recognize that traffic problems are present on every road at some point. A remark is made that "it's a pain, but downtown was worse and it had meters." These group members are aware of specific areas and times of day that tend to be more troublesome than others, so they have developed methods for avoiding them. For example, Duluth residents will avoid Highway 53 on Friday evenings when summer vacationers are likely to be traveling north, and respondents traveling east into Duluth will generally time their trips so they do not arrive between 4 and 6 p.m.

- ! Some participants feel that the studied stretch of road has significant drawbacks. A comment is made that the road could carry traffic more efficiently if the stop lights were timed to limit the number of stops necessary when traveling from one end of the corridor to the other. One group member thinks that Miller Trunk Highway represents "some of the worst roadways in the country."

##### b. Have You Changed How You Drive the Road?

- ! As their use of the studied road is discussed, it becomes apparent that, given an adequate local roadway system, most residents will find alternatives to the state highways and use city streets for their local circulation.



- ! With few exceptions, the respondents have altered their use of Highway 53 through Duluth in recent years. They have discovered alternative routes to avoid heavy traffic and congestion. Depending on their final destination, Arrowhead, Maple Grove, and Anderson Roads are all mentioned frequently as dependable alternate routes. Several Duluth residents say that if they are heading north out of town, they prefer to take Arrowhead Road to Highway 194 and avoid the traffic through town.
- ! Another example of how the road use has changed is raised by an Iron Range native who attributes an increase in the frequency of driving into Duluth on Highway 53 to a lifestyle change. A trip to Duluth in the past used to be perceived as a "major outing" that families may have made only a few times each year. Road improvements, higher speed limits, and longer business hours have all contributed to more frequent trips to Duluth to take advantage of shopping, medical treatment, entertainment, etc. A remark is made that ". . . now, we can go after work."

c. Safety/Risks of Getting On/Off the Road

- ! A lack of frontage roads and/or turn lanes is the most often mentioned risk of getting on and off the Miller Trunk Highway. Many group members feel that the traffic on the road travels too fast to safely merge from a complete stop or to decelerate in preparation of a turn. Parking lots with no frontage road access are described as "easy to get into and impossible to get out of." Direct highway access is said to make left-hand turns impossible, which forces drivers to leave establishments by turning right and then turning around at the next intersection. Turn lanes, or approaches to frontage roads that are too short, are also said to create hazardous situations when they are not long enough to accommodate all the vehicles waiting to turn onto a frontage road.

- ! One area that is particularly troublesome to the respondents when getting on or off the road is the "Hamburger Hill" section of East Central Entrance between Blackman and Arlington where several fast food restaurants are located. Group members repeatedly say that if they are headed west on Central Entrance, they will not turn left directly into or out of McDonald's parking lot. They are far more comfortable using Arlington Avenue to enter and leave the parking lot from the rear.

d. Safety/Risks of Driving Along the Road

- ! Although there is a noticeable increase in the volume of traffic on Highway 53, few respondents are convinced that there are more traffic accidents than in the past. If the number of accidents has increased, the participants believe that they are probably not serious. Some think that the increase in traffic may result in more near misses or incidents of vehicles being rear-ended.
- ! Many of the safety concerns associated with driving on Miller Trunk Highway are attributed to speed. Group members say that the speed limits are too fast for an area where direct access to the roadway is permitted. In addition, many motorists reportedly disregard the posted speed limits. This is said to be especially true east bound near Anderson Road where the speed limit quickly drops to 30 mph.
- ! One group member maintains that Central Entrance should no longer be classified as a highway, since it serves as a local Duluth street, yet commercial building continues as though the roadway had sufficient capacity to handle the traffic. In response, another respondent points out that several cross streets have been made

into dead ends to block access to the main roadway in an effort to accommodate the traffic flow of the state highway.

e. Suggestions for Improving the Roadway

- ! Additional and longer turn lanes are the most often suggested method for improving the Highway 194/Central Entrance roadway. Some group members think a continuous right turn lane would be ideal; although, they realize that this may be difficult where the road runs through areas that are primarily residential. They say that, ideally, relocating residents of homes along the road is the best possible option, but doing so may not be practical. In view of such a situation, the respondents recommend that careful planning be initiated to make arrangements for the widening of the roadway in the future. Lengthening the turn lanes is expected to make them more efficient and able to handle more traffic.
- ! Some participants suggest that the number of new stop lights be limited and/or the timing of existing lights should be synchronized to allow a steady flow of traffic.
- ! A recommendation is made to limit travel on Miller Trunk Highway and Central Entrance to eastbound traffic and designate a parallel street on the next block to carry the westbound traffic.

B. Ham Lake -- State Highway 65

1. Description of Study Area

- ! The study area includes Highway 65 from State Highway 242 in Blaine to Crosstown Boulevard (Anoka County 18) in Ham Lake. The study segment is about six miles long. Highway 65 is four-lane divided, rural

design, with traffic signals at ¼ to ½ mile spacing. Land use includes some retail establishments interspersed with agricultural land. Highway 242 is nine miles north of I-694.

## 2. General Attitudes/Behavior

! Respondents in the Highway 65 groups were screened to live within two to three minutes of Highway 65, live within three to six miles of the Highway, or regularly commute south through Ham Lake on Highway 65 from cities such as Cambridge, Isanti, Cedar, Oak Grove, and East Bethel in the north.

### a. Respondents' Use of Roadway

! Unlike the participants in Duluth, the members of the Ham Lake groups have few north/south arteries available to them as alternatives to Highway 65. Not only is Highway 65 used to get to destinations outside the City, but local residents indicate that they also use Highway 65 for local trips. Although I-35W carries traffic north and south, it is out of the way for most Ham Lake residents. Those who reside on the east side of the city may choose Lexington Avenue as an alternate route. Radisson Road also carries traffic north and south. However, Lexington and Radisson are basically city streets and are not considered adequate substitutes for a state highway. Several respondents anxiously anticipate the widening of Lexington Avenue to better accommodate the growing needs of increased traffic.

### b. Roadway Purpose

! The primary purpose of Highway 65 is said to be to act as the main link to the Twin Cities from the northern metro. However, because of the lack of an adequate local road system, it also serves as the

primary means of gaining access to the numerous businesses located along the road. Highway 65 is also identified as one of the major routes into northern Minnesota from the Twin Cities metro area.

c. Traffic Flow vs. Access to Businesses

- ! Most of the businesses along Highway 65 have somewhat limited access to the main roadway by virtue of the fact that they are located on corners and the Highway has a center median. Most intersections are controlled by stoplights and customers can easily access commercial businesses from cross streets. Most group members would like to see frontage or service roads incorporated to serve the local businesses. Doing so is expected to reduce the volume of traffic on Highway 65 and consequently curtail the congestion, especially during peak periods.
  
- ! The traffic lights along Highway 65 are said to be poorly timed and to disrupt the flow of traffic. Many respondents say that they avoid the stretch of Highway during rush hour, if at all possible, when it becomes very congested. The turn lanes that feed into the local businesses are reportedly too short to accommodate the volume of traffic and further contribute to the congestion by blocking the through traffic. The heavy traffic during peak periods combined with the profusion of ill-timed stoplights are believed to slow the overall speed of traffic, possibly reducing accidents. The flashing amber caution lights, however, are seen as valuable safety features that alert drivers to upcoming red lights.

### 3. Perceived Changes in Study Area

#### a. Changes to Roadway

! Although there have been relatively few alterations to Highway 65 through Ham Lake in the past five or ten years, several participants feel that there is a need to widen the roadway. With the development in the area and other northern suburbs, the volume of traffic has increased steadily.

#### b. Changes in Land Use

! Changes in land use in and around Ham Lake have been primarily limited to the development of commercial businesses. Many respondents see the existence of the sod farms in the area as a barrier to further commercial development. Others point out, that development has occurred south of Ham Lake and Blaine, and they anticipate that the land north on Highway 65 will continue to be developed in the future.

#### c. Land Use/Roadway Relationship

! As the relationship between land and roadway use in Ham Lake is discussed, it is apparent that the group members are concerned that any future development in the area be done with the issue of access being considered. They stress the importance of frontage roads being built to serve the businesses adjacent to Highway 65.

### 4. Roadway Usefulness

#### a. How Well Does the Road Work?

! Compared to the respondents in the other three market segments, those in the Ham Lake groups are relatively dissatisfied with how

well Highway 65 "works." They feel that the roadway could carry traffic more efficiently, and commercial development, in a controlled manner, could be encouraged with careful planning.

b. Have You Changed How You Drive the Road?

- ! Several respondents indicate that they have changed their use of Highway 65 simply by avoiding it during peak periods. Because there are few north/south alternatives to the studied roadway, group members say that the most effective manner of avoidance is to alter their commute times. They may leave for work earlier than necessary or wait to start their drive home until rush hour congestion has thinned.

c. Safety/Risks of Getting On/Off the Road

- ! Although there are numerous stoplights to control vehicle access to Highway 65, the participants think that the process of entering and exiting the traffic flow is a somewhat risky proposition. Turn and merge lanes should be lengthened to provide smoother transitions into and out of traffic. Participants also complain that cross streets have a short signal time and only one car can make a left during a cross street green phase.

d. Safety/Risks of Driving Along the Road

- ! Congestion is said to create the most noticeable hazard regarding travel on Highway 65. The road reportedly carries too much traffic, especially during peak periods, and there are not viable alternate north/south routes between the northern metro and the Twin Cities. Specific comments were made about left turn lanes having inadequate storage and being unsafe. This is a major safety problem at an unsignalized median break at a new theater in East Bethel, just north of the Ham Lake border.

e. Suggestions for Improving the Roadway

- ! Group members think that the studied roadway could be improved with limited access to the businesses, such as frontage roads. An additional lane in each direction and extended turn lanes, are also recommended. Widening the roadway by adding lanes, lengthening turn lanes, and adding frontage roads are expected to relieve the congestion in Ham Lake.
  
- ! Group participants believe that a major improvement to Highway 65 would be the provision of an adequate system of north-south roads that would allow local traffic to avoid Highway 65 in moving around Ham Lake, Blaine, and East Bethel.

C. Elk River -- U S Highway 10/169

1. Description of Study Area

- ! The study segment includes Highway 10/169 from three miles southeast of the 169/101 interchange to three miles north of the 169/101 interchange. The entire segment is four-lane divided, rural design, with periodic traffic signals. On the Highway 10 segment, businesses are on either side of the road to about one mile southeast of the 169/101 interchange. On the Highway 169 segment, the intensity of development is greater, including a recently completed Cub Foods/Target Store shopping center. To the north, access to 169 is limited to signalized intersections. Access from local streets to Highway 169 is limited to signalized intersections. On the Highway 10 segment, there are numerous driveways feeding directly onto 169.



## 2. General Attitudes/Behavior

! The three groups concerning Highway 169 include Elk River residents who live within a few blocks of the highway, those who live in the trade area of the businesses on Highway 169, and residents of the Twin Cities who drive on Highway 169 through Elk River to lake homes or resorts in northern Minnesota.

### a. Respondents' Use of Roadway

! The Elk River residents utilize the highway to varying degrees, primarily depending on where they live and whether they commute into the Twin Cities. The Twin Cities vacationers travel on Highway 169 simply because it is the most direct route to their northern destinations. Some of them take Highway 10 northwest after the interchange and others continue due north on Highway 169.

### b. Roadway Purpose

! For the Elk River residents, unless they have a distinct reason to travel north frequently, Highway 169 serves mainly as a link to the Twin Cities. Some regard it as the main artery that brings "people to our businesses." The participants from the Twin Cities recognize Highway 169 as the principal route that carries traffic north to Mille Lacs Lake and beyond. Participants thought that Highway 10/169 tried to serve too many purposes.

### c. Traffic Flow vs. Access to Businesses

! Many Elk River participants think that Highway 169 is an impediment to their local mobility on a daily basis. Some feel that

as a major highway it should not be routed directly through the city. They would prefer a bypass, similar to those in Princeton and Milaca. Others point out, however, that many local businesses rely on the commerce that the highway provides, and that businesses in the town of Princeton have suffered as a result of being cut off from the traffic. In addition, local residents depend on the highway for access to the local businesses along Highway 169. Suggestions are made that Highway 169 is not being used to its best possible advantage, especially southeast of Highway 101. There is said to be far too much stop-and-go traffic and direct access to the business establishments for the roadway to function as a thoroughfare. The highway is referred to as a "second class service road" and an "all-purpose road."

- ! The group members see frontage and service roads as the most obvious solutions to the excessive direct access problems in Elk River. They would like access to the businesses on Highway 169 restricted to a limited number of controlled intersections that lead to frontage roads. Numerous remarks are made regarding how well Freeport Avenue serves as a frontage road for the Cub and Target stores, Applebee's Restaurant, etc. Some participants suggested that if Highway 169 in Elk River were built as a freeway with over- or under-passes and entrance and exit ramps to local streets, it would reduce the need for cross-streets and stop lights.

### 3. Perceived Changes in Study Area

#### a. Changes to Roadway

- ! Group participants frequently mentioned the widening of Highway 101 from Rogers to Elk River. (Although technically not in the study area, it is a very significant and visible change to the state highway system and has a direct impact on the roadway segments under study.) This improvement is seen as necessary since the

highway remains the primary route to Mille Lacs Lake and northern Minnesota. Some respondents estimate that the volume of traffic has tripled, due in part to the advent of higher speed limits, gaming casinos, etc.

- ! Another noticeable change to the studied roadway is the addition of stoplights. The Elk River residents are somewhat divided in their views regarding the installation of the lights. Some think that there are too many stop lights and that they infringe on the flow of local traffic. It is said that the lights are obviously timed to accommodate the traffic on Highway 169, with little regard to vehicles traveling on the cross streets. For example, remarks are made that it is not unusual to wait through three stoplight cycles before being able to cross the highway on Jackson Road. Other participants assert that the stoplights are an improvement. They recall that before the lights were installed the traffic heading north on the opening days of hunting and fishing seasons was so heavy that it was virtually impossible for children in the local school district to cross Highway 169 causing school to be canceled for the day.

b. Changes in Land Use

- ! Clearly, the most significant change in land use along Highway 169 in recent years is the commercial development north of the Highway 101 interchange. Although they enjoy seeing their community grow and appreciate a healthy business environment, several Elk River residents point out that the businesses bring additional traffic to a roadway that is already busy because it serves as the only viable span across the Mississippi River in that area.
- ! Comments are made that the development does not seem to be sufficiently coordinated or regulated. Some respondents think that it has happened too quickly, without regard to the aesthetics of the

area or to the environmental impact. One participant mentions that it has only been within the past three years that the City of Elk River has had a city planner and enforced building codes.

c. Land Use/Roadway Relationship

- ! The alleged lack of regulation of development is said to be most evident in the relationship between land use and the roadway. Participants think that the buildings appear to have been built without regard to highway access, stoplights, traffic, etc. For instance, businesses are not uniform distances from each other or from the roadway, they do not consistently face the same direction, and they have developed various methods of access that do not "flow" to one another. Comments are made that the establishments seem to be a "mish-mash of businesses" that were built with "no rhyme nor reason." One participant, a local business owner himself, said that businesses along Highway 169 in Elk River do not thrive and turn over about every 8 to 10 years.
  
- ! A few group members feel that it is incumbent upon the City of Elk River to take responsibility for regulating development and access more aggressively. They further believe that the city leaders have been too anxious to encourage growth and have failed to enforce basic building codes and easement guidelines. Suggestions are made that the city should take the initiative to build service roads and then control unlimited access to the businesses. There are some though who feel Mn/DOT, not the city, should put in frontage roads, limit accesses, and enforce access spacing.

4. Roadway Usefulness

a. How Well Does the Road Work?

- ! The Twin Cities vacationers realize that Highway 169 is their most direct route to their final destinations and, therefore, accept the stretch of roadway through Elk River as a "necessary evil." The traffic tie-ups and stoplights slow the overall progress of their trips. Whenever possible, they are careful to avoid the area during rush hours or when they suspect traffic will be heavy. Although many of these travelers think that Elk River is too close to the Twin Cities to warrant a stop, several who wait to stop until they are out of the metro area, say that it is a convenient place to get gas, a bite to eat, or to pick up supplies.
  
- ! Highway 169 is a source of contention to some Elk River residents. They express a note of resentment at the amount of traffic traveling through town on the roadway, and although they might prefer to avoid it, they have limited alternatives. One frustrated respondent remarks that the intended purpose of the roadway is to move people and commerce, "but it ain't doing it." Another group member says that the longest part of her daily commute to the Twin Cities is the trip through Elk River to get to the freeway (I-94/I-694). Crossing the highway is also a tedious venture. Several participants say that they prefer to stay on one side of the roadway and that they do not patronize businesses on the other.

b. Have You Changed How You Drive the Road?

- ! Respondents traveling north from the Twin Cities have adapted the manner in which they drive Highway 169. They have learned to time their trips to usually avoid rush hour and congestion. If they are not able to leave early on Friday, they will wait and drive in the later evening or on Saturday morning, rather than leave after work on Friday. The same applies to the return trip, when they will

either leave early Sunday morning or wait until early Monday to head home.

- ! Several Elk River residents indicate that they would like to change their use of Highway 169, but are not able to avoid its use. One participant remarks, "Just try to shop in this town. Everything is on 169." Those who are able to do so, approach the businesses along the highway from local streets. Like the Twin Cities respondents, the local residents also attempt to avoid the highway during peak periods.

c. Safety/Risks of Getting On/Off the Road

- ! The relatively short approaches and turn lanes are said to make turning off Highway 169 dangerous. Group members would prefer a grade-separated freeway with exit ramps that connect to secondary roads to reduce the stop-and-go traffic in the area. The intersection of Highways 169, 10, and 101 could also be improved by adding a merge ramp northbound before the bridge, to eliminate the current dangerous multi-merge, and solving the weave problem north of the bridge with a signal.
- ! The risks associated with Highway 169 are not limited to those of automobile traffic. Several remarks are made that pedestrian, bicycle, and snowmobile traffic also create hazards. Children within walking distance, but on the opposite side of the highway, are not able to walk to school. A chain link fence was reportedly erected to curb attempts to cross the roadway by non-motorized traffic. The fence, however, is easily circumvented and has not served as a meaningful deterrent.

d. Safety/Risks of Driving Along the Road

! The numerous large trucks in the area of the gravel pits at 205th Avenue represent risks to both getting on/off and traveling on the roadway. Since there are no conveniently placed stoplights in this area, the trucks unexpectedly pull out onto the highway and accelerate slowly. Weekend travelers don't feel that there is a problem with road rage, no matter how slow traffic gets. There is a general sense that most recreational travelers accept delays and are polite.

e. Suggestions for Improving the Roadway

! Suggestions for improving Highway 169 in Elk River include the addition of frontage and service roads, or "business loops," to restrict direct access to the businesses. Such alternatives to the main highway are expected to reduce the overall congestion on the roadway by reducing the amount of stop-and-go traffic .

! Several group members feel that the most obvious solution to the congestion on Highway 169 is to separate Highway 169 and Highway 10 where they merge north of the bridge at the Highway 101, 169, 10 interchange. Others continue to think that there should be a Highway 169 bypass to re-route through traffic around Elk River. Yet others suggest that there should be more options for crossing the river, rather than funneling all the traffic to the two existing bridges.

! A new road is being planned to connect the area north of Highway 10 with residents and businesses east of Highway 169. This will provide an alternative to using 169 for trips between these two areas. It was suggested that this would improve the Highway 169 traffic flow.

D. St. Bonifacius – State Highway 7

## 1. Description of Study Area

! St. Bonifacius, population 1,184, sits astride Highway 7 approximately 17 miles west of Interstate 494 and 30 miles east of Hutchinson. It is in the southwest corner of western Hennepin County. Highway 7, which travels east/west, intersects County Road 92, which runs north/south through the center of town. Businesses surrounding this intersection include:

- Tom Thumb on the southwest corner,
- a Holiday Station Store on the northeast,
- and the St. Bonifacius Farm Store on the southwest.

! This intersection has a traffic signal. The study area includes the one-mile stretch of Highway 7 in St. Bonifacius and the two to three miles of Highway 7 extending east and west. A few other businesses are located along Highway 7 east of County Road 92 in St. Bonifacius.

## 2. General Attitudes/Behavior

### a. Respondents' Use of Roadway

! Participants in the three focus groups examining Highway 7 included St. Bonifacius residents, area residents who live within two or four miles of the intersection of Highway 7 and County Road 92, and individuals who live in the Hutchinson area and regularly drive into the Twin Cities on Highway 7.

### b. Roadway Purpose

! The primary purpose of Highway 7 is said to be to carry traffic into the Twin Cities metro area from St. Bonifacius and areas to the west, including Hutchinson. The highway also serves as one of southwestern Minnesota's principal links to the metro area and is



reportedly a major truck route into the Twin Cities area from west-central Minnesota.

c. Traffic Flow vs. Access to Businesses

- ! The traffic on Highway 7 through St. Bonifacius and the access to the local businesses cause some conflicts in the area. Although businesses near the intersection of Highway 7 and County Road 92 are reasonably well served by some controlled accesses, the direct access driveways east of the railroad tracks (particularly into the former Norseman Restaurant and the Phillip's 66 Service Station) create potentially dangerous situations when motorists pull back onto the highway unexpectedly.

3. Perceived Changes in Study Area over last 5-10 years

a. Changes to Roadway

- ! The most often mentioned change to the roadways in the St. Bonifacius area in recent years is the addition of a stoplight at the intersection of Highway 7 and County Road 92. Respondents say that the traffic flows more smoothly, despite some back-ups of traffic on County Road 92 waiting to cross Highway 7.

b. Changes in Land Use over last 5-10 years

- ! Changes in land use in the studied area have been primarily residential, rather than commercial, in nature. There is a new residential development underway southwest of the Highway 7/County Road 92 intersection as well as on County Road 92 north of Highway 7. Both of these neighborhoods contribute additional traffic to the area.

! The southeast quadrant of the studied intersection is still undeveloped.

c. Land Use/Roadway Relationship

! Participants remark that, as residential development continues, there is a growing need for restricted access from the neighborhoods to Highway 7.

4. Roadway Usefulness

a. How Well Does the Road Work?

! Highway 7 is, by far, the preferred artery into the Twin Cities. Highway 5 is said to have too much traffic and too many traffic signals. Highway 7 is also felt to be a more attractive roadway.

! The intersections at Highway 7 and County Road 10 and Highway 7 and Highway 25 are considered dangerous due to the need for turn lanes or lanes to move safely around a vehicle stopped to turn.

! The area of Highway 7 between Hutchinson and St. Bonifacius is also said to be unsafe for several reasons. Heavy oncoming traffic makes it often impossible to pass a slow-moving vehicle in the driver's lane. The road is very straight with no signals which encourages people to go too fast. There are not enough left turn lanes. In addition, due to the rural nature of this stretch of road, there are numerous slow-moving farm vehicles traveling on the road. All of this leads to a perception that the road is unsafe and has a lot of accidents. There is a particular fear of being rear-ended by fast moving cars and trucks when trying to turn left.

b. Have You Changed How You Drive the Road?

- ! A few group members have changed how they drive the road, primarily by finding alternatives. Depending on what their destination is, they may drive the more local roads through the Lake Minnetonka area or drop down to Highway 5. Two of the Hutchinson respondents choose to go to St. Cloud via Highway 15, rather than going to the Twin cities for shopping or entertainment.

c. Safety/Risks of Getting On/Off the Road

- ! The risks of getting on and off the road in St. Bonifacius are primarily due to the direct access driveways and the lack of stoplights. The safety risk is compounded during peak periods when it becomes almost impossible to enter Highway 7 from local access roads or driveways.

d. Safety/Risks of Driving Along the Road

- ! Because it is a two-lane highway, the most dangerous aspects of driving Highway 7 in the St. Bonifacius area are thought to be the somewhat irregular rates of speed that vehicles travel and motorists attempting to pass on the busy roadway. There is also a hill west of St. Bonifacius going east into town that is felt by many to be dangerous because you can't see over it and people speed up coming down the hill into town. One respondent comments that she thinks that the highway is designed to become a "Super Two" roadway that would widen and include passing lanes at regular intervals.

e. Suggestions for Improving the Roadway

! Perhaps the most requested improvement for Highway 7 is widening the road to four lanes. The addition on restricted access frontage roads and turn lanes are also suggested as improvements.

5. Differences among Groups

a. Effect on St. Bonifacious of Roadway Function

! In the Hutchinson session significant mention was made that the problem was not St. Bonifacious but was the overall function of the road, (i.e. the passing lanes, turning lanes, and inability to get around slow traffic.) Their solution was a four-lane divided highway.

### III. CONCLUSIONS

The following statements reflect the statements and opinions expressed by the general public at all of the focus groups, unless otherwise indicated. The statements are organized around the seven study objectives identified earlier.

#### A. Role and Function of a State Highway

- ! Participants in all groups identified state highways as being primarily through routes for longer distance travel.
- ! Three of the four groups identified the state highway being studied as serving this specific purpose with access to surrounding land use being a secondary function.
- ! In the Duluth study area, access to surrounding land use in the Miller Hill Mall area was considered a primary function mainly because the mall and surrounding commercial development is considered a major destination, not only for Duluth residents but also for residents of the Iron Range. In this area, inter-regional travelers are using either the I-35/Highway 61 corridor, or Highway 33 which provides a direct connection between I-35 and Highway 53 west of Duluth, bypassing the study area.
- ! In all of the study areas, alternative routes are used by local residents participating in the study during periods of heavy congestion, if these routes are available. Alternative routes to Highway 65 are not available in the Ham Lake area; group participants would like to have a better local street system. In all the study areas, long distance users, who are not familiar with alternatives, tend to stay on the state highway.

#### B. Balance between Mobility and Access

- ! Group participants feel that State Highways should be designed to emphasize the mobility function. This includes the reduction of excessive delay and the separation of turning traffic from through traffic.

- ! Group participants want well organized, understandable, and convenient access.
- ! Group participants do not expect to have available to them a private driveway access from a state highway to any business on that highway. In addition to the concerns about private driveways, participants were aware of problems associated with county highway and city street intersections, particularly when these intersections were skewed, were not visible, or were too frequent.
- ! Group participants indicated that they would be willing to drive a little farther to reduce frustration, improve convenience, and improve safety. Frontage roads were often cited as a good solution for providing the right balance between access and mobility.
- ! Group participants understand the importance of traffic signals but are also sensitive to how they operate. The greatest frustration was expressed by those who are trying to cross the highway. Turning left onto or off of the highway is also frustrating.

### C. Driver Perception of Problems

- ! Group participants do recognize that unfettered access to a state highway with high volumes causes congestion and safety problems.
- ! Most group participants are very knowledgeable about roads, can articulate specific problems well, and are sensitive to stress from turning movements and variance of speed.
- ! Group participants are very sensitive to how the operation of the road changes by day of week and time of day, especially:

- the sufficiency of turn lanes
  - the effectiveness of signals
  - speed
  - the presence of trucks, particularly trucks entering the highway, and
  - the impact of excessive access.
- ! Group participants are also very aware of the effect of environmental conditions such as sun glare, lack of lights at night, or the effects of topography on traffic. This sensitivity influences when a trip is taken and what route is selected.
- ! Group participants made several references to the negative impact of increasing traffic and roadway improvements on pedestrian mobility.
- ! Group participants are knowledgeable concerning the potential benefits of roadway design and traffic management alternatives. Frontage roads, longer turn lanes, acceleration lanes, and improved signal turning were all mentioned as ways to improve mobility, access, and safety.

#### D. Responsibility

- ! Group participants expect that problems created by unfettered access will be dealt with.
- ! Solutions should be arrived at with cooperation between local units of government and Mn/DOT.
- ! Group participants believe that Mn/DOT has the responsibility and authority to impose access management solutions.

## E. Conformance of Businesses

! Group participants believe:

- Future development along state highways should conform to applicable access management guidelines.
- Future businesses do not have an absolute right to have direct access.

! There is a sensitivity to the complexity of issues regarding the imposition of new access guidelines on existing businesses located on a state highway. However, despite there being no consensus on whether existing businesses should be forced to conform to access management guidelines, there is widespread acknowledgment by group participants that they tend to avoid businesses that do not have safe, convenient, and undividable access.

## F. Differences Among Market Segments

Respondents were drawn from four specific market segments:

- 1) Residents living near the highway being examined.
- 2) Residents who live in the market area of the businesses along the highway.
- 3) People who use the route on their daily commute.
- 4) People who regularly use the route for business, shopping, or recreational travel.

! Although the four market segments did have differences in perspective and in the factual information they possessed, there was great commonality in attitude among the four market segments on all of the issues studied.





#### **IV. APPENDIX**

A. Focus Group Moderator's Discussion Guide

B. Map of Each Study Area

## DISCUSSION GUIDE

M-344

### I. INTRODUCTION

- A. MODERATOR
- B. FOCUS GROUP
- C. FACILITY ISSUES
  - 1) MIRROR/OBSERVERS (MIRROR, WHEN APPLICABLE)
  - 2) MICROPHONES/AUDIO TAPING
  - 3) VIDEO CAMERA/VIDEO TAPING
- D. RESPONDENTS
- E. TOPIC FOR FOCUS GROUP

### II. DRIVING THE DEFINED ROADWAY/HIGHWAY

- A. IDENTIFY THE ROADWAY/HIGHWAY BEING DISCUSSED.
- B. How frequently do you drive on     (ROADWAY/HIGHWAY) ?
  - 1) How many times a day/week/month are you on the road?
  - 2) During what parts of the day are you on the road?
    - a) In the a.m.?
    - b) In the p.m.?
    - c) More one time than another?
- C. What are your usual destinations when traveling on the road?
  - 1) Are you just passing through? (AS APPROPRIATE)
  - 2) Are you making stops along the way in the part of the road that we're talking about?
    - a) IF "YES", How many stops are you typically making?
    - b) Are they on the road; off the road?
- D. Are there times of the day when you will not travel on the road?
  - 1) IF "YES", For what reasons will you not travel at particular times of the day?

- 2) What times are those?
- E. DRIVING THE DEFINED ROADWAY/HIGHWAY FIVE/TEN YEARS AGO?
- 1) Think back 5 years ago and 10 years ago. If you were living in this area then, were you traveling on this road?
    - a) IF "NO", Why not?
    - b) IF "YES", What was it like traveling on this road five years ago?  
Ten years ago?
  - 2). What changes, if any, have occurred in those five/ten years that have made driving/traveling on this road different from now?
    - a) Has the road been improved? Is it the same as it was then?
    - b) Has the amount of traffic remained about the same as then?  
Decreased? Increased?
  - 3). IF "INCREASED", How much has traffic volume increased in the past five/ten years?
    - a) Has this increase had any impact on your traveling the road?
    - b) IF "YES", What impact has it had?
  - 4). Are there any changes that you have noticed regarding the number of homes/buildings/businesses on this portion of the road?
    - a) What changes you have noticed?
    - b) Are there more businesses on the road than there were five/ten years ago?
    - c) Are there other changes, such as any industrial development, that have occurred in the past five/ten years?
    - d) Have these changes made any difference in the way you use the road?
      1. IF "NO", Why not?
      2. IF "YES", What are you doing differently today while traveling the road that you weren't doing five/ten years ago?
      3. Have these differences reduced/increased the number of times you use the road? Why? Why not?
    - e) Have these differences increased the amount of time you spend on the road? What has happened?
  - 5) Have these changes enhanced your visual interest in the road? How so?

- a) Have they diminished your visual interest in the road? How so?
- b) Is the road more attractive/less attractive than before?
  - 1. Why?
  - 2. Why not?
- c) Does the fact that there are more homes/buildings/businesses along this portion of the road make it more interesting to you as a potential consumer of the goods and services offered along the road? Why? Why not?

### III. UTILITY OF THE ROAD

- A. Overall, how well does this roadway/highway work?
  - 1) To get you to your destination?
    - a) As you pass through the defined portion of the road?
    - b) As you make stops along the defined portion of the road?
  - 2) Does the road work as well as it used to?
    - a) IF "NO", Have you changed your usage of the road?
      - 1. Are you allowing more time for traveling the road? Why?
      - 2. Do you try to find alternate routes? Why?
    - b) Is the road as safe as it used to be?
      - 1. IF "NO", Why not? What has changed?
      - 2. What has made it less safe?
    - c) Are there any locations, in particular, where you don't feel as safe traveling the road as you used to? What are those locations?
      - 1. Why you say that you don't feel as safe there as you used to?
      - 2. Are there any portions of the road that frustrate you as you travel?
        - a. What are these portions?
        - b. Why do they frustrate you?
        - c. Is your safety ever comprised on these portions of the road? Where? Why?
- B. Has your ability to get onto and off the road changed in the past five/ten years?
  - 1) IF "YES", How has that changed?

- 2) What has changed?
  - a) Does it make your travel time any longer?
  - b) Does it make it more difficult to get to and from places that are on the road/highway?
    1. What is happening?
    2. Why?
- C. Has your ability to get into and out of the businesses along the road changed in the past five/ten years?
  - 1) IF "YES", How has it changed?
  - 2) What has changed?
    - a) Is it easy to get to the businesses you can see that are along the road? Why? Why not?
    - b) Is it easy to get back onto the road from the businesses that you have visited?
    - c) Do you ever feel that your safety has been compromised when you enter or exit from one of the businesses on the road? How so?
- D. Has it ever cause you concerns about/bother you to see the changes that are occurring on the road?
  - 1) IF "NO", Why not?
  - 2) IF "YES", What concerns you?
- E. Have traffic lights/stop lights/stop signs been added to the road? IF "YES", What changes have happened because of these?
  - 1) Have these helped traffic flow? Why? Why not?
  - 2) Have these helped you feel safer traveling on the road? Why? Why not?
  - 3) Do you think there are more/fewer problems on the road because of the signals?
    - a) IF "MORE", Why do you say that?
    - b) IF "FEWER", Why do you say that?
- F. Are there more changes at the intersections, such as turn lanes, than there were five/ten years ago?
  - 1) What, if anything, has occurred? Is this an improvement? Why? Why not?

- 2) Are there more intersections on the road than before? Are these safe? Why? Why not?
  - G. Are there more accidents on this road than there were five/ten years ago?
    - 1) Why has this happened?
    - 2) What would you suggest to change this?
  - H. What would you suggest should be done to make this road work better from your perspective?
    - 1) Should there be more stop lights/traffic lights/stop signs? Why? Why not?
    - 2) Should the road be widened? Why? Why not?
    - 3) Should access to the road be more restricted? Access at intersections where there is some type of traffic signal? Why? Why not?
  - I. What would any changes do to your access to the homes/businesses/etc. along the road?
    - 1) What would these changes do to the businesses/etc. along the road?
      - a) Would this be acceptable? Why? Why not?
      - b) Would this be appropriate? Why? Why not?
  - J. We're talking about your freedom to move about (mobility) and your safety. If mobility (freedom to move about) is restricted, is that acceptable if your safety has improved?
    - 1) Even considering the cost that may have been identified above?
    - 2) Even if it is more difficult to access homes/businesses/etc?
- IV. Who would seem to be the logical parties involved in these decisions?
- A. If not much has been done in the past, who has been responsible for ignoring the issue?
    - 1) Mn/DOT?
    - 2) The county, city, township?
    - 3) A combination?
  - B. Who should be responsible?

Figure 1  
Duluth Study Area

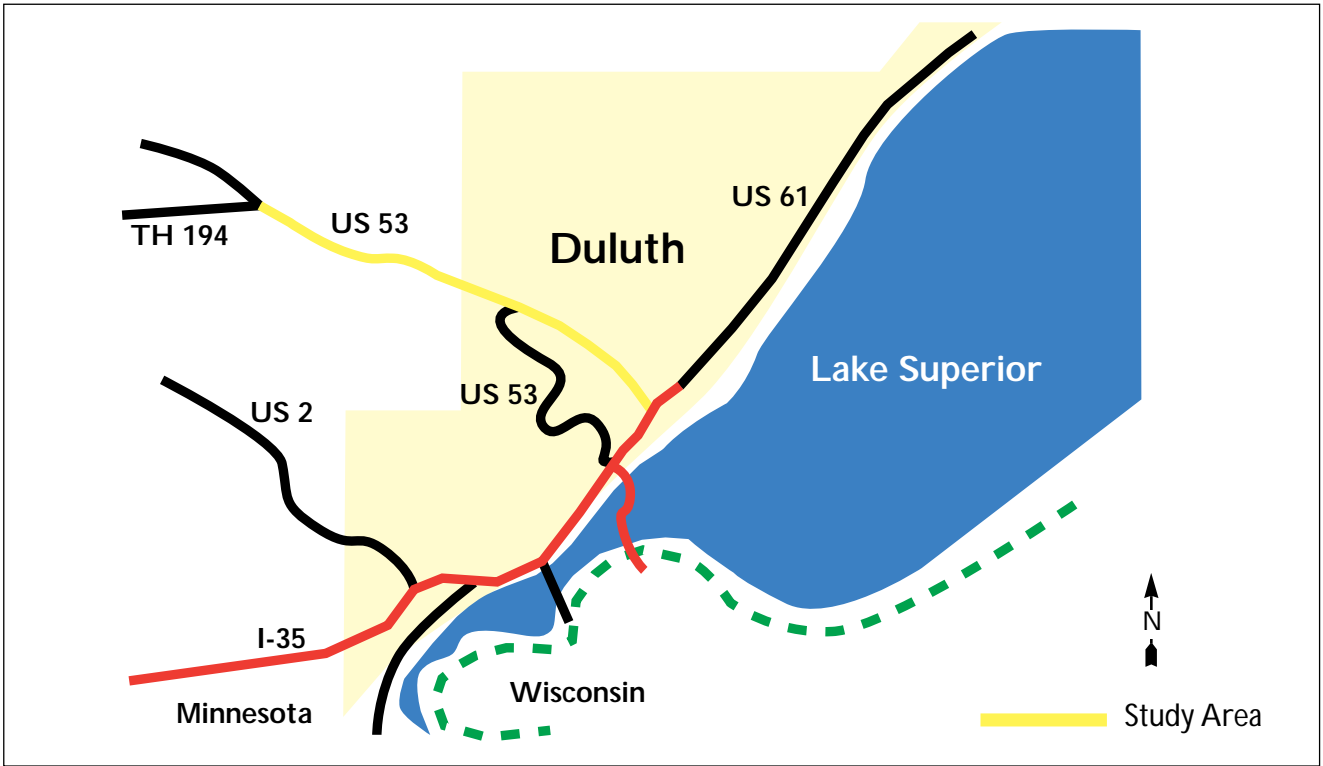
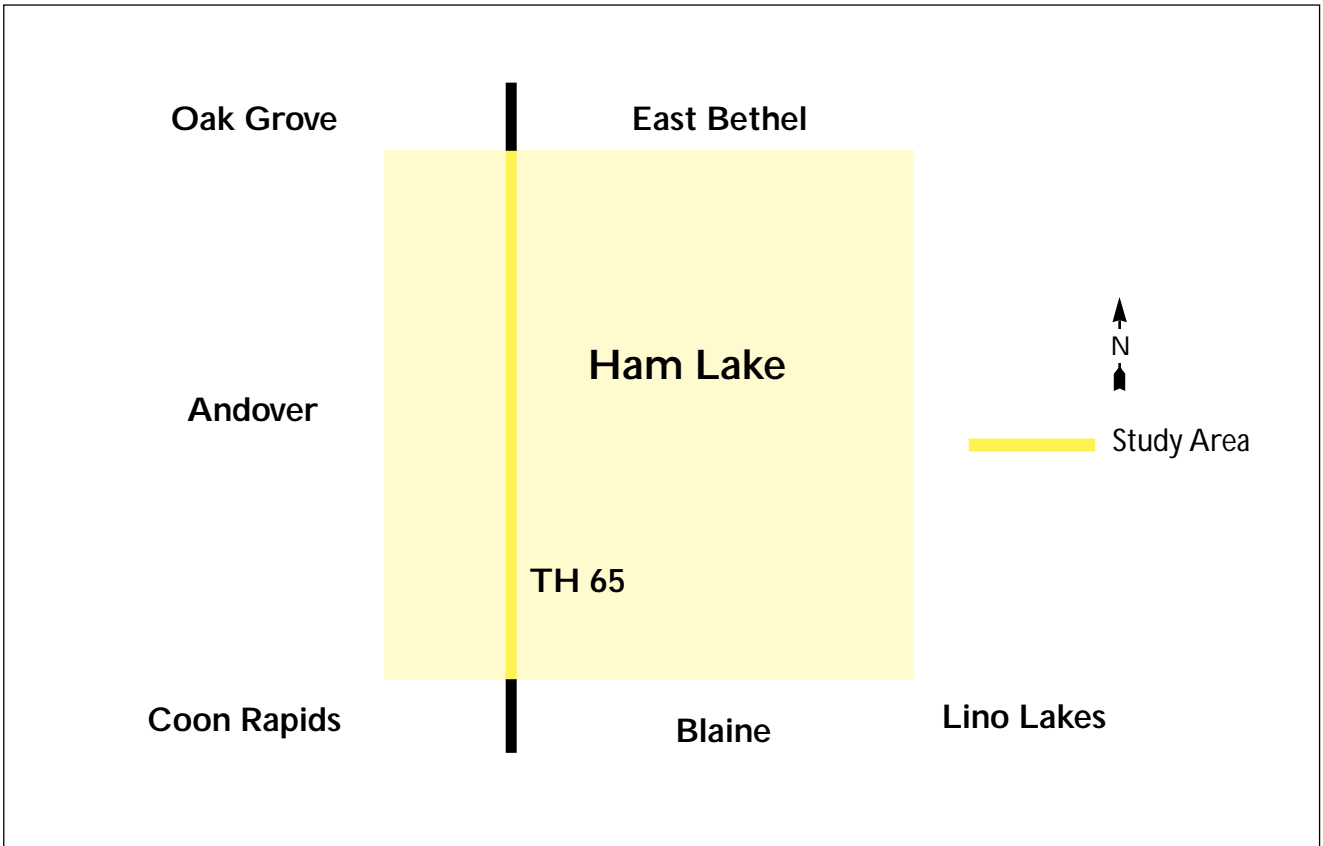
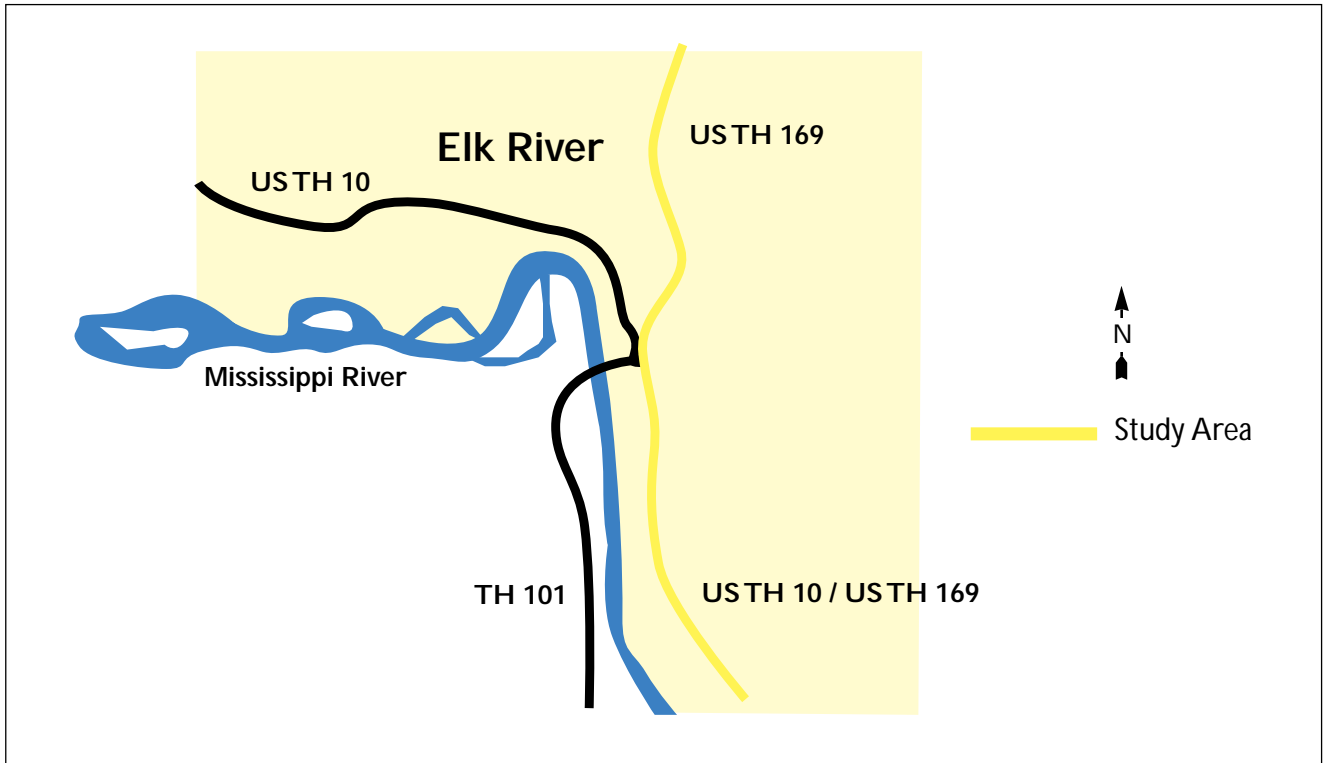


Figure 2  
Ham Lake Study Area





**Figure 3**  
**Elk River Study Area**



**Figure 4**  
**St. Bonifacious Study Area**

