



Cass County  
Minnesota

300 Minnesota Ave., PO Box 3000, Walker, MN 56484

# HAZARD MITIGATION PLAN

2007—2012

Prepared with assistance by:



Emergency Management Director  
Cass County Sheriff's Office  
300 Minnesota Avenue  
PO BOX 1119  
Walker, MN 56484

Telephone:  
Sheriff Office Mainline: (218) 547-1424

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## **1.0 INTRODUCTION TO HAZARD MITIGATION PLANNING**

### **1.1 Purpose**

This plan is intended to reduce the threat of natural, human induced and technological hazards through the assessment of these hazards and through the development of an action plan specifying goals, objectives, and strategies. Through this advanced planning, Cass County will continue to be leader in ensuring the safety and public protection of the entire countywide community. The purpose for the creation of this plan is to:

1. Foster communication between cities, townships, businesses, community organizations, public and private facilities, organizations, and similar entities throughout the county
2. Promote sound public policy designed to protect life and property from natural, human caused and technological hazards
3. Develop and implement educational programs to increase public awareness of the risks associated with all hazards
4. Provide for a safer and more enjoyable countywide community

### **1.2 Background**

The Cass County All Hazard Mitigation Plan was funded through the Pre-Disaster Mitigation (PDM) Program established by the Disaster Mitigation Act of 2000 and through county in-kind contributions. Intended to break the cycle of disaster and rebuild, the Federal Emergency Management Agency (FEMA) program offers financial assistance to local governments to prepare and implement their local all hazard mitigation plans. More information on the PDM program can be found through the Federal Emergency Management Agency, Minnesota Homeland Security and Emergency Management, or the Minnesota Local Planning Assistance Center.

### **1.3 Definition of Mitigation**

Hazard Mitigation is defined as any action taken to eliminate or lessen the risk of natural and human caused or technological hazards to life and property. Mitigation measures might include public education, development of regulations or public policy, structural hazard control or protection projects, altering or retrofitting facilities, acquisition or relocation of structures, or the development of improved or increased warning systems.

## 1.4 The Planning Process

To assist in the development of the Cass County Hazard Mitigation Plan, the County secured the assistance of the Region Five Development Commission. While working with two other counties within the Commission's service area, the Region Five Development Commission assisted with all phases of the planning process as outlined within this section. The following timeline provides a narrative overview of each of these phases:

### 1.4.1 Data Collection

April 2003 through October 2003

The data collection process focused on the examination of existing plans, programs, and policies currently maintained by Cass County. These plans, programs, and policies are further broken down as follows:

#### Planning Documents Reviewed:

- Cass County Comprehensive Plan
- Cass County Water Plan
- Cass County Emergency Operations Plan
- Floodplain Management Handbook for Local Officials
- State of Minnesota Hazard Mitigation Plan

#### Programs Reviewed:

- Cass County Emergency Management Programs
- Cass County National Flood Insurance Program (NFIP) Participation
- Cass County Public Health Programs
- Cass County Sheriff Department Programs
- Environmental Programs EPA and MPCA
- Minnesota Department of Homeland Security & Emergency Management Programs

#### Policy Documents Reviewed:

No.2001-01      [Feedlot Ordinance](#)  
No.2003-03      [Land Use Ordinance](#)  
No.2004-02      [Subdivision Ordinance](#)

### 1.4.2 Public and Local Government Participation Component October 2003 through February 2004

Cass County recognizes the importance of public participation in developing a strong all-hazard mitigation plan. To this extent, Cass County invited members of the public to participate in several meetings during the planning process. These meetings were as follows:

*Cass County Hazard Mitigation Planning Open House*

Date: December 2, 2003, 1:00 p.m.  
Location: Cass County Sheriff's Department Meeting Room  
Topics: Introduction to the hazard mitigation process including presentations by Region Five Development Commission staff and answering of questions and answers. Many participants volunteered to participate on the Cass County Hazard Mitigation Planning Team.

*Cass County Hazard Mitigation Planning Team Meeting #1*

Date: February 11, 2004, 10:00 a.m. to noon  
Location: Cass County Commissioner's Room  
Topics: Through this meeting participants were given an overview of the hazard mitigation planning process and began identifying and classifying hazards to be addressed within the hazard mitigation plan. These hazards were classified either as Natural Hazards or Human-Caused/Technological Hazards (HCT). Once a list of hazards was established participants volunteered to participate on either the Natural Hazards Subcommittee or the Human-caused/Technological Hazards Subcommittee.

Membership:

**HCT Team**

Bill Bliss, Longville	Mike Carey, Walker	Jim Demgen, East Gull Lake
Carol Emery, Walker	Don Hoppe, Hackensack	Roy Huddle, Walker
Connie Kaylor, Walker	Sandra Kushman, Backus	Bruce Premo, Cass Lake
Ovrille Rosenberry, Walker	Ralph Schmidt, Longville	Tom Sheridan, Walker
Richard Weiss, Pine River	Mark Zackowski, Pine River	
Leonard C. Kieffer, Hackensack		

**Natural Team**

Andy Johnson, Minnetonka	Bryon Stilley, Pine River	Jerry Peterson, Pine River
Reno C. Wells, Hackensack	Richard Weiss, Pine River	Connie Kaylor, Walker

**Technical Advisory Team**

Bill Bliss, Townboards	Mike Carey, Emergency Management
Jim Demgen, Commissioner	Steve Kuha, Assessor
Dorothy Opheim, Public Health	Bob Yochum, Administrator
John Sumption, Environmental Services	Don Hoppe, MIS
Tim Richardson, MIS	Randy Fisher, Sheriff

*\*A comprehensive list of process participants is included in Appendix F of this plan.*

### *Local Government Participation*

The first step in the local government participation process was to request each local government wishing to participate in the planning process to express this desire through the adoption of a resolution. A list of local governments submitting a resolution is provided in Section 2.2. Local governments not participating in the 2003 to 2005 Cass County Hazard Mitigation Planning process will be contacted by the County's Emergency Management Director upon the beginning of any plan revision process to extend an invitation to participate in the revision process by resolution. All resolutions signed at that time will be included within the plan revision and forwarded along with the revised plan to the Minnesota Homeland Security and Emergency Management and FEMA.

Prior to the start of the Cass County All-Hazard Mitigation planning process, local officials from all townships and cities within the County received a copy of the local government official survey. This survey was used to gather local officials' opinions on comprehensive plan related issues within the County as well as hazard mitigation related questions including identification of potential hazards within the county and also risk assessment related questions.

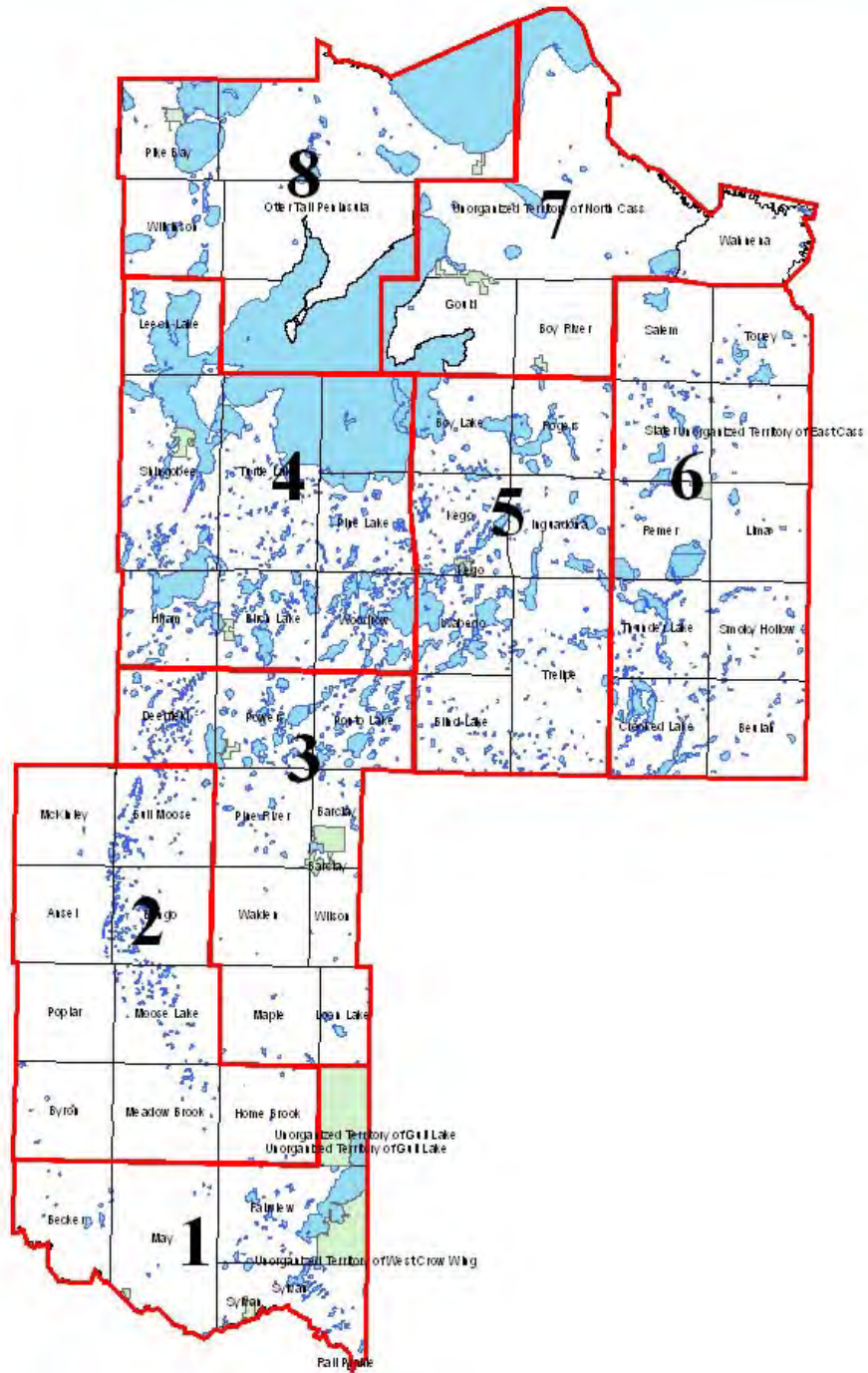
Local officials then participated in a series of meetings held throughout 2003. In these meetings local officials provided opinions and comments related to hazards of concern within their communities as well as the likelihood of the occurrence of those hazards. All information received through the inclusion of local government officials was used to establish the goals and objectives presented within the *Cass County All Hazard Mitigation Plan*.

### *Sectoring of Cass County for Hazard Mitigation Planning*

In developing a plan that addresses hazards on a county-wide basis as well as locally, it is important to divide the planning area into smaller, more manageable sections. For the purposes of developing this plan, Cass County was divided into sectors by the modification of existing fire service districts. Figure 1-1 shows the boundaries of each sector. The local governments included within each sector are listed as follows generally beginning with local governments in the northwest portion of the sector to southeast (see Figure 1-1 for visual reference):

- Sector 1: Becker, May, Sylvan and Fairview Townships; Cities of Lake Shore, East Gull Lake, Motley, and Pillager
- Sector 2: McKinley, Bull Moose, Ansel, Bungo, Poplar, Moose Lake, Byron, Meadowbrook and Home Brook Townships
- Sector 3: Deerfield, Powers, Ponto Lake, Pine River, Barclay, Walden, Wilson, Maple, and Loon Lake Townships; Cities of Backus, Chickamaw Beach and Pine River

- Sector 4: Leech Lake (south portion), Turtle Lake (south portion), Shingobee, Turtle Lake, Pine Lake (west portion), Hiram, Birch Lake, and Woodrow (west portion) Townships; Cities of Walker and Hackensack
- Sector 5: Unorganized Territory (east portion), Boy Lake, Rogers, Pine Lake (east portion), Kego, Inguadona, Woodrow, (east portion), Wabedo, Trelipe (north and south), and Blind Lake; City of Longville
- Sector 6: Salem, Torrey, Slater, Unorganized Territory, Remer, Lima, Thunder Lake, Smokey Hollow, Crooked Lake, and Beulah Townships; City of Remer
- Sector 7: Unorganized Territories, Gould (west and east), and Boy River Townships; Cities of Federal Dam and Boy River
- Sector 8: Pike Bay Township, Unorganized Territories, Wilkinson, Ottertail Peninsula, Leech Lake (north portion), and Gould (west portion) Townships; City of Cass Lake





#### 1.4.3 Development of Goals, Objectives and Strategies (Subcommittee Process) March 2004 through May 2004

##### *Subcommittee Meetings*

Dates: 2/25/04, 3/3/04, 3/10/04

Location: Cass County Commissioner's Room

Topics: All subcommittee meetings were open to the public. Through these subcommittee meetings groups assessed the risk associated with hazards specific to their subcommittee. These risk assessments and identification matrices are presented throughout this plan. After completion of risk assessments, subcommittees then identified the goals, objectives, and strategies listed within Section Five of this plan.

#### 1.4.4 Drafting and Development May 2004 through October 2004

In the drafting and development phase, Region Five Development Commission staff prepared the Cass County Hazard Mitigation Plan public review document with the cooperation of the Cass County Emergency Management Director, the Cass County Environmental Services Department (ESD), and the Cass County Management Information Systems (MIS) Department. The plan was then forwarded onto process participants, local officials, Minnesota Homeland Security and Emergency Management, and the general public for review and comment.

#### 1.4.5 Public Review, County Adoption, State and FEMA Review and Adoption October 2004 through March 2005

Copies of the Cass County Hazard Mitigation Plan document were sent to all local units of government within the County and made available on the Region Five Development Commission Website. A published notice notifying interested persons of this was published in the official newspaper of the County. An invitation was sent to each of the counties surrounding Morrison County requesting they review and comment on the draft plan. Despite this effort to solicit public review, few comments were received. What comments were received resulted in some changes to the Cass County Hazard Mitigation Plan document. These minor changes included the revision of the list of cities and municipal water treatment facilities included within the community profile section of the plan as well as other minor changes to other portions of the community profile section.

### 1.5 Plan Implementation and Maintenance

Paramount to the success of the Cass County All Hazard Mitigation plan is the commitment of County officials, staff, and the entire countywide community to the implementation of the goals, objectives, and strategies set forth in section 4.0 of this plan. Changes resulting from internal and external forces, coupled with the completion of individual goals, objectives and policies may be cause for revision of this plan. In order

to respond to these changes the Cass County Emergency Management Director will review this plan at least annually to ensure goals, objectives and policies are being met in accordance to the implementation schedule of the plan. Every three to five years Cass County shall update and revise this plan to ensure the plan remains consistent with the overall goal of the plan which is briefly summarized as the mitigation of potential hazards within Cass County.

Every three to five years Wadena County shall update and revise this plan to ensure the plan remains consistent with the overall goal of the plan which is briefly summarized as the mitigation of potential hazards within Wadena County. The Emergency Management Director will bring the Citizens Planning Team and Technical Advisory Team together as part of this review and revision process. FEMA requires the updated plan be submitted to the State and FEMA every five years for review.

See appendix I for recommended revisions for the plan update.

#### *Implementation of Plans, Programs, and Policies*

The implementation schedule of the Cass County Hazard Mitigation Plan calls for the updating and revision of several Cass County plans, programs, and policies. As this plan is implemented, the Cass County Emergency Management Director will coordinate these revisions with the persons identified as “Task Leaders” within the implementation schedule of the plan. Plans, programs, and policies to be updated include:

Plans to be revised as necessary:

- Cass County Comprehensive Plan
- Cass County Water Plan
- Cass County Emergency Operations Plan

Programs to be revised as necessary:

- Cass County Emergency Management Programs
- Cass County National Flood Insurance Program (NFIP) Participation
- Cass County Public Health Programs
- Cass County Sheriff Department Programs

Policies to be revised as necessary:

- No.2001-01      [Feedlot Ordinance](#)
- No.2003-03      [Land Use Ordinance](#)
- No.2004-02      [Subdivision Ordinance](#)

### *Ongoing Public Participation*

In order to ensure public involvement in future revisions to this plan, Cass County shall follow a similar procedure, including the memberships of public members on any future Hazard Mitigation Planning Teams and Subcommittees and the regular publishing and updating of information related to the hazard mitigation plan revision process.

Mechanisms that are to be used to ensure ongoing public participation include the following:

- General public membership on future hazard mitigation planning teams and subcommittees
- Posting of the Cass County Hazard Mitigation Plan on the Cass County Website
- Published notices of all public hazard mitigation related meetings
- Maintain copies of the Cass County Hazard Mitigation Plan at all libraries and similar public information outlets within Cass County

### *Plan Responsibilities*

The Cass County Emergency Management Director is responsible for all monitoring, maintenance, coordination, and implementation of the Cass County Hazard Mitigation Plan with the ongoing support of the Cass County Board of Commissioners and Cass County Departments. Please direct all inquiries related to this plan or Cass County Emergency Management to:

Mike Carey  
Emergency Management Director  
Cass County Sheriff's Office  
300 Minnesota Avenue  
PO BOX 1119  
Walker, MN 56484

Via Telephone:  
Sheriff Office Mainline: (218) 547-1424

## 2.0 COMMUNITY PROFILE

### 2.1 General Overview

Section 2.0 is intended to provide a brief assessment of Cass County communities, physical and human characteristics. The information contained within this section will be updated concurrently with the updating procedures specified in section 1.5 of this plan.

### 2.2 Local Community Participation Overview

The following is a list of jurisdictions (cities) participating in the Cass County Hazard Mitigation Planning Process. All townships and unorganized territories in Cass County are unincorporated and therefore remain under the jurisdiction of Cass County. To qualify as a participating jurisdiction a city must participate in the planning process through meetings, surveys, or draft reviews. Each participating city must have at least one identified mitigation action. Following approval of the plan all participating jurisdictions will be asked to adopt the approved plan. Adoption of the approved plan will make these jurisdictions eligible to apply for mitigation grant funds to complete their identified mitigation actions. Any city within Cass County may be added to this list by contacting the Cass County Emergency Management Director and completing the participation objectives mentioned above.

	<i>CITIES</i>		<i>TOWNSHIPS</i>	
X	Backus	Birch Lake	Leech Lake	Remer
	Bena	Blind Lake	Lima	Rogers
	Boy River	Boy Lake	Loon Lake	Salem
X	Cass Lake	Boy River	McKinley	Shingobee
X	Chickamaw Beach	Bull Moose	Maple	Slater
X	East Gull Lake	Bungo	May	Smoky Hollow
X	Federal Dam	Byron	Meadow Brook	Sylvan
X	Hackensack	Crooked Lake	Moose Lake	Thunder Lake
X	Lake Shore	Deerfield	North Cass (unorg.)	Torrey
X	Longville	East Cass (unorg.)	North Central Cass	Trelipe
X	Pillager	Fairview	Otter Tail Peninsula	Turtle Lake
X	Pine River	Gould	Pike Bay	Wabedo
X	Remer	Hiram	Pine Lake	Wahnena (unorg.)
	Walker	Home Brook	Pine River	Walden
		Inguadona	Ponto Lake	Wilkinson
		Kego	Poplar	Wilson
		Lake Shore	Powers	Woodrow
"X" Denotes participating jurisdictions.				

Local governments not participating in the 2003 to 2005 Cass County Hazard Mitigation Planning process will be contacted by the County's Emergency Management Director upon the beginning of any plan revision process to extend an invitation to participate in the revision process by resolution. All resolutions signed at that time will be included within the plan revision and forwarded along with the revised plan to the Minnesota Homeland Security and Emergency Management and FEMA.

## 2.3 General County History

When Cass County was created by legislative act on May 1, 1851, it became one of ten counties that existed in the Minnesota Territory. It remained as a created county and had no county officers until March 4, 1872 when it was first organized as a county, with its boundaries reduced as slices had been cut off when the following counties were established: Wright, Stearns, Meeker, Todd, Morrison, Pope, Douglas, Ottertail, Wadena, Aitkin, Crow Wing, and Becker. Previously the Cass County seat was located in West Brainerd, complete with a building that was used as a courthouse.

Cass County remained a part of Crow Wing County until the re-organization in 1897. Cass County was fully organized on May 6, 1897 and Governor Clough had appointed P.H. McGarry of Walker, G.H. French of Cohasset, O.T. Wilson of Ellis, James F. Middleton of Backus, and T.J. Nary of Walker as the county's first commissioners. These commissioners then met that same day and also on the 7th to appoint the officers of the county.

The county board established the county seat at Walker on May 7th, and purchased a new brick building in Block 14, original plat of Walker. That building presently houses Reed's Gifts. On May 8th, the chairman of the commissioners appointed a committee to proceed to Brainerd and secure all books pertinent to our county. Construction on our present courthouse began in 1902-03 and the building was dedicated on April 5, 1907.

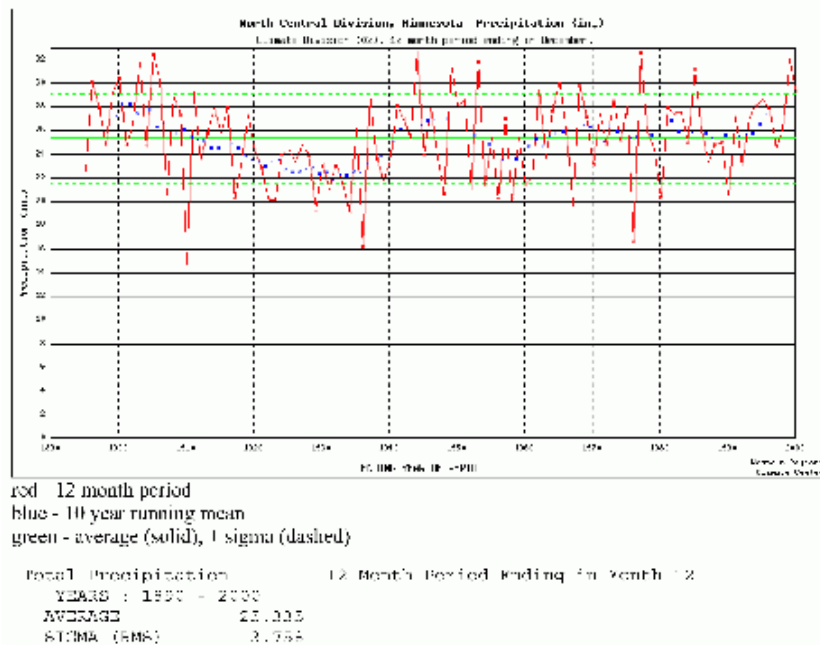
Cass County has 51 organized townships today, the first of which was Byron Township in 1898 and the last was Ottertail Peninsula in 1987.

## 2.4 Physical Characteristics

### 2.4.1 Climate and Precipitation

Cass County receives an average of 25 inches annually. Figure 2-1 from the Western Regional Climate Center depicts annual rainfall from 1890-2000. Precipitation gauging stations and ground water observation wells are located in the county. Maps and information are available at the Climatology Working Group homepage located via the Internet at <http://climate.umn.edu/>.

Figure 2-1:



## 2.4.2 Geology

### Bedrock Geology

Cass County is underlain by relatively simple layers of rock and sediment. Metamorphic and crystalline basement rocks are overlain by weathered rocks and sediment that are in turn overlain by glacial deposits. The stacking of geologic layers reflects the order in which they were formed. The basement rocks were formed over 1.7 billion years ago. The weathered rocks and sediments were deposited on top of the basement rock from 140 to 65 million years ago.

### Surficial Geology

Over the last two million years, there have been approximately 20 large-scale southward advances of the Laurentide Ice Sheet. These major glacial advances have been grouped into four stratigraphic units, including the Nebraskan, Kansan, Illinoian and Wisconsinian (listed in order of age from earliest to latest). The most recent advance, the Wisconsinian, has made the most impacts on the watershed in terms of glacial deposits and surface features.

Most of the glacial deposits were deposited over these formations during the Quaternary period less than one million years ago. Cass County is located in a region where glaciers advanced at least four times during the 60,000 years of the Wisconsin glaciation. Many of the hills and plains that make up the existing landscapes in the watershed are the result

of several substages of the Wisconsin glaciation, with the last advance occurring over 9,500 years ago.

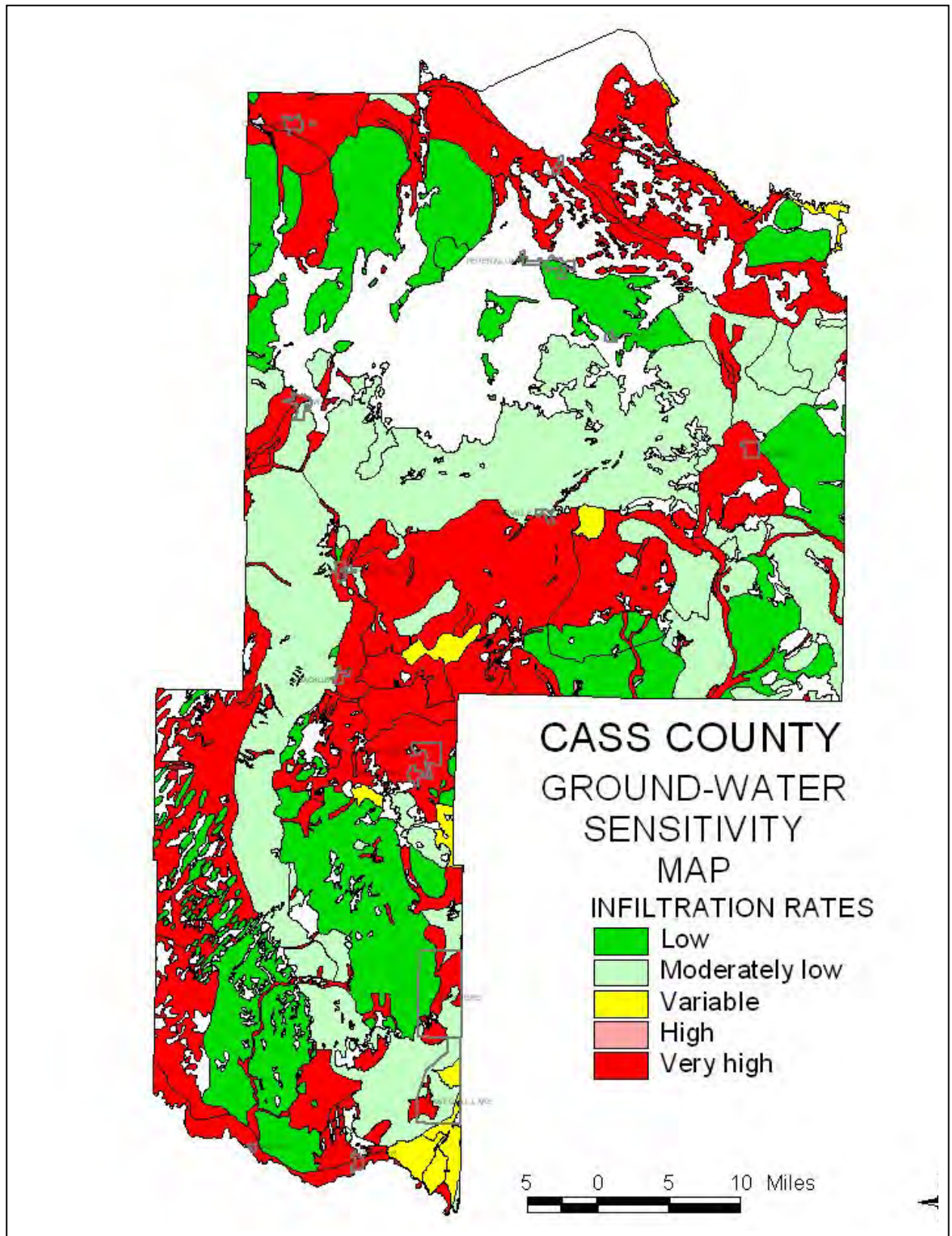
### 2.4.3 Hydrology

Three unconfined major surficial drift aquifers in glacial till have been identified:

1. Bemidji-Bagley in northwestern section; flows to the southeast; because confining layer occasionally disappears water flows into the deeper aquifer at these places.
2. Pineland Sands Aquifer in southwest section; flows towards Crow Wing River; studied in Wadena, Hubbard, Morrison, Becker and Cass counties in 1974.
3. Unnamed surficial drift aquifer in east.

North central and southern sections are covered by Sugar Hills, Itasca and St. Croix moraine systems. Figure 2-2 shows groundwater sensitivity in Cass County.

FIGURE 2-2: GROUNDWATER SENSITIVITY MAP





The Bemidji-Bagley aquifer, an unconfined surficial drift aquifer, underlies the area north and west of Leech Lake. Flow in the aquifer is generally to the southeast towards Leech Lake. The confining layer below this aquifer thins or completely disappears in places, allowing water to flow into deeper buried aquifers.

The Bagley Aquifer Study has identified contaminants in the water which may indicate contamination potential for Cass County.

West of Lake Winnibigoshish the sand plain aquifer is in outwash area, the geologic classification of which is characterized as sand and gravel with some silt and clay, admixed or interbedded in alluvial plains or wide channels made by major glacial streams. The material classification is sand and gravel, admixed or interbedded, sporadic silty areas. The sustained yield rating (a hypothetical perpetual yield that could be obtained by continuous pumping of an isolated well penetrating the full thickness of the hydrogeologic unit) is 100 to 25 gallons per minute. The sustained yield rating is an index to the relative capacity of the aquifer. Elevation of the water table above mean sea level is 1,300 feet.

In the eastern half of the watershed, the unconsolidated aquifer is located in outwash area (same geologic classification as western area). Material classification of the aquifer is sand, locally silty or gravelly. Sustained yield rating is 5 to 25 gallons per minute. Elevation above mean sea level is 1,300 feet.

According to U.S. Geological Survey Water Resources Map for the Mississippi Headwaters Watershed (defined as larger than the state definition used in this report and encompasses the Leech Lake, Pine River, Willow-Prairie and Crow Wing watersheds established by the State of Minnesota's 1979 Watershed Mapping Project):

"Most ground water movement is from areas of local recharge toward local surface water (lakes and streams), and the quality of all water is generally very similar. Regional movement, particularly of deeper water, is toward the Mississippi River. Lake levels and stream flow are maintained during periods of ground water toward surface water bodies. In areas of coarse permeable material where gradients are moderate (i.e., the western half of the state-defined Mississippi Headwaters watershed), ground water inflow to a lake exceeds losses from the lake by evaporation. Significant diversion of ground water from its present position by pumping may result in substantial changes in the regimen of lakes and streams.

"Quality of deep and shallow drift water, bedrock water, and low stream flow are shown to be very similar. Most water is very hard (contains greater than 200 milligram per liter hardness as CaCO<sub>3</sub>) and frequently contains excessive iron and manganese. All waters analyzed have a low sodium adsorption ratio and a boron content with the permissible limits for boron-sensitive plants; therefore all are suitable for the irrigation of crops."

### **Ground and surface water interconnections**

The extent and location of ground and surface water interconnections are not known. It is assumed that such interconnections exist in all surficial drift aquifers and in areas with porous soils. It should be possible to identify locations of such interconnections by analyzing relationships between stream density, soils, and surface water.

### **Boundaries and flow directions of watershed units and minor watershed units**

Major watersheds of the county are: Mississippi Headwaters, Leech Lake, Crow Wing, Pine, and Willow-Prairie. Figure 2-3 shows the major and minor watersheds for the county while Figure 2-4 presents the rivers, streams and ditches in Cass County.

"Most groundwater movement is from areas of local recharge toward local surface water (lakes and streams).... Regional movement, particularly of deeper water, is toward the Mississippi River. Lake levels and streamflows are maintained during periods of no precipitation by the continuing movement of ground water toward surface water bodies. In areas of coarse permeable material where gradients are moderate, ground-water inflow to a lake exceeds losses from the lake by evaporation. Significant diversion of ground water from its present position by pumping may result in substantial changes in regimen of lakes and streams."

FIGURE 2-3: MAJOR AND MINOR WATERSHEDS

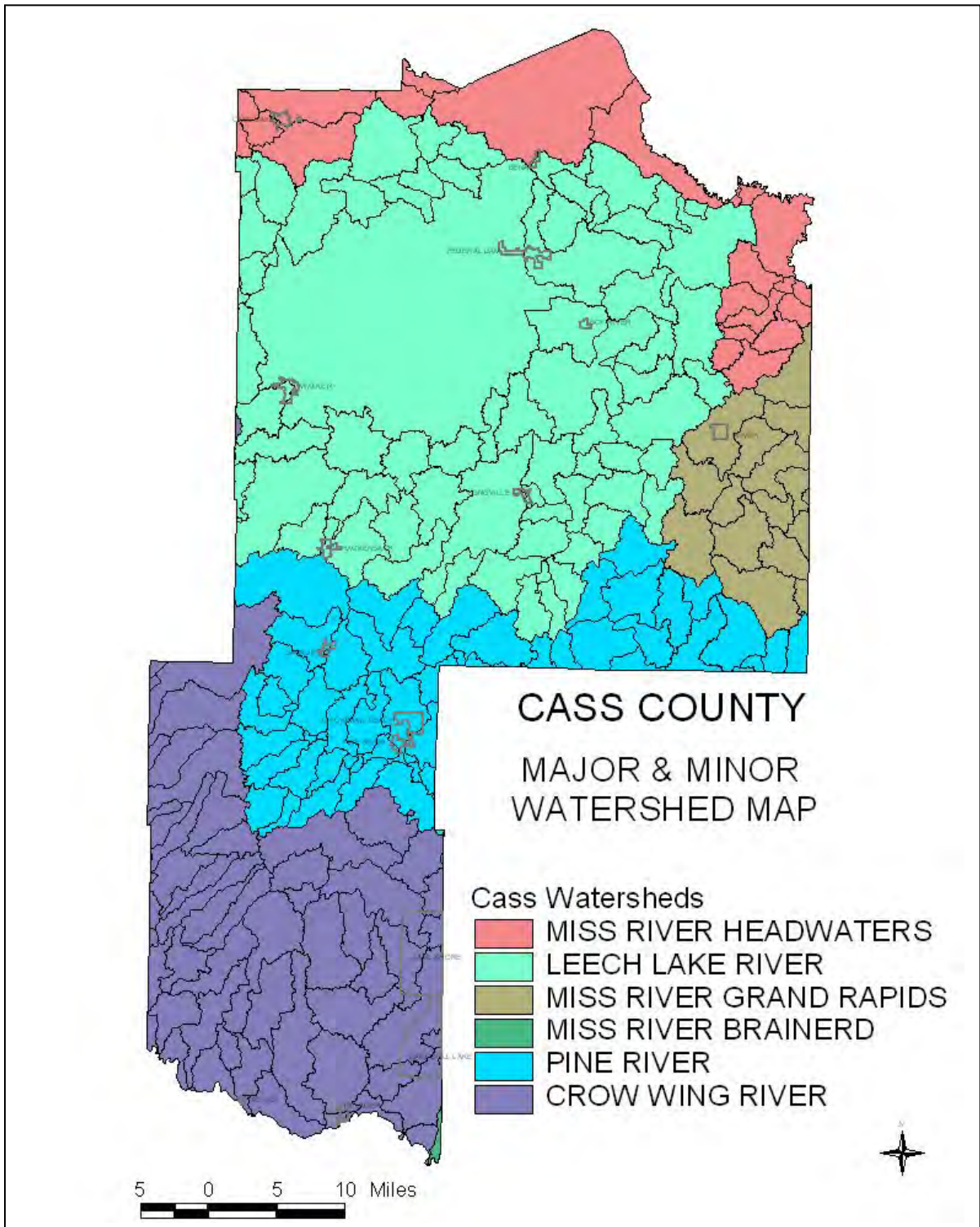
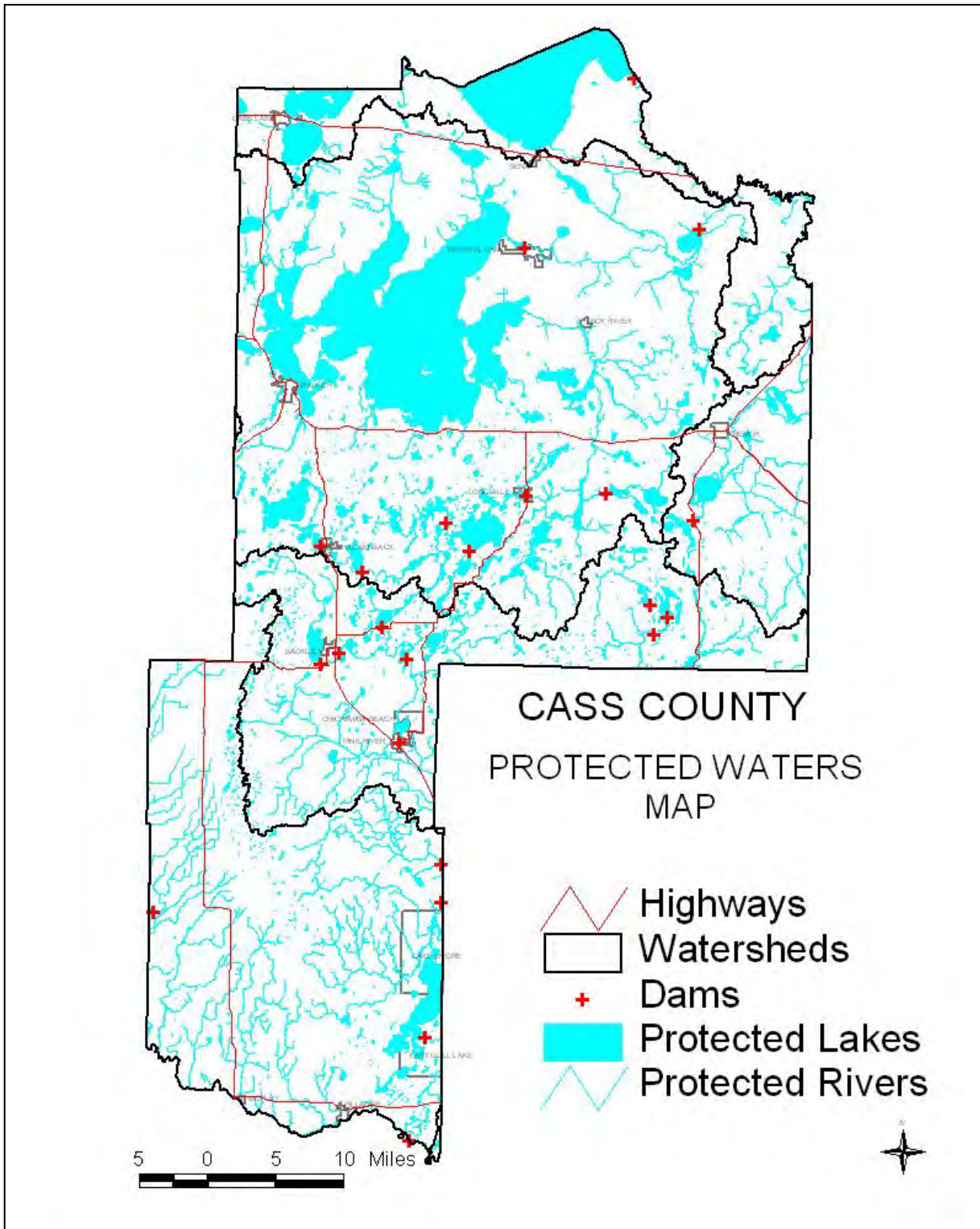


FIGURE 2-4: STATE PROTECTED WATERS INVENTORY



Lakes Inventory

**Table 2-1 Lakes with established Ordinary High Water marks (OHWL)**

<u>LAKE NAME</u>	<u>LAKE NUMBER</u>	<u>OHWL</u>
Little Thunder (assumed)	11-0009	137.4
Vermillion	11-0029	1280.1
Roosevelt	11-0043	1269.9
Lawrence	11-0053	1269.9
Washburn	11-0059	1317.2
Little Thunder	11-0061	1303.6
Thunder	11-0062	1305.4
Little Bass	11-0063	1313.7
Bass	11-0069	1330.4
Grave	11-0086	1319.7
George	11-0101	1319.8
Island	11-0102	1340.8
Upper Trelipe	11-0105	1309.3
Inguadona	11-0120	1307.6
Lower Trelipe	11-0129	1308.7
Swift	11-0133	1296.4
Long	11-0142	1330.8
Boy	11-0143	1296.4
Winnibigoshish	11-0147	1298.4
Little Boy	11-0167	1308.1
Wabedo	11-0171	1308.1
Girl	11-0174	1323.6
Hay	11-0199	1336.7
Mule	11-0200	1328.2
Woman	11-0201	1323.6
Leech	11-0203	1294.9
Portage	11-0204	1298.6
Mile	11-0207	1187.3
Stephens	11-0213	1190.8
Dade	11-0214	1199.8
Bass	11-0215	1204.1
Agate	11-0216	1212.3
Hattie	11-0232	1308.0
Ponto	11-0234	1335.3
Hand	11-0242	1331.0
Ada	11-0250	1325.3
Bass	11-0254	1319.4

McKeown	11-0262	1327.9
Kid	11-0262	1329.7
Child	11-0263	1323.6
Blackwater	11-0274	1326.5
Sand	11-0279	1335.4
Mann	11-0282	1327.9
Baby	11-0283	1327.9
Horseshoe	11-0284	1331.2
Moccasin	11-0296	1356.9
Sylvan	11-0304	1199.8
Gull	11-0305	1194.0
Webb	11-0311	1352.1
Pillager	11-0320	1221.0
Rice	11-0321	1220.7
Rock	11-0324	1274.4
Long	11-0328	1290.2
Clam	11-0349	1294.6
Bowen	11-0350	1314.4
Five Point	11-0351	1328.7
Rainy	11-0356	1322.2
Loon	11-0357	1329.3
Horseshoe	11-0358	1329.3
Stony	11-0371	1375.8
Paquet	11-0381	1365.7
Pleasant	11-0383	1362.6
Rice	11-0402	1295.9
Pine Mountain	11-0411	1323.5
Birch	11-0412	1379.4
Ten Mile	11-0413	1379.9
Gould	11-0414	1295.4
Unnamed (assumed)	11-0435	146.7
Alice	11-0468	1364.1
Long	11-0480	1318.6
Spider (assumed)	11-0500	146.7
Crystal	11-0502	1397.4
Spot (assumed)	11-0512	98.8
Unnamed	11-0521	1380.5
Swede	11-0712	1321.2
Unnamed	11-0784	1204.2
Unnamed (assumed)	11-0798	48.8
Cass	04-0030	1302.3
East Wood	18-0221	1287.6

Wood	18-0222	1287.6
Sibley	18-0404	1221.5
Mayo	18-0408	1221.1
Lizzie	18-0416	1311.7

**Table 2-2: Permitted withdrawals from lakes (in million gallons/year)**

<u>LAKE</u>	<u>VOLUME (MGY)</u>	<u>USE</u>
Agate Lake	20.0	Lake level maintenance
Rice Lake	53.0	Major crop irrigation
Leech Lake	<u>13.5</u>	Golf course irrigation
Total permitted withdrawal	86.5	

Classification

The following number of lakes have been classified within Cass County:

Natural environment	295
Recreational development	89
General development	18

A total of 403 of Cass County's over 1,000 lakes have been classified.

**Lakes and Streams with protected levels**

The Crow Wing River is only stream with protected flow level that has been set at 200 cubic feet per second.

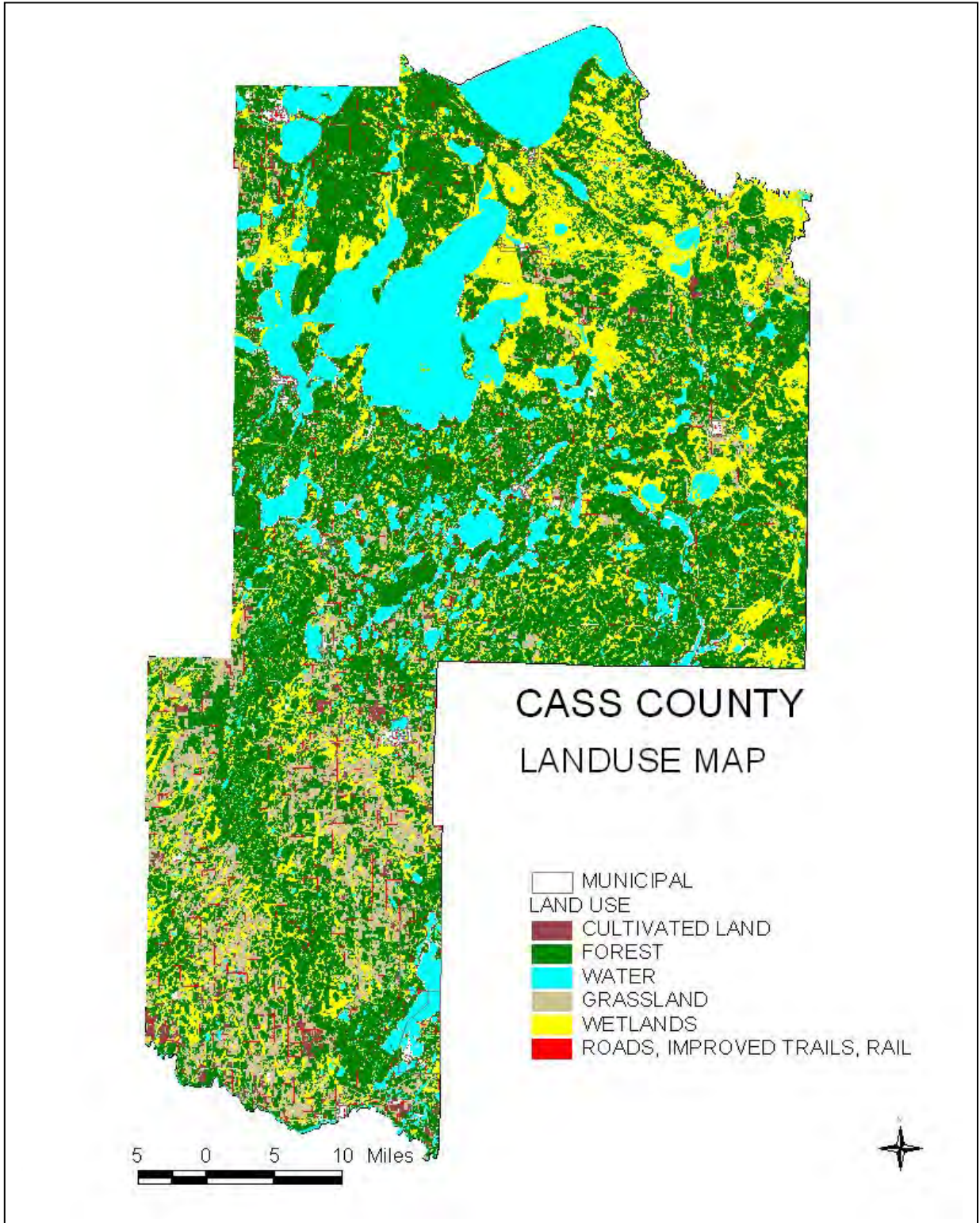
Rivers and Streams Inventory

**Table 2-3: Permitted withdrawals from streams (in million gallons/year)**

<u>STREAM</u>	<u>VOLUME</u>	<u>USE</u>
South Branch Pine River irrigation	26.6	Major crop
Swamp Creek	<u>26.7</u>	Wild rice irrigation
Total permitted withdrawal	53.6	

2.4.4 Land Cover

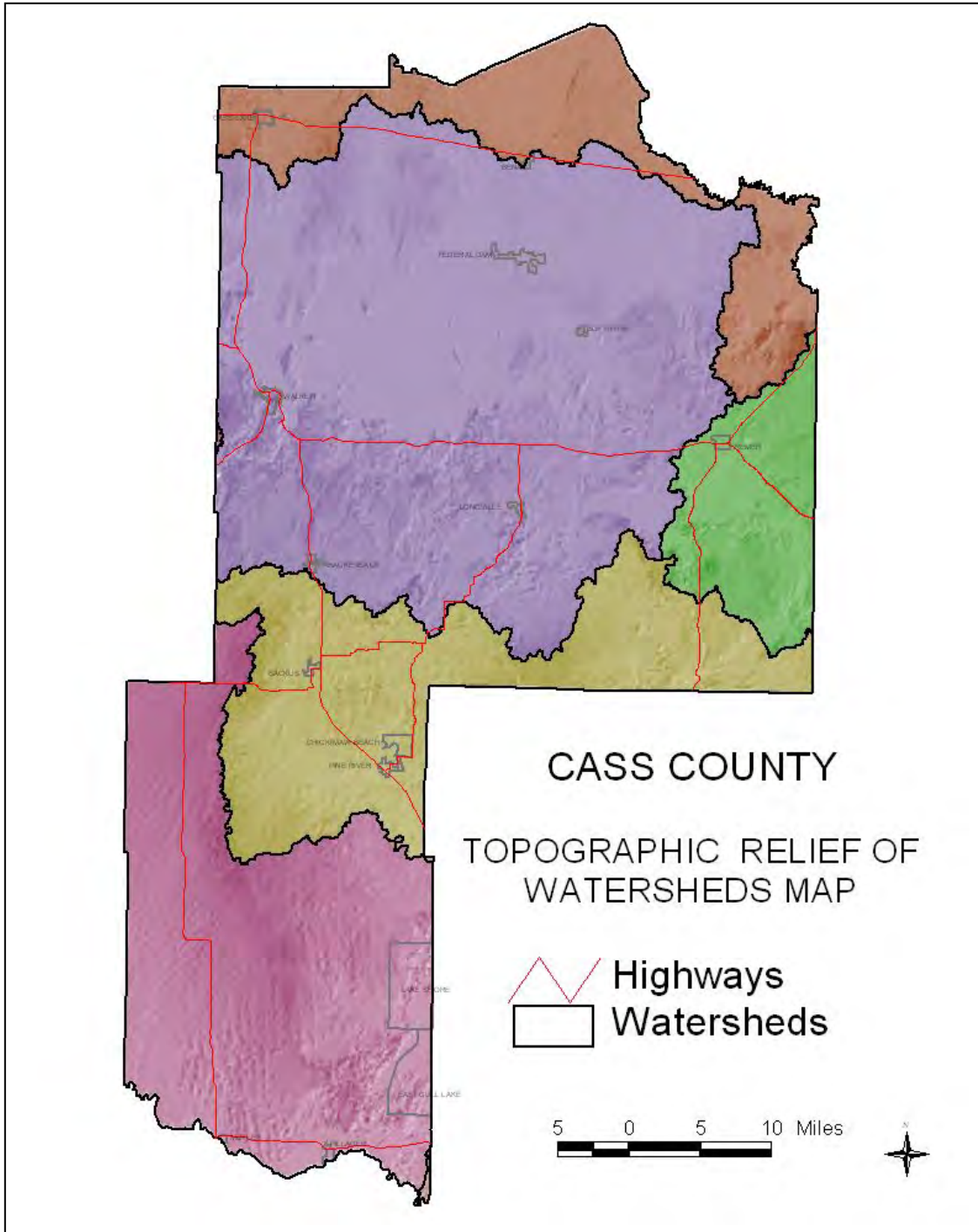
FIGURE 2-5: LAND USE MAP





2.4.5 Topography and Drainage

FIGURE 2-6: TOPOGRAPHIC RELIEF OF WATERSHEDS



## Public Drainage System

### Public Drainage Systems Inventory

#### 2.5 Community Facilities

##### 2.5.1 General Facilities

Cass County is known for its many natural resources which bring a wide variety of tourists and population growth to the County year after year. To serve this population many public and private entities maintain facilities tailored to meet the needs of tourism and new growth. This section focuses on facilities utilized by thousands of visitors and residents throughout the year.

##### 2.5.2 Gathering Places

### State Parks and Forests

Federal Forest, Campgrounds and Trails: Chippewa National Forest: North Country Trail, Shingobee Recreation Area

State Parks: Schoolcraft State Park (county borders Crow Wing State Park)

State Forests: Battleground  
Land O'Lakes  
Pillsbury  
Foothills  
Welsh Lake  
Bowstring  
Remer

State Trails:

Heartland Trail  
Paul Bunyan Trail (recently authorized)  
Spider Lake Ski Trail (Foothills State Forest)  
Foothills Snowmobile Trail (Foothills State Forest)  
Rock Lake Solitude Area (Pillsbury State Forest)  
Pillsbury Snowmobile Trail (Pillsbury State Forest)  
Washburn Lake Solitude Area (Land O'Lakes State Forest)

County Parks, Forests, Trails, and Reserves:

Deep Portage Conservation Reserve (6,400 acres)

County managed cross country ski trails and hiking trails:

Bakker Ski Trail

Hiram Skiing/Hiking Trail  
Cut Lake Ski/Hiking Area  
Deep Portage Conservation Reserve Trails  
Goose Lake Trail System  
Howard Lake Ski Trail  
Tank Lake Hunter Walking Trail  
Thunder Hollow Hunter Walking Trail  
Tower Ski Trail  
Vermillion River Hunter Walking Trail

### 2.5.3 Emergency Facilities

A visual representation of emergency service areas and coverage is provided through the following mapping

- Figure 2-7: Ambulance Service Map
- Figure 2-8: Fire Service Districts Map
- Figure 2-9: Law Enforcement Map

FIGURE 2-7: AMBULANCE SERVICE DISTRICTS MAP

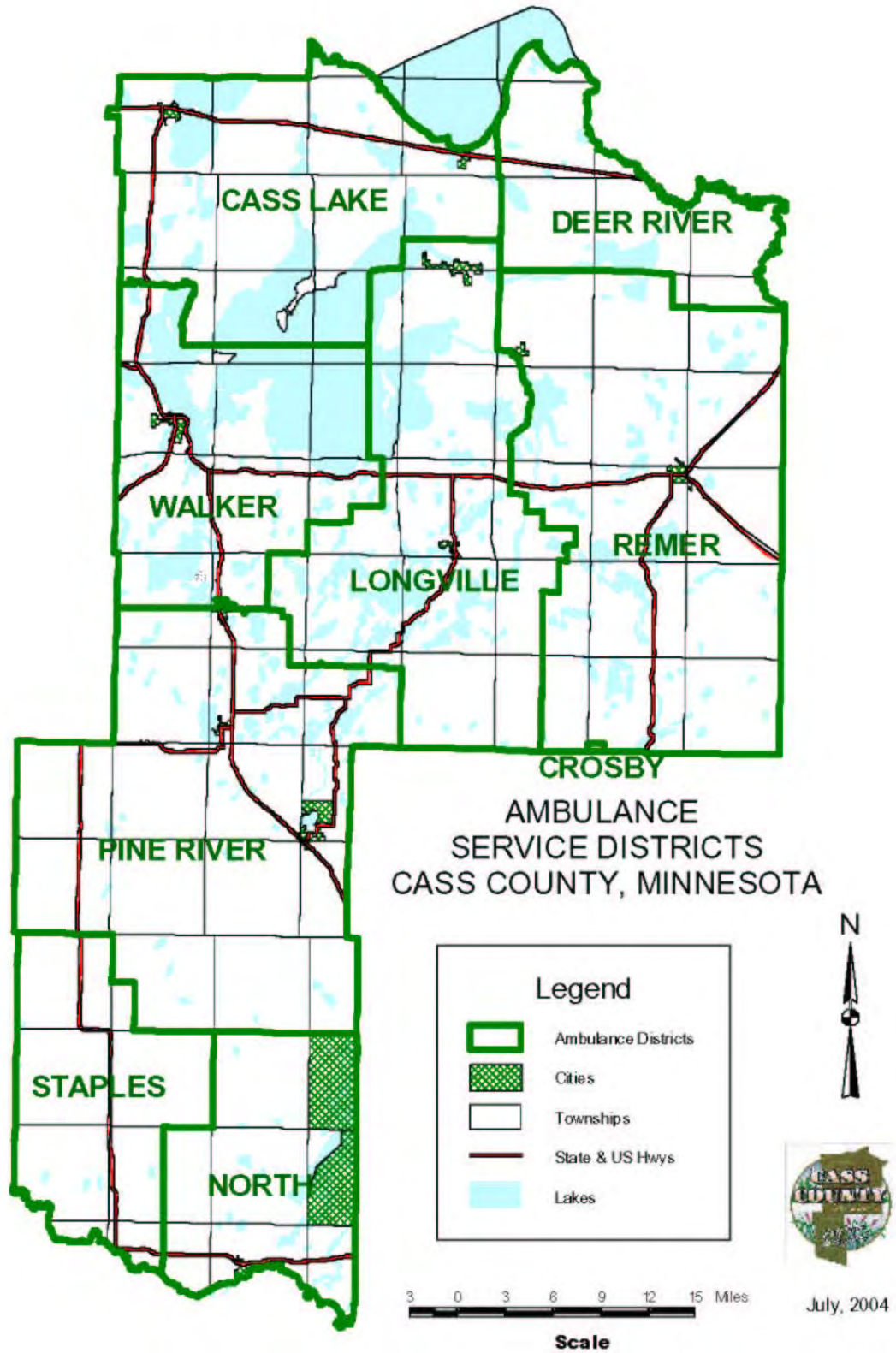


FIGURE 2-8: FIRE DEPARTMENT SERVICE DISTRICTS MAP

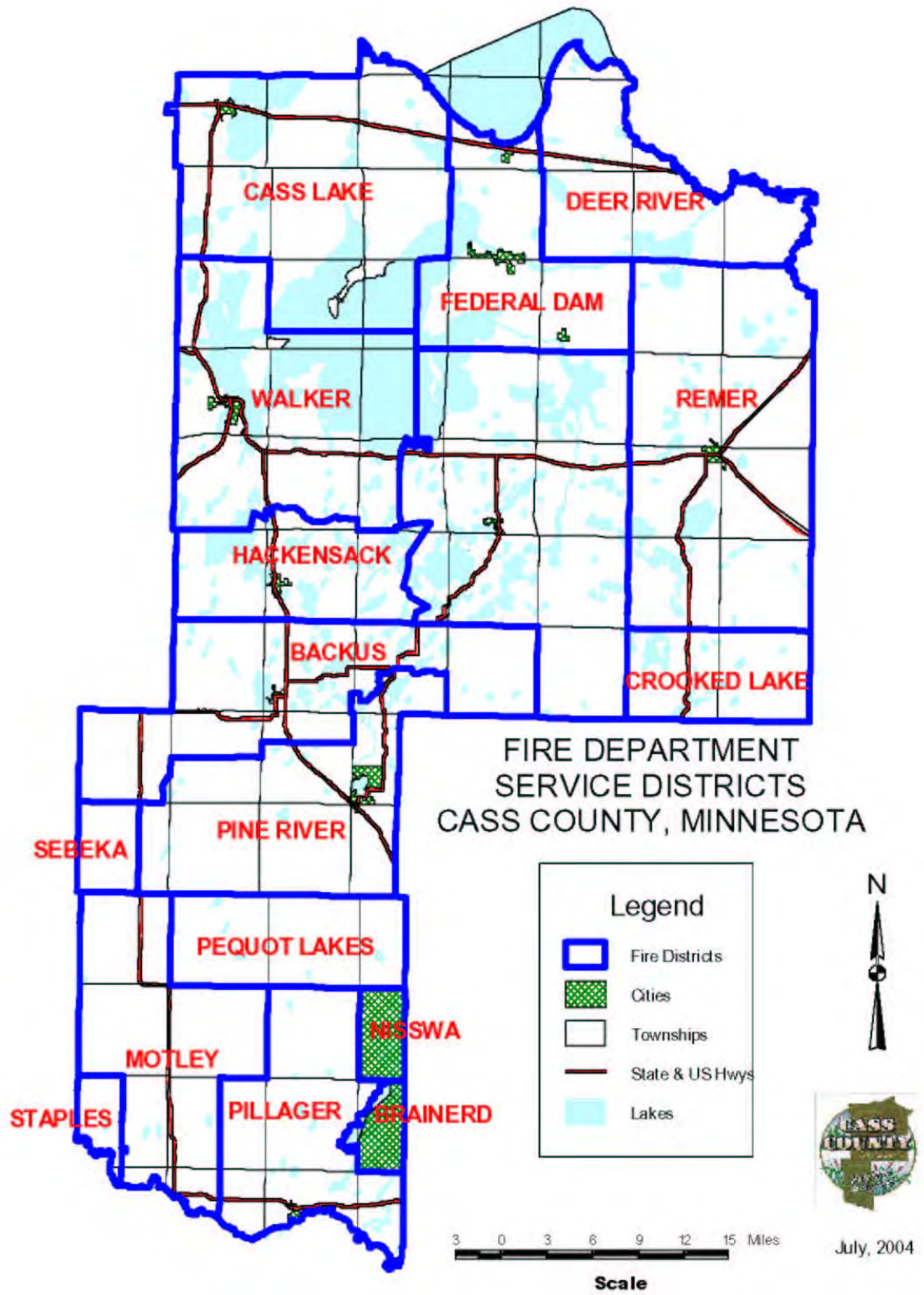
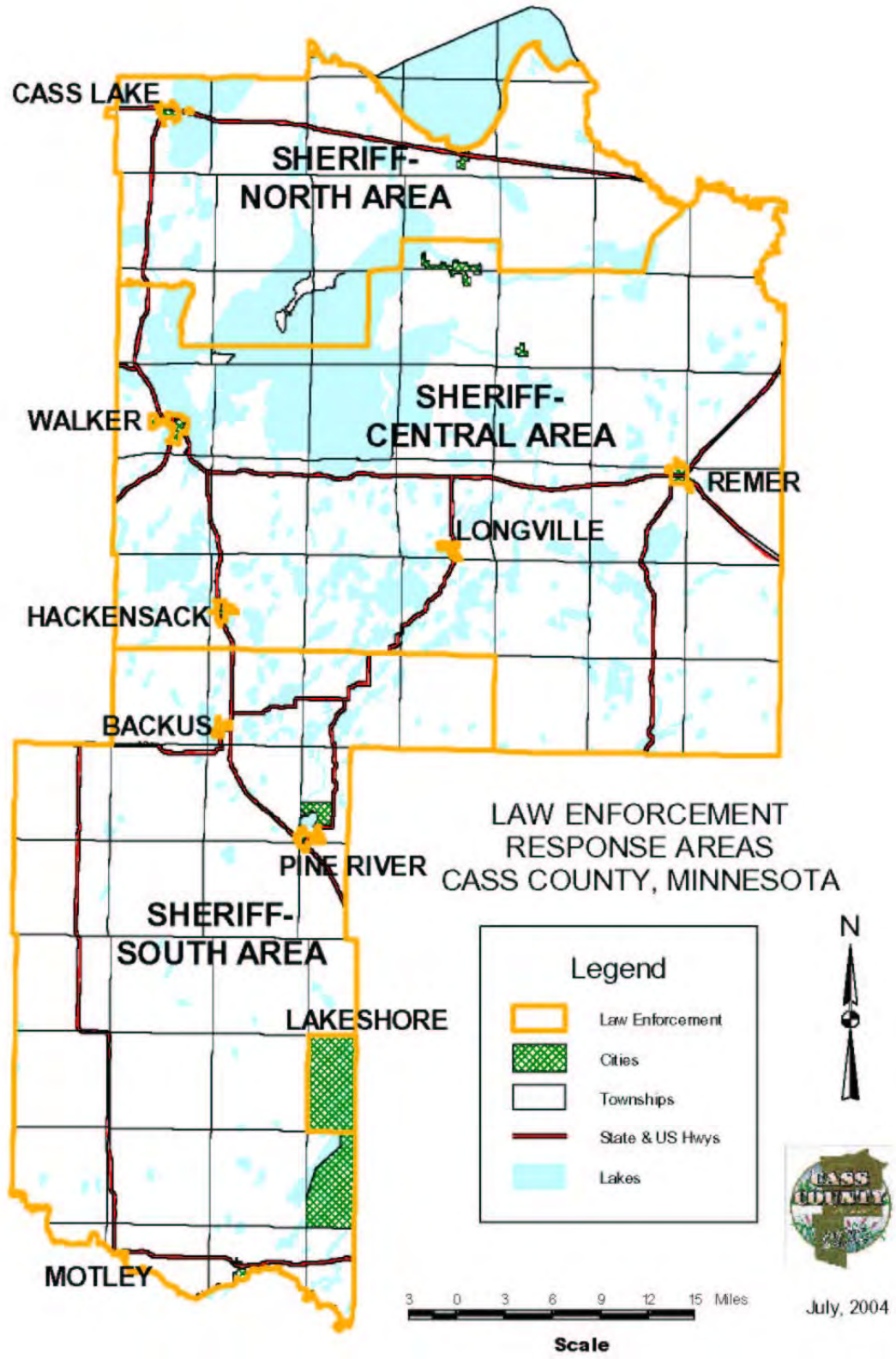


FIGURE 2-9: LAW ENFORCEMENT RESPONSE AREAS MAP



## 2.5.4 Historical Places

### **Historic areas listed in the National Register:**

Barrows vicinity, Crow Wing State Park, 2 miles SW of Barrows, on US 371;

Pillager vicinity: Chippewa Agency Historic District, east of Pillager;

Gull Lake Mounds Site, northeast of Pillager;

Hole-in-a-Day II Cabin Site, north of Pillager on northeast corner of Hole-in-the-Day Lake;

Rice Lake Hut Rings, north of Pillager.

### **Sites of historic importance:**

Barclay Trading Post, Wilson township, noted for exploration, settlement and commerce;

Battle Point, Leech Lake, last Indian-white battleground.

Beuber Lake Spur, Beuber Lake, noted for lumbering;

Cass County Courthouse, Walker, political affairs;

Chase Hotel, Walker, recreation, commerce, and architecture;

First Forest Nursery, Fairview Township, conservation;

Gull River, Sylvan Township, lumbering;

Steamboat-Leech Lake Logging Bridge, Steamboat-Leech Lake Narrows, engineering and transportation;

Log School, Walker, education;

Lothrop, Turtle Lake Township, lumbering;

Margaret Lake Spur and Landing, Lake Shore Township, lumbering;

Pillager Trestle Bridge, Sylvan Township, engineering;

Pine River Logging Dams District, South Fork Pine River, lumbering.

### 2.5.5 Hazardous Material Facilities

A Minnesota Department of Health survey estimates Cass County may contain as many as 30,000 abandoned wells. Location of county's abandoned wells is not known, although abandoned homesteads and communities are likely sites. These wells are likely connections between surface and ground water and may be conduits for contamination.

The MPCA reports 707 underground storage tanks (generally in excess of 1,500 gallons) in Cass County..

Emergency Response Commission

#### Hazardous Waste Generators

##### Feedlots and Manure Pits

A recently completed level II feedlot inventory indicates that there are 35 livestock operations in the County that meet the definition of a feedlot according to the Cass County Feedlot Ordinance and Minnesota Rules, Chapter 7050. This is down from 116 feedlots in 1991. There were also 112 livestock operations, mainly beef feeders that were inventoried, but did not meet the definition, largely because they have animals on pasture and had no areas where animals were concentrated for long periods of time. Pollution potential is assessed according to MPCA standards that consider animal type, herd size, watershed characteristics, and distance to the receiving water.

## 2.6 Infrastructure

### 2.6.1 Solid Waste

There are no operating municipal solid waste (msw) landfills Cass County. Local haulers deliver msw to the county transfer station located near Pine River. At the transfer station the msw is consolidated and loaded into trailers. The msw is hauled, under contract to Waste Management Inc., for disposal to a landfill located in Sherburne County, Minnesota or to a landfill located in Sargent County, North Dakota.

The three county landfills have been closed to MPCA specifications since 1988. The Maple Sanitary Landfill (SW-33), located in Section 13 of Maple Township was closed in 1986. The Longville-Remer Area Landfill (SW-169), located in Section 12 of North Trelipe Township was closed in 1993. The Walker-Hackensack Area Landfill (SW-179), located in Section 6 of Birch Lake Township was closed in 1993.

The three facilities have been accepted into the MPCA Closed Landfill Program. The program is intended to ensure the proper closure and post-closure care of closed landfills in the state. MPCA permitted landfill that closed by 4/9/94 are eligible. Maple and Longville-Remer were issued Notices of Compliance and accepted in 1998. Walker-



Hackensack received Notice of Compliance and was accepted in 2000. The MPCA is responsible for any remaining cleanup, closure, and care of the facilities. Such care includes water quality monitoring, air quality monitoring, and maintenance. Additional information as well as individual annual reports on all closed facilities in the state can be obtained on the MPCA website at: [www.pca.state.mn.us](http://www.pca.state.mn.us).

#### Solid and Hazardous Waste Sites

The following municipal and township facilities are listed by the MPCA:

Closed according to MPCA standards:

- Backus City Dump (Section 32, Powers Township);
- Longville City Dump (Section 3, Wabedo Township);
- Thunder Lake Township Dump (Section 4, Thunder Lake Township).

Closed:

- Ah-Gwah-Ching Dump (Section 34, North Shingobee Township);
- Bena City Dump (Section 3, Part of Unorganized #5 T.144 N, R.28W);
- Boy River City Dump (Section 29, Boy River Township);
- Cass Lake City Dump (Section 15, Township 145N, Range 31W).
- Crooked Lake Township Dump (Section 30, Crooked Lake Township);
- Boy River City Dump (Section 29, Boy River Township);
- Bena City Dump (Section 3, Part of Unorganized #5 T.144 N, R.28W);
- Federal Dam City Dump (Section 2, Part of Unorganized #4 T.143N, R. 28W).
- Hackensack City Dump (Section 20, Birch Lake Township);
- Hiram Township Dump (Section 21, Hiram Township);
- Lake Shore City Dump (Section 19, City of Lake Shore);
- Pillager City Dump (Section 16, West Sylvan Township);
- Pine Lake Township Dump (Section 20, Pine Lake Township);
- Remer City Dump (Section 12, Remer Township).
- Walker City Dump (Section 27, City of Walker).
- Woodrow Township Dump (Section 15, Woodrow Township);

A Minnesota Superfund Hazardous Waste site is located at the St. Regis Industrial Site in the City of Cass Lake. Wastewater sludge, created during a wood treatment process, was placed in the in the Cass Lake dump. This placement caused groundwater contamination from the sludge. Groundwater is currently pumped out and treated with carbon filters and then discharged into Pike Bay. The resulting sludge is encapsulated on site with clay; the entire site is monitored on a quarterly basis. Additional information is available from the MPCA.

## Underground Storage Tanks Inventory

Table 2-4: Underground Storage Tanks by Material Stored

<b><u>Type</u></b>	<b><u>Number</u></b>
Gasoline	436
Diesel	101
Fuel Oil	120
Waste Oil	26
Chemical or Other Substance	<u>24</u>
Total	707

Table 2-5: Underground Storage Tanks by Status

<b><u>Status</u></b>	<b><u>Number</u></b>
Active	275
Closed	20
Removed	390
Reconditioned	<u>22</u>
Total	707

Source: MPCA

FIGURE 2-10: PIPELINES MAP

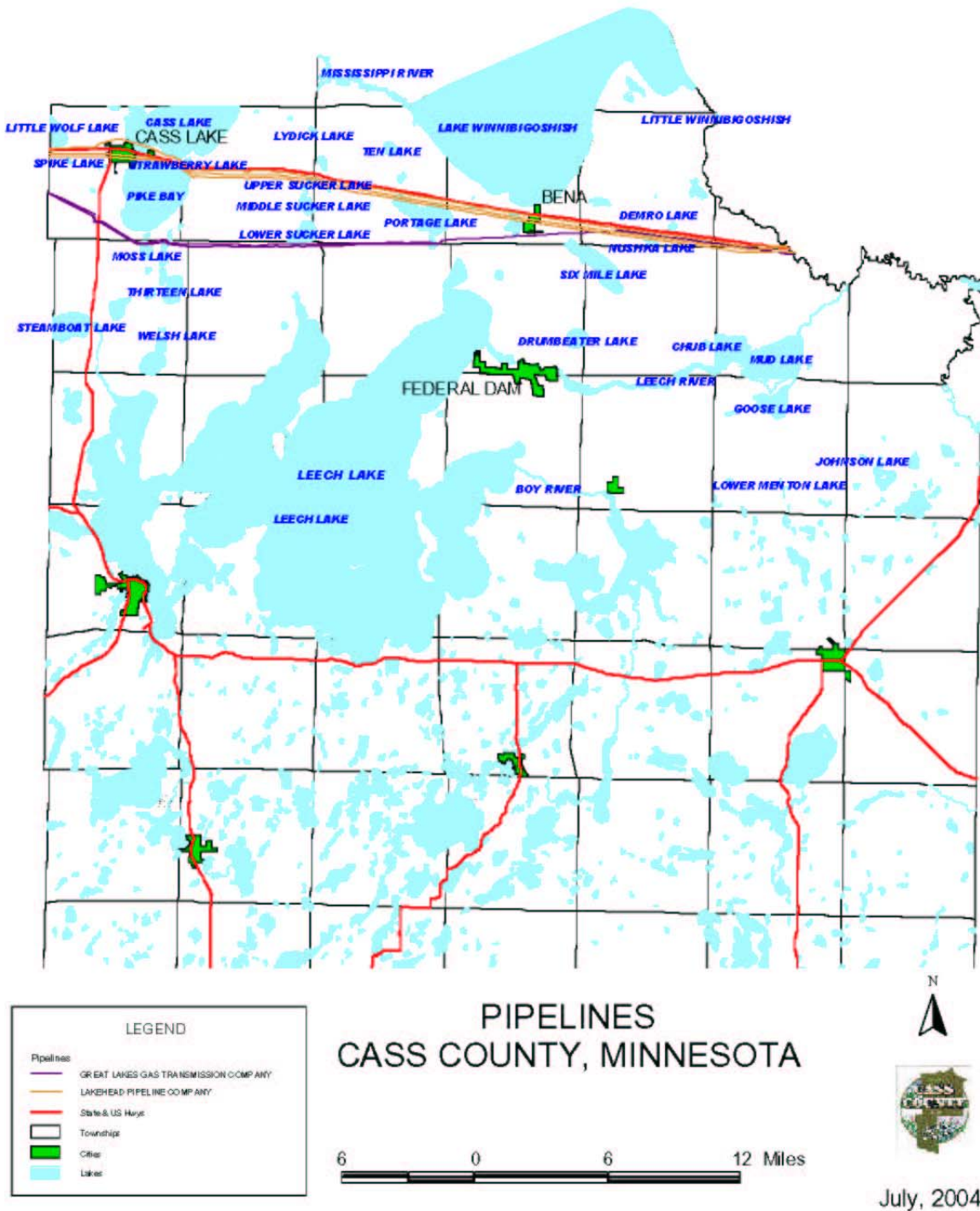
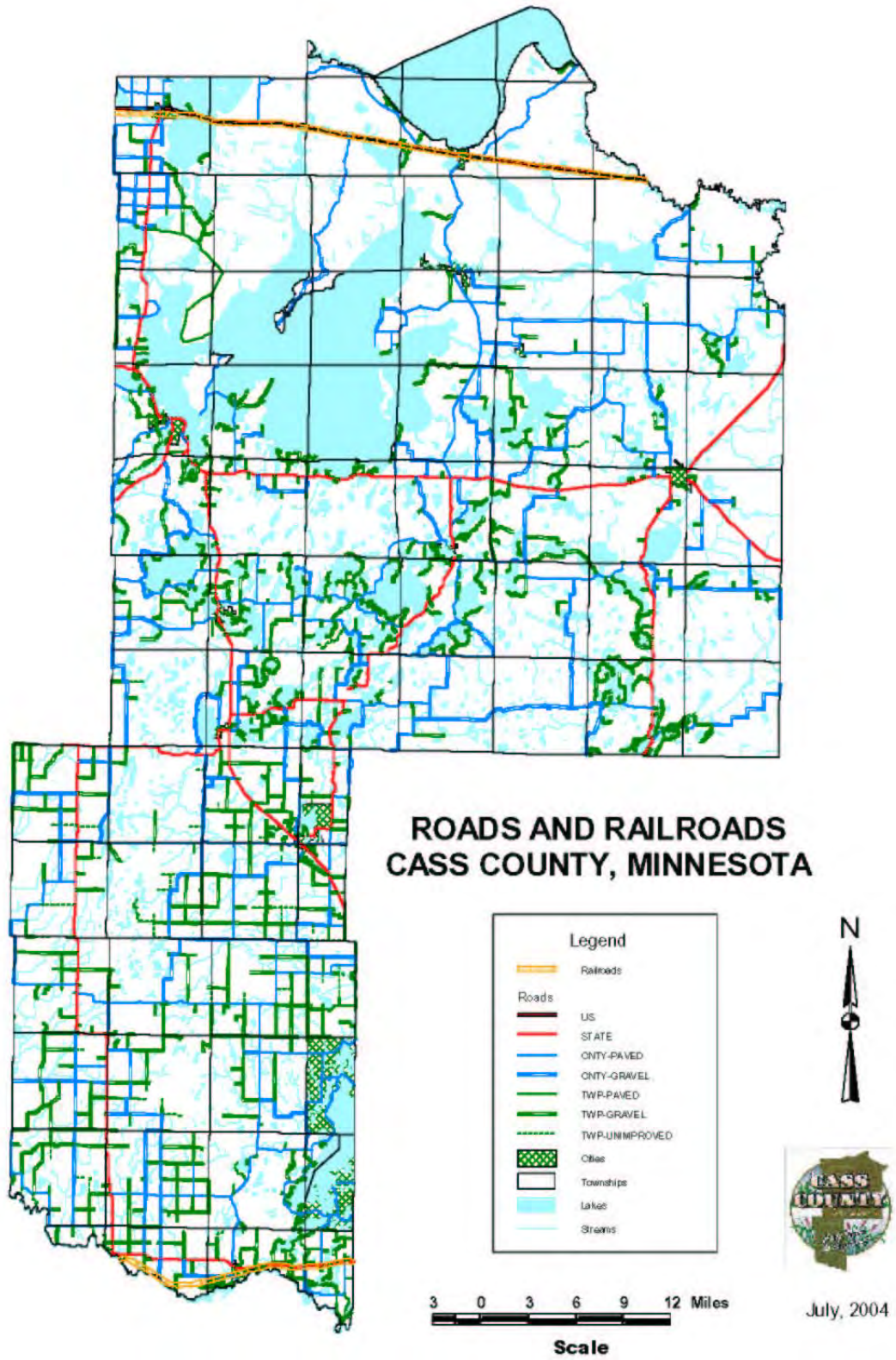


FIGURE 2-11: ROADS AND RAILWAYS MAP



2.6.4 Waterworks

Table 2-5: Public Wastewater Treatment Plants Inventory

<a href="#">NPDES ID</a>	<a href="#">FACILITY NAME</a>	<a href="#">ADDRESS</a>	<a href="#">COUNTY NAME</a>	<a href="#">PERMIT ISSUED DATE</a>	<a href="#">PERMIT EXPIRED DATE</a>	<a href="#">SIC CODE SIC DESC</a>
<a href="#">MN0024589</a>	2000 WASTEWATER IMPROV. CONTRACT 2	LOT 1, SEC 7, T141N, R25W REMER, MN 56672	CASS	SEP-26-2000	AUG-31-2005	4952 SEWERAGE SYSTEMS
<a href="#">MN0051900</a>	BACKUS	112 SOUTH KING STREET BACKUS, MN 564350044	CASS	SEP-09-1998	JUL-31-2003	4952 SEWERAGE SYSTEMS
<a href="#">MNL051900</a>	BACKUS	CITY HALL BACKUS, MN 56435	CASS			4952 SEWERAGE SYSTEMS
<a href="#">MN0049981</a>	CASS LAKE WWTP	14498 61ST AVE NW CASS LAKE, MN 56633	CASS	JUL-30-1999	JUN-30-2004	4952 SEWERAGE SYSTEMS
	EAST GULL LAKE		CASS			4952 SEWERAGE SYSTEMS
<a href="#">MNL053490</a>	HACKENSACK	CITY HALL HACKENSACK, MN	CASS			4952 SEWERAGE SYSTEMS
<a href="#">MN0053490</a>	HACKENSACK WASTEWATER TREATMENT PLANT	BIRCH LAKE TOWNSHIP ROAD 25 HACKENSACK, MN 56452	CASS	DEC-10-1999	OCT-31-2004	4952 SEWERAGE SYSTEMS
<a href="#">MNL046655</a>	LONGVILLE	CITY HALL LONGVILLE, MN	CASS			4952 SEWERAGE SYSTEMS
<a href="#">MN0046655</a>	LONGVILLE WASTEWATER TREATMENT PLANT	248 POND LANE LONGVILLE, MN 56655-0217	CASS	JAN-22-2002	DEC-31-2006	4952 SEWERAGE SYSTEMS
<a href="#">MN0063690</a>	MINN BAPTIST CONFERENCE TROUT LAKE CAMP	10173 TROUT LAKE DRIVE PINE RIVER, MN 56474	CASS	MAR-17-2003	FEB-29-2008	7032 SPORTING AND RECREATIONAL CAMPS

<a href="#">MNG490026</a>	NORTHERN IMPROVEMENT CO	SEE LOCATION DESCRIPTION PINE RIVER, MN 56474	CASS	OCT-23-2003	SEP-30-2006	2951 ASPHALT PAVING MIXTURES AND BLOCKS
<a href="#">MNL048909</a>	PILLAGER	CITY HALL PILLAGER, MN	CASS			4952 SEWERAGE SYSTEMS
<a href="#">MN0048909</a>	PILLAGER WWTP	COUNTY ROAD 101 PILLAGER, MN 56473	CASS	MAY-18-2001	APR-28-2006	4952 SEWERAGE SYSTEMS
<a href="#">MN0046388</a>	PINE RIVER AREA SANITARY DISTRICT	2567 24TH AVENUE SOUTHWEST PINE RIVER, MN 56474	CASS	SEP-24-2002	AUG-31-2007	4952 SEWERAGE SYSTEMS
<a href="#">MNL046388</a>	PINE RIVER AREA SD	P.O. BOX 354 PINE RIVER, MN	CASS			4952 SEWERAGE SYSTEMS
<a href="#">MNL024589</a>	REMER	SEC 7, T141N, R25W REMER, MN	CASS			4952 SEWERAGE SYSTEMS
<a href="#">MN0063487</a>	USCOE LEECH LAKE REC AREA WWTP	1217 FEDERAL DAM DRIVE NORTHEAST FEDERAL DAM, MN 56641-6700	CASS	APR-12-2004	MAR-31-2009	4952 SEWERAGE SYSTEMS
<a href="#">MN0052701</a>	USDA NORWAY BEACH CAMPGROUND	FOREST ROUTE 2171 CASS LAKE, MN 56633	CASS	SEP-30-1994	SEP-30-1999	7033 RECREATIONAL VEHICLE PARKS AND CAMPSITES
<a href="#">MNL041157</a>	WALKER	CITY HALL WALKER, MN 56484	CASS			4952 SEWERAGE SYSTEMS
<a href="#">MN0041157</a>	WALKER WASTEWATER TREATMENT PLANT	2ND STREET NORTH WALKER, MN 56484	CASS	JUN-27-2001	MAY-31-2006	4952 SEWERAGE SYSTEMS

Table 2-6: Public Water Supply Systems Inventory

<u>Water System Name</u>	<u>Principal County Served</u>	<u>Pop. Served</u>	<u>Primary Water Source Type</u>	<u>System Status</u>	<u>Date Closed</u>	<u>Water System ID</u>
AH GWAH CHING CENTER	CASS	400	Ground water	Active		MN1110001
BACKUS	CASS	311	Ground water	Active		MN1110002
CASS LAKE	CASS	860	Ground water	Active		MN1110006
HACKENSACK	CASS	285	Ground water	Active		MN1110008
PILLAGER	CASS	420	Ground water	Active		MN1110030
PINE RIVER	CASS	928	Ground water	Active		MN1110019
REMER	CASS	372	Ground water	Active		MN1110011
SHINGOBEE ISLAND	CASS	30	Ground water	Active		MN1110032
WALKER	CASS	1064	Ground water	Active		MN1110013
BENA WATER SUP	CASS	25	Ground water	Closed	12/1/92	MN1110020
BUG-O-NAY-GE-SHING SCHOOL	CASS	25	Ground water	Closed	12/1/92	MN1110026
CASS LAKE WEST HOUSING	CASS	25	Ground water	Closed	12/1/92	MN1110024
HENRI'S MOBILE HOME PARK	CASS	25	Ground water	Closed	3/1/96	MN1110012
KAGO LAKE	CASS	25	Ground water	Closed	12/1/92	MN1110029
LEECH LAKE TRACT 33	CASS	25	Ground water	Closed	12/1/92	MN1110023
LONGVILLE	CASS	232	Ground water	Closed	9/1/97	MN1110031
OLD AGENCY CWS	CASS	25	Ground water	Closed	12/1/92	MN1110027
PLANTATION WAT SUP	CASS	25	Ground water	Closed	12/1/92	MN1110022
SQUAW POINT HOUSING	CASS	25	Ground water	Closed	12/1/92	MN1110025
SUGAR POINT WAT SUP	CASS	25	Ground water	Closed	12/1/92	MN1110021
WEST SIDE ACRES CWS	CASS	25	Ground water	Closed	12/1/92	MN1110028

## 2.7 Demographic Profiles

### 2.7.1 Population & Housing

#### Population

	Number	Percent %
1970	17,323	
1980	21,050	
1990	21,791	
2000	27,150	
2002	27,825	
Percent of Change 1990-2000	5,359	24.59
Percent of Change 1970-2000		56.73
65 and Over of 2000 Population	4,899	18.04
85 and Over of 2000 Population	199	1.84

#### Population By Race

	Number	Percent %
White	23,490	86.50
Black or African American	31	0.10
American Indian or Alaska Native	3,110	11.50
Asian	76	0.30
Native Hawaiian and Other Pacific Islanders	6	0.02
Other Single Race	38	0.10
Two or More Races	399	1.50
Total	27,150	100.00
Hispanic or Latino Total	220	0.81

#### Population Projections

	Number	Percent %
2005	30,390	
2010	33,620	
2015	36,940	
2020	40,040	
2025	42,850	
2030	45,300	
Percent change 2005-2030		66.90

#### Housing

	Number	Percent %
Number of Households	10,893	
Persons per Household	2.45	
Number of Housing Units	21,286	



Vacant Units Non Seasonal	811	3.81
Vacant Units Seasonal	9,582	45.02
Owner Occupied Units	9,358	43.96
Renter Occupied Units	1,535	7.21

### Age of Housing

	Number	Percent %
Built 1999 to March 2000	637	2.99
Built 1995 to 1998	1,913	8.98
Built 1990 to 1994	1,992	9.36
Built 1980 to 1989	3,735	17.56
Built 1970 to 1979	4,554	21.39
Built 1960 to 1969	2,777	13.05
Built 1950 to 1959	1,987	9.33
Built 1940 to 1949	1,537	7.22
Built 1939 and Earlier	2,154	10.12
Total	21,286	100.00

### Heating Method

	Number	Percent %
Utility Gas	1,235	11.34
Bottled, tank, or LP gas	4,760	43.70
Electricity	1,796	16.49
Fuel Oil, kerosene, etc.	1,399	12.84
Coal or coke	5	0.05
Wood	1,630	14.96
Solar energy	0	0.00
Other fuel	45	0.41
No fuel used	23	0.21
Total	10,893	100.00

### Group Quarter

	Number	Percent %
Correctional institutions	43	9.93
Nursing Homes	74	17.09
Other institutions	11	2.54
College dormitories	0	0.00
Military quarters	0	0.00
Other non institutional group quarters	305	70.44
Total	433	100.00

## 2.7.2 Social Characteristics Tables

### Education Attainment

	Number	Percent %
No Schooling completed	75	0.40
Nursery to 4th grade	32	0.17
5th to 6th grade	89	0.48
7th to 8th grade	749	4.00
9th grade	373	1.99
10th grade	576	3.08
11th grade	573	3.06
12th grade, no diploma	547	2.92
High school graduate (include equivalency)	6,825	36.46
Some college, less than 1 year	1,596	8.53
Some college, 1 or more years, no degree	3,081	16.46
Associate degree	1,106	5.91
Bachelor's degree	2,132	11.39
Master's degree	612	3.27
Professional school degree	275	1.47
Doctorate degree	83	0.44
Total	18,721	100.00

### School Enrollment

	Number	Percent %
Enrolled in nursery school, preschool	391	5.96
Enrolled in kindergarten	349	5.23
Enrolled in grade 1 to grade 4	1,566	23.89
Enrolled in grade 5 to grade 8	1,795	27.38
Enrolled in grade 9 to grade 12	1,873	28.57
Enrolled in college, undergraduate years	509	7.76
Enrolled in graduate or professional school	73	1.11
Total	6,556	100.00

## 2.7.3 Economic Characteristics

### Economic Development

	Number
Average Income	42,627
Median Income	34,332
Per Capita Income	17,189
2000 Population	27,150
Total Income	466,680,500

### Per Capita Income History

	Number
1970	2,054
1980	4,930
1990	8,991
2000	17,189

### Median Income Distribution

	Number	Percent %
Less than \$10,000	1,203	11.07
\$10,000 to \$14,999	900	8.28
\$15,000 to \$19,999	878	8.08
\$20,000 to \$24,999	858	7.90
\$25,000 to \$29,999	881	8.11
\$30,000 to \$34,999	794	7.31
\$35,000 to \$39,999	740	6.81
\$40,000 to \$44,999	658	6.06
\$45,000 to \$49,999	603	5.55
\$50,000 to \$59,999	1,014	9.33
\$60,000 to \$74,999	1,025	9.43
\$75,000 to \$99,999	701	6.45
\$100,000 to \$124,999	288	2.65
\$125,000 to \$149,000	128	1.18
\$150,000 to \$199,999	81	0.75
\$200,000 or more	85	0.78
Total	10,864	100.00

### 2.7.4 Valuations

#### Market Values

Total County Estimated Market Value	3,463,639,000
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### 3.0 HAZARD ASSESSMENT AND HISTORICAL DATA

#### 3.1 Hazard Overview

The following is an assessment of the frequency of occurrence, historical impacts, and rankings of real and potential natural, human-caused, and technological hazards facing Cass County. The following data represents information gathered from public, local officials and staff, emergency response staff, and from state and federal agencies. This assessment is prepared utilizing the best possible data including frequency of occurrence, historical impacts, warning time, and areas affected to provide an analysis of for each hazard, however it is important to note that some inaccuracies and inconsistencies may exist within the data. For this reason, there is no warranty or guarantee as to accuracy or completeness of any data contained in Section 3.0, neither implied nor expressed.

##### 3.1.1 Risk Assessment

Where possible, an individual risk assessment is provided for each sector created for the purposes of this plan. If the risk assessment is applied to any or all sectors within Cass County the sectors by which the potential hazard is identified within are identified in the left margin of each risk assessment table provided. To quantify risk assessment information gathered for each identified hazard, color coding is used according to the following:

<b>Frequency</b>	
<b>Future timeframe event most likely to occur</b>	
4: Highly Likely	Likely to occur in less than one year
3: Likely	Likely to occur in next ten years
2: Occasional	Likely to occur in next 100 Years
1: Unlikely	Not likely to occur in next 100 years

<b>Warning</b>	
<b>Amount of warning time prior to hazard event occurring</b>	
4: Minimal	Less than 3 hours
3: 3-6 Hours	Three to six hours warning time
2: 6-12 Hours	Six to twelve hours warning time
1: 12+ Hours	Twelve or more hours warning time

<b>Impact</b>	
<b>Measures the perceived level of impact on the entire County</b>	
4: Substantial	Widespread injury, loss of life and property damage
3: Major	Significant property damage, great injury and loss of life
2: Minor	Limited property damage, minimal injury and loss of life
1: Limited	Cosmetic property damage, no loss of life, minimal injury

<b>Area</b>	
<b>Total land area of County effected including all cities and townships</b>	
4: Catastrophic	Over 50% of the county land area effected
3: Critical	25 to 50% of county land area effected
2: Limited	10 to 25% of county land area effected
1: Negligible	Less than 10% of county land area effected

<b>Duration</b>	
<b>Duration of hazard event limited to the event itself or length of time the event can cause injury to persons, loss of life, and/or potential property damage</b>	
More than 24 hours	One full day or longer period of time
12 to 24 hours	½ to a full day
1 to 12 hours	One to twelve hours time
Less than 1 hour	Less than one hour time

<b>Risk to Life/Injury and Risk to Property</b>	
<b>Measures the perceived risk to bodily harm or injury and/or property damage in the immediate proximity where the specific hazard occurs.</b>	
1: Very High	Total loss of life and over 50% property damage
2: High	Some loss of life, injury or 15% to 50% property damage
3: Limited	Very little loss of life, injury, and 5% to 15% property damage
4: Minimal	No loss of life, cosmetic property damage if any (5% Property Damage or Less)

### 3.1.2 Estimating Loss

Limited data currently exists to fully estimate the potential loss of each hazard presented throughout this plan. As this data becomes available, Cass County will provide more thorough loss estimations. The data provided below uses the best current data to provide the total dollar amounts for each township and city within the County further broken down by land, commercial building, residential building, and tax-exempt land and building values.

The table below provides values for all land values by township and city, as well as the values of all commercial and residential structures followed by a table showing the values of all tax exempt structures which are comprised largely of government-related facilities and infrastructure.

*Potential Dollar Loss by Township (Greatest Total Loss to Least Total Loss)  
(COM = Commercial Buildings, RES = Residential Buildings)*

<b>NAME</b>	<b>2004 LAND</b>	<b>2004 BLDG</b>	<b>2004 TOTAL</b>	<b>2004 COM BLDG</b>	<b>2004 RES BLDG</b>
Shingobee Twp	172,553,000	134,815,100	307,368,100	14,631,800	119,855,900
Woodrow Twp	155,371,800	135,693,500	291,065,300	6,362,900	128,881,100
Fairview Twp	129,070,800	85,688,600	214,759,400	2,836,000	82,754,500
Crooked Lake Twp	133,622,400	80,864,000	214,486,400	1,719,900	78,707,300
Wabedo Twp	135,949,700	64,236,500	200,186,200	2,269,700	61,610,800
Sylvan Twp	87,287,000	103,038,500	190,325,500	3,532,000	97,399,200
Hiram Twp	120,595,600	56,764,800	177,360,400	1,990,500	54,765,600
Turtle Lake Twp	96,286,800	59,676,900	155,963,700	10,451,300	49,146,600
Birch Lake Twp	97,502,000	57,206,400	154,708,400	4,346,000	51,707,700
Ponto Lake Twp	97,790,700	53,799,200	151,589,900	711,800	53,083,600
Kego Twp	89,983,700	58,822,700	148,806,400	2,479,600	56,343,100
Thunder Lake Twp	91,886,000	49,514,600	141,400,600	1,320,100	47,865,100
Powers Twp	68,589,000	61,475,300	130,064,300	3,439,100	58,013,300
Pine Lake Twp	64,070,700	29,307,500	93,378,200	2,049,200	27,246,700
Leech Lake Twp	43,769,700	32,954,700	76,724,400	4,200,400	28,427,400
Pine River Twp	30,479,500	41,070,500	71,550,000	1,744,200	38,951,000
Pike Bay Twp	19,546,700	45,338,200	64,884,900	4,963,500	19,820,100
May Twp	38,005,600	23,315,700	61,321,300	305,800	22,714,500
Boy Lake Twp	35,741,300	17,987,900	53,729,200	1,299,400	16,688,500
Trelipe Twp	30,969,400	20,069,200	51,038,600	16,000	19,684,100
Otter Tail Peninsula	34,975,300	12,617,700	47,593,000	1,113,600	7,181,200
Inguadona Twp	22,691,000	20,874,300	43,565,300	716,100	20,158,200
Loon Lake Twp	21,961,000	19,416,400	41,377,400	204,200	18,959,300
Rogers Twp	28,391,200	12,420,500	40,811,700	518,600	11,901,900

Barclay Twp	19,246,900	21,530,300	40,777,200	923,700	20,444,500
Becker Twp	23,717,100	15,402,000	39,119,100	118,800	14,532,800
Wilson Twp	16,324,500	22,378,200	38,702,700	3,929,000	18,195,500
Walden Twp	21,596,700	12,673,600	34,270,300	351,000	12,167,100
Gould Twp	20,688,900	9,051,000	29,739,900	845,900	8,189,100
Maple Twp	20,601,600	8,750,800	29,352,400	11,600	8,597,800
Wilkinson Twp	18,064,700	9,844,700	27,909,400	417,900	8,508,400
Torrey Twp	13,554,600	10,818,000	24,372,600	94,900	10,723,100
Slater Twp	11,471,600	11,876,200	23,347,800	672,700	10,853,300
Homebrook Twp	16,381,100	5,203,300	21,584,400	160,300	4,851,600
Meadowbrook Twp	14,716,100	5,846,700	20,562,800	226,400	5,604,400
McKinley Twp	15,407,400	2,307,700	17,715,100	5,900	2,065,600
Byron Twp	14,113,400	3,269,400	17,382,800	44,600	3,155,700
Poplar Twp	14,236,800	3,069,400	17,306,200	4,200	2,995,700
Unorg 145-28	4,433,500	12,599,800	17,033,300	1,146,100	1,898,500
Unorg 143-30	12,070,600	4,247,000	16,317,600		4,247,000
Deerfield Twp	8,895,200	6,137,500	15,032,700	153,000	5,920,600
Blind Lake Twp	8,846,700	4,986,100	13,832,800		3,789,600
Bungo Twp	10,313,200	3,280,200	13,593,400	12,600	3,267,600
Smokey Hollow Twp	7,728,500	5,766,000	13,494,500	41,700	5,724,300
Ansel Twp	10,868,500	2,080,500	12,949,000	109,700	1,902,300
Beulah Twp	7,708,700	5,226,000	12,934,700	61,000	4,901,200
Moose Lake Twp	10,288,800	2,412,400	12,701,200	57,600	2,352,400
Unorg 145-29	3,748,900	8,051,900	11,800,800	444,500	1,796,700
Remer Twp	4,996,500	6,413,700	11,410,200	988,300	5,243,500
Unorg 142-29	6,774,600	2,935,200	9,709,800		2,935,200

Bull Moose Twp	6,681,500	2,928,400	9,609,900	4,100	2,568,300
Unorg 145-30	1,567,500	7,243,600	8,811,100	548,800	1,587,600
Unorg 145-27	406,700	6,787,000	7,193,700		
Wahnenaw Twp	4,172,800	2,828,600	7,001,400	500	2,703,500
Lima Twp	4,449,200	2,279,600	6,728,800	4,800	2,274,800
Salem Twp	4,084,700	2,576,400	6,661,100		2,298,100
Boy River Twp	4,596,700	1,658,300	6,255,000		1,500,100
Unorg 146-27	3,333,700	2,733,800	6,067,500	1,150,400	1,583,400
Unorg 146-29	1,598,900	3,408,000	5,006,900	2,193,900	1,214,100
Unorg 144-26	1,381,700	3,584,700	4,966,400		990,800
Unorg 142-25	2,194,800	1,854,500	4,049,300	5,900	1,848,600
Unorg 144-28	2,173,300	852,600	3,025,900	295,800	556,800
Unorg 145-26	571,000	1,834,700	2,405,700		
Unorg 144-27	993,700	848,900	1,842,600	495,400	353,500

*Potential Dollar Loss by City*

Lakeshore City	234,139,600	157,804,700	391,944,300	6,058,600	150,395,400
East Gull Lake City	181,752,200	155,830,300	337,582,500	23,518,300	130,257,100
Walker City	31,990,300	66,667,400	98,657,700	17,123,300	48,667,000
Pine River City	9,002,400	28,899,400	37,901,800	6,611,600	20,229,800
Longville City	12,706,600	17,595,300	30,301,900	5,286,000	11,735,400
Hackensack City	9,792,400	15,778,600	25,571,000	6,361,000	8,969,800
Pillager City	3,438,800	15,905,700	19,344,500	2,597,200	12,986,300
Chickamaw Beach City	8,769,100	9,331,700	18,100,800	69,400	9,123,600
Cass Lake City	2,476,200	13,590,900	16,067,100	4,766,100	8,049,400
Remer City	2,145,200	13,569,500	15,714,700	3,370,500	9,779,000
Backus City	4,593,300	8,162,900	12,756,200	737,700	6,998,200



Federal Dam City	4,399,200	5,571,200	9,970,400	325,500	5,209,600
Bena City	402,600	1,054,700	1,457,300	356,200	596,100
Motley City	498,700	447,200	945,900		447,200
Boy River City	306,500	593,900	900,400	70,000	502,700

*All Tax-Exempt Structure and Land Loss Estimate (Greatest Loss to Least Loss)*

<b>NAME</b>	<b>2004 EXEMPT BLDG</b>	<b>2004 TRIBAL BLDG</b>
Walker City	49,142,800	
Pine River City	41,774,600	
Cass Lake City	29,188,500	6,045,300
Shingobee Twp	28,270,400	41,335,000
Pike Bay Twp	26,567,600	42,357,000
Pillager City	16,950,200	
Remer City	12,892,000	
Woodrow Twp	8,919,100	
Powers Twp	8,487,500	
Hackensack City	7,025,300	
Longville City	6,701,800	
East Gull Lake City	4,274,100	
Backus City	3,860,800	
Pine River Twp	3,543,000	
Turtle Lake Twp	3,064,000	4,240,000
Birch Lake Twp	2,470,500	
May Twp	2,314,500	
Wabedo Twp	2,180,000	
Crooked Lake twp	1,919,900	
Wilson Twp	1,347,000	
Sylvan Twp	1,267,000	
Rogers Twp	1,131,200	86,800
Lakeshore City	1,123,200	
Leech Lake Twp	1,118,900	2,000,000
Unorg 145-28	1,110,000	420,000
Kego Twp	1,087,500	1,056,400
Unorg 144-28	1,000,000	20,000
Federal Dam City	728,100	
Fairview Twp	579,800	

Unorg 145-30	570,700		
Walden Twp	530,600		
Bena City	480,500		855,000
Boy River City	464,200		
Maple Twp	455,200		
Meadowbrook Twp	395,300		
Wilkinson Twp	312,800		290,000
Homebrook Twp	168,400		
Blind Lake Twp	149,600		
Ponto Lake Twp	138,200		
Torrey Twp	127,900		
Thunder Lake Twp	125,000		
Byron Twp	109,400		
Boy RiverTwp	91,800		110,000
Loon Lake Twp	89,100		
McKinley Twp	89,100		
Otter Tail Peninsula Twp	87,900		80,000
Boy Lake Twp	76,500		320,000
Pine Lake Twp	68,300		20,000
Slater Twp	60,000		
Becker Twp	50,000		
Hiram Twp	49,200		
Deerfield Twp	40,300		
Barclay Twp	36,600		
Chickamaw BeachCity	35,000		
Smokey Hollow Twp	27,400		
Bungo Twp	25,900		
Gould Twp	25,000		3,859,300
Remer Twp	25,000		
Moose Lake Twp	22,000		
Salem Twp	15,400		
Trelipe Twp	15,400		
Bull Moose Twp	12,000		
Ansel Twp	10,900		
Lima Twp			
Unorg 144-27			50,000
Unorg 146-27			2,000,000
Unorg 145-29			8,170,000
Unorg 143-30			400,000

## 3.2 Natural Hazards

### 3.2.1 SUMMER STORMS

#### TORNADO

A tornado is defined as a violently rotating column of air in contact with the ground and pendent from a cumulonimbus cloud. They can be categorized as "weak", "strong", and "violent"; with weak tornadoes often having a thin, rope-like appearance and rotating wind speeds no greater than about 110 MPH. The typical strong tornado often has what is popularly considered a more "classic" funnel-shaped cloud associated with the whirling updraft and rotating wind speeds varying from 110 to 200 MPH. Violent tornadoes are capable of leveling a well-anchored, solidly constructed home however less than 2 percent of all tornadoes nationwide reach the 200+ MPH violent category. Strong and violent tornadoes usually form in association with mesocyclones, a strong rotating updraft usually associated with a supercell, which tend to occur with the most intense events in the thunderstorm spectrum.

Tornadoes are most likely to occur within Cass County in the warm, humid months of May, June, July and August, however have occurred in Minnesota as early as March and as late as November. Most tornadoes occur during the warmest parts of the day, in the late afternoon and early evening with over 80% of tornadoes occurring between noon and midnight. The magnitude of tornadoes is measured according to the Fujita Scale, commonly known as the "F" Scale. This scale displays the magnitude of a particular tornado based on several criteria including amount of destruction, wind speeds, and other data collection after the affected area has been assessed. The Fujita Scale ranges from F0 to F5 with F0, known as a "gale tornado" being the lowest magnitude tornado and F5 being an "incredible tornado" however the scale depicts an "inconceivable tornado" assigning such event at an F6. No such event has ever been identified to date. Table 3.2 shows historical data on Cass County tornadoes obtained from the National Oceanic and Atmospheric Administration.

DATE	TIME	Location or Area	MAG	DTH	INJ	PrD	CrD
09/09/1964	2015	Unknown	F1	0	0	3K	0
06/14/1967	0100	Unknown	F1	0	0	25K	0
08/06/1969	1520	Unknown	F3	0	4	2.5M	0
08/06/1969	1610	Unknown	F4	12	70	2.5M	0
06/19/1971	1945	Unknown	F1	0	0	0K	0
07/02/1975	0130	Unknown	F1	0	0	25K	0
07/22/1976	1710	Unknown	F1	0	1	25K	0
06/27/1977	2152	Unknown	F1	0	0	0K	0
08/26/1977	1835	Unknown	F3	0	0	2.5M	0
08/26/1977	1915	Unknown	F2	0	0	25K	0
08/02/1981	1530	Unknown	F1	0	0	2.5M	0
08/18/1982	1755	Unknown	F1	0	0	3K	0

07/05/1991	1725	Unknown	F2	0	0	0K	0
07/05/1991	1835	Unknown	F1	1	0	0K	0
07/05/1991	1839	Unknown	F3	0	0	0K	0
TOTALS:				13	75	10.105M	0

Source: NOAA National Climatic Data Center (NCDC)

## THUNDERSTORMS AND SEVERE STORMS

Thunderstorms can occur anywhere in the world and at any time of the day, however in Cass County they are most likely to occur between the months of May and August. All thunderstorms produce lightning and thunder. Some have the potential to produce damaging straight-line winds, large hail, heavy rain, flooding, and tornadoes. A thunderstorm is classified as “severe” when it contains either singly, or a combination of hail 3/4" or greater, winds gusting in excess of 50 knots (57.5 mph), and/or tornado.

DATE	TIME	Location or Area	MAG	DTH	INJ	PrD	CrD
08/11/1970	1615		Unknown	0	0	0	0
06/15/1973	2330		Unknown	0	0	0	0
07/13/1973	1622		Unknown	0	0	0	0
07/13/1974	1715		Unknown	0	0	0	0
07/02/1975	0100		Unknown	0	0	0	0
07/22/1976	1830		Unknown	0	0	0	0
06/19/1979	1315		Unknown	0	0	0	0
06/04/1980	1710		Unknown	0	0	0	0
07/27/1980	1715		Unknown	0	0	0	0
06/28/1981	0813		Unknown	0	0	0	0
08/18/1982	1755		Unknown	0	0	0	0
08/21/1982	1930		Unknown	0	0	0	0
06/13/1983	1943		Unknown	0	0	0	0
07/02/1983	2300		Unknown	0	0	0	0
08/26/1983	0200		Unknown	0	0	0	0
08/28/1983	0053		Unknown	0	0	0	0
04/26/1984	1910		Unknown	0	0	0	0
04/27/1984	1010		Unknown	0	0	0	0
09/05/1985	2230		Unknown	0	0	0	0
07/04/1986	0000		Unknown	0	0	0	0
07/10/1987	2330		Unknown	0	0	0	0
07/22/1987	0210		Unknown	0	0	0	0
08/15/1987	1425			0	0	0	0
07/06/1988	1730		0 kts.	0	0	0	0
07/02/1989	2035		0 kts.	0	0	0	0
08/04/1989	0033		0 kts.	0	0	0	0

09/03/1989	1200		0 kts.	0	0	0	0
06/09/1991	1540		0 kts.	0	0	0	0
06/28/1991	1820		0 kts.	0	0	0	0
07/18/1991	1510		0 kts.	0	0	0	0
08/20/1992	2144		0 kts.	0	0	0	0
06/19/1994	2200	Cass Lake	N/A	0	0	0	0K
07/14/1995	0350	Lakeshore	N/A	0	0	0	0
06/28/1996	03:50 PM	Bena	70 kts.	0	0	0	0
06/29/1996	03:12 PM 03:30 PM	Bena Backus Lake Shore Pine River	50 kts. 70 kts. 50 kts. 50 kts.	0	0	0	0
08/21/1996	08:25 PM 08:50 PM	Backus Longville	61 kts. 50 kts.	0	0	0	0
07/13/1997	06:35 PM 06:35 PM	Hackensack Longville	70 kts. 55 kts.	0	0	0	0
09/01/1997	02:00 AM	MNZ025	61 kts.	0	0	0	0
10/08/1997	09:50 PM 10:08 PM	Walker Remer	55 kts. 50 kts.	0	0	0	0
05/18/1998	07:55 PM	Remer	55 kts.	0	0	0	0
06/01/1998	03:37 PM	Hackensack	52 kts.	0	0	0	0
06/27/1998	11:33 PM	Remer	52 kts.	0	0	0	0
07/14/1998	01:42 PM	Remer	50 kts.	0	0	0	0
08/16/1998	07:15 PM 07:50 PM 08:13 PM 08:23 PM	Walker Remer Longville Remer	70 kts. 50 kts.	0	0	0	0
06/09/1999	05:40 PM 05:45 PM 05:50 PM	Longville Whipholt Walker	50 kts.	0	0	0	0
07/04/1999	08:59 AM	Walker	61 kts.	0	0	0	0
07/22/1999	11:15 PM	Pillager	50 kts.	0	0	0	0
07/25/1999	04:08 PM	Cass Lake	50 kts.	0	0	0	0
08/14/2000	02:00 PM 10:00 AM 10:32 AM 11:55 AM 12:30 PM	Outing Walker Longville Pine River Remer	60 kts. 60 kts. 50 kts. 60 kts. 50 kts.	1	0	0	0
05/15/2001	04:34 PM	Pine River	60 kts.	0	0	0	0
06/11/2001	01:00 PM	Pillager	60 kts.	0	0	0	0
07/17/2001	07:25 PM 07:25 PM 08:35 PM 09:13 PM	Lake Shore Pillager Bena Remer	52 kts.	0	0	0	0

08/08/2001	02:30 AM 03:08 PM 10:26 PM	Walker Longville Longville	50 kts. 52 kts. 52 kts.	0	0	0	0
08/29/2001	06:35 PM	Backus	50 kts.	0	0	0	0
04/16/2002	09:30 PM	Remer	50 kts.	0	0	0	0
06/14/2002	06:15 PM	Cass Lake	50 kts.	0	0	0	0
06/24/2002	10:00 PM	Walker	50 kts.	0	0	0	0

Source: NOAA National Climatic Data Center (NCDC)  
<http://www4.ncdc.noaa.gov/cgi-win/wwcgi.dll?wwevent~storms>

## LIGHTNING

Lightning occurs when there is a build up and discharge between positive and negative charges within a cloud, two clouds, cloud to air, or between a cloud and the ground. When this difference becomes great enough a lightning bolt strikes. Lightning presents a danger as it is present in all thunderstorms, however approximately 80% of all lightning activity occurs within a cloud, from cloud to air, and cloud to cloud.

## HAIL STORM

Also the product of a thunderstorm, hail is formed when water droplets are carried through thunderstorm updrafts to the freezing regions of the cloud. The droplets are then pushed through the updrafts and downdrafts of the cloud mixing with other water droplets until a pellet of ice is formed that can no longer be supported by the updrafts. When this occurs the ice pellets or hailstones fall to the ground. Most hail in Minnesota ranges in size from pea size to golf ball size however larger hailstones have been reported on a more infrequent basis. Table 000 displays NOAA information on hailstorm activity with a magnitude of at least .75 inch hail within Cass County since 1962.

DATE	LOCATION	TIME	MAG
05/18/1959	Unknown	1542	2.00 in.
05/05/1964	Unknown	1300	1.25 in.
08/27/1964	Unknown	1830	2.25 in.
08/24/1974	Unknown	1730	1.00 in.
07/02/1975	Unknown	0130	1.50 in.
04/15/1976	Unknown	1915	1.75 in.
07/22/1976	Unknown	1710	1.75 in.
07/22/1976	Unknown	1830	1.50 in.
08/18/1982	Unknown	1755	1.75 in.
04/26/1984	Unknown	1930	1.75 in.
04/26/1984	Unknown	1930	1.75 in.
07/03/1985	Unknown	1715	1.75 in.
09/05/1985	Unknown	2240	1.00 in.
08/15/1987	Unknown	1312	1.75 in.
05/24/1989	Unknown	1125	1.75 in.

07/07/1990	Unknown	1740	1.75 in.
09/13/1990	Unknown	1606	1.75 in.
06/28/1991	Unknown	1855	0.75 in.
08/20/1992	Unknown	2200	0.75 in.
07/01/1996	Whipholt	05:05 PM	1.00 in.
07/11/1996	Pillager	05:25 PM	0.75 in.
07/14/1996	Leech Lake	02:03 PM	1.75 in.
07/21/1996	Motley	07:15 PM	0.75 in.
09/10/1996	Bena	10:37 AM	1.75 in.
05/14/1998	Bena	02:55 AM	1.00 in.
05/18/1998	Longville	07:32 PM	0.75 in.
06/01/1998	Longville	02:50 PM	0.75 in.
	Walker	03:23 PM	0.88 in.
	Longville	03:25 PM	1.50 in.
	Hackensack	03:37 PM	1.00 in.
	Walker	03:55 PM	0.75 in.
	Walker	04:00 PM	1.25 in.
07/14/1998	Hackensack	05:08 PM	0.75 in.
	Longville	02:00 PM	1.25 in.
	Backus	03:00 PM	1.00 in.
	Hackensack	03:00 PM	1.50 in.
09/25/1998	Pillager	11:42 PM	1.00 in.
06/04/1999	Cass Lake	10:12 PM	0.88 in.
06/06/1999	Hackensack	02:35 PM	0.75 in.
	East Gull Lake	03:30 PM	1.75 in.
	Longville	03:30 PM	1.25 in.
	Hackensack	04:15 PM	2.00 in.
06/26/1999	Walker	08:46 AM	0.75 in.
07/13/1999	Backus	05:15 PM	1.00 in.
	Pine River	06:02 PM	
07/27/1999	Cass Lake	04:52 PM	0.75 in.
08/08/2000	Longville	10:49 AM	1.50 in.
	Remer	11:06 AM	0.75 in.
08/14/2000	Bena	01:22 PM	0.75 in.
	Remer	02:02 PM	0.75 in.
	Walker	10:15 AM	1.75 in.
	Longville	10:37 AM	1.75 in.
	Pine River	11:55 AM	0.88 in.
	Walker	12:27 PM	0.88 in.
	Longville	12:45 PM	1.00 in.
05/15/2001	Backus	04:29 PM	0.75 in.
	Pine River	04:34 PM	1.50 in.
07/17/2001	Cass Lake	04:20 PM	0.75 in.
	Walker	08:23 PM	0.75 in.
	Bena	08:35 PM	1.75 in.

08/08/2001	Remer	03:21 PM	0.75 in.
08/18/2001	Bena	04:38 PM	1.75 in.
04/16/2002	Cass Lake	08:55 PM	0.88 in.
06/14/2002	Longville	06:20 PM	0.75 in.
08/11/2002	Walker	02:25 PM	1.00 in.
09/02/2002	Leader	08:17 AM	2.50 in.
06/28/2003	Outing	04:57 PM	1.75 in.
07/02/2003	Walker	04:40 PM	1.75 in.
	Remer	05:30 PM	0.88 in.
	Longville	05:45 PM	0.88 in.
07/14/2003	Hackensack	04:20 PM	1.00 in.
	Longville	04:34 PM	1.25 in.
	Outing	05:15 PM	1.75 in.
07/19/2003	Longville	11:41 AM	0.75 in.
07/30/2003	Walker	10:49 AM	1.00 in.

Source: NOAA National Climatic Data Center (NCDC)  
<http://www4.ncdc.noaa.gov/cgi-win/wwcgi.dll?wwevent~storms>

### History

Cass County has experienced strong thunderstorms in the past which have spawned disastrous tornadoes and straight-lined winds. This thunderstorm activity has spawned many of the natural hazards addressed within this plan including tornadoes, lightning, hail, and strong winds, each of which are addressed within this plan.

### Tornadoes:

For the most part, historical data shows tornado activity within Cass County has caused significant property damage, but limited loss of life and injury. In 1969 however, a very large F4 tornado caused significant loss of life and injury to persons as well as millions of dollars in property damage.

### Lightning:

Lightning remains one of the most unpredictable natural hazards within Cass County. Historical data shows limited reports of property damage or injury

### Hail:

Limited data exists on damage or injury associated with past hail activity within Cass County, however this particular hazard poses a much greater risk to property and crop damage than injury or death.



*Risks and Vulnerabilities*

**Table 3-1NA Tornadoes**

Sector	Frequency	Warning Time	Impact	Area	Duration	Life/Injury	Property
N01	4: Highly Likely	4: Minimal	4: Substantial	1: Negligible	2: 1 to 12 hours	3: High	3: High
N02	4: Highly Likely	4: Minimal	4: Substantial	1: Negligible	2: 1 to 12 hours	3: High	3: High
N03	4: Highly Likely	4: Minimal	4: Substantial	1: Negligible	2: 1 to 12 hours	3: High	3: High
N04	4: Highly Likely	4: Minimal	4: Substantial	1: Negligible	2: 1 to 12 hours	3: High	3: High
N05	4: Highly Likely	4: Minimal	4: Substantial	1: Negligible	2: 1 to 12 hours	3: High	3: High
N06	4: Highly Likely	4: Minimal	4: Substantial	1: Negligible	2: 1 to 12 hours	3: High	3: High
N07	4: Highly Likely	4: Minimal	4: Substantial	1: Negligible	2: 1 to 12 hours	3: High	3: High
N08	4: Highly Likely	4: Minimal	4: Substantial	1: Negligible	2: 1 to 12 hours	3: High	3: High

**Table 3-2NA Thunder/Lightening Storms**

Sector	Frequency	Warning Time	Impact	Area	Duration	Life/Injury	Property
N01	4: Highly Likely	3: 3-6 hrs	2: Minor	1: Negligible	2: 1 to 12 hours	1: Minimal	1: Minimal
N02	4: Highly Likely	3: 3-6 hrs	2: Minor	1: Negligible	2: 1 to 12 hours	1: Minimal	1: Minimal
N03	4: Highly Likely	3: 3-6 hrs	2: Minor	1: Negligible	2: 1 to 12 hours	1: Minimal	1: Minimal
N04	4: Highly Likely	3: 3-6 hrs	2: Minor	1: Negligible	2: 1 to 12 hours	1: Minimal	1: Minimal
N05	4: Highly Likely	3: 3-6 hrs	2: Minor	1: Negligible	2: 1 to 12 hours	1: Minimal	1: Minimal
N06	4: Highly Likely	3: 3-6 hrs	2: Minor	1: Negligible	2: 1 to 12 hours	1: Minimal	1: Minimal
N07	4: Highly Likely	3: 3-6 hrs	2: Minor	1: Negligible	2: 1 to 12 hours	1: Minimal	1: Minimal
N08	4: Highly Likely	3: 3-6 hrs	2: Minor	1: Negligible	2: 1 to 12 hours	1: Minimal	1: Minimal

**Table 3-3NA Hailstorms**

Sector	Frequency	Warning Time	Impact	Area	Duration	Life/Injury	Property
N01	3: Likely	1: 12+ hrs	2: Minor	4: Catastrophic	1: Less than 1 hour	1: Minimal	2: Limited
N02	3: Likely	1: 12+ hrs	2: Minor	4: Catastrophic	1: Less than 1 hour	1: Minimal	2: Limited
N03	3: Likely	1: 12+ hrs	2: Minor	4: Catastrophic	1: Less than 1 hour	1: Minimal	2: Limited
N04	3: Likely	1: 12+ hrs	2: Minor	4: Catastrophic	1: Less than 1 hour	1: Minimal	2: Limited
N05	3: Likely	1: 12+ hrs	2: Minor	4: Catastrophic	1: Less than 1 hour	1: Minimal	2: Limited
N06	3: Likely	1: 12+ hrs	2: Minor	4: Catastrophic	1: Less than 1 hour	1: Minimal	2: Limited
N07	3: Likely	1: 12+ hrs	2: Minor	4: Catastrophic	1: Less than 1 hour	1: Minimal	2: Limited
N08	3: Likely	1: 12+ hrs	2: Minor	4: Catastrophic	1: Less than 1 hour	1: Minimal	2: Limited

*Plans, Programs and Policies*

- National Weather Service storm monitoring activities
- NOAA Weather Radio
- Severe Weather Shelters

- Severe Weather Alert System
- Local Building Codes and Standards
- Infrastructure Improvements

### 3.2.2 FLOODING AND FLASH FLOODING

Flooding is the overflowing of water onto land areas that are normally dry. For the most part flooding can be predictable however flood events may be unpredictable in such cases as dam or levee failure or flash flooding. In working with floodplain management, the Federal Emergency Management Agency uses the “100-year Flood.” The 100-year flood is a delineated area of land where at least a one percent (1%) chance of future flooding exists. With this amount of uncertainty, a 100-year flood event could occur more often than once in 100 years. The 100-year floodplain standard is commonly used by federal, state, and local agencies, as well as the National Flood Insurance Program (NFIP) as the standard for floodplain management. No County-wide floodplain mapping exists for Cass County, however such 100-year flood mapping does exist for the Cities of Pillager, Motley, Remer, and Boy River. These maps are located within Appendix D of this plan.

A flash flood is a rapid rise along a stream or low-lying urban area due to rain, levee or dam failure, rapid snowmelt, ice jams and similar causes. Flash flooding can also occur when slow moving or multiple thunderstorms occur over the same area. The effect of a flash flood is often greater in areas with inadequate storm sewers and storm drainage systems. Table 3-4 displays historical data on flooding within Cass County on file with the NOAA.

#### History

DATE	LOCATION	TIME	TYPE
04/06/1997	Mississippi River	04:50 PM	Flood

\*Source: NOAA

#### Risks and Vulnerabilities

**Table 3-4NA (Part One) Flooding**

Sector	Frequency	Warning Time	Impact	Area	Duration	Life/Injury	Property
N01	4: Highly Likely	3: 3-6 hrs	2: Minor	2: Limited	3: 12 to 24 hours	1: Minimal	2: Limited
N02	2: Occasional	3: 3-6 hrs	2: Minor	2: Limited	3: 12 to 24 hours	1: Minimal	2: Limited
N03	2: Occasional	3: 3-6 hrs	2: Minor	2: Limited	3: 12 to 24 hours	1: Minimal	2: Limited
N04	2: Occasional	3: 3-6 hrs	2: Minor	2: Limited	3: 12 to 24 hours	1: Minimal	2: Limited
N05	2: Occasional	3: 3-6 hrs	2: Minor	2: Limited	3: 12 to 24 hours	1: Minimal	2: Limited
N06	3: Likely	3: 3-6 hrs	2: Minor	2: Limited	3: 12 to 24 hours	1: Minimal	2: Limited
N07	3: Likely	3: 3-6 hrs	2: Minor	2: Limited	3: 12 to 24 hours	1: Minimal	2: Limited
N08	2: Occasional	3: 3-6 hrs	2: Minor	2: Limited	3: 12 to 24 hours	1: Minimal	2: Limited

**Table 3-4NA (Part Two) Flash Flooding**

Sector	Frequency	Warning Time	Impact	Area	Duration	Life/Injury	Property
N01	4: Highly Likely	3: 3-6 hrs	2: Minor	2: Limited	3: 12 to 24 hours	1: Minimal	2: Limited
N02	4: Highly Likely	3: 3-6 hrs	2: Minor	2: Limited	3: 12 to 24 hours	1: Minimal	2: Limited
N03	4: Highly Likely	3: 3-6 hrs	2: Minor	2: Limited	3: 12 to 24 hours	1: Minimal	2: Limited
N04	4: Highly Likely	3: 3-6 hrs	2: Minor	2: Limited	3: 12 to 24 hours	1: Minimal	2: Limited
N05	4: Highly Likely	3: 3-6 hrs	2: Minor	2: Limited	3: 12 to 24 hours	1: Minimal	2: Limited
N06	4: Highly Likely	3: 3-6 hrs	2: Minor	2: Limited	3: 12 to 24 hours	1: Minimal	2: Limited
N07	4: Highly Likely	3: 3-6 hrs	2: Minor	2: Limited	3: 12 to 24 hours	1: Minimal	2: Limited
N08	4: Highly Likely	3: 3-6 hrs	2: Minor	2: Limited	3: 12 to 24 hours	1: Minimal	2: Limited

*Potential Loss*

NAME	2004 LAND	2004 BLDG	2004 TOTAL	2004 COM BLDG	2004 RES BLDG
Pillager City	0	300,000	300,000	0	300,000

*Plans, Programs and Policies*

- 100-year Floodplain Mapping
- Participation in NFIP
- Flood emergency response plan include within Emergency Operations Plan (EOP)
- Additional Floodplain Mapping

3.2.3 WINDSTORMS (STRAIGHT-LINED WINDS)

Windstorms can occur at any time throughout the year, however are most commonly experienced with severe thunderstorms in warm weather months. Windstorms most commonly include downbursts, tornadoes, and straight lined winds. These hazards are defined as events with wind speeds greater than 60 miles per hour. Limited information is available related to windstorms however Table 3-2 displays information on thunderstorm wind speeds greater than 50 Knots.

History

Violent windstorms, windstorms with greater than 60 mile per hour wind speeds occur every few years within Cass County and occur either locally, as is the case with many thunderstorms or County wide. Information obtained by the NOAA NCDC shows that high wind events separate from thunderstorm activity have occurred approximately every three to four years. Windstorms in Cass County have caused mostly cosmetic property damage however carries the potential for greater damage.

Risks and Vulnerabilities

**Table 3-5NA Straight Line Winds**

Sector	Frequency	Warning Time	Impact	Area	Duration	Life/Injury	Property
N01	4: Highly Likely	4: Minimal	4: Substantial	1: Negligible	2: 1 to 12 hours	2: Limited	3: High
N02	4: Highly Likely	4: Minimal	4: Substantial	1: Negligible	2: 1 to 12 hours	2: Limited	3: High
N03	4: Highly Likely	4: Minimal	4: Substantial	1: Negligible	2: 1 to 12 hours	2: Limited	3: High
N04	4: Highly Likely	4: Minimal	4: Substantial	1: Negligible	2: 1 to 12 hours	2: Limited	3: High
N05	4: Highly Likely	4: Minimal	4: Substantial	1: Negligible	2: 1 to 12 hours	2: Limited	3: High
N06	4: Highly Likely	4: Minimal	4: Substantial	1: Negligible	2: 1 to 12 hours	2: Limited	3: High
N07	4: Highly Likely	4: Minimal	4: Substantial	1: Negligible	2: 1 to 12 hours	2: Limited	3: High
N08	4: Highly Likely	4: Minimal	4: Substantial	1: Negligible	2: 1 to 12 hours	2: Limited	3: High

*Potential Dollar Loss*

Due to the nature of windstorms, and the fact that the majority of damage and losses estimated would be mostly cosmetic a potential dollar amount cannot be estimated for windstorms.

*Plans, Programs and Policies*

- Windbreaks: Natural Vegetative Cover
- Building Codes and Standards
- Others

3.2.4 DROUGHT

Although the definition of a drought varies from location to location, a simple definition of the hazard is a prolonged period of dry weather due to a deficiency in precipitation. Drought is further defined as meteorological, agricultural, hydrological, and socioeconomic. Meteorological drought refers to a period of dry weather associated with lack of precipitation, agricultural drought refers to crop damage as a result of drought, hydrological drought refers to a drop in surface and groundwater levels as a result of drought, and socioeconomic drought refers to impacts on humans individually or collectively. Extreme heat refers to the impacts on the human and physical environment due to heat. The impacts of heat are typically measured using the heat index, which measures the temperature felt by the human body by combining actual temperature with humidity. As both heat and humidity increase the effects on the human body become of greater concern.

History

Drought is a regional hazard rather than a hazard specific only to Cass County. In the past Cass County has experienced periods of drought in the dustbowl period of the

1930's, periods of drought in the 1950's and in the late 1980's. The effects of these drought events have included crop damage and loss and slight effects on surface and ground waters.

Risks and Vulnerabilities

**Table 3-6NA: Drought**

Sector	Frequency	Warning Time	Impact	Area	Duration	Life/Injury	Property
N01	< 100 Years	1: 12+hrs	3: Major	4: County	2: More than 24 hours	2: Limited	2: Limited
N02	< 100 Years	1: 12+hrs	3: Major	4: County	2: More than 24 hours	2: Limited	2: Limited
N03	< 100 Years	1: 12+hrs	3: Major	4: County	2: More than 24 hours	2: Limited	2: Limited
N04	< 100 Years	1: 12+hrs	3: Major	4: County	2: More than 24 hours	2: Limited	2: Limited
N05	< 100 Years	1: 12+hrs	3: Major	4: County	2: More than 24 hours	2: Limited	2: Limited
N06	< 100 Years	1: 12+hrs	3: Major	4: County	2: More than 24 hours	2: Limited	2: Limited
N07	< 100 Years	1: 12+hrs	3: Major	4: County	2: More than 24 hours	2: Limited	2: Limited
N08	< 100 Years	1: 12+hrs	3: Major	4: County	2: More than 24 hours	2: Limited	2: Limited

*Potential Dollar Loss*

Because droughts vary largely based upon the severity and duration of the event, a potential dollar loss cannot be determined for drought. The effects of drought on not only on real property but also on agriculture and the tourism and resort economy in Cass County could become very great.

*Plans, Programs and Policies*

- Water usage monitoring
- Local water usage limits, bans, and regulations
- Local medical centers

**WILDFIRE**

A wildfire is essentially an uncontrolled fire spreading through vegetative fuels over a large area. Wildfires can be caused by natural causes such as lightning, but are often times caused by human. There are essentially four types of wildfire or stages of wildfire including ground, surface, crown, and spotting. Ground fire is the starting of a wildfire and usually due to the small size of the fire, it may be difficult to detect until it has reached the surface stage. The surface fire generally burns approximately four feet in height and the difficulty of extinguishing the fire is associated with potential nearby fuels. Once a fire begins burning the tops of trees it is known as a crown fire. This fire can be extremely difficult to control due to winds which may cause spotting. Spotting is caused by the throwing or blowing of large embers of crown fire or surface fire ahead of a wildfire. Spotting makes the controlling of a fire extremely difficult depending on wind

speeds, etc. Smoke created by wildfire may also propose a risk to wildlife, persons, and property.

### History

Since there are many causes of wildfire, the most common being human, the hazard occurs somewhat frequently within Cass County. Most of these fires do not reach past the ground or surface stages of wildfire due to the consistent, effective response and planning of the National Forest Service, the Minnesota DNR and local fire departments and associations.

### Risks and Vulnerabilities

**Table 3-7NA: Wildfire**

Sector	Frequency	Warning Time	Impact	Area	Duration	Life/Injury	Property
N01	3: Likely	4: Minimal	3: Major	3: Critical	4: More than 24 hours	2: Limited	2: Limited
N02	3: Likely	4: Minimal	3: Major	3: Critical	4: More than 24 hours	3: High	2: Limited
N03	3: Likely	4: Minimal	3: Major	3: Critical	4: More than 24 hours	2: Limited	2: Limited
N04	3: Likely	4: Minimal	3: Major	3: Critical	4: More than 24 hours	2: Limited	2: Limited
N05	3: Likely	4: Minimal	3: Major	3: Critical	4: More than 24 hours	2: Limited	2: Limited
N06	3: Likely	4: Minimal	3: Major	3: Critical	4: More than 24 hours	2: Limited	2: Limited
N07	3: Likely	4: Minimal	3: Major	3: Critical	4: More than 24 hours	2: Limited	2: Limited
N08	3: Likely	4: Minimal	3: Major	3: Critical	4: More than 24 hours	2: Limited	2: Limited

### *Plans, Programs and Policies*

- Local Fire Departments and Associations
- Minnesota Department of Natural Resources
- Others

### INFECTIOUS DISEASES

Any disease caused by the entrance, growth, and multiplication of bacteria or protozoans in the body; a germ disease. It may not be contagious. Sometimes, as distinguished from contagious disease, such a disease can be communicated by germs carried in the air or water, and thus spread without contact with the patient, as measles.

Risks and Vulnerabilities

**Table 3-8NA: Infectious Disease**

Sector	Frequency	Warning Time	Impact	Area	Duration	Risk to Life/Injury	Risk to Property
All	< 100 Years	> 12 Hours	Major	> 50%	> 24 Hours	3: High	1: Minimal

*Dollar Loss by City and Township*

Due to the risks of infectious disease being exclusively to humans and animals a potential dollar loss cannot be attributed to the hazard.

*Plans, Programs, and Policies*

- Cass County Public Health
- Minnesota Department of Health
- Centers for Disease Control
- Local clinics and medical related facilities

WINTER STORMS AND EVENTS

BLIZZARD

A blizzard includes strong winds averaging or frequently gusting to, or above, 35 miles an hour and very low visibility due to blowing or falling snow. These are the most dangerous winter storms and can be especially severe when combined with temperatures below 10 degrees.

ICE STORMS

Ice storm conditions are most common when a rain event occurs and air temperature exceeds 32 degrees Fahrenheit, but the surface temperature remains at or below freezing. When the precipitation meets the surface and structures, ice accumulations occur. The National Weather Service defines an ice storm as accumulations of ice greater than ¼ inches.

SLEET

Sleet forms when precipitation originating as rain travels through freezing temperatures causing the precipitation to freeze before reaching the ground. Generally, sleet storm events are shorter in duration than ice storms, and generally have lower impacts.

## EXTREME COLD

While there is no clear definition of “extreme cold”, the term can be generally defined as temperatures well below zero degrees Fahrenheit. Exposure to extremely cold temperatures can cause frostbite, hypothermia, and can be life threatening. In addition, extremely cold conditions can cause damage to infrastructure, automobiles, etc., if proper measures are not taken for cold weather preparation. Extreme cold is also associated with wind chill. Wind Chill is the term used to describe the rate of heat loss on the human body resulting from the combined effect of low temperature and wind. As winds increase, heat is carried away from the body at a faster rate, driving down both the skin temperature and eventually the internal body temperature. While wind chill will take heat away from an object faster, it cannot cool that object below the actual temperature.

## HEAVY SNOW OR SNOW STORM

Heavy snow is typically defined as a snow event with four or more inches of accumulation in a 12-hour time period, six or more inches of snow in a 18-hour time period, and 12 or more inches of snow in a 24-hour time period. When visibility falls below one-half mile a snow event is considered heavy regardless of wind speed. Table 000 provides a list of winter storm related activity as reported by the NOAA.

### History

Typically at least one or more of the winter storm events listed above occur within Cass County at least annually. These storms can occur at any time of day within the months specified and often times are a combination of the above events.

DATE	TIME	TYPE	Dth	Inj	PrD
11/04/1993	800	Heavy Snow	0	0	0
11/12/1993	1600	Ice Storm And Snow	0	0	0
11/24/1993	800	Heavy Snow	0	0	0
03/23/1994	600	Heavy Snow And Ice	0	0	0
04/28/1994	400	Heavy Snow And Ice	0	0	0
11/27/1994	500	Heavy Snow/ice	0	0	0
02/14/1995	1400	Heavy Snow	0	0	0
03/04/1995	1200	Heavy/Blowing Snow	0	0	0
03/27/1995	100	Heavy Snow	0	0	0
04/11/1995	2300	Heavy Snow	0	0	0
10/23/1995	1200	Heavy Snow	0	0	0
01/17/1996	6:00 PM	Heavy Snow	0	0	0
01/28/1996	4:15 AM	Heavy Snow	0	0	0
02/26/1996	4:00 PM	Heavy Snow	0	0	0
03/24/1996	5:00 AM	Heavy Snow	0	0	0
01/01/1997	6:30 PM	Ice Storm	0	0	0
01/04/1997	4:00 AM	Winter Storm	0	0	0



03/13/1997	4:00 AM	Heavy Snow	0	0	0
03/31/1998	4:00 PM	Heavy Snow	0	0	0
11/09/1998	4:00 PM	Winter Storm	0	0	0
02/01/1999	5:00 AM	Ice Storm	0	0	0
03/08/1999	7:00 AM	Heavy Snow	0	0	0
02/15/2000	4:00 AM	Heavy Snow	0	0	0
01/29/2001	9:30 PM	Ice Storm	0	0	0
02/07/2001	12:00 PM	Heavy Snow	0	0	0
02/24/2001	12:00 AM	Heavy Snow	0	0	0
11/26/2001	1:00 PM	Winter Storm	0	0	500K
03/07/2002	12:00 PM	Heavy Snow	0	0	0
03/09/2002	1:00 AM	Heavy Snow	0	0	0
12/17/2002	10:00 PM	Ice Storm	0	0	0
04/16/2003	4:00 AM	Ice Storm	0	0	0
11/22/2003	3:00 PM	Heavy Snow	0	0	0
01/25/2004	3:00 AM	Heavy Snow	0	0	0

Source: NOAA National Climatic Data Center (NCDC)  
<http://www4.ncdc.noaa.gov/cgi-win/wwcgi.dll?wwevent~storms>

Risks and Vulnerabilities

**Table 3-9NA: Winter Storms**

Sector	Frequency	Warning Time	Impact	Area	Duration	Life/Injury	Property
N01	3: Likely	4: Minimal	3: Major	3: Critical	4: More than 24 hours	2: Limited	2: Limited
N02	3: Likely	4: Minimal	3: Major	3: Critical	4: More than 24 hours	2: Limited	2: Limited
N03	3: Likely	4: Minimal	3: Major	3: Critical	4: More than 24 hours	2: Limited	2: Limited
N04	3: Likely	4: Minimal	3: Major	3: Critical	4: More than 24 hours	2: Limited	2: Limited
N05	3: Likely	4: Minimal	3: Major	3: Critical	4: More than 24 hours	2: Limited	2: Limited
N06	3: Likely	4: Minimal	3: Major	3: Critical	4: More than 24 hours	2: Limited	2: Limited
N07	3: Likely	4: Minimal	3: Major	3: Critical	4: More than 24 hours	2: Limited	2: Limited
N08	3: Likely	4: Minimal	3: Major	3: Critical	4: More than 24 hours	2: Limited	2: Limited

**Table 3-10NA: Freezing Temperatures**

Sector	Frequency	Warning Time	Impact	Area	Duration	Life/Injury	Property
N01	4: Highly Likely	1: 12+ hrs	4: Substantial	4: Catastrophic	4: More than 24 hours	2: Limited	2: Limited
N02	4: Highly Likely	1: 12+ hrs	4: Substantial	4: Catastrophic	4: More than 24 hours	2: Limited	2: Limited
N03	4: Highly Likely	1: 12+ hrs	4: Substantial	4: Catastrophic	4: More than 24 hours	2: Limited	2: Limited
N04	4: Highly Likely	1: 12+ hrs	4: Substantial	4: Catastrophic	4: More than 24 hours	2: Limited	2: Limited
N05	4: Highly Likely	1: 12+ hrs	4: Substantial	4: Catastrophic	4: More than 24 hours	2: Limited	2: Limited
N06	4: Highly Likely	1: 12+ hrs	4: Substantial	4: Catastrophic	4: More than 24 hours	2: Limited	2: Limited
N07	4: Highly Likely	1: 12+ hrs	4: Substantial	4: Catastrophic	4: More than 24 hours	2: Limited	2: Limited
N08	4: Highly Likely	1: 12+ hrs	4: Substantial	4: Catastrophic	4: More than 24 hours	2: Limited	2: Limited

*Plans, Programs and Policies*

- Infrastructure improvements
- Snow fencing and windbreaks including natural vegetation
- Cold weather awareness and public education
- Snow removal, (salt, sand, etc.)

**EARTHQUAKE**

No specific earthquake event has ever been confirmed within Cass County. If such an event were to take place it would likely be very short in duration and to such a slight magnitude that it would be unlikely that it would go undetected without sensitive monitoring equipment.

Risks and Vulnerabilities

**Table 3-11NA: Earthquake**

Sector	Frequency	Warning Time	Impact	Area	Duration	Risk to Life/Injury	Risk to Property
All	< 100 Years	4: Minimal	1: Limited	1: Negligible	1: Less than 1 hour	1: Minimal	1: Minimal

*Dollar Loss by City and Township*

Due to no history involving earthquakes in Cass County and if such an event would occur that it would be of minimal impact a potential dollar loss cannot be attributed to the hazard.

*Plans, Programs, and Policies*

- United States Geological Survey (USGS) monitoring activities

### 3.3 Human Caused/Technological Hazards

#### FIRE

The majority of all fires take place because of human action. Fires can occur in any community at any time, posing a constant threat to life and property including residential, commercial, industrial, institutional, or any similar properties within developed areas.

#### History

Structure fires are a hazard that is prevalent in not only Cass County, but also throughout the world. Due to the inevitability of structure fires many communities throughout Cass County provide fire protection services either as a municipality or a local fire association. These fire protection services are inventoried in the Cass County Emergency Operations Plan and through the community profile within this plan.

According to the 2004 Minnesota Fire Marshall Report, Morrison County had a total of 174 fire runs for a loss of \$681,100 with one death. In 2005 there were 159 fire runs totaling \$662,150 in losses and one death.

#### Risks and Vulnerabilities

**Table 3-1HCT: Structure Fires**

Sector	Frequency	Warning Time	Impact	Area	Duration	Life/Injury	Property
H01	2: Occasional	4: Minimal	1: Limited	1: Negligible	3: 12 to 24 hours	4: Very High	4: Very High
H02	2: Occasional	4: Minimal	1: Limited	1: Negligible	3: 12 to 24 hours	4: Very High	4: Very High
H03	2: Occasional	4: Minimal	1: Limited	1: Negligible	3: 12 to 24 hours	4: Very High	4: Very High
H04	2: Occasional	4: Minimal	1: Limited	1: Negligible	3: 12 to 24 hours	4: Very High	4: Very High
H05	2: Occasional	4: Minimal	1: Limited	1: Negligible	3: 12 to 24 hours	4: Very High	4: Very High
H06	2: Occasional	4: Minimal	1: Limited	1: Negligible	3: 12 to 24 hours	4: Very High	4: Very High
H07	2: Occasional	4: Minimal	1: Limited	1: Negligible	3: 12 to 24 hours	4: Very High	4: Very High
H08	2: Occasional	4: Minimal	1: Limited	1: Negligible	3: 12 to 24 hours	4: Very High	4: Very High

#### *Plans, Programs and Policies*

- Local fire departments and associations
- Local building codes and ordinances
- Public education and awareness

#### HAZARDOUS MATERIAL

Hazardous materials are chemical substances, which if released or misused can pose a threat to people, property or the environment. These chemicals are used in industry, agriculture, medicine, research, and consumer goods. Hazardous materials come in the form of explosives, flammable and combustible substances, poisons, and radioactive materials. These substances are most often released as a result of transportation accidents or because of chemical accidents within a facility.

## TRANSPORTATION

Hazardous materials are transported throughout the county through a variety of transportation modes. These modes include road, rail, aircraft and pipeline. Each of these modes presents different and unique risks of potential release or spill while in transit as well as differing levels of impact once the release or spill has occurred. For the most part, the transport of hazardous materials within the county includes the movement of materials from producers to users, producers to distributors, between storage and use facilities, and hazardous waste materials moving from use to disposal facilities.

### Roadways

The roadway network through Cass County includes several interregional corridors as well as links to the many communities throughout the county. The degree of impact from a hazardous material related release or spill is dependent on the proximity of the vehicle to population densities, concentrated development and environmentally sensitive areas when the event occurs. The following map shows population centers along Highways within Cass County.

### Rail

Running through the center of Cass County from the North and South is one of busiest rail lines in the state. The impacts of rail related hazardous material releases or spills carry the potential of being great due to the amount of rail traffic within the county as well as the close proximity of rail lines to population centers. Types of potential hazardous material releases along the county's rail corridors includes, but is not limited to valve leakage, safety valve releases, which carries the potential of releasing hazardous material in the form of liquid or gases in addition to release or spill due to derailment, collision, or similar accident. Such accidents carry the potential of releasing hundreds to thousands of gallons of material within areas along rail corridors.

### Air

Within Cass County there are four airport facilities located in or around Backus, East Gull Lake, Longville, and Pine River. As with all airport facilities and air travel in general, hazardous materials transported by air travel or stored at airport facilities carry the potential of posing risk to life, property, and the environment.

### Pipelines

Within Cass County is a series of pipelines carrying flammable liquids and gases. These pipelines are located primarily in the northern half of Cass County extending through, and to the south of the Cities of Cass Lake and Bena.

## FIXED FACILITIES

Various facilities throughout Cass County hold hazardous materials. Some of these materials include flammable liquids, fuels, acids, corrosive materials, and other materials. Each facility exceeding minimum thresholds for material amounts can be found in by contacting the Cass County Emergency Management Director. Each of these facilities must file a Risk Management Plan with the County Emergency Management Office, the State Emergency Response Commission, and the Environmental Protection Agency. Each of these plans provide information on the hazardous materials maintained onsite, the risk associated with those materials, potential area affected, and other information as required by the Emergency Response Commission.

### History

Cass County has had a history of hazardous material spills, accidents, and similar events in the past. This is due largely to the major roadway and railway transportation corridors, pipelines, and fixed facilities within the County. Through the excellent work of local and state emergency response professionals, these events have amounted in a relatively small impact to the overall County population. The following is an inventory of hazardous material related events as reported by the National Response Center:

**Table 3-6: Hazardous Material Events**

NRC Report #	Incident Date	Location (Street)	Location (City)	Type of Incident	Medium Affected	Material Name
600018	04/17/2002	N/A	LONGVILLE	FIXED	LAND	OIL, MISC: MINERAL (PCB UNKNOWN)
564036	04/25/2001	01217 FEDERAL DAM DRIVE NE	FEDERAL DAM	FIXED	LAND	MERCURY
235163	04/13/1994	2ND AVE AND SPRUCE ST	REMER	FIXED	UNKNOWN	OIL, FUEL: NO. 2
374983	12/07/1996	501 SOUTH FIRST ST	HACKENSACK	FIXED	UNKNOWN	PARACHLOROENZENE
91795	10/08/1991	8 RURAL ROUTE 2POB 393E	PEQUOT LAKE	FIXED	LAND	POLYCHLORINATED BIPHENYLS/550PPM
594083	02/14/2002	CASS LAKE PUMP STATION	CASS LAKE	PIPELINE	LAND	OIL: CRUDE
265544	10/16/1994	CASS LAKE YARD	CASS LAKE	RAILROAD	LAND	OIL: DIESEL
520827	02/23/2000	CHIPAWA STATE FORESTSEC 13TWP T-145RANGE R31W	CASS LAKE	PIPELINE	SOIL	OIL: CRUDE
44133	10/17/1990	CLOSEST HOUSE NUMBER TOINCIDENT: 4391 PARADISEROAD	WALKER	FIXED	LAND	OIL, MISC: TRANSFORMER
478622	03/30/1999	HIGHWAY 371 ON WESTBOUNDLANE	PINE RIVER	MOBILE	LAND	OIL: DIESEL

		3 MILES NORTH OF TOWN				
380619	03/18/1997	HWY 2	CASS LAKE	FIXED	LAND	GASOLINE: AUTOMOTIVE (UNLEADED)
434233	04/27/1998	LAURA LAKE HC3 BOX 264 / DRAIN MARKED WITH ORANGE FLAG	REMER	FIXED	WATER	UNKNOWN MATERIAL
434233	04/27/1998	LAURA LAKE HC3 BOX 264 / DRAIN MARKED WITH ORANGE FLAG	REMER	FIXED	WATER	UNKNOWN OIL
545552	10/18/2000	MAIN STREET	REMER	FIXED	LAND	OIL: DIESEL
329868	03/06/1996	MILEPOST 128.8 DOT #076273F	PILLAGER	RAILROAD NON-RELEASE	RAIL REPORT (N/A)	N/A
708026	12/14/2003	MP 99.5	CASS LAKE	RAILROAD NON-RELEASE	RAIL REPORT (N/A)	N/A
593960	02/13/2002	ON PIPELINE FOUR	PIKE BAY	PIPELINE	LAND	OIL: CRUDE
381303	03/22/1997	ONIGUM LEECH LAKE RESERVATION	LEECH LAKE	PIPELINE	LAND	OIL, FUEL: NO. 2
425897	02/24/1998	OUTLYING TOWN OF WALKER	ONIGUM	FIXED	LAND	OIL, FUEL: NO. 2-D
558546	03/04/2001	PIPELINE RIGHT OF WAY	(null)	PIPELINE	LAND	OIL: CRUDE
263827	10/04/1994	ROUTE 3 NEAR CASS LAKE PUBLIC HEALTH CENTER	CASS LAKE	MOBILE	LAND	OIL, FUEL: NO. 2
86720	08/03/1991	(null)	MOTLEY	RAILROAD	RAIL REPORT (N/A)	N/A

Source: U.S. Coast Guard, National Response Center  
<http://www.nrc.uscg.mil/foia.html>

Risks and Vulnerabilities

**Table 3-2HCT: Major Traffic Accidents**

Sector	Frequency	Warning Time	Impact	Area	Duration	Life/Injury	Property
H01	2: Occasional	4: Minimal	1: Limited	1: Negligible	2: 1 to 12 hours	4: Very High	1: Minimal
H02	2: Occasional	4: Minimal	1: Limited	1: Negligible	2: 1 to 12 hours	4: Very High	1: Minimal
H03	2: Occasional	4: Minimal	1: Limited	1: Negligible	2: 1 to 12 hours	4: Very High	1: Minimal
H04	2: Occasional	4: Minimal	1: Limited	1: Negligible	2: 1 to 12 hours	4: Very High	1: Minimal
H05	2: Occasional	4: Minimal	1: Limited	1: Negligible	2: 1 to 12 hours	4: Very High	1: Minimal
H06	2: Occasional	4: Minimal	1: Limited	1: Negligible	2: 1 to 12 hours	4: Very High	1: Minimal
H07	2: Occasional	4: Minimal	1: Limited	1: Negligible	2: 1 to 12 hours	4: Very High	1: Minimal
H08	2: Occasional	4: Minimal	1: Limited	1: Negligible	2: 1 to 12 hours	4: Very High	1: Minimal

**Table 3-3HCT: Train Derailment**

Sector	Frequency	Warning Time	Impact	Area	Duration	Life/Injury	Property
H01	2: Occasional	4: Minimal	2: Minor	1: Negligible	4: More than 24 hours	3: High	2: Limited
H02	No Rail	N/A	N/A	N/A	N/A	N/A	N/A
H03	No Rail	N/A	N/A	N/A	N/A	N/A	N/A
H04	No Rail	N/A	N/A	N/A	N/A	N/A	N/A
H05	No Rail	N/A	N/A	N/A	N/A	N/A	N/A
H06	No Rail	N/A	N/A	N/A	N/A	N/A	N/A
H07	2: Occasional	4: Minimal	1: Limited	1: Negligible	4: More than 24 hours	3: High	2: Limited
H08	2: Occasional	4: Minimal	2: Minor	1: Negligible	4: More than 24 hours	3: High	2: Limited

*Plans, Programs and Policies*

- MPCA
- MN Emergency Response Commission
- Local fire, police, emergency medical
- Individual site plans

**DAM FAILURE**

Dam failure involves an unintended release or surge of impounded water due to collapse, damage, overtopping, and similar structural failure of a dam structure. Causes of dam failure include, but are not limited to gradual breakdown from normal aging, insufficient design or construction, lack of repair or maintenance, vandalism, blockage by debris, flooding, and similar causes. Failure of a dam can result in damage to or loss of life and property. A list of dams within Cass County is provided below.

## Dams and Control Structures

**Table 3-7: Dam Inventory**

Dam No.	Name	Dam Type	Nearest City	Hazard
<a href="#">MN00035</a>	Norway Lake	Earth Other		High
<a href="#">MN00031</a>	Portage Lake	Gravity		Significant
<a href="#">MN00037</a>	Girl Lake	Other		Significant
<a href="#">MN00585</a>	Leech Lake Dam	Earth Gravity Concrete		Significant
<a href="#">MN00586</a>	Winnibigoshish Dam	Earth Gravity Concrete		Significant
<a href="#">MN82439</a>	Pine Tree	Earth		Significant
<a href="#">MN00029</a>	Dry Sand Lake Wma	Earth		Low
<a href="#">MN00033</a>	Pine Mountain Lake	Gravity		Low
<a href="#">MN00034</a>	Hattie Lake	Gravity		Low
<a href="#">MN00040</a>	Mud-Goose Lake	Earth Other		Low
<a href="#">MN00041</a>	Willow River	Gravity		Low
<a href="#">MN00043</a>	Washburn Lake	Gravity		Low
<a href="#">MN00141</a>	Daggett Brook	Earth		Low
<a href="#">MN00388</a>	Kaylor Fishpond	Earth		Low
<a href="#">MN00596</a>	Gull Lake	Earth Gravity Concrete		Low
<a href="#">MN00706</a>	So. Fork Pine River	Rockfill		Low
<a href="#">MN00707</a>	Loon Lake Twp	Rockfill Other		Low
<a href="#">MN82402</a>	Bag Lake	Earth		Low
<a href="#">MN82404</a>	Bear Brook	Earth		Low
<a href="#">MN82409</a>	Brush Lake	Earth		Low
<a href="#">MN82413</a>	Cuba	Earth		Low
<a href="#">MN82417</a>	Experimental Forest	Earth		Low
<a href="#">MN82420</a>	Grass Lake	Earth		Low
<a href="#">MN82422</a>	Highland Creek	Earth		Low
<a href="#">MN82426</a>	Ketchum	Earth		Low
<a href="#">MN82432</a>	Loon Lake	Earth		Low
<a href="#">MN82433</a>	Lucille Lake	Earth		Low
<a href="#">MN82434</a>	Middle Sucker Dam	Earth		Low
<a href="#">MN82441</a>	Six Mile Brook	Other		Low
<a href="#">MN82443</a>	Snake Brook	Other		Low
<a href="#">MN82445</a>	Sucker Bay Impoundment	Earth		Low
<a href="#">MN82446</a>	Sugar Lake	Earth		Low
<a href="#">MN82452</a>	Woodtick No. 2	Earth		Low
<a href="#">MN82453</a>	Woodtick No. 3	Earth		Low

Source:



## History

No information exists related to significant events of dam failure within Cass County. Most of the risk associated to this hazard is due to the listing of five dams within the County receiving a rank of “significant” according to hazard risk rankings provided by the Minnesota DNR, and one dam structure receiving a ranking of “high.”

## Risks and Vulnerabilities

**Table 3-4HCT: Dam Failure**

Areas	Frequency	Warning	Impact	Area	Duration	Risk to Life/Injury	Risk to Property
Only Dam Locations	< 100 Years	Minimal	Minor	10 to 25%	> 24 Hours	High	High

## *Plans, Programs and Policies*

- Army Corps of Engineers
- NATDAM database
- Minnesota Department of Natural Resources

## GROUNDWATER CONTAMINATION AND DEPLETION

Groundwater contamination includes the introduction of both point and non-point source pollutants into groundwater. Point source means any discernible, confined and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged. Non-point source is a land management activity or land use activity that contributes or may contribute to ground and surface water pollution as a result of runoff, seepage, or percolation and that is not defined as a point source. This contamination also can be extended to include surface waters. Most of the Cass County population draws drinking water through individual wells, however several municipal systems exist within cities. A list of municipal drinking water systems can be found in the community profile portion of this plan.

## History

Groundwater contamination in Cass County has been limited to minor events or releases. No other historical data is currently available.

Risks and Vulnerabilities

**Table 3-5HCT: Ground Water Contamination**

Sector	Frequency	Warning Time	Impact	Area	Duration	Life/Injury	Property
H01	4: Highly Likely	1: 12+ hrs	1: Limited	1: Negligible	4: More than 24 hours	3: High	1: Minimal
H02	4: Highly Likely	1: 12+ hrs	1: Limited	1: Negligible	4: More than 24 hours	3: High	1: Minimal
H03	4: Highly Likely	1: 12+ hrs	1: Limited	1: Negligible	4: More than 24 hours	3: High	1: Minimal
H04	4: Highly Likely	1: 12+ hrs	1: Limited	1: Negligible	4: More than 24 hours	3: High	1: Minimal
H05	4: Highly Likely	1: 12+ hrs	1: Limited	1: Negligible	4: More than 24 hours	3: High	1: Minimal
H06	4: Highly Likely	1: 12+ hrs	1: Limited	1: Negligible	4: More than 24 hours	3: High	1: Minimal
H07	4: Highly Likely	1: 12+ hrs	1: Limited	1: Negligible	4: More than 24 hours	3: High	1: Minimal
H08	4: Highly Likely	1: 12+ hrs	1: Limited	1: Negligible	4: More than 24 hours	3: High	1: Minimal

**Table 3-6HCT: Failing Septic Systems**

Sector	Frequency	Warning Time	Impact	Area	Duration	Life/Injury	Property
H01	4: Highly Likely	1: 12+ hrs	1: Limited	1: Negligible	4: More than 24 hours	4: Very High	2: Limited
H02	4: Highly Likely	1: 12+ hrs	1: Limited	1: Negligible	4: More than 24 hours	4: Very High	2: Limited
H03	4: Highly Likely	1: 12+ hrs	1: Limited	1: Negligible	4: More than 24 hours	4: Very High	2: Limited
H04	4: Highly Likely	1: 12+ hrs	1: Limited	1: Negligible	4: More than 24 hours	4: Very High	2: Limited
H05	4: Highly Likely	1: 12+ hrs	1: Limited	1: Negligible	4: More than 24 hours	4: Very High	2: Limited
H06	4: Highly Likely	1: 12+ hrs	1: Limited	1: Negligible	4: More than 24 hours	4: Very High	2: Limited
H07	4: Highly Likely	1: 12+ hrs	1: Limited	1: Negligible	4: More than 24 hours	4: Very High	2: Limited
H08	4: Highly Likely	1: 12+ hrs	1: Limited	1: Negligible	4: More than 24 hours	4: Very High	2: Limited

**Table 3-7HCT: Land Contamination**

Sector	Frequency	Warning Time	Impact	Area	Duration	Life/Injury	Property
H01	3: Likely	4: Minimal	1: Limited	1: Negligible	4: More than 24 hours	2: Limited	1: Minimal
H02	3: Likely	4: Minimal	1: Limited	1: Negligible	4: More than 24 hours	2: Limited	1: Minimal
H03	3: Likely	4: Minimal	1: Limited	1: Negligible	4: More than 24 hours	2: Limited	1: Minimal
H04	3: Likely	4: Minimal	1: Limited	1: Negligible	4: More than 24 hours	2: Limited	1: Minimal
H05	3: Likely	4: Minimal	1: Limited	1: Negligible	4: More than 24 hours	2: Limited	1: Minimal
H06	3: Likely	4: Minimal	1: Limited	1: Negligible	4: More than 24 hours	2: Limited	1: Minimal
H07	3: Likely	4: Minimal	1: Limited	1: Negligible	4: More than 24 hours	2: Limited	1: Minimal
H08	3: Likely	4: Minimal	1: Limited	1: Negligible	4: More than 24 hours	2: Limited	1: Minimal

**Table 3-8HCT: Pipeline Failure**

Sector	Frequency	Warning Time	Impact	Area	Duration	Life/Injury	Property
H01	No Pipeline	N/A	N/A	N/A	N/A	N/A	N/A
H02	No Pipeline	N/A	N/A	N/A	N/A	N/A	N/A
H03	2: Occasional	4: Minimal	4: Substantial	1: Negligible	4: More than 24 hours	4: Very High	4: Very High
H04	No Pipeline	N/A	N/A	N/A	N/A	N/A	N/A
H05	No Pipeline	N/A	N/A	N/A	N/A	N/A	N/A
H06	No Pipeline	N/A	N/A	N/A	N/A	N/A	N/A
H07	2: Occasional	4: Minimal	2: Minor	1: Negligible	4: More than 24 hours	2: Limited	1: Minimal
H08	2: Occasional	4: Minimal	4: Substantial	1: Negligible	4: More than 24 hours	4: Very High	4: Very High

**Table 3-9HCT: Surface Water Contamination**

Sector	Frequency	Warning Time	Impact	Area	Duration	Life/Injury	Property
H01	3: Likely	4: Minimal	2: Minor	1: Negligible	4: More than 24 hours	2: Limited	1: Minimal
H02	3: Likely	4: Minimal	2: Minor	1: Negligible	4: More than 24 hours	2: Limited	1: Minimal
H03	3: Likely	4: Minimal	2: Minor	1: Negligible	4: More than 24 hours	2: Limited	1: Minimal
H04	3: Likely	4: Minimal	2: Minor	1: Negligible	4: More than 24 hours	2: Limited	1: Minimal
H05	3: Likely	4: Minimal	2: Minor	1: Negligible	4: More than 24 hours	2: Limited	1: Minimal
H06	3: Likely	4: Minimal	2: Minor	1: Negligible	4: More than 24 hours	2: Limited	1: Minimal
H07	3: Likely	4: Minimal	2: Minor	1: Negligible	4: More than 24 hours	2: Limited	1: Minimal
H08	3: Likely	4: Minimal	2: Minor	1: Negligible	4: More than 24 hours	2: Limited	1: Minimal

*Plans, Programs and Policies*

- Wellhead Protection Program
- Minnesota Department of Health
- Public Education Opportunities

**TERRORISM AND CIVIL DISORDER AND OTHER HUMAN-CASED HAZARDS**

Human caused hazards, including terrorism, are intentional, malicious, and often times criminal uses of force and violence to perpetrate disasters against persons and/or property. Terrorism, including domestic terrorism, are actions intended to intimidate or coerce a government or civilian population to further political or social objectives. These actions can be either domestic or international depending on the origin, base and objectives of the terrorist organizations or individuals perpetrated for personal reasons.

Terrorism hazards include, but are not limited to the use of weapons of mass destruction, including biological, chemical, and nuclear or radiological weaponry; arson, use of incendiary or explosive devices and armed attacks; industrial sabotage and intentional release of hazardous materials; and attacks on technology including computers through viruses or by other means commonly known as “cyberterrorism.”

History

No previous occurrences.

Risks and Vulnerabilities

**Table 3-10HCT: Bomb Threats/Terrorism**

Sector	Frequency	Warning Time	Impact	Area	Duration	Life/Injury	Property
H01	2: Occasional	4: Minimal	3: Major	1: Negligible	2: 1 to 12 hours	3: High	3: High
H02	2: Occasional	4: Minimal	3: Major	1: Negligible	2: 1 to 12 hours	3: High	3: High
H03	2: Occasional	4: Minimal	3: Major	1: Negligible	2: 1 to 12 hours	3: High	3: High
H04	2: Occasional	4: Minimal	3: Major	1: Negligible	2: 1 to 12 hours	3: High	3: High
H05	2: Occasional	4: Minimal	3: Major	1: Negligible	2: 1 to 12 hours	3: High	3: High
H06	2: Occasional	4: Minimal	3: Major	1: Negligible	2: 1 to 12 hours	3: High	3: High
H07	4: Highly Likely	4: Minimal	3: Major	1: Negligible	2: 1 to 12 hours	3: High	3: High
H08	4: Highly Likely	4: Minimal	3: Major	1: Negligible	2: 1 to 12 hours	3: High	3: High

**Table 3-11HCT: Crimes Against Persons and Property**

Sector	Frequency	Warning Time	Impact	Area	Duration	Life/Injury	Property
H01	4: Highly Likely	4: Minimal	1: Limited	1: Negligible	2: 1 to 12 hours	3: High	1: Minimal
H02	4: Highly Likely	4: Minimal	1: Limited	1: Negligible	2: 1 to 12 hours	3: High	1: Minimal
H03	4: Highly Likely	4: Minimal	1: Limited	1: Negligible	2: 1 to 12 hours	3: High	1: Minimal
H04	4: Highly Likely	4: Minimal	1: Limited	1: Negligible	2: 1 to 12 hours	3: High	1: Minimal
H05	4: Highly Likely	4: Minimal	1: Limited	1: Negligible	2: 1 to 12 hours	3: High	1: Minimal
H06	4: Highly Likely	4: Minimal	1: Limited	1: Negligible	2: 1 to 12 hours	3: High	1: Minimal
H07	4: Highly Likely	4: Minimal	2: Minor	1: Negligible	2: 1 to 12 hours	3: High	2: Limited
H08	4: Highly Likely	4: Minimal	2: Minor	1: Negligible	2: 1 to 12 hours	4: Very High	2: Limited

**Table 3-12HCT: Drunk Driving**

Sector	Frequency	Warning Time	Impact	Area	Duration	Life/Injury	Property
H01	4: Highly Likely	4: Minimal	3: Major	1: Negligible	2: 1 to 12 hours	3: High	1: Minimal
H02	4: Highly Likely	4: Minimal	3: Major	1: Negligible	2: 1 to 12 hours	3: High	1: Minimal
H03	4: Highly Likely	4: Minimal	3: Major	1: Negligible	2: 1 to 12 hours	3: High	1: Minimal
H04	4: Highly Likely	4: Minimal	3: Major	1: Negligible	2: 1 to 12 hours	3: High	1: Minimal
H05	4: Highly Likely	4: Minimal	3: Major	1: Negligible	2: 1 to 12 hours	3: High	1: Minimal
H06	4: Highly Likely	4: Minimal	3: Major	1: Negligible	2: 1 to 12 hours	3: High	1: Minimal
H07	4: Highly Likely	4: Minimal	3: Major	1: Negligible	2: 1 to 12 hours	3: High	1: Minimal
H08	4: Highly Likely	4: Minimal	3: Major	1: Negligible	2: 1 to 12 hours	3: High	1: Minimal

**Table 3-13HCT: Erosion/OHV Misuse**

Sector	Frequency	Warning Time	Impact	Area	Duration	Life/Injury	Property
H01	4: Highly Likely	1: 12+ hrs	3: Major	3: Critical	4: More than 24 hours	1: Minimal	1: Minimal
H02	4: Highly Likely	1: 12+ hrs	3: Major	3: Critical	4: More than 24 hours	1: Minimal	1: Minimal
H03	4: Highly Likely	1: 12+ hrs	3: Major	3: Critical	4: More than 24 hours	1: Minimal	1: Minimal
H04	4: Highly Likely	1: 12+ hrs	3: Major	3: Critical	4: More than 24 hours	1: Minimal	1: Minimal
H05	4: Highly Likely	1: 12+ hrs	3: Major	3: Critical	4: More than 24 hours	1: Minimal	1: Minimal
H06	4: Highly Likely	1: 12+ hrs	3: Major	3: Critical	4: More than 24 hours	1: Minimal	1: Minimal
H07	4: Highly Likely	1: 12+ hrs	3: Major	3: Critical	4: More than 24 hours	1: Minimal	1: Minimal
H08	4: Highly Likely	1: 12+ hrs	3: Major	3: Critical	4: More than 24 hours	1: Minimal	1: Minimal

**Table 3-14HCT:  
Methamphetamine Labs**

Sector	Frequency	Warning Time	Impact	Area	Duration	Life/Injury	Property
H01	4: Highly Likely	1: 12+ hrs	2: Minor	1: Negligible	3: 12 to 24 hours	3: High	2: Limited
H02	4: Highly Likely	1: 12+ hrs	2: Minor	1: Negligible	3: 12 to 24 hours	3: High	2: Limited
H03	4: Highly Likely	1: 12+ hrs	2: Minor	1: Negligible	3: 12 to 24 hours	3: High	2: Limited
H04	4: Highly Likely	1: 12+ hrs	2: Minor	1: Negligible	3: 12 to 24 hours	3: High	2: Limited
H05	4: Highly Likely	1: 12+ hrs	2: Minor	1: Negligible	3: 12 to 24 hours	3: High	2: Limited
H06	4: Highly Likely	1: 12+ hrs	2: Minor	1: Negligible	3: 12 to 24 hours	3: High	2: Limited
H07	4: Highly Likely	1: 12+ hrs	2: Minor	1: Negligible	3: 12 to 24 hours	3: High	2: Limited
H08	4: Highly Likely	1: 12+ hrs	2: Minor	1: Negligible	3: 12 to 24 hours	3: High	2: Limited

*Plans, Programs and Policies*

- Department of Homeland Security
- Minnesota Homeland Security and Emergency Management (HSEM)
- Local police, fire, emergency medical
- Individual public and private facilities
- Public education and awareness

## **4.0 ACTION PLAN [GOALS, OBJECTIVES, AND STRATEGIES]**

Eliminating or reducing the impacts of hazards on persons, property, and the environment is the focus of the Cass County Hazard Mitigation Plan. The goals and objectives presented within this section are intended to address natural, human-caused and technological hazards within the County before they occur through the use of local, state, and federal resources. To clarify the following action the following terms are defined:

**GOAL:** The overall desired effect including both long term or ongoing and terminal effects. For the purpose of this Section, goals are identified with a number.

**COSTS:** The estimated cost to achieve the corresponding objective.

**OBJECTIVE:** Actions or steps that will be taken to achieve the goal or desired effect. For the purpose of this plan, objectives are identified with a letter.

**TASK LEADER:** Either individual or collective responsible agency, department, organization, group, or person that will carry out the corresponding objective. Contact information for all Task Leaders is as follows:

### **Environmental Services Department**

**Director: John Sumption**

COURTHOUSE, 1st Floor  
300 Minnesota Avenue. P.O. Box 3000  
Walker, MN 56484-3000  
Phone: 218-547-7241  
Fax: 218-547-2440  
[cass.esd@co.cass.mn.us](mailto:cass.esd@co.cass.mn.us)

### **Health, Human, and Veteran Services**

**Director: Dorothy Opheim**

400 Michigan Avenue,  
P.O. Box 519  
Walker, MN 56484  
Phone: (218) 547-1340  
Office Hours: Monday-Friday from 8-4:30pm  
Off-Hours Emergency: 218-547-1424  
DHS Fraud Hotline: 1-800-627-9977

**Highway Department**

**County Engineer: Dave Enblom**

8045 CSAH 12

P.O. Box 579

Walker, MN 56484

Phone No. 218-547-1211

Toll-free 1-888-650-7368

Fax No. 218-547-1099

**Land Department**

**Land Commissioner: Norm Moody**

218 Washburn Ave E

P.O. Box 25

Backus, MN 56435

Pine Mountain Professional Building

Phone: 218-947-3338

Fax: 218-947-3230

[cassland@tds.net](mailto:cassland@tds.net)

**Management Information Systems (MIS)**

**Director: Tim Richardson**

PO Box 3000

Courthouse, 1st Floor

Phone: 218-547-7389

**Sheriff's Office**

**Sheriff: Randy Fisher**

300 Minnesota Avenue

PO Box 1119

Walker MN 56484

Phone: 218-547-1424 -or- 1-800-450-COPS (2677)

Fax: 218-547-3394 (Records/Administration) 218-547-7306

TIMELINE: Date or timeframe the objective will be achieved in. If an objective is ongoing or no specific date can be set to carry out the objective then it is labeled as "ongoing."

*Prioritization of Action Items*

*Assigned Value*

This section outlines the prioritization of the action items presented within this plan. Each action item or objective contained within this plan is assigned a prioritization value

based on the following table. These values are ranked 1 to 6 with 1 being a “highest priority” value and 6 being the “least priority” value.

Priority	Category
1.	Policy Improvements: Includes making changes to any policy(ies) maintained by Cass County.
2.	Process Improvements: Includes making changes to any programs or processes conducted by Cass County.
3.	Physical Improvements: Includes any projects related to improvement of structures or physical terrain to minimize or eliminate hazards.
4.	Information Gathering: Includes any action related to the inventorying or gathering of information.
5.	Outreach Projects: Includes the dissemination of information to the public.
6.	Communication Efforts: Includes ongoing cooperation and communication with organizations/agencies external to Cass County.

*Prioritization by Time Schedule*

Each action item presented within this section is scheduled for completion according to a specified timeline. All items of the same assigned value will be implemented according to the time schedule provided depending on the prioritization by costs.

*Prioritization by Costs*

Each action item is assigned an estimated cost. This estimate is purely a figure used to assess potential costs associated with the action item to be carried out and is not intended to represent any exact value or project cost. Cost benefit estimates were made on all action items during the development of this action plan. All action items of the same assigned value will be implemented contingent upon Cass County securing any necessary funding. This means that if an action item is a #1 priority, is scheduled to be completed in 2005, but funding cannot be secured until 2007, the item must be held until 2007 to be completed.

A thorough cost benefit analysis to determine the cost benefit ratio will be conducted by the implementing agency prior to the implementation of each project derived from this plan.



#### 4.1 Natural Hazard Goals, Objectives, and Strategies

Natural hazard mitigation measures presented throughout this planning process have been divided into the following groups:

- Tornado
- Flooding and Flash Flooding
- Winter Storms
- Drought
- Severe Summer Storms
- Sustained Wind Storm
- Extreme Heat
- Wildfire
- Infectious Disease

##### 4.1.1 TORNADO MITIGATION PLAN

Resources:

USDA Storm Resources & Info [http://disaster.usda.gov/storm\\_jump.htm](http://disaster.usda.gov/storm_jump.htm)

#### **Goal 1: Minimize the impacts of tornadoes on life and property**

Objectives	P	Timeframe							Cost
		2004	2005	2006	2007	2008	2009	Ongoing	
<b>1a:</b> Continue to provide Posters, brochures, media materials <b>Task Leader:</b> Emergency Management Director	5							X	Minimal
<b>1b:</b> Distribute educational materials with County mailings regarding fallout places, evacuation routes, safe locations during tornado events etc. <b>Task Leader:</b> Emergency Management Director	5							X	Minimal
<b>1c:</b> Provide information on making structures safer, materials, building storm shelters, etc. <b>Task Leader:</b> Environmental Services Department Director	5							X	Minimal
<b>1d:</b> Require storm shelters for all mobile home parks, multiple family dwellings <b>Task Leader:</b> County Environmental Services Department Director and City Planning & Zoning department Directors	1							X	\$2,000 Annually
<b>1e:</b> Encourage NWS weather radio use <b>Task Leaders:</b> Emergency Management Director	5							X	Minimal
<b>1f:</b> Continue to upgrade and improve Emergency Warning Systems	3							X	\$20,000 Annually

<b>Task Leaders:</b> Emergency Management Director									
<b>1g:</b> Require all warning systems to be radio activated by dispatch and have battery back-up <b>Task Leaders:</b> Emergency Management Director	<b>3</b>							X	\$5,000 Annually
<b>1h:</b> Establish neighborhood calling trees <b>Task Leaders:</b> Emergency Management Director	<b>2</b>			X	X				\$2,000 Annually
<b>1i:</b> Recommend residents, tourists, etc, purchase and carry NOAA weather radios. <b>Task Leaders:</b> Emergency Management Director	<b>5</b>							X	Minimal

#### 4.1.2 FLOODING AND FLASH FLOODING

Resources:

Minnesota Department of Natural Resources

#### **Goal 1: Minimize the impacts of flooding on life and property**

Objectives	P	Timeframe						Cost
		2005	2006	2007	2008	2009	Ongoing	
<b>1a:</b> Restrict building in floodplain areas that consistently flood <b>Task Leader:</b> Environmental Services Director	1						X	\$5,000
<b>1b:</b> Encourage development of parks and open space areas along floodplain areas that consistently flood <b>Task Leader:</b> Environmental Services Director	5						X	Minimal
<b>1c:</b> Continue to update Emergency Operation Plan yearly <b>Task Leader:</b> Emergency Management Director	1						X	\$5,000
<b>1d:</b> Encourage early participation of individual landowners in the FEMA National Flood Insurance Program by persons within floodplain areas <b>Task Leader:</b> Emergency Management Director	1						X	\$5,000

#### **Goal 2: Minimize impacts of flash floods on life and property**

Objectives	P	Timeframe						Cost
		2005	2006	2007	2008	2009	Ongoing	
<b>2a:</b> Provide public education on dangers of flash flooding <b>Task Leader:</b> Emergency Management Director	5						X	\$1,000
<b>2b:</b> Encourage municipalities to require the development of new storm sewer infrastructure capable	1		X					Minimal

of handling a ten to twenty year rain event in new subdivisions <b>Task Leader:</b> Environmental Services Department Director, Emergency Management Director									
<b>2c:</b> Inventory culverts yearly and keep culverts and drainage ditches free of debris <b>Task Leader:</b> County Highway Engineer, Town Boards	2							X	\$30,000 Annually
<b>2d:</b> Educate property owners on landscaping methods <b>Task Leader:</b> Environmental Services Director, Emergency Management Director	5	X							

#### 4.1.3 WINTER STORMS

Resources:

**Goal 1: Minimize the impacts of winter storm activity and cold weather events on citizens**

Objectives	P	Timeframe						Cost	
		2005	2006	2007	2008	2009	Ongoing		
<b>1a:</b> Provide education materials on regular furnace inspections and effects of carbon monoxide. <b>Task Leader:</b> Public Health Director, Emergency Management Director	5							X	Minimal
<b>1b:</b> Provide public education on winter driving techniques <b>Task Leader:</b> Emergency Management Director, Public Health Director, County Highway Engineer	5							X	Minimal
<b>1c:</b> Provide education on necessary emergency supplies and blankets in traveling vehicles <b>Task Leader:</b> Public Health Director	5							X	Minimal
<b>1d:</b> Provide education to the elderly and those that care for the elderly, to keep an ample supply of medication, "neighborhood checks" and "Lifeline" system <b>Task Leader:</b> Emergency Management Director, Public Health Director	5							X	Minimal

**Goal 2: Minimize the impacts of winter storm activity and cold weather events on property**

Objectives	P	Timeframe						Cost	
		2005	2006	2007	2008	2009	Ongoing		

<b>2a:</b> Provide information on building materials and practices that increase structural safety, and increase energy conservation in cold weather conditions <b>Task Leader:</b> Environmental Services Department Director	5							X	\$1,000
<b>2b:</b> Encourage the planting of trees and natural vegetation in new development to minimize large snow accumulation <b>Task Leader:</b> Environmental Services Department Director	5							X	Minimal
<b>2c:</b> Promote inspection and trimming of tree that potentially could fall onto power lines <b>Task Leader:</b> Emergency Management Director, Electric Service Providers	2							X	Minimal
<b>2d:</b> Promote the use of snow fencing <b>Task Leader:</b> Emergency Management Director	5							X	Minimal

**Goal 3: Prevent or minimize the impacts of winter storm activity and cold weather events on infrastructure including individual septic treatment systems**

Objectives	P	Timeframe							Cost
		2005	2006	2007	2008	2009	Ongoing		
<b>3a:</b> Draw upon local and hazard mitigation funding to ensure power infrastructure can withstand ice storm conditions by first identifying necessary improvement projects <b>Task Leader:</b> Emergency Management Director, Minnesota Power Company	3			X	X	X			\$100,000
<b>3b:</b> Provide information to landowners with Individual Septic Treatment Systems on ways to protect their systems from extreme cold <b>Task Leader:</b> Environmental Services Director	5							X	Minimal

**Goal 4: Minimize the impacts of winter storm activity and cold weather events on motorists**

Objectives	P	Timeframe							Cost
		2005	2006	2007	2008	2009	Ongoing		
<b>4a:</b> Encourage the planting of natural vegetation or the placement of snow fences or similar devices along roadways to minimize snow accumulation <b>Task Leader:</b> Highway Engineer	5							X	Minimal
<b>4b:</b> Continue providing exceptional snow removal,	2							X	\$200,000

salting, and sanding to minimize the impacts of snow accumulations on motorists <b>Task Leader:</b> Highway Engineer									Annually
<b>4c:</b> Promote the use of snow fencing, including “living snow fencing” <b>Task Leader:</b> Highway Engineer	5							X	Minimal

#### 4.1.4 NATURAL EROSION

##### **Goal 1: Lessen the effects of erosion on property.**

Objectives	P	Timeframe						Cost
		2005	2006	2007	2008	2009	Ongoing	
<b>1a:</b> Use “Rip Rap” and rock on shorelines identified as a priority by the Environmental Services Department. <b>Task Leader:</b> Environmental Services Department Director	2		X	X	X			\$20,000/ Annually (3 yrs)
<b>1b:</b> Continue the use of the County’s shore land vegetation mitigation program. <b>Task Leader:</b> Environmental Services Department Director	2						X	Minimal
<b>1c:</b> Correct damage caused by erosion and improper use or nonuse of silt fences. <b>Task Leader:</b> Environmental Services Department Director	3		X	X	X			\$50,000 Annually

#### 4.1.5 SEVERE SUMMER STORMS (Thunderstorm/Lightning/Hail/High Wind)

Resources:

USDA Storm Resources & Info [http://disaster.usda.gov/storm\\_jump.htm](http://disaster.usda.gov/storm_jump.htm)

##### **Goal 1: Minimize the impacts of severe summer storms on life and property**

Objectives	P	Timeframe						Cost
		2005	2006	2007	2008	2009	Ongoing	
<b>1a:</b> Continue to provide Posters, brochures, media materials, especially through power utilities <b>Task Leader:</b> Emergency Management Director	5						X	\$1,000

<b>1b:</b> Provide information on making structures safer: materials, building storm shelters, etc. <b>Task Leader:</b> Environmental Services Director	5							X	\$1,000
<b>1c:</b> Require storm shelters for all mobile home parks, multiple family dwellings <b>Task Leader:</b> Environmental Services Department Director	1							X	Minimal
<b>1d:</b> Encourage NWS weather radio use <b>Task Leader:</b> Emergency Management Director	5							X	Minimal
<b>1e:</b> Continue to upgrade and improve Emergency Warning Systems <b>Task Leaders:</b> Emergency Management Director	3							X	\$20,000/Annually
<b>1f:</b> Encourage cities to participate in state programs <b>Task Leaders:</b> Emergency Management Director	6							X	Minimal
<b>1g:</b> Provide education on what causes storm damage <b>Task Leader:</b> Emergency Management Director	5							X	\$1,000
<b>1h:</b> Recommend the use of windbreaks in all new development where natural or man-made windbreaks do not exist <b>Task Leader:</b> Emergency Management Director	5							X	Minimal
<b>1i:</b> Provide public education on the dangers of wind, especially winds associated with thunderstorm activity <b>Task Leader:</b> Emergency Management Director	5							X	\$1,000
<b>1j:</b> Provide information on reinforcement measures that can be taken by landowners to prevent damage caused by wind <b>Task Leader:</b> Environmental Services Department Director, Emergency Management Director	5							X	\$1,000

**Goal 2: Minimize the impacts of severe summer storms on roadways**

Objectives	P	Timeframe						Cost
		2005	2006	2007	2008	2009	Ongoing	
<b>2a:</b> Develop an inventory clearly identifying historical areas of road washout <b>Task Leader:</b> Emergency Management Director	4		X	X				\$5,000

4.1.6 WIND STORM (SUSTAINED)

Resources:

**Goal 1: Minimize the impacts of sustained wind storms on property**

Objectives	P	Timeframe						Cost
		2005	2006	2007	2008	2009	Ongoing	
<b>1a:</b> Recommend a list of building materials capable of handling high winds in areas without natural windbreaks <b>Task Leader:</b> Environmental Services Department Director	5						X	Minimal
<b>1b:</b> Encourage property owners to trim trees that are near buildings <b>Task Leader:</b> Environmental Services Department Director	5						X	\$2,000
<b>1c:</b> Encourage property owners to removed dead and diseased trees <b>Task Leader:</b> Environmental Services Department Director	5						X	\$2,000

4.1.7 INSECT INFESTATION

**Goal 1: Lessen the impacts of Army Worms and Asian Beetles through public education**

Objectives	P	Timeframe						Cost
		2005	2006	2007	2008	2009	Ongoing	
<b>1a:</b> Cooperate with state agencies in providing information related to insect infestations <b>Task Leader:</b> Public Health Director	6	X	X	X	X			\$5,000 Annually

**Goal 2: Lessen insect-related public health issues through public education (West Nile Virus, Lyme Disease, others).**

Objectives	P	Timeframe						Cost
		2005	2006	2007	2008	2009	Ongoing	
<p><b>2a:</b> Provide information related to impacts of insect-related public health issues include risks to person, animals, plants, etc.  <b>Task Leader:</b> Public Health Director</p>	5						X	Minimal
<p><b>2b:</b> Encourage residents, tourists, etc., to not keep open water pails, etc  <b>Task Leader:</b> Public Health Director</p>	2						X	Minimal



## 4.2 Human Cause/Technological Goals, Objectives, and Strategies

Human caused and technological hazard mitigation measures presented throughout this planning process have been divided into the following groups:

- Hazardous Material (Transport and Train)
- Hazardous Material (Fixed facilities)
- Power Grid Failure
- Dam Failure
- Computer Viruses
- Terrorism
- Railroad Interference with Emergency Response

### 4.2.1 Hazardous Material (Transport and Train)

Resources:

National Response Center

<http://www.nrc.uscg.mil/nrchp.html>

Department of Transportation

<http://hazmat.dot.gov/>

Disaster Help

[www.disasterhelp.gov](http://www.disasterhelp.gov)

Minnesota Emergency Planning and Community

Right-to-Know Act Program

<http://www.epcra.state.mn.us/>

### Goal 1: Prevent or minimize impacts of pipeline failures

Objectives	P	Timeframe						Cost
		2005	2006	2007	2008	2009	Ongoing	
<b>1a:</b> Educate and encourage the use of Gopher State One Call. “Call before you dig” <b>Task Leader:</b> Environmental Services Department Director, Emergency Management Director	5						X	Minimal
<b>1b:</b> Ensure that proper measures to enhance pipeline integrity are being followed <b>Task Leader:</b> Emergency Management Director	2						X	\$1,000
<b>1c:</b> Encourage pipeline companies to maintain an unobstructed right-of-way <b>Task Leader:</b> Emergency Management Director	6						X	Minimal
<b>1d:</b> Equip County GIS with capabilities to maintain hazard identification information specific to all parcels within the County. <b>Task Leader:</b> Emergency Management Director, MIS Director	4		X	X				\$20,000 Annually (2 Yrs.)
<b>1e:</b> To review zoning policy related to location of structures near major pipelines and revise the policy to include safe structure setbacks. <b>Task Leader:</b> Environmental Services Department Director	1		X					\$5,000

**Goal 2: Ensure the safe transportation of hazardous materials on railways within Cass County**

Objectives	P	Timeframe						Cost
		2005	2006	2007	2008	2009	Ongoing	
<b>1a:</b> Enforce laws regarding the transporting of hazardous materials <b>Task Leader:</b> Sheriff, City Police, State Patrol	2						X	Costs by Department
<b>1b:</b> Accountability of railroads to ensure proper inspection ,maintenance, etc. according to their procedures and policies <b>Task Leader:</b> Emergency Management Director	2						X	Minimal

4.2.2 Terrorism

**Goal 1: To prevent or lessen local terrorism activity including bomb threats and other terrorist threats.**

Objectives	P	Timeframe						Cost
		2005	2006	2007	2008	2009	Ongoing	
<b>1a:</b> Ensure public facilities have procedures for responding to bomb threats, terrorist threats, etc. <b>Task Leader:</b> Sheriff, Emergency Management Director	2						X	\$5,000

**Goal 2: To prevent or eliminate gang activity in Cass County.**

Objectives	P	Timeframe						Cost
		2005	2006	2007	2008	2009	Ongoing	
<b>2a:</b> Ensure Cass County has the proper resources and tools to monitor gang activity within the County. <b>Task Leader:</b> Sheriff, Emergency Management Director	2						X	\$20,000 Annually

### 4.2.3 WILDFIRE

Resources:

National Interagency Fire Center <http://www.nifc.gov/>  
 FEMA Wildfire Information <http://www.fema.org/hazards/fires/wildfires.shtm>  
 Minnesota DNR Wildfire <http://www.dnr.state.mn.us/forestry/fire/index.html>  
 USDA Fire Resources & Info [http://disaster.usda.gov/fire\\_jump.htm](http://disaster.usda.gov/fire_jump.htm)

**Goal 1: Implement measures to prevent wildfires in Cass County.**

Objectives	P	Timeframe						Cost
		2005	2006	2007	2008	2009	Ongoing	
<b>1a:</b> Continue to provide public education materials related to the prevention of forest fires and wildfire <b>Task Leader:</b> Environmental Services Director, Mn DNR, US Forestry Service	5						X	Minimal
<b>1b:</b> Continue to conduct controlled burns as necessary to prevent the spread of wildfires <b>Task Leader:</b> Mn DNR, US Forestry Service	2						X	DNR, Forestry Service
<b>1c:</b> Ensure the strong coordination between local fire departments and associations as well as those from outside areas to provide fire protection, which will reduce the impact of wildfires <b>Task Leader:</b> Emergency Management Director	6						X	\$2,000 Annually
<b>1d:</b> Record all permits within the county GIS system to easily access locations, etc., holding the permit. <b>Task Leader:</b> MIS Director	4			X	X			\$20,000 Start Up
<b>1e:</b> Review strip cutting strategy to prevent wide-scale wildfires. <b>Task Leader:</b> Land Department Director	2						X	Minimal
<b>1f:</b> Provide additional accesses to dead-end roads to ensure evacuation of persons. <b>Task Leader:</b> County Highway Engineer, Emergency Management Director	2						x	Minimal

#### 4.2.4 STRUCTURE FIRES

**Goal 1: Prevent structure fires.**

Objectives	P	Timeframe						Cost
		2005	2006	2007	2008	2009	Ongoing	
<b>1a:</b> Ensure abandoned structures are removed or properly secured by the current owner of the property <b>Task Leader:</b> Environmental Services Department Director	3						x	\$20,000 Annually
<b>1b:</b> Ensure “junk”, including scrap automobiles, wood products, flammable materials, et., are properly secured through enforcement by County departments and local officials. <b>Task Leader:</b> Environmental Services Department, Solid Waste Coordinator, Sheriff	2						x	\$20,000 Annually
<b>1c:</b> Review County ordinances related to “junk” automobiles and revise as necessary. In addition, the County must provide enforcement of the ordinance. <b>Task Leader:</b> Environmental Services Department Director	1		X	X				\$5,000
<b>1d:</b> Provide brief public education brochures or pamphlets related to prevention of fires or response to fires. Also develop and distribute a checklist for recreational property owners to properly secure their properties when you leave. <b>Task Leader:</b> Emergency Management Director	5						x	Minimal
<b>1e:</b> Develop policy requiring sprinkler systems for all commercial and public use structures based on the capacity of the structure. <b>Task Leader:</b> Environmental Services Department Director, Building Inspector	1		X	X				\$2,000

#### 4.2.5 FAILING ISTS

**Goal 1: Ensure groundwater quality through the monitoring of ISTS’s.**

Objectives	P	Timeframe						Cost
		2005	2006	2007	2008	2009	Ongoing	
<b>1a.</b> Continue monitoring and management of ISTS as outlined in the Cass County Comprehensive Plan <b>Task Leader:</b> Environmental Services Department Director	2						X	\$20,000 Annually

#### 4.2.6 DRUNK/IMPAIRED DRIVING

##### **Goal 1: To prevent or lessen the impacts of drunk driving in Cass County**

Objectives	P	Timeframe						Cost
		2005	2006	2007	2008	2009	Ongoing	
<b>1a:</b> Promote early education of drinking and driving in the County <b>Task Leader:</b> Sheriff	5						X	Minimal
<b>1b:</b> Public Awareness and education of drunk driving activity, public action, etc. <b>Task Leader:</b> Sheriff	5						X	Minimal

#### 4.2.7 SURFACE WATER CONTAMINATION

##### **Goal 1: To prevent and lessen the impacts of surface water contamination in the County**

Objectives	P	Timeframe						Cost
		2005	2006	2007	2008	2009	Ongoing	
<b>1a:</b> Public awareness and education of surface water contamination <b>Task Leader:</b> Environmental Services Department Director	5						X	Minimal
<b>1b:</b> Limit point and non-point contamination of storm water systems through public education and marking or stenciling of inlets. <b>Task Leader:</b> Environmental Services Department Director	3		X				X	Minimal

4.2.8 OHV USAGE AND ENVIRONMENTAL IMPACTS OF OHV USE.

**Goal 1: To prevent and lessen the environmental impacts of OHV misuse.**

Objectives	P	Timeframe						Cost
		2005	2006	2007	2008	2009	Ongoing	
<b>1a:</b> Public education on proper OHV use and the environmental impacts as a result of misuse. <b>Task Leader:</b> Environmental Services Department Director, Land Department Director	5						X	Minimal
<b>1b:</b> Strong enforcement of OHV use especially in critical environment areas by the County and also peer enforcement. <b>Task Leader:</b> Sheriff, Minnesota DNR Conservation Officers	2						X	Costs to DNR

4.2.9 METHAMPHETAMINE LABS

Resources:

**Goal 1: To prevent the establishment of Methamphetamine Labs in Cass County at the source of the chemicals used to manufacture it.**

Objectives	P	Timeframe						Cost
		2005	2006	2007	2008	2009	Ongoing	
<b>1a:</b> Provide a list of chemicals used to manufacture Methamphetamine to all businesses, etc., where the chemicals can be purchased. <b>Task Leader:</b> Sheriff's Department	5	X	X				X	Minimal

### 4.3 Potential Funding Sources

Implementation of the mitigation strategies is often dependent on funding assistance from Federal and State sources. FEMA provides funding for structural projects through hazard mitigation grant programs, such as the Hazard Mitigation Grant Program, Pre-Disaster Mitigation Assistance Program, and the Flood Mitigation Assistance Program. Strategies that qualify for FEMA assistance include structural improvements to dams, bridges, culvert replacement, as well as emergency generators and warning sirens. Financial support for other mitigation strategies proposed in this plan may be sought through alternative funding sources. Projects may be implemented with the assistance of non-profit organizations, or funds secured from Community Foundations. There are many State and Federal programs, in addition to private funding sources, that are available. A summary table of sources is provided as Appendix H.

Many communities believe they are unable to take steps in preventing damage from hazards due to lack of funding. Appendix H is intended to provide some examples of funding options. This list is not comprehensive and should be added to when new funding programs are created and recognized.

### 4.4 City Participation in Mitigation Objectives

Cities throughout Cass County identified their willingness to participate in the implementation of the tasks presented within Section 4.0 of this plan. Any city may, at any time, participate in the implementation of any of the tasks identified by this plan. To be included within this plan a city must first contact the Cass County Emergency Management Director. Below is a list of the level of participation offered by Cass County cities:

Section/Task Number	Participating Cities
<b>4.1.1 Tornados (p. 78)</b>	
1a	Lake Shore Longville Remer Backus Cass Lake Chickamaw Beach Pine River Hackensack East Gull Lake
1b	Lake Shore Remer Backus Cass Lake Chickamaw Beach

	Pine River
1c	Lake Shore Longville Remer Backus Cass Lake Chickamaw Beach Pine River
1d	Lake Shore Longville Cass Lake Chickamaw Beach Federal Dam
1e	Lake Shore Remer Backus Cass Lake Chickamaw Beach Pine River Pillager
1f	Lake Shore Remer Backus Cass Lake Chickamaw Beach Hackensack East Gull Lake
1g	Lake Shore Cass Lake Chickamaw Beach
1h	Lake Shore Remer Backus Cass Lake Chickamaw Beach
1i	Lake Shore Remer Backus Cass Lake Chickamaw Beach Pine River



<b>4.1.2 Flooding (p. 79)</b>	
1a	Lake Shore Remer Chickamaw Beach Federal Dam
1b	Lake Shore Remer Chickamaw Beach
1c	Lake Shore Remer Chickamaw Beach Federal Dam
1d	Lake Shore Remer Chickamaw Beach
2a	Lake Shore Remer Cass Lake Chickamaw Beach
2b	Lake Shore Remer Backus Cass Lake Chickamaw Beach Federal Dam Pine River
2c	Lake Shore Remer Backus Cass Lake Chickamaw Beach
2d	Lake Shore Remer Cass Lake Chickamaw Beach East Gull Lake

<b>4.1.3 Winter Storms (p. 80)</b>	
1a	Lake Shore Longville Remer Backus Cass Lake Chickamaw Beach Pine River
1b	Lake Shore Longville Remer Cass Lake Chickamaw Beach Pine River
1c	Lake Shore Longville Remer Backus Cass Lake Chickamaw Beach Pine River
1d	Lake Shore Longville Remer Backus Cass Lake Chickamaw Beach Pine River
2a	Lake Shore Longville Remer Cass Lake Chickamaw Beach
2b	Lake Shore Longville Remer Backus Cass Lake Chickamaw Beach Pine River

2c	Lake Shore Remer Backus Cass Lake Chickamaw Beach Pine River Pillager
2d	Lake Shore Cass Lake Chickamaw Beach Pine River
3a	Lake Shore Remer Cass Lake Chickamaw Beach
3b	Lake Shore Remer Cass Lake Chickamaw Beach Pine River Hackensack East Gull Lake
4a	Lake Shore Longville Backus Cass Lake Chickamaw Beach Pine River
4b	Lake Shore Longville Remer Backus Cass Lake Chickamaw Beach
4c	Lake Shore Remer Backus Cass Lake Chickamaw Beach Pine River

<b>4.1.4 Natural Erosion (p. 82)</b>	
2a	Lake Shore Longville Cass Lake Chickamaw Beach
2b	Lake Shore Longville Backus Cass Lake Chickamaw Beach Pine River
2c	Lake Shore Longville Cass Lake Chickamaw Beach
<b>4.1.5 Summer Storms (p. 82)</b>	
1a	Lake Shore Longville Remer Backus Cass Lake Chickamaw Beach Pine River
1b	Lake Shore Remer Cass Lake Chickamaw Beach
1c	Lake Shore Longville Cass Lake Chickamaw Beach Federal Dam Pine River
1d	Lake Shore Longville Remer Backus Cass Lake Chickamaw Beach Pine River Pillager

1e	Lake Shore Remer Backus Cass Lake Chickamaw Beach Pine River
1f	Lake Shore Remer Backus Cass Lake Chickamaw Beach Pine River
1g	Lake Shore Remer Cass Lake Chickamaw Beach
1h	Lake Shore Remer Backus Cass Lake Chickamaw Beach Pine River
1i	Lake Shore Remer Backus Cass Lake Chickamaw Beach Pine River
1j	Lake Shore Remer Cass Lake Chickamaw Beach Pine River
2a	Lake Shore Backus Cass Lake Chickamaw Beach

<b>4.1.6 Wind (p. 84)</b>	
2a	Lake Shore Longville Remer Cass Lake Chickamaw Beach
2b	Lake Shore Longville Remer Backus Cass Lake Chickamaw Beach
2c	Lake Shore Longville Remer Backus Cass Lake Chickamaw Beach Pine River
<b>4.1.7 Insects (p. 84)</b>	
1a	Lake Shore Remer Backus Cass Lake Chickamaw Beach
2a	Lake Shore Remer Backus Cass Lake Chickamaw Beach Pine River
2b	Lake Shore Remer Backus Cass Lake Chickamaw Beach Pine River
<b>4.2.1 Hazard Material (p. 86)</b>	
1a	Lake Shore Longville Remer Backus

	Cass Lake Chickamaw Beach Pine River Hackensack East Gull Lake
1b	Lake Shore Remer Cass Lake Chickamaw Beach Pine River
1c	Lake Shore Remer Backus Cass Lake Chickamaw Beach Pine River
1d	Lake Shore Remer Cass Lake Chickamaw Beach
1e	Lake Shore Remer Cass Lake Chickamaw Beach Federal Dam
2a	Lake Shore Remer Backus Cass Lake Chickamaw Beach Pine River
2b	Lake Shore Remer Cass Lake Chickamaw Beach Pillager
<b>4.2.2 Terrorism (p. 87)</b>	
1a	Lake Shore Longville Remer Backus Cass Lake Chickamaw Beach Pine River
2a	Lake Shore Longville

	Remer Backus Cass Lake Chickamaw Beach
<b>4.2.3 Wildfire (p. 88)</b>	
1a	Lake Shore Longville Remer Backus Cass Lake Chickamaw Beach Pine River
1b	Lake Shore Remer Backus Cass Lake Chickamaw Beach
1c	Lake Shore Remer Backus Cass Lake Chickamaw Beach Pine River
1d	Lake Shore Remer Cass Lake Chickamaw Beach
1e	Lake Shore Cass Lake Chickamaw Beach
1f	Lake Shore Remer Cass Lake Chickamaw Beach
<b>4.2.4 Structure Fires (p. 89)</b>	
1a	Lake Shore Longville Remer Backus



	Cass Lake Chickamaw Beach
1b	Lake Shore Longville Remer Backus Cass Lake Chickamaw Beach
1c	Lake Shore Longville Remer Backus Cass Lake Chickamaw Beach Federal Dam
1d	Lake Shore Remer Backus Cass Lake Chickamaw Beach Pine River Pillager
1e	Lake Shore Cass Lake Chickamaw Beach Federal Dam
<b>4.2.5 Failing ISTS (p. 89)</b>	
1a	Lake Shore Remer Cass Lake Chickamaw Beach
<b>4.2.6 Drunk Driving (p. 90)</b>	
1a	Lake Shore Remer Backus Cass Lake Chickamaw Beach Pine River
1b	Lake Shore Remer

	Backus Cass Lake Chickamaw Beach Pine River
<b>4.2.7 Surface Water Contamination (p. 90)</b>	
1a	Lake Shore Longville Remer Backus Cass Lake Chickamaw Beach Federal Dam Pine River
1b	Lake Shore Longville Remer Cass Lake Chickamaw Beach Pine River
<b>4.2.8 OHV Usage (p. 91)</b>	
1a	Lake Shore Longville Remer Cass Lake Chickamaw Beach
1b	Lake Shore Longville Remer Cass Lake Chickamaw Beach
<b>4.2.9 Meth Labs (p. 91)</b>	
1a	Lake Shore Longville Remer Backus Cass Lake Chickamaw Beach Pine River

# City of Backus

## Population

	Number	Percent %
1970	257	
1980	255	
1990	240	
2000	311	
2002	314	
Percent % of Change 1990-2000	71	29.58
Percent % of Change 1970-2000		21.01
65 and Over of 2000 Population	60	19.29
85 and Over of 2000 Population	8	2.57

## Population By Race

	Number	Percent %
White	305	98.10
Black or African American	0	0.00
American Indian or Alaska Native	0	0.00
Asian	2	0.60
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	4	1.30
Total	311	100.00
Hispanic or Latino	0	0.00

## Education Attainment

	Number	Percent %
No Schooling completed	0	0
Nursery to 4th grade	0	0
5th to 6th grade	4	2.12
7th to 8th grade	2	1.06
9th grade	2	1.06
10th grade	2	1.06
11th grade	14	7.41
12th grade, no diploma	8	4.23
High school graduate (include equivalency)	67	35.45
Some college, less than 1 year	25	13.23
Some college, 1 or more years, no degree	34	17.99
Associate degree	14	7.41
Bachelor's degree	15	7.94
Master's degree	2	1.06
Professional school degree	0	0
Doctorate Degree	0	0
Total	189	100

## Housing

	Number	Percent %
Number of Households	123	
Persons per Household	2.53	
Number of Housing Units	194	
Vacant Units Non Seasonal	15	7.73
Vacant Units Seasonal	56	28.87
Owner Occupied Units	88	45.36
Renter Occupied Units	35	18.04

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	6	3.33
Built 1995 to 1998	0	0.00
Built 1990 to 1994	4	2.22
Built 1980 to 1989	27	15.00
Built 1970 to 1979	34	18.89
Built 1960 to 1969	26	14.44
Built 1950 to 1959	16	8.89
Built 1940 to 1949	21	11.67
Built 1939 and Earlier	46	25.56
Total	180	100.00

## Heating Method

	Number	Percent %
Utility Gas	3	2.29
Bottled, tank, or LP gas	80	61.07
Electricity	6	4.58
Fuel Oil, kerosene, etc.	30	22.90
Coal or coke	0	0.00
Wood	9	6.87
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	3	2.29
Total	131	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	10,186,400
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## Economic Development

	Number
Average Income	28,758
Median Income	26,875
Per Capita Income	12,077
2000 Population	311
Total Income	3,780,100

## Poverty

	Number
Income below poverty level	27
Income at or above poverty level	103

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	5	4.63
Agriculture, forestry, fishing and hunting	5	4.63
Mining	0	0.00
Construction	4	3.70
Manufacturing	17	15.74
Wholesale trade	2	1.85
Retail trade	21	19.44
Transportation and warehousing, and utilities	3	2.78
Transportation and warehousing	3	2.78
Utilities	0	0.00
Information	5	4.63
Finance, insurance, real estate and rental and leasing	0	0.00
Finance and insurance	0	0.00
Real estate and rental and leasing	0	0.00
Professional , scientific, management, administrative, and waste management services	3	2.78
Professional ,scientific, and technical services	0	0.00
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	3	2.78
Educational, health and social services	21	19.44
Educational services	10	9.26
Health care and social assistance	11	10.19
Arts, entertainment, recreation, accommodation and food services	21	19.44
Arts, entertainment, and recreation	4	3.70
Accommodation and food services	17	15.74
Other services	1	0.93
Pubic Administration	5	4.63
Total	108	100.00

**Top 3 Employers**

	<b>Number of Employees</b>
Backus Elementary School	48
Evenlund's Inc.	42
Backus Corner Store and Restaurant /Godfrey Super Valu	28
<b>Total</b>	<b>118</b>

**Transportation**

	<b>Number</b>	<b>Percent %</b>
Car, Truck or van	103	98.10
Drive alone	89	84.76
Carpooled	14	13.33
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	0	0.00
Other means	0	0.00
Worked at home	2	1.90
<b>Total</b>	<b>105</b>	<b>100.00</b>

<b>Mean Travel Time to Work</b>	<b>23.4</b>
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# City of Bena

## Population

	Number	Percent %
1970	169	
1980	153	
1990	147	
2000	110	
2002	111	
Percent % of Change 1990-2000	-37	-25.17
Percent % of Change 1970-2000		-34.91
65 and Over of 2000 Population	19	17.27
85 and Over of 2000 Population	2	1.82

## Population By Race

	Number	Percent %
White	27	24.50
Black or African American	0	0.00
American Indian or alaska Native	77	70.00
Asian	0	0.00
Native Hawaiian and Oher Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	6	5.50
Total	110	100.00
Hispanic or Latino	0	0.00

## Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	2	3.51
5th to 6th grade	0	0.00
7th to 8th grade	6	10.53
9th grade	2	3.51
10th grade	0	0.00
11th grade	12	21.05
12th grade, no diploma	16	28.07
High school graduate (include equivalency)	7	12.28
Some college, less than 1 year	0	0.00
Some college, 1or more years, no degree	7	12.28
Associate degree	5	8.77
Bachelor's degree	0	0.00
Master's degree	0	0.00
Professional school degree	0	0.00
Doctorate degree	0	0.00
Total	57	100.00

## Housing

	Number	Percent %
Number of Households	48	
Persons per Household	2.29	
Number of Housing Units	72	
Vacant Units Non Seasonal	13	18.06
Vacant Units Seasonal	11	15.28
Owner Occupied Units	38	52.78
Renter Occupied Units	10	13.89

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	2	4.00
Built 1995 to 1998	2	4.00
Built 1990 to 1994	0	0.00
Built 1980 to 1989	7	14.00
Built 1970 to 1979	0	0.00
Built 1960 to 1969	5	10.00
Built 1950 to 1959	11	22.00
Built 1940 to 1949	8	16.00
Built 1939 and Earlier	15	30.00
Total	50	100.00

## Heating Method

	Number	Percent %
Utility Gas	0	0.00
Bottled, tank, or LP gas	37	88.10
Electricity	0	0.00
Fuel Oil, kerosene, etc.	5	11.90
Coal or coke	0	0.00
Wood	0	0.00
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	42	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	1,235,600
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## Economic Development

	Number
Average Income	15,762
Median Income	11,563
Per Capita Income	7,619
2000 Population	110
Total Income	617,100

## Poverty

	Number
Income below poverty level	19
Income at or above poverty level	18

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	3	20.00
Agriculture, forestry, fishing and hunting	3	20.00
Mining	0	0.00
Construction	2	13.33
Manufacturing	0	0.00
Wholesale trade	0	0.00
Retail trade	0	0.00
Transportation and warehousing, and utilities	2	13.33
Transportation and warehousing	2	13.33
Utilities	0	0.00
Information	0	0.00
Finance, insurance, real estate and rental and leasing	0	0.00
Finance and insurance	0	0.00
Real estate and rental and leasing	0	0.00
Professional , scientific, management, administrative, and waste management services	0	0.00
Professional ,scientific, and technical services	0	0.00
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	0	0.00
Educational, health and social services	0	0.00
Educational services	0	0.00
Health care and social assistance	0	0.00
Arts, entertainment, recreation, accommodation and food services	0	0.00
Arts, entertainment, and recreation	0	0.00
Accommodation and food services	0	0.00
Other services	4	26.66
Public Administration	4	26.66
Total	15	100

**Top 3 Employers**

	Number of Employees
Total	

**Transportation**

	Number	Percent %
Car, Truck or van	11	73.33
Drive alone	11	73.33
Carpooled	0	0
Public Transportation	1	6.67
Bus or trolley bus	0	0
Streetcar or trolley car	1	6.67
Subway or elevated	0	0
Railroad	0	0
Ferry boat	0	0
Taxicab	0	0
Motorcycle	0	0
Bicycle	0	0
Walked	0	0
Other means	0	0
Worked at home	3	20
Total	15	100

Mean Travel Time to Work	54.6
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## City of Boy River

### Population

	Number	Percent %
1970	44	
1980	50	
1990	43	
2000	38	
2002	38	
Percent % of Change 1990-2000	-5	-11.63
Percent % of Change 1970-2000		-13.64
65 and Over of 2000 Population	9	23.68
85 and Over of 2000 Population	0	0

### Population By Race

	Number	Percent %
White	32	84.20
Black or African American	0	0.00
American Indian or Alaska Native	5	13.20
Asian	0	0.00
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	1	2.60
Total	38	100.00
Hispanic or Latino	1	2.60

### Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	0	0.00
5th to 6th grade	0	0.00
7th to 8th grade	0	0.00
9th grade	0	0.00
10th grade	6	33.33
11th grade	3	16.67
12th grade, no diploma	0	0.00
High school graduate (include equivalency)	8	44.44
Some college, less than 1 year	1	5.56
Some college, 1 or more years, no degree	0	0.00
Associate degree	0	0.00
Bachelor's degree	0	0.00
Master's degree	0	0.00
Professional school degree	0	0.00
Doctorate degree	0	0.00
Total	18	100.00

## Housing

	Number	Percent %
Number of Households	18	
Persons per Household	2.11	
Number of Housing Units	27	
Vacant Units Non Seasonal	2	7.40
Vacant Units Seasonal	7	25.92
Owner Occupied Units	18	66.66
Renter Occupied Units	0	0.00

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	0	0.00
Built 1995 to 1998	2	7.14
Built 1990 to 1994	0	0.00
Built 1980 to 1989	0	0.00
Built 1970 to 1979	12	42.85
Built 1960 to 1969	2	7.14
Built 1950 to 1959	2	7.14
Built 1940 to 1949	0	0.00
Built 1939 and Earlier	10	35.71
Total	28	100.00

## Heating Method

	Number	Percent %
Utility Gas	0	0
Bottled, tank, or LP gas	11	84.61
Electricity	0	0
Fuel Oil, kerosene, etc.	0	0
Coal or coke	0	0
Wood	2	15.38
Solar energy	0	0
Other fuel	0	0
No fuel used	0	0
Total	13	100

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	754,400
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## Economic Development

	Number
Average Income	20,277
Median Income	13,125
Per Capita Income	10,556
Total Population	38
Total Income	263,900

## Poverty

	Number
Income below poverty level	6
Income at or above poverty level	7

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	0	0.00
Agriculture, forestry, fishing and hunting	0	0.00
Mining	0	0.00
Construction	0	0.00
Manufacturing	0	0.00
Wholesale trade	1	20.00
Retail trade	0	0.00
Transportation and warehousing, and utilities	0	0.00
Transportation and warehousing	0	0.00
Utilities	0	0.00
Information	2	40.00
Finance, insurance, real estate and rental and leasing	0	0.00
Finance and insurance	0	0.00
Real estate and rental and leasing	0	0.00
Professional , scientific, management, administrative, and waste management services	0	0.00
Professional ,scientific, and technical services	0	0.00
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	0	0.00
Educational, health and social services	0	0.00
Educational services	0	0.00
Health care and social assistance	0	0.00
Arts, entertainment, recreation, accommodation and food services	0	0.00
Arts, entertainment, and recreation	0	0.00
Accommodation and food services	0	0.00
Other services	2	40.00
Pubic Administration	0	0.00
Total	5	100.00

**Top 3 Employers**

	Number of Employees
Total	

**Transportation**

	Number	Percent %
Car, Truck or van	5	100.00
Drive alone	3	60.00
Carpooled	3	60.00
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	0	0.00
Other means	0	0.00
Worked at home	2	40.00
Total	5	100.00

Mean Travel Time to Work	23.3
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# City of Cass Lake

## Population

	Number	Percent %
1970	1,317	
1980	1,001	
1990	923	
2000	860	
2002	850	
Percent % of Change 1990-2000	-63	-6.83
Percent % of Change 1970-2000		-34.70
65 and Over of 2000 Population	123	14.30
85 and Over of 2000 Population	22	2.56

## Population By Race

	Number	Percent %
White	259	30.10
Black or African American	0	0.00
American Indian or alaska Native	554	64.40
Asian	0	0.00
Native Hawaiian and Oher Pacific Islanders	0	0.00
Other Single Race	2	0.20
Two or More Races	45	5.20
Total	860	100.00
Hispanic or Latino	15	1.74

## Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	3	0.67
5th to 6th grade	12	2.68
7th to 8th grade	42	9.39
9th grade	12	2.68
10th grade	26	5.81
11th grade	31	6.93
12th grade, no diploma	5	111.00
High school graduate (include equivalency)	166	37.13
Some college, less than 1 year	30	6.71
Some college, 1or more years, no degree	60	13.42
Associate degree	29	6.48
Bachelor's degree	22	4.92
Master's degree	4	0.89
Professional school degree	5	1.11
Doctorate degree	0	0.00
Total	447	100.00

## Housing

	Number	Percent %
Number of Households	331	
Persons per Household	2.59	
Number of Housing Units	384	
Vacant Units Non Seasonal	42	10.92
Vacant Units Seasonal	11	2.86
Owner Occupied Units	177	46.09
Renter Occupied Units	154	40.10

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	8	2.18
Built 1995 to 1998	23	6.27
Built 1990 to 1994	19	5.18
Built 1980 to 1989	36	9.81
Built 1970 to 1979	45	12.26
Built 1960 to 1969	24	6.54
Built 1950 to 1959	32	8.72
Built 1940 to 1949	63	17.17
Built 1939 and Earlier	117	31.88
Total	367	100.00

## Heating Method

	Number	Percent %
Utility Gas	85	26.15
Bottled, tank, or LP gas	70	21.54
Electricity	53	16.31
Fuel Oil, kerosene, etc.	86	26.46
Coal or coke	0	0.00
Wood	18	5.54
Solar energy	0	0.00
Other fuel	6	1.85
No fuel used	7	2.15
Total	325	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0.00
Nursing Homes	0	0.00
Other institutions	0	0.00
College dormitories	0	0.00
Military quarters	0	0.00
Other non institutional group quarters	4	100.00
Total	4	100.00

## Market Values

Estimated Market Value	14,766,800
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## Economic Development

	Number
Average Income	25,005
Median Income	20,583
Per Capita Income	9,569
Total Population	860
Total Income	7,913,700

## Poverty

	Number
Income below poverty level	102
Income at or above poverty level	217

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	0	0.00
Agriculture, forestry, fishing and hunting	0	0.00
Mining	0	0.00
Construction	17	6.27
Manufacturing	11	4.05
Wholesale trade	0	0.00
Retail trade	28	10.33
Transportation and warehousing, and utilities	2	0.73
Transportation and warehousing	2	0.73
Utilities	0	0.00
Information	2	0.73
Finance, insurance, real estate and rental and leasing	16	5.90
Finance and insurance	5	1.84
Real estate and rental and leasing	11	4.05
Professional , scientific, management, administrative, and waste management services	7	2.58
Professional ,scientific, and technical services	5	1.84
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	2	0.73
Educational, health and social services	52	19.18
Educational services	29	10.70
Health care and social assistance	23	8.48
Arts, entertainment, recreation, accommodation and food services	106	39.11
Arts, entertainment, and recreation	89	37.84
Accommodation and food services	17	6.27
Other services	5	1.84
Pubic Administration	25	9.22
Total	271	100.00

**Top 3 Employers**

	Number of Employees
Total	

**Transportation**

	Number	Percent %
Car, Truck or van	220	84.94
Drive alone	153	59.07
Carpooled	67	25.87
Public Transportation	13	5.02
Bus or trolley bus	11	4.25
Streetcar or trolley car	2	0.77
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	18	6.95
Other means	8	3.09
Worked at home	0	0.00
Total	259	100.00

Mean Travel Time to Work	13.2
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# City of Chickamaw Beach

## Population

	Number	Percent %
1970	87	
1980	124	
1990	132	
2000	148	
2002	148	
Percent % of Change 1990-2000	16	12.12
Percent % of Change 1970-2000		70.11
65 and Over of 2000 Population	34	22.97
85 and Over of 2000 Population	2	1.35

## Population By Race

	Number	Percent %
White	148	100.00
Black or African American	0	0.00
American Indian or Alaska Native	0	0.00
Asian	0	0.00
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	0	0.00
Total	148	100.00
Hispanic or Latino	1	0.67

## Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	0	0.00
5th to 6th grade	0	0.00
7th to 8th grade	2	2.00
9th grade	0	0.00
10th grade	2	2.00
11th grade	4	4.00
12th grade, no diploma	10	10.00
High school graduate (include equivalency)	39	39.00
Some college, less than 1 year	2	2.00
Some college, 1 or more years, no degree	18	18.00
Associate degree	6	6.00
Bachelor's degree	13	13.00
Master's degree	3	3.00
Professional school degree	5	5.00
Doctorate degree	0	0.00
Total	100	100.00

## Housing

	Number	Percent %
Number of Households	63	
Persons per Household	2.35	
Number of Housing Units	110	
Vacant Units Non Seasonal	1	0.91
Vacant Units Seasonal	46	41.82
Owner Occupied Units	63	57.27
Renter Occupied Units	0	0.00

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	2	1.79
Built 1995 to 1998	4	3.57
Built 1990 to 1994	4	8.57
Built 1980 to 1989	10	8.93
Built 1970 to 1979	11	9.82
Built 1960 to 1969	17	15.18
Built 1950 to 1959	18	16.07
Built 1940 to 1949	18	16.07
Built 1939 and Earlier	28	25.00
Total	112	100.00

## Heating Method

	Number	Percent %
Utility Gas	18	
Bottled, tank, or LP gas	13	33.96
Electricity	16	24.53
Fuel Oil, kerosene, etc.	6	30.19
Coal or coke	0	11.32
Wood	0	0.00
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	53	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	11,506,800
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## Economic Development

	Number
Average Income	53,006
Median Income	28,750
Per Capita Income	20,223
Total Population	148
Total Income	3,013,300

## Poverty

	Number
Income below poverty level	5
Income at or above poverty level	48

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	1	1.96
Agriculture, forestry, fishing and hunting	1	1.96
Mining	0	0.00
Construction	13	25.49
Manufacturing	0	0.00
Wholesale trade	0	0.00
Retail trade	2	7.84
Transportation and warehousing, and utilities	0	9.80
Transportation and warehousing	0	0.00
Utilities	0	0.00
Information	3	5.88
Finance, insurance, real estate and rental and leasing	0	0.00
Finance and insurance	0	0.00
Real estate and rental and leasing	0	0.00
Professional , scientific, management, administrative, and waste management services	0	0.00
Professional ,scientific, and technical services	0	0.00
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	0	0.00
Educational, health and social services	15	29.41
Educational services	7	13.72
Health care and social assistance	8	15.68
Arts, entertainment, recreation, accommodation and food services	0	0.00
Arts, entertainment, and recreation	0	0.00
Accommodation and food services	0	0.00
Other services	5	9.80
Public Administration	2	3.92
Total	51	100.00

**Top 3 Employers**

	Number of Employees
Total	

**Transportation**

	Number	Percent %
Car, Truck or van	47	92.16
Drive alone	41	80.39
Carpooled	6	11.76
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	3	5.88
Other means	0	0.00
Worked at home	1	1.96
Total	51	100.00

Mean Travel Time to Work	21
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## City of East Gull Lake

### Population

	Number	Percent %
1970	440	
1980	586	
1990	687	
2000	978	
2002	981	
Percent % of Change 1990-2000	291	42.36
Percent % of Change 1970-2000		122.27
65 and Over of 2000 Population	126	12.88
85 and Over of 2000 Population	11	1.12

### Population By Race

	Number	Percent %
White	960	98.20
Black or African American	3	0.30
American Indian or Alaska Native	1	0.10
Asian	7	0.70
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	2	0.20
Two or More Races	5	0.50
Total	978	100.00
Hispanic or Latino	14	1.43

### Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	0	0.00
5th to 6th grade	2	0.29
7th to 8th grade	7	1.04
9th grade	2	0.29
10th grade	5	0.74
11th grade	4	0.59
12th grade, no diploma	6	0.89
High school graduate (include equivalency)	171	25.52
Some college, less than 1 year	47	7.01
Some college, 1 or more years, no degree	107	15.97
Associate degree	69	10.29
Bachelor's degree	178	26.56
Master's degree	46	6.86
Professional school degree	21	3.13
Doctorate degree	5	0.74
Total	670	100.00

## Housing

	Number	Percent %
Number of Households	370	
Persons per Household	2.64	
Number of Housing Units	709	
Vacant Units Non Seasonal	10	1.41
Vacant Units Seasonal	329	46.40
Owner Occupied Units	328	46.26
Renter Occupied Units	42	5.92

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	27	3.79
Built 1995 to 1998	60	8.43
Built 1990 to 1994	83	11.67
Built 1980 to 1989	159	22.33
Built 1970 to 1979	136	19.10
Built 1960 to 1969	66	9.27
Built 1950 to 1959	57	8.01
Built 1940 to 1949	61	8.57
Built 1939 and Earlier	63	8.85
Total	712	100.00

## Heating Method

	Number	Percent %
Utility Gas	214	58.31
Bottled, tank, or LP gas	25	6.81
Electricity	72	19.62
Fuel Oil, kerosene, etc.	34	9.26
Coal or coke	0	0.00
Wood	18	4.90
Solar energy	0	0.00
Other fuel	2	0.54
No fuel used	2	0.54
Total	367	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	271,184,700
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## Economic Development

	Number
Average Income	71,444
Median Income	55,750
Per Capita Income	27,329
Total Poulation	978
Total Income	26,873,200

## Poverty

	Number
Income below poverty level	29
Income at or above poverty level	343

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	2	0.42
Agriculture, forestry, fishing and hunting	2	0.42
Mining	0	0.00
Construction	23	4.93
Manufacturing	57	12.23
Wholesale trade	25	5.36
Retail trade	65	13.94
Transportation and warehousing, and utilities	25	5.36
Transportation and warehousing	19	4.07
Utilities	6	1.28
Information	16	3.43
Finance, insurance, real estate and rental and leasing	25	5.36
Finance and insurance	15	3.21
Real estate and rental and leasing	10	2.14
Professional , scientific, management, administrative, and waste management services	26	5.57
Professional ,scientific, and technical services	15	3.21
Management of companies and enterprises	2	0.42
Administrative and support and waste management services	9	1.93
Educational, health and social services	84	18.02
Educational services	43	9.22
Health care and social assistance	41	8.79
Arts, entertainment, recreation, accommodation and food services	65	13.94
Arts, entertainment, and recreation	13	2.78
Accommodation and food services	52	11.15
Other services	21	4.50
Pubic Administration	32	6.86
Total	466	100.00

**Top 3 Employers**

	Number of Employees
Total	

**Transportation**

	Number	Percent %
Car, Truck or van	423	91.76
Drive alone	377	81.78
Carpooled	46	9.98
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	6	1.30
Other means	2	0.43
Worked at home	30	6.51
Total	461	100.00

Mean Travel Time to Work	20.3
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## City of Federal Dam

### Population

	Number	Percent %
1970	147	
1980	192	
1990	118	
2000	101	
2002	104	
Percent % of Change 1990-2000	-17	-14.41
Percent % of Change 1970-2000		-31.29
65 and Over of 2000 Population	20	19.8
85 and Over of 2000 Population	2	1.98

### Population By Race

	Number	Percent %
White	72	71.30
Black or African American	0	0.00
American Indian or Alaska Native	19	18.80
Asian	1	1.00
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	9	8.90
Total	101	100.00
Hispanic or Latino	0	0.00

### Education Attainment

	Number	Percent %
No Schooling completed	2	2.94
Nursery to 4th grade	0	0.00
5th to 6th grade	0	0.00
7th to 8th grade	0	0.00
9th grade	4	5.88
10th grade	8	11.76
11th grade	0	0.00
12th grade, no diploma	5	7.35
High school graduate (include equivalency)	18	26.47
Some college, less than 1 year	7	10.29
Some college, 1 or more years, no degree	14	20.58
Associate degree	4	5.88
Bachelor's degree	6	8.82
Master's degree	0	0.00
Professional school degree	0	0.00
Doctorate degree	0	0.00
Total	68	100.00

## Housing

	Number	Percent %
Number of Households	43	
Persons per Household	2.35	
Number of Housing Units	81	
Vacant Units Non Seasonal	10	12.34
Vacant Units Seasonal	28	34.56
Owner Occupied Units	39	48.14
Renter Occupied Units	4	4.93

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	2	2.15
Built 1995 to 1998	4	4.30
Built 1990 to 1994	3	3.22
Built 1980 to 1989	11	11.82
Built 1970 to 1979	10	10.75
Built 1960 to 1969	4	4.30
Built 1950 to 1959	13	13.97
Built 1940 to 1949	23	24.73
Built 1939 and Earlier	23	24.73
Total	93	100.00

## Heating Method

	Number	Percent %
Utility Gas	0	0.00
Bottled, tank, or LP gas	29	58.00
Electricity	0	0.00
Fuel Oil, kerosene, etc.	12	24.00
Coal or coke	0	0.00
Wood	9	18.00
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	50	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	7,717,300
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## Economic Development

	Number
Average Income	27,681
Median Income	22,917
Per Capita Income	12,414
Total Population	101
Total Income	1,328,300

## Poverty

	Number
Income below poverty level	11
Income at or above poverty level	36

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	1	2.56
Agriculture, forestry, fishing and hunting	1	2.56
Mining	0	0.00
Construction	7	17.94
Manufacturing	2	2.12
Wholesale trade	0	0.00
Retail trade	11	28.20
Transportation and warehousing, and utilities	8	20.51
Transportation and warehousing	3	7.69
Utilities	5	12.82
Information	0	0.00
Finance, insurance, real estate and rental and leasing	0	0.00
Finance and insurance	0	0.00
Real estate and rental and leasing	0	0.00
Professional , scientific, management, administrative, and waste management services	0	0.00
Professional ,scientific, and technical services	0	0.00
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	0	0.00
Educational, health and social services	0	0.00
Educational services	0	0.00
Health care and social assistance	0	0.00
Arts, entertainment, recreation, accommodation and food services	3	7.69
Arts, entertainment, and recreation	0	0.00
Accommodation and food services	3	7.69
Other services	0	0.00
Pubic Administration	7	17.94
Total	39	100.00

**Top 3 Employers**

	Number of Employees
Total	

**Transportation**

	Number	Percent %
Car, Truck or van	30	76.92
Drive alone	30	76.92
Carpooled	0	0.00
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	5	12.82
Other means	1	2.56
Worked at home	3	7.69
Total	39	100.00

Mean Travel Time to Work	30.3
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# City of Hackensack

## Population

	Number	Percent %
1970	220	
1980	285	
1990	245	
2000	285	
2002	308	
Percent % of Change 1990-2000	40	16.33
Percent % of Change 1970-2000		29.55
65 and Over of 2000 Population	76	26.67
85 and Over of 2000 Population	7	2.46

## Population By Race

	Number	Percent %
White	276	96.80
Black or African American	0	0.00
American Indian or Alaska Native	6	2.10
Asian	0	0.00
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	3	1.10
Total	285	100.00
Hispanic or Latino	1	0.35

## Education Attainment

	Number	Percent %
No Schooling completed	0	0
Nursery to 4th grade	0	0.00
5th to 6th grade	0	0.00
7th to 8th grade	7	3.66
9th grade	2	1.04
10th grade	1	1.52
11th grade	9	4.71
12th grade, no diploma	10	5.23
High school graduate (include equivalency)	73	38.21
Some college, less than 1 year	16	8.37
Some college, 1 or more years, no degree	25	13.08
Associate degree	4	2.09
Bachelor's degree	32	16.75
Master's degree	5	2.61
Professional school degree	3	1.57
Doctorate degree	4	2.09
Total	191	100.00

## Housing

	Number	Percent %
Number of Households	132	
Persons per Household	2.16	
Number of Housing Units	187	
Vacant Units Non Seasonal	19	10.16
Vacant Units Seasonal	36	19.25
Owner Occupied Units	87	46.52
Renter Occupied Units	45	24.06

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	2	1.05
Built 1995 to 1998	5	2.64
Built 1990 to 1994	8	4.23
Built 1980 to 1989	19	10.05
Built 1970 to 1979	45	23.80
Built 1960 to 1969	16	8.46
Built 1950 to 1959	33	17.46
Built 1940 to 1949	24	12.69
Built 1939 and Earlier	37	19.57
Total	189	100.00

## Heating Method

	Number	Percent %
Utility Gas	0	0.00
Bottled, tank, or LP gas	70	53.03
Electricity	42	31.81
Fuel Oil, kerosene, etc.	10	7.57
Coal or coke	0	0.00
Wood	10	7.57
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	132	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	20,058,800
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## Economic Development

	Number
Average Income	27,719
Median Income	24,375
Per Capita Income	12,768
Total Population	285
Total Income	3,524,000

## Poverty

	Number
Income below poverty level	12
Income at or above poverty level	116

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	0	0.00
Agriculture, forestry, fishing and hunting	0	0.00
Mining	0	0.00
Construction	10	10.00
Manufacturing	5	5.00
Wholesale trade	0	0.00
Retail trade	11	11.00
Transportation and warehousing, and utilities	0	0.00
Transportation and warehousing	0	0.00
Utilities	0	0.00
Information	0	0.00
Finance, insurance, real estate and rental and leasing	5	5.00
Finance and insurance	3	3.00
Real estate and rental and leasing	2	2.00
Professional , scientific, management, administrative, and waste management services	2	2.00
Professional ,scientific, and technical services	2	2.00
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	0	0.00
Educational, health and social services	19	19.00
Educational services	8	8.00
Health care and social assistance	11	11.00
Arts, entertainment, recreation, accommodation and food services	21	21.00
Arts, entertainment, and recreation	9	9.00
Accommodation and food services	12	12.00
Other services	12	12.00
Pubic Administration	15	15.00
Total	100	100.00

**Top 3 Employers**

	Number of Employees
Total	

**Transportation**

	Number	Percent %
Car, Truck or van	87	88.78
Drive alone	83	84.69
Carpooled	4	4.08
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	6	6.12
Other means	0	0.00
Worked at home	5	5.10
Total	98	100.00

Mean Travel Time to Work	18.2
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# City of Lakeshore

## Population

	Number	Percent %
1970	410	
1980	583	
1990	693	
2000	966	
2002	1,003	
Percent % of Change 1990-2000	273	39.39
Percent % of Change 1970-2000		135.61
65 and Over of 2000 Population	190	19.67
85 and Over of 2000 Population	10	1.04

## Population By Race

	Number	Percent %
White	954	98.80
Black or African American	0	0.00
American Indian or Alaska Native	4	0.40
Asian	1	0.10
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	1	0.10
Two or More Races	6	0.60
Total	966	100.00
Hispanic or Latino	2	0.20

## Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	0	0.00
5th to 6th grade	3	0.40
7th to 8th grade	22	2.93
9th grade	8	1.06
10th grade	4	0.53
11th grade	9	1.20
12th grade, no diploma	16	2.13
High school graduate (include equivalency)	202	26.96
Some college, less than 1 year	51	6.80
Some college, 1 or more years, no degree	180	24.03
Associate degree	44	5.87
Bachelor's degree	147	19.62
Master's degree	39	5.20
Professional school degree	17	2.26
Doctorate degree	7	0.93
Total	749	100.00

## Housing

	Number	Percent %
Number of Households	436	
Persons per Household	2.22	
Number of Housing Units	858	
Vacant Units Non Seasonal	25	2.91
Vacant Units Seasonal	397	46.27
Owner Occupied Units	412	48.01
Renter Occupied Units	24	2.79

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	23	2.73
Built 1995 to 1998	93	11.05
Built 1990 to 1994	94	11.17
Built 1980 to 1989	141	16.76
Built 1970 to 1979	162	19.26
Built 1960 to 1969	105	12.48
Built 1950 to 1959	92	10.93
Built 1940 to 1949	44	5.23
Built 1939 and Earlier	87	10.34
Total	841	100.00

## Heating Method

	Number	Percent %
Utility Gas	252	59.43
Bottled, tank, or LP gas	75	17.68
Electricity	64	25.39
Fuel Oil, kerosene, etc.	17	4.00
Coal or coke	0	0.00
Wood	16	3.77
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	424	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	
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## Economic Development

	Number
Average Income	73,769
Median Income	51,500
Per Capita Income	33,387
Total Population	966
Total Income	31,350,200

## Poverty

	Number
Income below poverty level	13
Income at or above poverty level	413

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	4	0.38
Agriculture, forestry, fishing and hunting	4	0.38
Mining	0	0.00
Construction	48	10.00
Manufacturing	48	10.00
Wholesale trade	14	2.91
Retail trade	111	23.12
Transportation and warehousing, and utilities	14	2.91
Transportation and warehousing	14	2.91
Utilities	0	0.00
Information	13	2.70
Finance, insurance, real estate and rental and leasing	34	7.08
Finance and insurance	27	5.62
Real estate and rental and leasing	7	1.45
Professional , scientific, management, administrative, and waste management services	30	6.25
Professional ,scientific, and technical services	22	4.58
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	8	1.66
Educational, health and social services	62	12.91
Educational services	25	5.20
Health care and social assistance	37	0.70
Arts, entertainment, recreation, accommodation and food services	59	12.29
Arts, entertainment, and recreation	15	3.21
Accommodation and food services	44	9.16
Other services	19	3.95
Pubic Administration	26	5.00
Total	480	100.00

## Top 3 Employers

	Number of Employees
Total	

## Transportation

	Number	Percent %
Car, Truck or van	424	91.18
Drive alone	370	79.57
Carpooled	54	11.61
Public Transportation	2	0.43
Bus or trolley bus	2	0.43
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	6	1.29
Walked	2	0.43
Other means	0	0.00
Worked at home	31	6.67
Total	465	100.00

Mean Travel Time to Work	25.8
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# City of Longville

## Population

	Number	Percent %
1970	171	
1980	191	
1990	224	
2000	180	
2002	182	
Percent % of Change 1990-2000	-44	-19.64
Percent % of Change 1970-2000		5.26
65 and Over of 2000 Population	87	42.80
85 and Over of 2000 Population	11	6.11

## Population By Race

	Number	Percent %
White	173	96.10
Black or African American	0	0.00
American Indian or Alaska Native	6	3.30
Asian	0	0.00
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	1	0.60
Total	180	100.00
Hispanic or Latino	1	0.60

## Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	0	0.00
5th to 6th grade	0	0.00
7th to 8th grade	9	6.92
9th grade	4	3.07
10th grade	9	6.92
11th grade	6	4.61
12th grade, no diploma	3	2.30
High school graduate (include equivalency)	59	45.38
Some college, less than 1 year	10	7.69
Some college, 1 or more years, no degree	6	4.61
Associate degree	14	10.76
Bachelor's degree	7	5.38
Master's degree	0	0.00
Professional school degree	3	2.30
Doctorate degree	0	0.00
Total	130	100.00

## Housing

	Number	Percent %
Number of Households	103	
Persons per Household	1.75	
Number of Housing Units	150	
Vacant Units Non Seasonal	12	8.00
Vacant Units Seasonal	35	23.33
Owner Occupied Units	92	61.33
Renter Occupied Units	11	7.33

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	5	3.49
Built 1995 to 1998	13	9.09
Built 1990 to 1994	20	13.98
Built 1980 to 1989	22	15.38
Built 1970 to 1979	18	12.58
Built 1960 to 1969	25	17.48
Built 1950 to 1959	13	9.09
Built 1940 to 1949	23	16.08
Built 1939 and Earlier	4	2.79
Total	143	100.00

## Heating Method

	Number	Percent %
Utility Gas	12	13.48
Bottled, tank, or LP gas	37	41.57
Electricity	28	31.46
Fuel Oil, kerosene, etc.	4	4.49
Coal or coke	0	0.00
Wood	8	8.98
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	89	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	24,303,600
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## Economic Development

	Number
Average Income	46,056
Median Income	26,818
Per Capita Income	26,524
Total Population	182
Total Income	4,005,100

## Poverty

	Number
Income below poverty level	8
Income at or above poverty level	80

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	3	7.14
Agriculture, forestry, fishing and hunting	3	7.14
Mining	0	0.00
Construction	7	16.67
Manufacturing	3	7.14
Wholesale trade	0	0.00
Retail trade	9	21.42
Transportation and warehousing, and utilities	2	4.76
Transportation and warehousing	2	4.76
Utilities	0	0.00
Information	0	0.00
Finance, insurance, real estate and rental and leasing	5	11.90
Finance and insurance	0	0.00
Real estate and rental and leasing	5	11.90
Professional , scientific, management, administrative, and waste management services	3	7.14
Professional ,scientific, and technical services	3	7.14
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	0	0.00
Educational, health and social services	2	4.76
Educational services	2	4.76
Health care and social assistance	0	0.00
Arts, entertainment, recreation, accommodation and food services	6	17.28
Arts, entertainment, and recreation	0	0.00
Accommodation and food services	6	14.28
Other services	2	4.76
Public Administration	0	0.00
Total	42	100.00

**Top 3 Employers**

	Number of Employees
Total	

**Transportation**

	Number	Percent %
Car, Truck or van	33	78.57
Drive alone	33	78.57
Carpooled	0	0.00
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	5	11.90
Walked	0	0.00
Other means	0	0.00
Worked at home	4	9.52
Total	42	100.00

Mean Travel Time to Work	27.9
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# City of Motley

## Population

	Number	Percent %
1970	0	
1980	0	
1990	0	
2000	2	
2002	2	
Percent % of Change 1990-2000	2	0
Percent % of Change 1970-2000		
65 and Over of 2000 Population	0	0
85 and Over of 2000 Population	0	0

## Population By Race

	Number	Percent %
White	2	100.00
Black or African American	0	0.00
American Indian or Alaska Native	0	0.00
Asian	0	0.00
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	0	0.00
Total	2	100.00
Hispanic or Latino	0	0.00

## Education Attainment

	Number	Percent %
No Schooling completed	0	0
Nursery to 4th grade	0	0
5th to 6th grade	0	0
7th to 8th grade	0	0
9th grade	0	0
10th grade	0	0
11th grade	0	0
12th grade, no diploma	0	0
High school graduate (include equivalency)	0	0
Some college, less than 1 year	0	0
Some college, 1 or more years, no degree	0	0
Associate degree	0	0
Bachelor's degree	0	0
Master's degree	0	0
Professional school degree	0	0
Doctorate degree	0	0
Total	0	0

## Housing

	Number	Percent %
Number of Households	1	
Persons per Household	2	
Number of Housing Units	2	
Vacant Units Non Seasonal	1	50.00
Vacant Units Seasonal	0	0.00
Owner Occupied Units	1	50.00
Renter Occupied Units	0	0.00

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	0	0
Built 1995 to 1998	0	0
Built 1990 to 1994	0	0
Built 1980 to 1989	0	0
Built 1970 to 1979	0	0
Built 1960 to 1969	0	0
Built 1950 to 1959	0	0
Built 1940 to 1949	0	0
Built 1939 and Earlier	0	0
Total	0	0

## Heating Method

	Number	Percent %
Utility Gas	0	0
Bottled, tank, or LP gas	0	0
Electricity	0	0
Fuel Oil, kerosene, etc.	0	0
Coal or coke	0	0
Wood	0	0
Solar energy	0	0
Other fuel	0	0
No fuel used	0	0
Total	0	0

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	327,200
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## Economic Development

	Number
Average Income	0
Median Income	0
Per Capita Income	0
Total Population	2
Total Income	0

## Poverty

	Number
Income below poverty level	0
Income at or above poverty level	0

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	0	0.00
Agriculture, forestry, fishing and hunting	0	0.00
Mining	0	0.00
Construction	0	0.00
Manufacturing	0	0.00
Wholesale trade	0	0.00
Retail trade	0	0.00
Transportation and warehousing, and utilities	0	0.00
Transportation and warehousing	0	0.00
Utilities	0	0.00
Information	0	0.00
Finance, insurance, real estate and rental and leasing	0	0.00
Finance and insurance	0	0.00
Real estate and rental and leasing	0	0.00
Professional , scientific, management, administrative, and waste management services	0	0.00
Professional ,scientific, and technical services		0.00
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	0	0.00
Educational, health and social services	0	0.00
Educational services	0	0.00
Health care and social assistance	0	0.00
Arts, entertainment, recreation, accommodation and food services	0	0.00
Arts, entertainment, and recreation	0	0.00
Accommodation and food services	0	0.00
Other services	0	0.00
Public Administration	0	0.00
Total	0	0.00

**Top 3 Employers**

	Number of Employees
Total	

**Transportation**

	Number	Percent %
Car, Truck or van	0	0.00
Drive alone	0	0.00
Carpooled	0	0.00
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	0	0.00
Other means	0	0.00
Worked at home	0	0.00
Total	0	0.00

Mean Travel Time to Work	0
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# City of Pillager

## Population

	Number	Percent %
1970	374	
1980	341	
1990	306	
2000	420	
2002	445	
Percent % of Change 1990-2000	114	37.25
Percent % of Change 1970-2000		12.30
65 and Over of 2000 Population	53	11.91
85 and Over of 2000 Population	8	1.90

## Population By Race

	Number	Percent %
White	409	97.40
Black or African American	0	0.00
American Indian or Alaska Native	6	1.40
Asian	4	1.00
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	1	0.20
Total	420	100.00
Hispanic or Latino	2	0.48

## Education Attainment

	Number	Percent %
No Schooling completed	17	6.66
Nursery to 4th grade	0	0.00
5th to 6th grade	4	1.56
7th to 8th grade	19	7.45
9th grade	15	5.88
10th grade	3	1.17
11th grade	2	0.78
12th grade, no diploma	7	2.74
High school graduate (include equivalency)	97	38.03
Some college, less than 1 year	22	8.62
Some college, 1 or more years, no degree	31	12.15
Associate degree	11	4.31
Bachelor's degree	20	7.84
Master's degree	4	1.56
Professional school degree	3	1.17
Doctorate degree	0	0.00
Total	255	100.00

## Housing

	Number	Percent %
Number of Households	167	
Persons per Household	2.45	
Number of Housing Units	181	
Vacant Units Non Seasonal	7	3.86
Vacant Units Seasonal	7	3.86
Owner Occupied Units	123	67.95
Renter Occupied Units	44	24.30

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	2	1.10
Built 1995 to 1998	30	16.57
Built 1990 to 1994	4	2.20
Built 1980 to 1989	17	9.38
Built 1970 to 1979	19	10.49
Built 1960 to 1969	16	8.83
Built 1950 to 1959	23	12.70
Built 1940 to 1949	19	10.49
Built 1939 and Earlier	51	28.17
Total	181	100.00

## Heating Method

	Number	Percent %
Utility Gas	4	2.35
Bottled, tank, or LP gas	98	57.64
Electricity	5	2.94
Fuel Oil, kerosene, etc.	52	30.58
Coal or coke	0	0.00
Wood	11	6.47
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	170	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0.00
Nursing Homes	0	0.00
Other institutions	8	72.73
College dormitories	0	0.00
Military quarters	0	0.00
Other non institutional group quarters	3	27.27
Total	11	100.00

## Market Values

Estimated Market Value	12,928,300
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## Economic Development

	Number
Average Income	31,994
Median Income	29,375
Per Capita Income	14,291
Total Population	420
Total Income	5,487,600

## Poverty

	Number
Income below poverty level	8
Income at or above poverty level	153

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	2	1.05
Agriculture, forestry, fishing and hunting	2	1.05
Mining	0	0.00
Construction	11	5.82
Manufacturing	39	20.63
Wholesale trade	7	3.70
Retail trade	25	13.22
Transportation and warehousing, and utilities	11	5.82
Transportation and warehousing	11	5.82
Utilities	0	0.00
Information	6	3.17
Finance, insurance, real estate and rental and leasing	2	1.05
Finance and insurance	2	1.05
Real estate and rental and leasing	0	0.00
Professional , scientific, management, administrative, and waste management services	15	7.93
Professional ,scientific, and technical services	0	0.00
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	15	7.93
Educational, health and social services	41	21.69
Educational services	16	8.46
Health care and social assistance	25	13.22
Arts, entertainment, recreation, accommodation and food services	14	7.40
Arts, entertainment, and recreation	5	2.64
Accommodation and food services	9	4.76
Other services	7	3.70
Public Administration	9	4.76
Total	189	100.00

**Top 3 Employers**

	Number of Employees
Manion Lumber	75
Pillager Public School	64
Lakes Employment Opportunities	6
Total	145

**Transportation**

	Number	Percent %
Car, Truck or van	161	85.19
Drive alone	140	74.07
Carpooled	21	11.11
Public Transportation	7	3.70
Bus or trolley bus	7	3.70
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	14	7.41
Other means	2	1.06
Worked at home	5	2.65
Total	189	100.00

Mean Travel Time to Work	19.9
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# City of Pine River

## Population

	Number	Percent %
1970	803	
1980	881	
1990	871	
2000	928	
2002	943	
Percent % of Change 1990-2000	57	6.54
Percent % of Change 1970-2000		15.57
65 and Over of 2000 Population	272	29.31
85 and Over of 2000 Population	69	7.44

## Population By Race

	Number	Percent %
White	898	96.80
Black or African American	7	0.80
American Indian or Alaska Native	10	1.10
Asian	2	2.00
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	2	0.20
Two or More Races	9	1.00
Total	928	100.00
Hispanic or Latino	7	0.75

## Education Attainment

	Number	Percent %
No Schooling completed	5	0.78
Nursery to 4th grade	0	0.00
5th to 6th grade	2	0.31
7th to 8th grade	40	6.27
9th grade	22	3.46
10th grade	23	3.62
11th grade	34	5.35
12th grade, no diploma	21	3.30
High school graduate (include equivalency)	257	40.47
Some college, less than 1 year	41	6.45
Some college, 1 or more years, no degree	67	10.55
Associate degree	25	3.93
Bachelor's degree	68	10.70
Master's degree	13	2.04
Professional school degree	15	2.36
Doctorate degree	2	0.31
Total	635	100.00

## Housing

	Number	Percent %
Number of Households	438	
Persons per Household	2.06	
Number of Housing Units	464	
Vacant Units Non Seasonal	22	4.74
Vacant Units Seasonal	4	0.86
Owner Occupied Units	246	53.01
Renter Occupied Units	192	41.37

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	4	0.82
Built 1995 to 1998	34	7.05
Built 1990 to 1994	55	11.41
Built 1980 to 1989	26	5.39
Built 1970 to 1979	122	25.31
Built 1960 to 1969	33	6.84
Built 1950 to 1959	64	13.27
Built 1940 to 1949	40	8.29
Built 1939 and Earlier	104	21.57
Total	482	100.00

## Heating Method

	Number	Percent %
Utility Gas	233	51.20
Bottled, tank, or LP gas	47	10.32
Electricity	94	20.65
Fuel Oil, kerosene, etc.	63	13.84
Coal or coke	0	0.00
Wood	14	3.07
Solar energy	0	0.00
Other fuel	2	0.43
No fuel used	2	0.43
Total	455	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0.00
Nursing Homes	0	0.00
Other institutions	0	0.00
College dormitories	0	0.00
Military quarters	0	0.00
Other non institutional group quarters	25	100.00
Total	25	100.00

## Market Values

Estimated Market Value	32,548,400
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## Economic Development

	Number
Average Income	29,835
Median Income	23,480
Per Capita Income	14,571
Total Population	928
Total Income	13,259,300

## Poverty

	Number
Income below poverty level	94
Income at or above poverty level	351

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	7	2.17
Agriculture, forestry, fishing and hunting	7	2.17
Mining	0	0.00
Construction	24	7.45
Manufacturing	28	8.69
Wholesale trade	17	5.27
Retail trade	51	15.83
Transportation and warehousing, and utilities	7	2.17
Transportation and warehousing	5	1.55
Utilities	2	0.62
Information	4	1.24
Finance, insurance, real estate and rental and leasing	25	7.76
Finance and insurance	8	2.48
Real estate and rental and leasing	17	5.27
Professional , scientific, management, administrative, and waste management services	16	4.96
Professional ,scientific, and technical services	5	1.55
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	11	3.41
Educational, health and social services	88	27.32
Educational services	19	5.90
Health care and social assistance	69	21.42
Arts, entertainment, recreation, accommodation and food services	36	11.18
Arts, entertainment, and recreation	5	1.55
Accommodation and food services	31	9.62
Other services	13	4.03
Pubic Administration	6	1.86
Total	322	100.00

**Top 3 Employers**

	Number of Employees
Whispering Pine Good Samaritan	170
Pine River Public School	165
Houston Ford Inc.	46
Total	381

**Transportation**

	Number	Percent %
Car, Truck or van	255	83.33
Drive alone	233	76.14
Carpooled	22	7.19
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	43	14.05
Other means	8	2.61
Worked at home	0	0.00
Total	306	100.00

Mean Travel Time to Work	18
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# City of Remer

## Population

	Number	Percent %
1970	403	
1980	396	
1990	342	
2000	372	
2002	368	
Percent % of Change 1990-2000	30	8.77
Percent % of Change 1970-2000		-7.69
65 and Over of 2000 Population	85	22.84
85 and Over of 2000 Population	12	3.23

## Population By Race

	Number	Percent %
White	357	96.00
Black or African American	1	0.30
American Indian or alaska Native	10	2.70
Asian	0	0.00
Native Hawaiian and Oher Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	4	1.10
Total	372	100.00
Hispanic or Latino	0	0.00

## Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	0	0.00
5th to 6th grade	3	1.03
7th to 8th grade	21	7.24
9th grade	10	3.44
10th grade	25	8.62
11th grade	9	3.10
12th grade, no diploma	3	1.03
High school graduate (include equivalency)	89	30.68
Some college, less than 1 year	32	11.03
Some college, 1or more years, no degree	41	14.13
Associate degree	10	3.44
Bachelor's degree	29	10.00
Master's degree	8	2.75
Professional school degree	10	3.44
Doctorate degree	0	0.00
Total	290	100.00

## Housing

	Number	Percent %
Number of Households	178	
Persons per Household	2.09	
Number of Housing Units	198	
Vacant Units Non Seasonal	16	8.08
Vacant Units Seasonal	4	2.02
Owner Occupied Units	133	67.17
Renter Occupied Units	45	22.72

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	3	1.43
Built 1995 to 1998	16	7.65
Built 1990 to 1994	11	5.26
Built 1980 to 1989	19	9.09
Built 1970 to 1979	30	14.35
Built 1960 to 1969	20	9.56
Built 1950 to 1959	40	19.13
Built 1940 to 1949	28	13.39
Built 1939 and Earlier	42	20.09
Total	209	100.00

## Heating Method

	Number	Percent %
Utility Gas	0	0.00
Bottled, tank, or LP gas	89	45.40
Electricity	18	9.18
Fuel Oil, kerosene, etc.	80	40.81
Coal or coke	0	0.00
Wood	7	3.57
Solar energy	0	0.00
Other fuel	2	1.02
No fuel used	0	0.00
Total	196	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	12,953,500
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## Economic Development

	Number
Average Income	26,000
Median Income	19,583
Per Capita Income	11,674
Total Population	372
Total Income	5,159,700

## Poverty

	Number
Income below poverty level	63
Income at or above poverty level	142

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	4	2.77
Agriculture, forestry, fishing and hunting	4	2.77
Mining	0	0.00
Construction	17	11.80
Manufacturing	17	11.80
Wholesale trade	2	1.38
Retail trade	15	10.41
Transportation and warehousing, and utilities	8	5.55
Transportation and warehousing	8	5.55
Utilities	0	0.00
Information	2	1.38
Finance, insurance, real estate and rental and leasing	8	5.55
Finance and insurance	3	2.08
Real estate and rental and leasing	5	3.47
Professional , scientific, management, administrative, and waste management services	2	1.38
Professional ,scientific, and technical services	2	1.38
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	0	0.00
Educational, health and social services	35	24.30
Educational services	24	16.66
Health care and social assistance	11	7.63
Arts, entertainment, recreation, accommodation and food services	19	13.19
Arts, entertainment, and recreation	0	0.00
Accommodation and food services	19	13.19
Other services	15	10.41
Public Administration	0	0.00
Total	144	100.00

**Top 3 Employers**

	Number of Employees
Total	

**Transportation**

	Number	Percent %
Car, Truck or van	125	86.81
Drive alone	100	69.44
Carpooled	25	17.36
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	16	11.11
Other means	2	1.39
Worked at home	1	0.69
Total	144	100.00

Mean Travel Time to Work	18.9
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# City of Walker

## Population

	Number	Percent %
1970	1,073	
1980	970	
1990	950	
2000	1,069	
2002	1,099	
Percent % of Change 1990-2000	119	12.53
Percent % of Change 1970-2000		-0.37
65 and Over of 2000 Population	263	24.60
85 and Over of 2000 Population	59	5.52

## Population By Race

	Number	Percent %
White	947	88.60
Black or African American	1	0.10
American Indian or Alaska Native	96	9.00
Asian	3	0.30
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	3	0.30
Two or More Races	19	1.80
Total	1,069	100.00
Hispanic or Latino	11	1.03

## Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	0	0.00
5th to 6th grade	7	0.92
7th to 8th grade	28	3.69
9th grade	14	1.84
10th grade	5	0.65
11th grade	6	0.79
12th grade, no diploma	15	1.97
High school graduate (include equivalency)	253	33.37
Some college, less than 1 year	62	8.17
Some college, 1 or more years, no degree	127	16.75
Associate degree	54	7.12
Bachelor's degree	118	15.56
Master's degree	49	6.46
Professional school degree	18	2.37
Doctorate degree	2	0.26
Total	758	100.00

## Housing

	Number	Percent %
Number of Households	449	
Persons per Household	2.16	
Number of Housing Units	517	
Vacant Units Non Seasonal	26	5.02
Vacant Units Seasonal	42	8.12
Owner Occupied Units	294	56.86
Renter Occupied Units	155	29.98

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	7	1.39
Built 1995 to 1998	48	9.56
Built 1990 to 1994	17	3.38
Built 1980 to 1989	58	11.55
Built 1970 to 1979	54	10.75
Built 1960 to 1969	60	11.95
Built 1950 to 1959	69	13.74
Built 1940 to 1949	83	16.53
Built 1939 and Earlier	106	21.11
Total	502	100.00

## Heating Method

	Number	Percent %
Utility Gas	3	0.67
Bottled, tank, or LP gas	137	30.92
Electricity	127	28.66
Fuel Oil, kerosene, etc.	163	36.79
Coal or coke	0	0.00
Wood	6	1.35
Solar energy	0	0.00
Other fuel	7	1.58
No fuel used	0	0.00
Total	443	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	43	43.00
Nursing Homes	53	53.00
Other institutions	0	0.00
College dormitories	0	0.00
Military quarters	0	0.00
Other non institutional group quarters	4	4.00
Total	100	100.00

## Market Values

Estimated Market Value	83,557,400
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## Economic Development

	Number
Average Income	40,128
Median Income	33,125
Per Capita Income	17,079
Total Population	1,069
Total Income	18,445,300

## Poverty

	Number
Income below poverty level	53
Income at or above poverty level	386

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	13	2.80
Agriculture, forestry, fishing and hunting	13	2.80
Mining	0	0.00
Construction	31	6.69
Manufacturing	12	2.59
Wholesale trade	6	1.29
Retail trade	77	16.63
Transportation and warehousing, and utilities	9	1.94
Transportation and warehousing	9	1.94
Utilities	0	0.00
Information	11	2.37
Finance, insurance, real estate and rental and leasing	31	6.69
Finance and insurance	22	0.75
Real estate and rental and leasing	9	1.94
Professional , scientific, management, administrative, and waste management services	30	6.47
Professional ,scientific, and technical services	28	6.04
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	2	1.43
Educational, health and social services	122	26.34
Educational services	50	10.79
Health care and social assistance	72	15.55
Arts, entertainment, recreation, accommodation and food services	65	14.03
Arts, entertainment, and recreation	12	2.59
Accommodation and food services	63	11.44
Other services	26	5.61
Public Administration	30	6.47
Total	463	100.00

**Top 3 Employers**

	Number of Employees
Northern Lights Casino	350
Ah Gwah Ching Center	320
Cass County	232
Total	902

**Transportation**

	Number	Percent %
Car, Truck or van	348	75.49
Drive alone	295	63.99
Carpooled	53	11.50
Public Transportation	1	0.22
Bus or trolley bus	1	0.22
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	2	0.43
Walked	63	13.67
Other means	6	1.30
Worked at home	41	8.89
Total	461	100.00

Mean Travel Time to Work	13.6
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# Township of Ansel

## Population

	Number	Percent %
1970	116	
1980	116	
1990	104	
2000	101	
2002	101	
Percent % of Change 1990-2000	-3	-2.88
Percent % of Change 1970-2000		-12.93
65 and Over of 2000 Population	13	12.87
85 and Over of 2000 Population	2	1.98

## Population By Race

	Number	Percent %
White	100	99.00
Black or African American	0	0.00
American Indian or Alaska Native	0	0.00
Asian	0	0.00
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	1	1.00
Total	101	100.00
Hispanic or Latino	0	0.00

## Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	0	0.00
5th to 6th grade	0	0.00
7th to 8th grade	7	9.72
9th grade	2	2.78
10th grade	2	2.78
11th grade	0	0.00
12th grade, no diploma	0	0.00
High school graduate (include equivalency)	34	47.22
Some college, less than 1 year	12	16.67
Some college, 1 or more years, no degree	13	18.06
Associate degree	2	2.78
Bachelor's degree	0	0.00
Master's degree	0	0.00
Professional school degree	0	0.00
Doctorate degree	0	0.00
Total	72	100.00

## Housing

	Number	Percent %
Number of Households	33	
Persons per Household	3.06	
Number of Housing Units	35	
Vacant Units Non Seasonal	2	5.26
Vacant Units Seasonal	3	7.89
Owner Occupied Units	32	84.21
Renter Occupied Units	1	2.63

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	0	0.00
Built 1995 to 1998	4	9.52
Built 1990 to 1994	0	0.00
Built 1980 to 1989	11	26.19
Built 1970 to 1979	9	21.42
Built 1960 to 1969	0	0.00
Built 1950 to 1959	2	4.76
Built 1940 to 1949	4	9.52
Built 1939 and Earlier	12	28.57
Total	42	100.00

## Heating Method

	Number	Percent %
Utility Gas	0	0.00
Bottled, tank, or LP gas	7	20.58
Electricity	8	23.52
Fuel Oil, kerosene, etc.	4	11.76
Coal or coke	0	0.00
Wood	15	44.11
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	34	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	9,451,900
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## Economic Development

	Number
Average Income	44,056
Median Income	40,000
Per Capita Income	14,102
Total Poulation	101
Total Income	1,537,100

## Poverty

	Number
Income below poverty level	5
Income at or above poverty level	31

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	22	30.56
Agriculture, forestry, fishing and hunting	22	30.56
Mining	0	0.00
Construction	0	0.00
Manufacturing	10	13.89
Wholesale trade	0	0.00
Retail trade	8	11.11
Transportation and warehousing, and utilities	9	12.50
Transportation and warehousing	9	12.50
Utilities	0	0.00
Information	0	0.00
Finance, insurance, real estate and rental and leasing	0	0.00
Finance and insurance	0	0.00
Real estate and rental and leasing	0	0.00
Professional , scientific, management, administrative, and waste management services	6	8.33
Professional ,scientific, and technical services	6	8.33
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	0	0.00
Educational, health and social services	6	8.33
Educational services	0	0.00
Health care and social assistance	6	8.33
Arts, entertainment, recreation, accommodation and food services	6	8.33
Arts, entertainment, and recreation	0	0.00
Accommodation and food services	6	8.33
Other services	3	4.17
Pubic Administration	2	2.78
Total	72	100.00

## Transportation

	Number	Percent %
Car, Truck or van	51	70.83
Drive alone	41	56.94
Carpooled	10	13.89
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	4	5.56
Other means	0	0.00
Worked at home	17	23.61
Total	72	100.00

Mean Travel Time to Work	36.5
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# Township of Barclay

## Population

	Number	Percent %
1970	316	
1980	440	
1990	396	
2000	516	
2002	521	
Percent % of Change 1990-2000	120	30.30
Percent % of Change 1970-2000		63.29
65 and Over of 2000 Population	81	15.70
85 and Over of 2000 Population	9	1.74

## Population By Race

	Number	Percent %
White	499	96.70
Black or African American	1	0.20
American Indian or Alaska Native	5	1.00
Asian	3	0.60
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	8	1.60
Total	516	100.00
Hispanic or Latino	10	1.94

## Education Attainment

	Number	Percent %
No Schooling completed	2	0.58
Nursery to 4th grade	0	0.00
5th to 6th grade	2	0.58
7th to 8th grade	10	2.89
9th grade	10	2.89
10th grade	8	2.31
11th grade	11	3.18
12th grade, no diploma	8	2.31
High school graduate (include equivalency)	145	41.91
Some college, less than 1 year	26	7.51
Some college, 1 or more years, no degree	42	12.14
Associate degree	16	4.62
Bachelor's degree	53	15.32
Master's degree	9	2.60
Professional school degree	4	1.16
Doctorate Degree	0	0.00
Total	346	100.00

## Housing

	Number	Percent %
Number of Households	212	
Persons per Household	2.43	
Number of Housing Units	285	
Vacant Units Non Seasonal	14	4.91
Vacant Units Seasonal	59	20.70
Owner Occupied Units	192	67.36
Renter Occupied Units	20	7.01

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	9	3.37
Built 1995 to 1998	32	11.98
Built 1990 to 1994	15	5.61
Built 1980 to 1989	15	5.61
Built 1970 to 1979	75	28.08
Built 1960 to 1969	37	13.85
Built 1950 to 1959	23	8.61
Built 1940 to 1949	16	5.99
Built 1939 and Earlier	45	16.85
Total	267	100.00

## Heating Method

	Number	Percent %
Utility Gas	49	23.33
Bottled, tank, or LP gas	73	34.76
Electricity	31	14.76
Fuel Oil, kerosene, etc.	9	4.28
Coal or coke	0	0.00
Wood	48	22.85
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	210	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	29,292,400
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## Economic Development

	Number
Average Income	37,677
Median Income	32,039
Per Capita Income	15,215
2000 Population	516
Total Income	7,790,100

## Poverty

	Number
Income below poverty level	17
Income at or above poverty level	184

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	14	5.86
Agriculture, forestry, fishing and hunting	14	5.86
Mining	0	0.00
Construction	36	15.06
Manufacturing	21	8.79
Wholesale trade	4	1.67
Retail trade	35	14.64
Transportation and warehousing, and utilities	13	5.44
Transportation and warehousing	13	5.44
Utilities	0	0.00
Information	3	1.26
Finance, insurance, real estate and rental and leasing	4	1.67
Finance and insurance	4	1.67
Real estate and rental and leasing	0	0.00
Professional , scientific, management, administrative, and waste management services	10	4.18
Professional ,scientific, and technical services	8	3.35
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	2	0.84
Educational, health and social services	58	24.27
Educational services	30	12.55
Health care and social assistance	28	11.72
Arts, entertainment, recreation, accommodation and food services	27	11.30
Arts, entertainment, and recreation	5	2.09
Accommodation and food services	22	9.21
Other services	11	4.60
Public Administration	3	1.26
Total	239	100.00

## Transportation

	Number	Percent %
Car, Truck or van	207	87.34
Drive alone	170	71.73
Carpooled	37	15.61
Public Transportation	2	0.84
Bus or trolley bus	2	0.84
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	9	3.80
Other means	4	1.69
Worked at home	15	6.33
Total	237	100.00

Mean Travel Time to Work	19.9
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# Township of Becker

## Population

	Number	Percent %
1970	217	
1980	355	
1990	414	
2000	485	
2002	500	
Percent % of Change 1990-2000	71	17.15
Percent % of Change 1970-2000		123.50
65 and Over of 2000 Population	35	7.00
85 and Over of 2000 Population	3	0.62

## Population By Race

	Number	Percent %
White	472	97.30
Black or African American	0	0.00
American Indian or Alaska Native	2	0.40
Asian	6	1.20
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	5	1.00
Total	485	100.00
Hispanic or Latino	0	0.00

## Education Attainment

	Number	Percent %
No Schooling completed	3	1.00
Nursery to 4th grade	0	0.00
5th to 6th grade	2	0.67
7th to 8th grade	11	3.67
9th grade	58	1.67
10th grade	12	4.00
11th grade	6	2.00
12th grade, no diploma	2	0.67
High school graduate (include equivalency)	98	32.67
Some college, less than 1 year	39	13.00
Some college, 1 or more years, no degree	40	13.33
Associate degree	33	11.00
Bachelor's degree	22	7.33
Master's degree	5	1.67
Professional school degree	2	0.67
Doctorate degree	0	0.00
Total	300	100.00

## Housing

	Number	Percent %
Number of Households	169	
Persons per Household	2.87	
Number of Housing Units	203	
Vacant Units Non Seasonal	14	6.89
Vacant Units Seasonal	20	9.85
Owner Occupied Units	151	74.38
Renter Occupied Units	18	8.86

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	3	1.53
Built 1995 to 1998	19	9.69
Built 1990 to 1994	9	4.59
Built 1980 to 1989	54	27.55
Built 1970 to 1979	52	26.53
Built 1960 to 1969	19	9.69
Built 1950 to 1959	9	4.59
Built 1940 to 1949	6	3.06
Built 1939 and Earlier	25	12.25
Total	196	100.00

## Heating Method

	Number	Percent %
Utility Gas	3	1.73
Bottled, tank, or LP gas	83	47.97
Electricity	24	13.87
Fuel Oil, kerosene, etc.	22	12.71
Coal or coke	0	0.00
Wood	41	23.69
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	173	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	25,061,100
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## Economic Development

	Number
Average Income	41,407
Median Income	35,795
Per Capita Income	14,025
2000 Population	500
Total Income	7,208,900

## Poverty

	Number
Income below poverty level	27
Income at or above poverty level	146

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	13	5.51
Agriculture, forestry, fishing and hunting	13	5.51
Mining	0	0.00
Construction	18	47.63
Manufacturing	49	20.76
Wholesale trade	4	1.69
Retail trade	28	11.86
Transportation and warehousing, and utilities	26	11.02
Transportation and warehousing	26	11.02
Utilities	0	0.00
Information	4	14.69
Finance, insurance, real estate and rental and leasing	15	6.36
Finance and insurance	12	5.08
Real estate and rental and leasing	3	1.27
Professional , scientific, management, administrative, and waste management services	4	1.69
Professional ,scientific, and technical services	2	0.85
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	2	0.85
Educational, health and social services	49	20.76
Educational services	22	9.32
Health care and social assistance	27	11.44
Arts, entertainment, recreation, accommodation and food services	14	5.93
Arts, entertainment, and recreation	2	0.85
Accommodation and food services	12	5.08
Other services	10	4.24
Pubic Administration	2	0.85
Total	236	100.00

## Transportation

	Number	Percent %
Car, Truck or van	215	91.88
Drive alone	171	73.08
Carpooled	44	18.80
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	0	0.00
Other means	11	4.70
Worked at home	8	3.42
Total	234	100.00

Mean Travel Time to Work	25.9
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# Township of Beulah

## Population

	Number	Percent %
1970	21	
1980	42	
1990	30	
2000	57	
2002	61	
Percent % of Change 1990-2000	27	90
Percent % of Change 1970-2000		171.43
65 and Over of 2000 Population	16	28.07
85 and Over of 2000 Population	1	1.75

## Population By Race

	Number	Percent %
White	56	98.20
Black or African American	0	0.00
American Indian or Alaska Native	0	0.00
Asian	0	0.00
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	1	1.80
Total	57	100.00
Hispanic or Latino	0	0.00

## Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	0	0.00
5th to 6th grade	0	0.00
7th to 8th grade	2	3.39
9th grade	0	0.00
10th grade	5	8.47
11th grade	4	6.78
12th grade, no diploma	3	5.08
High school graduate (include equivalency)	32	54.24
Some college, less than 1 year	2	3.39
Some college, 1 or more years, no degree	8	13.56
Associate degree	0	0.00
Bachelor's degree	3	5.08
Master's degree	0	0.00
Professional school degree	0	0.00
Doctorate degree	0	0.00
Total	59	100.00

## Housing

	Number	Percent %
Number of Households	28	
Persons per Household	2.04	
Number of Housing Units	112	
Vacant Units Non Seasonal	2	1.78
Vacant Units Seasonal	82	73.21
Owner Occupied Units	28	25.00
Renter Occupied Units	0	0.00

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	10	7.93
Built 1995 to 1998	19	15.07
Built 1990 to 1994	3	2.38
Built 1980 to 1989	10	7.93
Built 1970 to 1979	22	17.46
Built 1960 to 1969	19	15.07
Built 1950 to 1959	3	2.38
Built 1940 to 1949	0	0.00
Built 1939 and Earlier	40	31.74
Total	126	100.00

## Heating Method

	Number	Percent %
Utility Gas	0	0.00
Bottled, tank, or LP gas	21	61.76
Electricity	0	0.00
Fuel Oil, kerosene, etc.	0	0.00
Coal or coke	0	0.00
Wood	13	38.23
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	34	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	9,291,700
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## Economic Development

	Number
Average Income	30,455
Median Income	26,875
Per Capita Income	16,613
Total Population	57
Total Income	1,046,600

## Poverty

	Number
Income below poverty level	4
Income at or above poverty level	29

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	2	11.76
Agriculture, forestry, fishing and hunting	2	11.76
Mining	0	0.00
Construction	0	0.00
Manufacturing	0	0.00
Wholesale trade	0	0.00
Retail trade	3	17.65
Transportation and warehousing, and utilities	0	0.00
Transportation and warehousing	0	0.00
Utilities	0	0.00
Information	0	0.00
Finance, insurance, real estate and rental and leasing	2	11.76
Finance and insurance	2	11.76
Real estate and rental and leasing	0	0.00
Professional , scientific, management, administrative, and waste management services	0	0.00
Professional ,scientific, and technical services	0	0.00
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	0	0.00
Educational, health and social services	3	17.65
Educational services	0	0.00
Health care and social assistance	3	17.65
Arts, entertainment, recreation, accommodation and food services	2	11.76
Arts, entertainment, and recreation	0	0.00
Accommodation and food services	2	11.76
Other services	5	29.41
Public Administration	0	0.00
Total	17	100.00

## Transportation

	Number	Percent %
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Car, Truck or van	15	100.00
Drive alone	15	100.00
Carpooled	0	0.00
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	0	0.00
Other means	0	0.00
Worked at home	0	0.00
Total	15	100.00

Mean Travel Time to Work	29
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# Township of Birch Lake

## Population

	Number	Percent %
1970	268	
1980	388	
1990	426	
2000	573	
2002	564	
Percent % of Change 1990-2000	147	34.51
Percent % of Change 1970-2000		113.81
65 and Over of 2000 Population	140	24.43
85 and Over of 2000 Population	3	0.52

## Population By Race

	Number	Percent %
White	564	98.40
Black or African American	0	0.00
American Indian or Alaska Native	0	0.00
Asian	0	0.00
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	9	1.60
Total	573	100.00
Hispanic or Latino	0	0.00

## Education Attainment

	Number	Percent %
No Schooling completed	2	0.41
Nursery to 4th grade	0	0.00
5th to 6th grade	0	0.00
7th to 8th grade	15	3.05
9th grade	8	1.63
10th grade	12	2.44
11th grade	9	1.83
12th grade, no diploma	13	2.64
High school graduate (include equivalency)	180	36.59
Some college, less than 1 year	47	9.55
Some college, 1 or more years, no degree	78	15.85
Associate degree	32	6.50
Bachelor's degree	70	14.23
Master's degree	13	2.64
Professional school degree	10	7.03
Doctorate degree	2	0.41
Total	492	100.00

## Housing

	Number	Percent %
Number of Households	259	
Persons per Household	2.21	
Number of Housing Units	647	
Vacant Units Non Seasonal	15	0.15
Vacant Units Seasonal	373	57.65
Owner Occupied Units	242	37.40
Renter Occupied Units	17	2.62

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	26	3.29
Built 1995 to 1998	58	8.68
Built 1990 to 1994	76	11.37
Built 1980 to 1989	135	20.20
Built 1970 to 1979	106	15.86
Built 1960 to 1969	118	17.66
Built 1950 to 1959	71	10.62
Built 1940 to 1949	25	3.74
Built 1939 and Earlier	53	7.93
Total	668	100.00

## Heating Method

	Number	Percent %
Utility Gas	8	2.79
Bottled, tank, or LP gas	117	40.90
Electricity	57	19.93
Fuel Oil, kerosene, etc.	30	10.48
Coal or coke	0	0.00
Wood	74	25.87
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	286	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	112,781,900
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## Economic Development

	Number
Average Income	41,320
Median Income	36,042
Per Capita Income	18,687
Total Population	573
Total Income	11,791,600

## Poverty

	Number
Income below poverty level	13
Income at or above poverty level	265

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	2	0.58
Agriculture, forestry, fishing and hunting	2	0.84
Mining	0	0.00
Construction	30	12.55
Manufacturing	22	9.21
Wholesale trade	11	4.60
Retail trade	21	8.79
Transportation and warehousing, and utilities	4	1.67
Transportation and warehousing	4	1.67
Utilities	0	0.00
Information	0	0.00
Finance, insurance, real estate and rental and leasing	24	10.04
Finance and insurance	17	7.11
Real estate and rental and leasing	7	2.93
Professional , scientific, management, administrative, and waste management services	11	4.60
Professional ,scientific, and technical services	2	0.84
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	9	3.77
Educational, health and social services	55	23.01
Educational services	22	9.21
Health care and social assistance	33	13.81
Arts, entertainment, recreation, accommodation and food services	34	14.23
Arts, entertainment, and recreation	7	2.93
Accommodation and food services	27	11.30
Other services	21	8.79
Public Administration	4	1.67
Total	239	100.00

## Transportation

	Number	Percent %
Car, Truck or van	202	90.58
Drive alone	175	78.48
Carpooled	27	12.11
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	6	2.69
Other means	0	0.00
Worked at home	15	6.73
Total	223	100.00

Mean Travel Time to Work	25.7
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# Township of Blind Lake

## Population

	Number	Percent %
1970	51	
1980	75	
1990	78	
2000	88	
2002	82	
Percent % of Change 1990-2000	10	12.82
Percent % of Change 1970-2000		72.55
65 and Over of 2000 Population	13	14.77
85 and Over of 2000 Population	3	3.41

## Population By Race

	Number	Percent %
White	84	95.50
Black or African American	0	0.00
American Indian or Alaska Native	0	0.00
Asian	0	0.00
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	4	4.50
Total	88	100.00
Hispanic or Latino	0	0.00

## Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	0	0.00
5th to 6th grade	0	0.00
7th to 8th grade	0	0.00
9th grade	2	3.85
10th grade	0	0.00
11th grade	0	0.00
12th grade, no diploma	1	1.92
High school graduate (include equivalency)	23	44.23
Some college, less than 1 year	0	0.00
Some college, 1 or more years, no degree	20	38.46
Associate degree	2	3.85
Bachelor's degree	4	7.69
Master's degree	0	0.00
Professional school degree	0	0.00
Doctorate degree	0	0.00
Total	52	100.00

## Housing

	Number	Percent %
Number of Households	31	
Persons per Household	2.84	
Number of Housing Units	90	
Vacant Units Non Seasonal	0	0.00
Vacant Units Seasonal	59	65.55
Owner Occupied Units	27	30.00
Renter Occupied Units	4	4.44

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	0	0.00
Built 1995 to 1998	10	10.52
Built 1990 to 1994	3	3.15
Built 1980 to 1989	14	14.73
Built 1970 to 1979	15	15.78
Built 1960 to 1969	23	24.21
Built 1950 to 1959	15	15.78
Built 1940 to 1949	6	6.31
Built 1939 and Earlier	9	9.47
Total	95	100.00

## Heating Method

	Number	Percent %
Utility Gas	0	0.00
Bottled, tank, or LP gas	12	40.00
Electricity	5	16.66
Fuel Oil, kerosene, etc.	4	13.33
Coal or coke	0	0.00
Wood	9	30.00
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	30	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	10,292,600
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## Economic Development

	Number
Average Income	21,767
Median Income	19,250
Per Capita Income	6,420
Total Population	88
Total Income	661,300

## Poverty

	Number
Income below poverty level	11
Income at or above poverty level	22

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	8	23.53
Agriculture, forestry, fishing and hunting	8	23.53
Mining	0	0.00
Construction	0	0.00
Manufacturing	0	0.00
Wholesale trade	0	0.00
Retail trade	15	44.12
Transportation and warehousing, and utilities	2	5.88
Transportation and warehousing	2	5.88
Utilities	0	0.00
Information	0	0.00
Finance, insurance, real estate and rental and leasing	0	0.00
Finance and insurance	0	0.00
Real estate and rental and leasing	0	0.00
Professional , scientific, management, administrative, and waste management services	0	0.00
Professional ,scientific, and technical services	0	0.00
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	0	0.00
Educational, health and social services	7	20.59
Educational services	7	20.59
Health care and social assistance	0	0.00
Arts, entertainment, recreation, accommodation and food services	1	2.94
Arts, entertainment, and recreation	0	0.00
Accommodation and food services	1	2.94
Other services	0	0.00
Pubic Administration	1	2.94
Total	34	100.00

## Transportation

	Number	Percent %
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Car, Truck or van	26	76.47
Drive alone	20	58.82
Carpooled	6	17.64
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	0	0.00
Other means	0	0.00
Worked at home	0	0.00
Total	8	23.53

Mean Travel Time to Work	42.1
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## Township of Boy Lake

### Population

	Number	Percent %
1970	117	
1980	117	
1990	116	
2000	132	
2002	130	
Percent % of Change 1990-2000	16	13.79
Percent % of Change 1970-2000		12.82
65 and Over of 2000 Population	35	26.52
85 and Over of 2000 Population	2	1.52

### Population By Race

	Number	Percent %
White	108	81.80
Black or African American	1	0.80
American Indian or Alaska Native	9	6.80
Asian	1	0.80
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	13	9.80
Total	132	100.00
Hispanic or Latino	2	1.52

### Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	0	0.00
5th to 6th grade	0	0.00
7th to 8th grade	0	0.00
9th grade	0	0.00
10th grade	4	4.23
11th grade	2	2.15
12th grade, no diploma	1	1.08
High school graduate (include equivalency)	33	35.48
Some college, less than 1 year	14	15.05
Some college, 1 or more years, no degree	21	22.58
Associate degree	8	8.60
Bachelor's degree	9	9.68
Master's degree	0	0.00
Professional school degree	2	2.15
Doctorate degree	0	0.00
Total	93	100.00

## Housing

	Number	Percent %
Number of Households	58	
Persons per Household	2.28	
Number of Housing Units	204	
Vacant Units Non Seasonal	3	1.47
Vacant Units Seasonal	143	20.09
Owner Occupied Units	55	26.96
Renter Occupied Units	3	1.47

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	0	0.00
Built 1995 to 1998	17	8.33
Built 1990 to 1994	3	1.47
Built 1980 to 1989	42	20.58
Built 1970 to 1979	49	24.01
Built 1960 to 1969	36	17.64
Built 1950 to 1959	24	11.76
Built 1940 to 1949	17	8.33
Built 1939 and Earlier	16	7.84
Total	204	100.00

## Heating Method

	Number	Percent %
Utility Gas	0	0.00
Bottled, tank, or LP gas	28	56.00
Electricity	5	10.00
Fuel Oil, kerosene, etc.	5	10.00
Coal or coke	0	0.00
Wood	12	24.00
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	50	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	35,076,900
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## Economic Development

	Number
Average Income	41,774
Median Income	37,500
Per Capita Income	20,070
Total Poulation	132
Total Income	2,328,100

## Poverty

	Number
Income below poverty level	10
Income at or above poverty level	44

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	3	5.36
Agriculture, forestry, fishing and hunting	3	5.36
Mining	0	0.00
Construction	7	12.50
Manufacturing	5	5.93
Wholesale trade	2	3.57
Retail trade	4	7.14
Transportation and warehousing, and utilities	3	5.36
Transportation and warehousing	0	0.00
Utilities	3	5.36
Information	4	7.40
Finance, insurance, real estate and rental and leasing	5	5.93
Finance and insurance	0	0.00
Real estate and rental and leasing	5	5.93
Professional , scientific, management, administrative, and waste management services	3	5.36
Professional ,scientific, and technical services	3	5.36
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	0	0.00
Educational, health and social services	9	16.07
Educational services	3	5.36
Health care and social assistance	6	10.71
Arts, entertainment, recreation, accommodation and food services	5	8.93
Arts, entertainment, and recreation	0	0.00
Accommodation and food services	5	8.93
Other services	3	5.36
Pubic Administration	3	5.36
Total	56	100.00

## Transportation

	Number	Percent %
Car, Truck or van	36	64.29
Drive alone	36	64.29
Carpooled	0	0.00
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	3	5.36
Other means	2	3.57
Worked at home	15	26.79
Total	56	100.00

Mean Travel Time to Work	55
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# Township of Boy River

## Population

	Number	Percent %
1970	87	
1980	111	
1990	89	
2000	100	
2002	103	
Percent % of Change 1990-2000	11	12.36
Percent % of Change 1970-2000		14.94
65 and Over of 2000 Population	13	13.00
85 and Over of 2000 Population	5	5.00

## Population By Race

	Number	Percent %
White	90	90.00
Black or African American	0	0.00
American Indian or Alaska Native	7	7.00
Asian	0	0.00
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	3	3.00
Total	100	100.00
Hispanic or Latino	0	0.00

## Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	0	0.00
5th to 6th grade	0	0.00
7th to 8th grade	7	11.11
9th grade	3	4.76
10th grade	2	3.15
11th grade	2	3.17
12th grade, no diploma	1	1.59
High school graduate (include equivalency)	27	42.86
Some college, less than 1 year	9	14.29
Some college, 1 or more years, no degree	6	9.52
Associate degree	2	3.17
Bachelor's degree	2	3.17
Master's degree	2	3.17
Professional school degree	0	0.00
Doctorate degree	0	0.00
Total	63	100.00

## Housing

	Number	Percent %
Number of Households	36	
Persons per Household	2.78	
Number of Housing Units	45	
Vacant Units Non Seasonal	2	4.44
Vacant Units Seasonal	7	15.55
Owner Occupied Units	33	23.33
Renter Occupied Units	3	6.66

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	0	0.00
Built 1995 to 1998	5	11.36
Built 1990 to 1994	0	0.00
Built 1980 to 1989	7	15.90
Built 1970 to 1979	20	45.45
Built 1960 to 1969	0	0.00
Built 1950 to 1959	6	13.63
Built 1940 to 1949	4	9.09
Built 1939 and Earlier	2	4.54
Total	44	100.00

## Heating Method

	Number	Percent %
Utility Gas	0	0.00
Bottled, tank, or LP gas	23	60.52
Electricity	0	0.00
Fuel Oil, kerosene, etc.	2	5.26
Coal or coke	0	0.00
Wood	13	34.21
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	38	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	4,645,600
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## Economic Development

	Number
Average Income	29,466
Median Income	19,500
Per Capita Income	13,025
Total Population	100
Total Income	1,146,200

## Poverty

	Number
Income below poverty level	11
Income at or above poverty level	27

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	4	11.76
Agriculture, forestry, fishing and hunting	4	11.76
Mining	0	0.00
Construction	2	5.88
Manufacturing	3	8.82
Wholesale trade	0	0.00
Retail trade	4	11.76
Transportation and warehousing, and utilities	0	0.00
Transportation and warehousing	0	0.00
Utilities	0	0.00
Information	0	0.00
Finance, insurance, real estate and rental and leasing	0	0.00
Finance and insurance	0	0.00
Real estate and rental and leasing	0	0.00
Professional , scientific, management, administrative, and waste management services	0	0.00
Professional ,scientific, and technical services	0	0.00
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	0	0.00
Educational, health and social services	8	23.53
Educational services	6	17.65
Health care and social assistance	2	5.88
Arts, entertainment, recreation, accommodation and food services	9	16.47
Arts, entertainment, and recreation	7	20.59
Accommodation and food services	2	5.88
Other services	2	5.88
Pubic Administration	2	5.88
Total	34	100.00

## Transportation

	<b>Number</b>	<b>Percent %</b>
Car, Truck or van	26	81.25
Drive alone	19	59.38
Carpooled	7	21.88
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	0	0.00
Other means	2	6.25
Worked at home	4	12.50
<b>Total</b>	<b>32</b>	<b>100.00</b>

Mean Travel Time to Work	28
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# Township of Bull Moose

## Population

	Number	Percent %
1970	80	
1980	90	
1990	87	
2000	107	
2002	114	
Percent % of Change 1990-2000	20	22.99
Percent % of Change 1970-2000		33.75
65 and Over of 2000 Population	12	11.21
85 and Over of 2000 Population	1	0.93

## Population By Race

	Number	Percent %
White	107	100.00
Black or African American	0	0.00
American Indian or Alaska Native	0	0.00
Asian	0	0.00
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	0	0.00
Total	107	100.00
Hispanic or Latino	0	0.00

## Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	0	0.00
5th to 6th grade	0	0.00
7th to 8th grade	2	3.13
9th grade	0	0.00
10th grade	0	0.00
11th grade	3	4.69
12th grade, no diploma	6	9.37
High school graduate (include equivalency)	25	39.06
Some college, less than 1 year	10	15.62
Some college, 1 or more years, no degree	12	18.75
Associate degree	4	6.25
Bachelor's degree	2	3.13
Master's degree	0	0.00
Professional school degree	0	0.00
Doctorate degree	0	0.00
Total	64	100.00

## Housing

	Number	Percent %
Number of Households	38	
Persons per Household	2.82	
Number of Housing Units	54	
Vacant Units Non Seasonal	1	1.96
Vacant Units Seasonal	15	27.77
Owner Occupied Units	33	61.11
Renter Occupied Units	5	9.25

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	0	0.00
Built 1995 to 1998	6	11.11
Built 1990 to 1994	6	11.11
Built 1980 to 1989	12	22.22
Built 1970 to 1979	20	37.03
Built 1960 to 1969	0	0.00
Built 1950 to 1959	2	3.70
Built 1940 to 1949	6	11.11
Built 1939 and Earlier	2	3.70
Total	54	100.00

## Heating Method

	Number	Percent %
Utility Gas	0	0.00
Bottled, tank, or LP gas	15	39.47
Electricity	0	0.00
Fuel Oil, kerosene, etc.	8	21.05
Coal or coke	0	0.00
Wood	15	39.47
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	38	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	6,756,700
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## Economic Development

	Number
Average Income	32,426
Median Income	31,563
Per Capita Income	12,596
Total Population	107
Total Income	1,158,800

## Poverty

	Number
Income below poverty level	7
Income at or above poverty level	28

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	8	13.55
Agriculture, forestry, fishing and hunting	8	13.55
Mining	0	0.00
Construction	4	6.77
Manufacturing	2	3.38
Wholesale trade	2	3.38
Retail trade	14	23.72
Transportation and warehousing, and utilities	2	3.38
Transportation and warehousing	2	3.38
Utilities	0	0.00
Information	0	0.00
Finance, insurance, real estate and rental and leasing	3	5.08
Finance and insurance	3	5.08
Real estate and rental and leasing	0	0.00
Professional , scientific, management, administrative, and waste management services	6	10.16
Professional ,scientific, and technical services	0	0.00
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	6	10.16
Educational, health and social services	8	13.55
Educational services	4	6.77
Health care and social assistance	4	6.77
Arts, entertainment, recreation, accommodation and food services	6	10.16
Arts, entertainment, and recreation	2	3.38
Accommodation and food services	4	6.77
Other services	4	6.77
Pubic Administration	0	0.00
Total	59	100.00

## Transportation

	<b>Number</b>	<b>Percent %</b>
Car, Truck or van	57	96.61
Drive alone	47	79.66
Carpooled	10	16.95
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	0	0.00
Other means	0	0.00
Worked at home	2	3.39
<b>Total</b>	<b>59</b>	<b>100.00</b>

<b>Mean Travel Time to Work</b>	<b>20.4</b>
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# Township of Bungo

## Population

	Number	Percent %
1970	118	
1980	98	
1990	105	
2000	111	
2002	110	
Percent % of Change 1990-2000	6	5.71
Percent % of Change 1970-2000		-5.93
65 and Over of 2000 Population	12	10.81
85 and Over of 2000 Population	0	0

## Population By Race

	Number	Percent %
White	109	98.20
Black or African American	1	0.90
American Indian or Alaska Native	0	0.00
Asian	0	0.00
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	1	0.90
Total	111	100.00
Hispanic or Latino	0	0.00

## Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	0	0.00
5th to 6th grade	0	0.00
7th to 8th grade	2	2.89
9th grade	0	0.00
10th grade	3	4.34
11th grade	3	4.34
12th grade, no diploma	0	0.00
High school graduate (include equivalency)	42	60.86
Some college, less than 1 year	12	17.39
Some college, 1 or more years, no degree	5	7.24
Associate degree	2	2.89
Bachelor's degree	0	0.00
Master's degree	0	0.00
Professional school degree	0	0.00
Doctorate degree	0	0.00
Total	69	100.00

## Housing

	Number	Percent %
Number of Households	40	
Persons per Household	2.78	
Number of Housing Units	48	
Vacant Units Non Seasonal	1	2.08
Vacant Units Seasonal	7	14.58
Owner Occupied Units	38	79.16
Renter Occupied Units	2	4.16

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	0	0.00
Built 1995 to 1998	2	4.44
Built 1990 to 1994	0	0.00
Built 1980 to 1989	9	20.00
Built 1970 to 1979	9	20.00
Built 1960 to 1969	3	6.66
Built 1950 to 1959	2	4.44
Built 1940 to 1949	2	4.44
Built 1939 and Earlier	18	40.00
Total	45	100.00

## Heating Method

	Number	Percent %
Utility Gas	0	0.00
Bottled, tank, or LP gas	14	35.79
Electricity	0	0.00
Fuel Oil, kerosene, etc.	2	5.13
Coal or coke	0	0.00
Wood	23	58.97
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	39	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	9,638,300
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## Economic Development

	Number
Average Income	27,467
Median Income	29,375
Per Capita Income	9,993
Total Population	111
Total Income	1,069,300

## Poverty

	Number
Income below poverty level	9
Income at or above poverty level	30

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	12	24.00
Agriculture, forestry, fishing and hunting	12	24.00
Mining	0	0.00
Construction	7	14.00
Manufacturing	8	16.00
Wholesale trade	0	0.00
Retail trade	10	20.00
Transportation and warehousing, and utilities	0	0.00
Transportation and warehousing	0	0.00
Utilities	0	0.00
Information	2	4.00
Finance, insurance, real estate and rental and leasing	1	2.00
Finance and insurance	1	2.00
Real estate and rental and leasing	0	0.00
Professional , scientific, management, administrative, and waste management services	1	2.00
Professional ,scientific, and technical services	0	0.00
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	1	2.00
Educational, health and social services	9	18.00
Educational services	4	8.00
Health care and social assistance	5	10.00
Arts, entertainment, recreation, accommodation and food services	0	0.00
Arts, entertainment, and recreation	0	0.00
Accommodation and food services	0	0.00
Other services	0	0.00
Public Administration	0	0.00
Total	50	100.00

## Transportation

	<b>Number</b>	<b>Percent %</b>
Car, Truck or van	34	73.91
Drive alone	31	67.39
Carpooled	3	6.52
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	8	17.39
Other means	0	0.00
Worked at home	4	8.70
<b>Total</b>	<b>46</b>	<b>100.00</b>

Mean Travel Time to Work	21.8
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# Township of Byron

## Population

	Number	Percent %
1970	166	
1980	164	
1990	140	
2000	118	
2002	127	
Percent % of Change 1990-2000	-22	-15.71
Percent % of Change 1970-2000		-28.92
65 and Over of 2000 Population	20	16.95
85 and Over of 2000 Population	2	1.69

## Population By Race

	Number	Percent %
White	118	100.00
Black or African American	0	0.00
American Indian or Alaska Native	0	0.00
Asian	0	0.00
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	0	0.00
Total	118	100.00
Hispanic or Latino	0	0.00

## Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	0	0.00
5th to 6th grade	0	0.00
7th to 8th grade	9	10.71
9th grade	0	0.00
10th grade	2	7.38
11th grade	0	0.00
12th grade, no diploma	7	8.33
High school graduate (include equivalency)	32	38.09
Some college, less than 1 year	12	14.28
Some college, 1 or more years, no degree	17	20.23
Associate degree	3	3.57
Bachelor's degree	2	2.38
Master's degree	0	0.00
Professional school degree	0	0.00
Doctorate degree	0	0.00
Total	84	100.00

## Housing

	Number	Percent %
Number of Households	48	
Persons per Household	2.46	
Number of Housing Units	59	
Vacant Units Non Seasonal	6	10.16
Vacant Units Seasonal	5	8.47
Owner Occupied Units	41	69.49
Renter Occupied Units	7	11.86

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	0	0.00
Built 1995 to 1998	8	15.09
Built 1990 to 1994	1	1.88
Built 1980 to 1989	4	7.54
Built 1970 to 1979	12	27.64
Built 1960 to 1969	2	3.77
Built 1950 to 1959	2	3.77
Built 1940 to 1949	5	9.43
Built 1939 and Earlier	19	35.84
Total	53	100.00

## Heating Method

	Number	Percent %
Utility Gas	0	0.00
Bottled, tank, or LP gas	14	31.11
Electricity	1	7.22
Fuel Oil, kerosene, etc.	7	15.55
Coal or coke	0	0.00
Wood	23	51.11
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	45	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	12,684,900
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## Economic Development

	Number
Average Income	37,418
Median Income	29,500
Per Capita Income	13,077
Total Population	118
Total Income	1,621,600

## Poverty

	Number
Income below poverty level	6
Income at or above poverty level	38

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	17	30.90
Agriculture, forestry, fishing and hunting	17	30.90
Mining	0	0.00
Construction	1	1.81
Manufacturing	7	12.72
Wholesale trade	4	7.27
Retail trade	7	12.72
Transportation and warehousing, and utilities	2	3.63
Transportation and warehousing	2	3.63
Utilities	0	0.00
Information	0	0.00
Finance, insurance, real estate and rental and leasing	4	7.27
Finance and insurance	1	1.81
Real estate and rental and leasing	3	5.45
Professional , scientific, management, administrative, and waste management services	0	0.00
Professional ,scientific, and technical services	0	0.00
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	0	0.00
Educational, health and social services	3	5.45
Educational services	0	0.00
Health care and social assistance	3	5.45
Arts, entertainment, recreation, accommodation and food services	7	12.72
Arts, entertainment, and recreation	0	0.00
Accommodation and food services	7	12.72
Other services	3	5.45
Public Administration	0	0.00
Total	55	100.00

## Transportation

	<b>Number</b>	<b>Percent %</b>
Car, Truck or van	41	78.85
Drive alone	35	67.31
Carpooled	6	11.54
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	3	5.77
Other means	0	0.00
Worked at home	8	15.38
<b>Total</b>	<b>52</b>	<b>100.00</b>

<b>Mean Travel Time to Work</b>	<b>24.2</b>
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# Township of Crooked Lake

## Population

	Number	Percent %
1970	237	
1980	346	
1990	318	
2000	498	
2002	511	
Percent % of Change 1990-2000	180	56.60
Percent % of Change 1970-2000		110.13
65 and Over of 2000 Population	157	31.53
85 and Over of 2000 Population	8	1.61

## Population By Race

	Number	Percent %
White	490	98.40
Black or African American	0	0.00
American Indian or Alaska Native	3	0.60
Asian	1	0.20
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	4	0.80
Total	498	100.00
Hispanic or Latino	2	0.40

## Education Attainment

	Number	Percent %
No Schooling completed	2	0.55
Nursery to 4th grade	0	0.00
5th to 6th grade	0	0.00
7th to 8th grade	18	4.97
9th grade	2	0.55
10th grade	14	3.86
11th grade	11	3.04
12th grade, no diploma	17	4.69
High school graduate (include equivalency)	135	37.29
Some college, less than 1 year	33	9.11
Some college, 1 or more years, no degree	40	11.04
Associate degree	30	8.28
Bachelor's degree	40	11.04
Master's degree	3	0.82
Professional school degree	10	2.76
Doctorate degree	6	1.65
Total	362	100.00

## Housing

	Number	Percent %
Number of Households	249	
Persons per Household	2	
Number of Housing Units	1,023	
Vacant Units Non Seasonal	24	2.34
Vacant Units Seasonal	750	73.31
Owner Occupied Units	242	23.65
Renter Occupied Units	7	0.68

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	28	2.98
Built 1995 to 1998	79	8.43
Built 1990 to 1994	83	8.85
Built 1980 to 1989	153	16.32
Built 1970 to 1979	245	76.14
Built 1960 to 1969	103	10.99
Built 1950 to 1959	112	11.95
Built 1940 to 1949	53	5.65
Built 1939 and Earlier	81	8.64
Total	937	100.00

## Heating Method

	Number	Percent %
Utility Gas	5	2.17
Bottled, tank, or LP gas	137	59.56
Electricity	64	27.82
Fuel Oil, kerosene, etc.	2	0.86
Coal or coke	0	0.00
Wood	22	9.56
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	230	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	154,442,100
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## Economic Development

	Number
Average Income	41,198
Median Income	32,708
Per Capita Income	21,294
Total Population	498
Total Income	9,177,900

## Poverty

	Number
Income below poverty level	21
Income at or above poverty level	202

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	6	3.48
Agriculture, forestry, fishing and hunting	6	3.48
Mining	0	0.00
Construction	20	11.62
Manufacturing	5	2.90
Wholesale trade	8	4.65
Retail trade	30	17.44
Transportation and warehousing, and utilities	15	8.72
Transportation and warehousing	15	8.72
Utilities	0	0.00
Information	2	1.16
Finance, insurance, real estate and rental and leasing	10	5.81
Finance and insurance	5	2.90
Real estate and rental and leasing	5	2.90
Professional , scientific, management, administrative, and waste management services	3	1.74
Professional ,scientific, and technical services	1	0.58
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	2	1.16
Educational, health and social services	20	11.62
Educational services	17	9.88
Health care and social assistance	3	1.74
Arts, entertainment, recreation, accommodation and food services	20	11.62
Arts, entertainment, and recreation	7	4.06
Accommodation and food services	13	7.55
Other services	8	4.65
Pubic Administration	25	14.53
Total	172	100.00

## Transportation

	Number	Percent %
Car, Truck or van	133	79.64
Drive alone	115	68.86
Carpooled	18	10.78
Public Transportation	5	2.99
Bus or trolley bus	3	1.80
Streetcar or trolley car	2	1.20
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	8	4.79
Other means	4	2.40
Worked at home	17	10.18
Total	167	100.00

Mean Travel Time to Work	28.3
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# Township of Deerfield

## Population

	Number	Percent %
1970	69	
1980	91	
1990	114	
2000	154	
2002	157	
Percent % of Change 1990-2000	40	35.09
Percent % of Change 1970-2000		123.19
65 and Over of 2000 Population	25	16.23
85 and Over of 2000 Population	3	1.95

## Population By Race

	Number	Percent %
White	153	99.40
Black or African American	0	0.00
American Indian or Alaska Native	0	0.00
Asian	1	0.60
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	0	0.00
Total	154	100.00
Hispanic or Latino	0	0.00

## Education Attainment

	Number	Percent %
No Schooling completed	2	1.83
Nursery to 4th grade	3	2.75
5th to 6th grade	0	0.00
7th to 8th grade	5	4.58
9th grade	4	3.66
10th grade	0	0.00
11th grade	0	0.00
12th grade, no diploma	3	2.75
High school graduate (include equivalency)	60	55.04
Some college, less than 1 year	1	0.91
Some college, 1 or more years, no degree	18	16.51
Associate degree	0	0.00
Bachelor's degree	11	10.09
Master's degree	0	0.00
Professional school degree	2	1.83
Doctorate degree	0	0.00
Total	109	100.00

## Housing

	Number	Percent %
Number of Households	53	
Persons per Household	2.91	
Number of Housing Units	117	
Vacant Units Non Seasonal	0	0.00
Vacant Units Seasonal	64	54.70
Owner Occupied Units	52	44.44
Renter Occupied Units	1	0.85

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	0	0.00
Built 1995 to 1998	3	2.50
Built 1990 to 1994	17	14.16
Built 1980 to 1989	19	15.83
Built 1970 to 1979	30	25.00
Built 1960 to 1969	17	14.16
Built 1950 to 1959	6	5.00
Built 1940 to 1949	9	2.50
Built 1939 and Earlier	19	15.83
Total	120	100.00

## Heating Method

	Number	Percent %
Utility Gas	0	0.00
Bottled, tank, or LP gas	22	42.30
Electricity	6	11.53
Fuel Oil, kerosene, etc.	3	5.76
Coal or coke	0	0.00
Wood	21	40.38
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	52	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	11,901,400
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## Economic Development

	Number
Average Income	38,357
Median Income	31,944
Per Capita Income	13,681
Total Population	154
Total Income	2,038,500

## Poverty

	Number
Income below poverty level	4
Income at or above poverty level	50

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	7	10.93
Agriculture, forestry, fishing and hunting	7	10.93
Mining	0	0.00
Construction	6	9.37
Manufacturing	12	18.75
Wholesale trade	5	7.81
Retail trade	3	4.68
Transportation and warehousing, and utilities	0	0.00
Transportation and warehousing	0	0.00
Utilities	0	0.00
Information	0	0.00
Finance, insurance, real estate and rental and leasing	0	0.00
Finance and insurance	0	0.00
Real estate and rental and leasing	0	0.00
Professional , scientific, management, administrative, and waste management services	0	0.00
Professional ,scientific, and technical services	0	0.00
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	0	0.00
Educational, health and social services	15	23.43
Educational services	8	12.50
Health care and social assistance	7	10.93
Arts, entertainment, recreation, accommodation and food services	4	6.25
Arts, entertainment, and recreation	0	0.00
Accommodation and food services	4	6.25
Other services	3	4.68
Public Administration	9	14.06
Total	64	100.00

## Transportation

	Number	Percent %
Car, Truck or van	55	85.94
Drive alone	47	73.44
Carpooled	8	12.50
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	0	0.00
Other means	0	0.00
Worked at home	9	14.06
Total	64	100.00

Mean Travel Time to Work	22.4
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# Township of Fairview

## Population

	Number	Percent %
1970	135	
1980	311	
1990	354	
2000	567	
2002	595	
Percent % of Change 1990-2000	213	60.17
Percent % of Change 1970-2000		320.00
65 and Over of 2000 Population	77	13.58
85 and Over of 2000 Population	3	0.53

## Population By Race

	Number	Percent %
White	557	98.20
Black or African American	2	0.40
American Indian or Alaska Native	1	0.20
Asian	3	0.50
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	4	0.70
Total	567	100.00
Hispanic or Latino	4	0.70

## Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	0	0.00
5th to 6th grade	2	0.52
7th to 8th grade	0	0.00
9th grade	11	2.90
10th grade	3	0.79
11th grade	4	1.05
12th grade, no diploma	0	0.00
High school graduate (include equivalency)	88	23.21
Some college, less than 1 year	39	10.29
Some college, 1 or more years, no degree	68	17.94
Associate degree	43	11.34
Bachelor's degree	85	22.42
Master's degree	35	9.23
Professional school degree	5	1.31
Doctorate degree	6	1.58
Total	379	100.00

## Housing

	Number	Percent %
Number of Households	224	
Persons per Household	2.53	
Number of Housing Units	410	
Vacant Units Non Seasonal	9	2.19
Vacant Units Seasonal	177	43.17
Owner Occupied Units	212	51.70
Renter Occupied Units	12	2.92

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	24	5.86
Built 1995 to 1998	32	7.82
Built 1990 to 1994	50	12.22
Built 1980 to 1989	103	25.18
Built 1970 to 1979	84	20.53
Built 1960 to 1969	70	17.11
Built 1950 to 1959	24	5.86
Built 1940 to 1949	3	0.73
Built 1939 and Earlier	19	4.64
Total	409	100.00

## Heating Method

	Number	Percent %
Utility Gas	101	46.75
Bottled, tank, or LP gas	47	21.75
Electricity	21	9.72
Fuel Oil, kerosene, etc.	23	10.64
Coal or coke	0	0.00
Wood	19	8.48
Solar energy	0	0.00
Other fuel	5	2.31
No fuel used	0	0.00
Total	216	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	151,625,300
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## Economic Development

	Number
Average Income	72,392
Median Income	55,000
Per Capita Income	29,871
Total Population	567
Total Income	15,473,100

## Poverty

	Number
Income below poverty level	10
Income at or above poverty level	202

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	2	0.74
Agriculture, forestry, fishing and hunting	2	0.74
Mining	0	0.00
Construction	28	10.37
Manufacturing	31	11.48
Wholesale trade	11	4.07
Retail trade	25	9.25
Transportation and warehousing, and utilities	11	4.07
Transportation and warehousing	11	4.07
Utilities	0	0.00
Information	4	1.48
Finance, insurance, real estate and rental and leasing	22	8.14
Finance and insurance	18	6.66
Real estate and rental and leasing	4	1.48
Professional , scientific, management, administrative, and waste management services	21	7.77
Professional ,scientific, and technical services	9	3.33
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	12	4.44
Educational, health and social services	58	21.48
Educational services	33	12.22
Health care and social assistance	25	9.25
Arts, entertainment, recreation, accommodation and food services	28	10.37
Arts, entertainment, and recreation	0	0.00
Accommodation and food services	28	10.37
Other services	17	6.29
Public Administration	12	4.44
Total	270	100.00

## Transportation

	Number	Percent %
Car, Truck or van	247	92.16
Drive alone	218	81.34
Carpooled	29	10.82
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	2	0.75
Other means	0	0.00
Worked at home	19	7.09
Total	268	100.00

Mean Travel Time to Work	25.6
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# Township of Gould

## Population

	Number	Percent %
1970	131	
1980	189	
1990	229	
2000	249	
2002	243	
Percent % of Change 1990-2000	20	8.73
Percent % of Change 1970-2000		90.08
65 and Over of 2000 Population	31	12.45
85 and Over of 2000 Population	3	1.20

## Population By Race

	Number	Percent %
White	96	38.60
Black or African American	0	0.00
American Indian or Alaska Native	145	58.20
Asian	0	0.00
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	8	3.20
Total	249	100.00
Hispanic or Latino	3	1.20

## Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	0	0.00
5th to 6th grade	3	2.11
7th to 8th grade	0	0.00
9th grade	2	1.40
10th grade	6	4.22
11th grade	0	0.00
12th grade, no diploma	16	11.26
High school graduate (include equivalency)	54	38.02
Some college, less than 1 year	8	5.63
Some college, 1 or more years, no degree	35	24.64
Associate degree	5	3.52
Bachelor's degree	7	4.92
Master's degree	4	2.81
Professional school degree	2	1.40
Doctorate degree	0	0.00
Total	142	100.00

## Housing

	Number	Percent %
Number of Households	95	
Persons per Household	2.62	
Number of Housing Units	196	
Vacant Units Non Seasonal	9	0.51
Vacant Units Seasonal	92	46.93
Owner Occupied Units	65	33.16
Renter Occupied Units	30	15.30

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	2	1.66
Built 1995 to 1998	11	9.16
Built 1990 to 1994	2	1.66
Built 1980 to 1989	36	30.00
Built 1970 to 1979	27	22.50
Built 1960 to 1969	10	8.33
Built 1950 to 1959	13	10.83
Built 1940 to 1949	13	10.83
Built 1939 and Earlier	6	5.00
Total	120	100.00

## Heating Method

	Number	Percent %
Utility Gas	7	813.00
Bottled, tank, or LP gas	46	53.48
Electricity	11	12.79
Fuel Oil, kerosene, etc.	12	13.95
Coal or coke	0	0.00
Wood	10	11.62
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	86	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	18,210,700
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## Economic Development

	Number
Average Income	23,111
Median Income	17,813
Per Capita Income	9,813
Total Population	249
Total Income	2,178,400

## Poverty

	Number
Income below poverty level	39
Income at or above poverty level	56

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	5	6.94
Agriculture, forestry, fishing and hunting	5	6.94
Mining	0	0.00
Construction	9	12.50
Manufacturing	5	6.94
Wholesale trade	0	0.00
Retail trade	7	9.72
Transportation and warehousing, and utilities	2	2.77
Transportation and warehousing	0	0.00
Utilities	2	2.77
Information	0	0.00
Finance, insurance, real estate and rental and leasing	4	5.55
Finance and insurance	0	0.00
Real estate and rental and leasing	4	5.55
Professional , scientific, management, administrative, and waste management services	12	16.66
Professional ,scientific, and technical services	7	9.72
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	5	6.94
Educational, health and social services	14	19.44
Educational services	2	2.77
Health care and social assistance	12	16.66
Arts, entertainment, recreation, accommodation and food services	3	4.16
Arts, entertainment, and recreation	3	4.16
Accommodation and food services	0	0.00
Other services	0	0.00
Public Administration	11	15.27
Total	72	100.00

## Transportation

	Number	Percent %
Car, Truck or van	47	65.28
Drive alone	41	56.94
Carpooled	6	8.33
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	3	4.17
Other means	15	20.83
Worked at home	7	9.72
Total	72	100.00

Mean Travel Time to Work	33.5
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# Township of Hiram

## Population

	Number	Percent %
1970	157	
1980	186	
1990	205	
2000	334	
2002	331	
Percent % of Change 1990-2000	129	62.93
Percent % of Change 1970-2000		112.74
65 and Over of 2000 Population	88	26.35
85 and Over of 2000 Population	1	0.30

## Population By Race

	Number	Percent %
White	326	97.60
Black or African American	0	0.00
American Indian or Alaska Native	1	0.30
Asian	0	0.00
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	7	2.10
Total	334	100.00
Hispanic or Latino	1	0.30

## Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	0	0.00
5th to 6th grade	0	0.00
7th to 8th grade	13	4.67
9th grade	0	0.00
10th grade	3	1.07
11th grade	17	6.11
12th grade, no diploma	8	2.87
High school graduate (include equivalency)	101	36.33
Some college, less than 1 year	31	11.15
Some college, 1 or more years, no degree	34	12.23
Associate degree	11	3.95
Bachelor's degree	28	10.07
Master's degree	30	10.79
Professional school degree	2	0.71
Doctorate degree	0	0.00
Total	278	100.00

## Housing

	Number	Percent %
Number of Households	157	
Persons per Household	2.13	
Number of Housing Units	630	
Vacant Units Non Seasonal	16	2.53
Vacant Units Seasonal	457	72.53
Owner Occupied Units	152	24.12
Renter Occupied Units	5	0.79

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	22	3.62
Built 1995 to 1998	38	6.26
Built 1990 to 1994	70	11.53
Built 1980 to 1989	94	15.48
Built 1970 to 1979	99	16.30
Built 1960 to 1969	112	18.45
Built 1950 to 1959	47	7.74
Built 1940 to 1949	40	6.58
Built 1939 and Earlier	85	14.00
Total	607	100.00

## Heating Method

	Number	Percent %
Utility Gas	4	2.56
Bottled, tank, or LP gas	100	64.10
Electricity	28	17.94
Fuel Oil, kerosene, etc.	9	5.76
Coal or coke	0	0.00
Wood	15	9.61
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	156	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	134,439,000
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## Economic Development

	Number
Average Income	44,757
Median Income	34,000
Per Capita Income	22,217
Total Population	334
Total Income	7,353,700

## Poverty

	Number
Income below poverty level	22
Income at or above poverty level	142

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	0	0.00
Agriculture, forestry, fishing and hunting	0	0.00
Mining	0	0.00
Construction	11	8.87
Manufacturing	8	6.45
Wholesale trade	3	2.41
Retail trade	18	14.51
Transportation and warehousing, and utilities	18	14.51
Transportation and warehousing	15	12.09
Utilities	3	2.41
Information	0	0.00
Finance, insurance, real estate and rental and leasing	5	4.03
Finance and insurance	5	4.03
Real estate and rental and leasing	0	0.00
Professional , scientific, management, administrative, and waste management services	11	8.87
Professional ,scientific, and technical services	11	8.87
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	0	0.00
Educational, health and social services	34	27.41
Educational services	17	13.70
Health care and social assistance	17	13.70
Arts, entertainment, recreation, accommodation and food services	4	3.22
Arts, entertainment, and recreation	0	0.00
Accommodation and food services	4	3.22
Other services	7	5.64
Public Administration	5	4.03
Total	124	100.00

## Transportation

	<b>Number</b>	<b>Percent %</b>
Car, Truck or van	112	93.33
Drive alone	106	88.33
Carpooled	6	5.00
Public Transportation	3	2.50
Bus or trolley bus	3	2.50
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	0	0.00
Other means	0	0.00
Worked at home	5	4.17
<b>Total</b>	<b>120</b>	<b>100.00</b>

<b>Mean Travel Time to Work</b>	<b>33.3</b>
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# Township of Home Brook

## Population

	Number	Percent %
1970	173	
1980	168	
1990	173	
2000	191	
2002	199	
Percent % of Change 1990-2000	18	10.40
Percent % of Change 1970-2000		10.40
65 and Over of 2000 Population	31	16.23
85 and Over of 2000 Population	2	1.05

## Population By Race

	Number	Percent %
White	187	97.90
Black or African American	0	0.00
American Indian or Alaska Native	1	0.50
Asian	2	1.00
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	1	0.50
Total	191	100.00
Hispanic or Latino	3	1.57

## Education Attainment

	Number	Percent %
No Schooling completed	3	1.97
Nursery to 4th grade	0	0.00
5th to 6th grade	0	0.00
7th to 8th grade	18	11.84
9th grade	13	8.55
10th grade	0	0.00
11th grade	8	5.26
12th grade, no diploma	0	0.00
High school graduate (include equivalency)	67	44.07
Some college, less than 1 year	5	3.28
Some college, 1 or more years, no degree	20	13.15
Associate degree	2	1.31
Bachelor's degree	7	4.60
Master's degree	0	0.00
Professional school degree	9	5.92
Doctorate Degree	0	0.00
Total	153	100.00

## Housing

	Number	Percent %
Number of Households	72	
Persons per Household	2.6	
Number of Housing Units	84	
Vacant Units Non Seasonal	6	7.14
Vacant Units Seasonal	6	7.14
Owner Occupied Units	69	82.14
Renter Occupied Units	3	3.57

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	7	7.69
Built 1995 to 1998	15	16.48
Built 1990 to 1994	5	5.49
Built 1980 to 1989	16	17.58
Built 1970 to 1979	14	15.38
Built 1960 to 1969	9	9.89
Built 1950 to 1959	2	2.19
Built 1940 to 1949	8	8.79
Built 1939 and Earlier	15	16.48
Total	91	100.00

## Heating Method

	Number	Percent %
Utility Gas	2	2.50
Bottled, tank, or LP gas	50	62.50
Electricity	0	0.00
Fuel Oil, kerosene, etc.	4	5.00
Coal or coke	0	0.00
Wood	24	30.00
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	80	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	3	100
Total	3	100

## Market Values

Estimated Market Value	15,626,000
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## Economic Development

	Number
Average Income	44,503
Median Income	34,375
Per Capita Income	16,303
2000 Population	191
Total Income	3,912,600

## Poverty

	Number
Income below poverty level	15
Income at or above poverty level	73

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	15	12.19
Agriculture, forestry, fishing and hunting	15	12.19
Mining	0	0.00
Construction	16	13.00
Manufacturing	13	10.56
Wholesale trade	0	0.00
Retail trade	14	11.38
Transportation and warehousing, and utilities	10	8.13
Transportation and warehousing	6	4.87
Utilities	4	3.25
Information	0	0.00
Finance, insurance, real estate and rental and leasing	0	0.00
Finance and insurance	0	0.00
Real estate and rental and leasing	0	0.00
Professional , scientific, management, administrative, and waste management services	14	11.80
Professional ,scientific, and technical services	3	2.43
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	11	8.94
Educational, health and social services	6	4.87
Educational services	0	0.00
Health care and social assistance	6	4.87
Arts, entertainment, recreation, accommodation and food services	30	24.39
Arts, entertainment, and recreation	2	1.62
Accommodation and food services	28	22.76
Other services	0	0.00
Pubic Administration	5	4.06
Total	123	100.00

## Transportation

	<b>Number</b>	<b>Percent %</b>
Car, Truck or van	103	83.74
Drive alone	82	66.67
Carpooled	21	17.07
Public Transportation	3	2.44
Bus or trolley bus	3	2.44
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	2	1.63
Walked	0	0.00
Other means	3	2.44
Worked at home	12	9.76
<b>Total</b>	<b>123</b>	<b>100.00</b>

<b>Mean Travel Time to Work</b>	<b>26.5</b>
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# Township of Inguadona

## Population

	Number	Percent %
1970	57	
1980	124	
1990	135	
2000	190	
2002	191	
Percent % of Change 1990-2000	55	40.74
Percent % of Change 1970-2000		233.33
65 and Over of 2000 Population	67	35.26
85 and Over of 2000 Population	3	1.58

## Population By Race

	Number	Percent %
White	182	95.80
Black or African American	0	0.00
American Indian or Alaska Native	2	1.10
Asian	0	0.00
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	6	3.20
Total	190	100.00
Hispanic or Latino	0	0.00

## Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	2	1.25
5th to 6th grade	0	0.00
7th to 8th grade	0	0.00
9th grade	5	3.12
10th grade	4	2.50
11th grade	5	3.12
12th grade, no diploma	4	2.50
High school graduate (include equivalency)	85	53.12
Some college, less than 1 year	18	11.25
Some college, 1 or more years, no degree	17	10.62
Associate degree	3	1.87
Bachelor's degree	3	1.87
Master's degree	10	6.25
Professional school degree	4	2.50
Doctorate degree	0	0.00
Total	160	100.00

## Housing

	Number	Percent %
Number of Households	86	
Persons per Household	2.21	
Number of Housing Units	213	
Vacant Units Non Seasonal	17	7.98
Vacant Units Seasonal	110	51.64
Owner Occupied Units	83	38.96
Renter Occupied Units	3	1.40

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	0	0.00
Built 1995 to 1998	31	13.47
Built 1990 to 1994	18	7.82
Built 1980 to 1989	51	22.17
Built 1970 to 1979	91	39.56
Built 1960 to 1969	28	12.17
Built 1950 to 1959	9	3.91
Built 1940 to 1949	0	0.00
Built 1939 and Earlier	2	0.86
Total	230	100.00

## Heating Method

	Number	Percent %
Utility Gas	3	3.19
Bottled, tank, or LP gas	48	51.06
Electricity	25	26.59
Fuel Oil, kerosene, etc.	8	8.57
Coal or coke	0	0.00
Wood	10	10.63
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	94	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	33,701,100
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## Economic Development

	Number
Average Income	61,945
Median Income	34,375
Per Capita Income	29,501
2000 Population	190
Total Income	5,575,700

## Poverty

	Number
Income below poverty level	8
Income at or above poverty level	85

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	7	9.33
Agriculture, forestry, fishing and hunting	7	9.33
Mining	0	0.00
Construction	10	13.33
Manufacturing	0	0.00
Wholesale trade	0	0.00
Retail trade	4	5.33
Transportation and warehousing, and utilities	0	0.00
Transportation and warehousing	0	0.00
Utilities	0	0.00
Information	0	0.00
Finance, insurance, real estate and rental and leasing	0	0.00
Finance and insurance	0	0.00
Real estate and rental and leasing	0	0.00
Professional , scientific, management, administrative, and waste management services	9	12.00
Professional ,scientific, and technical services	5	6.66
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	4	5.33
Educational, health and social services	32	42.66
Educational services	12	16.00
Health care and social assistance	20	16.66
Arts, entertainment, recreation, accommodation and food services	13	17.33
Arts, entertainment, and recreation	0	0.00
Accommodation and food services	13	17.33
Other services	0	0.00
Public Administration	0	0.00
Total	75	100.00

## Transportation

	Number	Percent %
Car, Truck or van	68	90.67
Drive alone	53	70.67
Carpooled	15	20.00
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	5	6.67
Other means	0	0.00
Worked at home	2	2.67
Total	75	100.00

Mean Travel Time to Work	21.6
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# Township of Kego

## Population

	Number	Percent %
1970	359	
1980	321	
1990	297	
2000	465	
2002	478	
Percent % of Change 1990-2000	168	56.57
Percent % of Change 1970-2000		29.53
65 and Over of 2000 Population	100	21.51
85 and Over of 2000 Population	5	1.08

## Population By Race

	Number	Percent %
White	397	85.40
Black or African American	0	0.00
American Indian or Alaska Native	61	13.10
Asian	1	0.20
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	6	1.30
Total	465	100.00
Hispanic or Latino	0	0.00

## Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	0	0.00
5th to 6th grade	0	0.00
7th to 8th grade	6	1.55
9th grade	17	4.41
10th grade	21	5.45
11th grade	3	0.77
12th grade, no diploma	12	3.11
High school graduate (include equivalency)	165	42.85
Some college, less than 1 year	27	7.01
Some college, 1 or more years, no degree	70	18.18
Associate degree	30	7.79
Bachelor's degree	21	5.45
Master's degree	8	2.07
Professional school degree	5	1.29
Doctorate degree	0	0.00
Total	385	100.00

## Housing

	Number	Percent %
Number of Households	200	
Persons per Household	2.33	
Number of Housing Units	628	
Vacant Units Non Seasonal	15	2.38
Vacant Units Seasonal	413	65.76
Owner Occupied Units	187	29.77
Renter Occupied Units	13	2.07

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	22	3.81
Built 1995 to 1998	62	10.74
Built 1990 to 1994	46	2.97
Built 1980 to 1989	120	20.79
Built 1970 to 1979	159	27.55
Built 1960 to 1969	79	28.51
Built 1950 to 1959	29	5.02
Built 1940 to 1949	28	4.85
Built 1939 and Earlier	32	0.17
Total	577	100.00

## Heating Method

	Number	Percent %
Utility Gas	0	0.00
Bottled, tank, or LP gas	91	44.60
Electricity	49	24.01
Fuel Oil, kerosene, etc.	23	11.27
Coal or coke	0	0.00
Wood	41	20.09
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	204	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	93,967,400
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## Economic Development

	Number
Average Income	38,950
Median Income	30,750
Per Capita Income	15,598
Total Population	465
Total Income	8,126,800

## Poverty

	Number
Income below poverty level	28
Income at or above poverty level	182

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	8	4.12
Agriculture, forestry, fishing and hunting	8	4.12
Mining	0	0.00
Construction	42	21.64
Manufacturing	4	2.06
Wholesale trade	10	5.15
Retail trade	30	15.46
Transportation and warehousing, and utilities	5	2.57
Transportation and warehousing	5	2.57
Utilities	0	0.00
Information	3	1.54
Finance, insurance, real estate and rental and leasing	18	9.27
Finance and insurance	15	7.73
Real estate and rental and leasing	3	1.54
Professional , scientific, management, administrative, and waste management services	2	1.03
Professional ,scientific, and technical services	2	1.03
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	0	0.00
Educational, health and social services	14	7.21
Educational services	11	5.67
Health care and social assistance	3	1.54
Arts, entertainment, recreation, accommodation and food services	38	19.58
Arts, entertainment, and recreation	11	5.67
Accommodation and food services	27	13.91
Other services	7	3.60
Public Administration	13	6.70
Total	194	100.00

## Transportation

	Number	Percent %
Car, Truck or van	175	90.21
Drive alone	156	80.41
Carpooled	19	9.79
Public Transportation	3	1.55
Bus or trolley bus	3	1.55
Streetcar or trolley car	0	0
Subway or elevated	0	0
Railroad	0	0
Ferry boat	0	0
Taxicab	0	0
Motorcycle	0	0
Bicycle	0	0
Walked	3	1.55
Other means	0	0
Worked at home	13	6.7
Total	194	100

Mean Travel Time to Work	18.6
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# Township of Leech Lake

## Population

	Number	Percent %
1970	188	
1980	264	
1990	279	
2000	384	
2002	394	
Percent % of Change 1990-2000	105	37.63
Percent % of Change 1970-2000		104.26
65 and Over of 2000 Population	62	16.15
85 and Over of 2000 Population	3	0.78

## Population By Race

	Number	Percent %
White	298	77.60
Black or African American	0	0.00
American Indian or Alaska Native	82	21.40
Asian	1	0.30
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	2	0.50
Two or More Races	1	0.30
Total	384	100.00
Hispanic or Latino	5	1.30

## Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	0	0.00
5th to 6th grade	0	0.00
7th to 8th grade	8	2.52
9th grade	7	2.20
10th grade	3	0.94
11th grade	8	2.52
12th grade, no diploma	11	3.47
High school graduate (include equivalency)	117	36.90
Some college, less than 1 year	32	10.09
Some college, 1 or more years, no degree	69	21.76
Associate degree	6	1.89
Bachelor's degree	36	11.35
Master's degree	10	3.15
Professional school degree	7	2.20
Doctorate degree	3	0.94
Total	317	100.00

## Housing

	Number	Percent %
Number of Households	155	
Persons per Household	2.48	
Number of Housing Units	285	
Vacant Units Non Seasonal	5	1.75
Vacant Units Seasonal	125	43.85
Owner Occupied Units	137	48.07
Renter Occupied Units	18	6.31

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	8	2.61
Built 1995 to 1998	65	21.24
Built 1990 to 1994	35	1.43
Built 1980 to 1989	60	19.60
Built 1970 to 1979	96	31.37
Built 1960 to 1969	4	1.30
Built 1950 to 1959	22	7.18
Built 1940 to 1949	7	2.28
Built 1939 and Earlier	9	2.94
Total	306	100.00

## Heating Method

	Number	Percent %
Utility Gas	3	1.76
Bottled, tank, or LP gas	81	47.64
Electricity	56	32.94
Fuel Oil, kerosene, etc.	13	7.64
Coal or coke	0	0.00
Wood	17	10.00
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	170	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	55,151,700
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## Economic Development

	Number
Average Income	42,140
Median Income	38,125
Per Capita Income	17,112
Total Population	384
Total Income	7,477,800

## Poverty

	Number
Income below poverty level	29
Income at or above poverty level	154

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	5	2.68
Agriculture, forestry, fishing and hunting	5	2.68
Mining	0	0.00
Construction	22	11.82
Manufacturing	16	8.60
Wholesale trade	7	3.76
Retail trade	24	12.90
Transportation and warehousing, and utilities	2	1.07
Transportation and warehousing	0	0.00
Utilities	2	1.07
Information	3	1.61
Finance, insurance, real estate and rental and leasing	7	3.76
Finance and insurance	2	1.07
Real estate and rental and leasing	5	2.68
Professional , scientific, management, administrative, and waste management services	13	6.98
Professional ,scientific, and technical services	10	5.37
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	3	1.61
Educational, health and social services	24	12.90
Educational services	13	6.98
Health care and social assistance	11	5.91
Arts, entertainment, recreation, accommodation and food services	37	19.89
Arts, entertainment, and recreation	11	5.91
Accommodation and food services	26	13.97
Other services	11	5.91
Public Administration	15	8.06
Total	186	100.00

## Transportation

	<b>Number</b>	<b>Percent %</b>
Car, Truck or van	155	83.33
Drive alone	131	70.43
Carpooled	24	12.90
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	16	8.60
Other means	10	5.38
Worked at home	5	2.69
<b>Total</b>	<b>186</b>	<b>100.00</b>

<b>Mean Travel Time to Work</b>	<b>13.8</b>
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## Township of Lima

### Population

	Number	Percent %
1970	111	
1980	98	
1990	118	
2000	111	
2002	108	
Percent % of Change 1990-2000	-7	-5.93
Percent % of Change 1970-2000		0.00
65 and Over of 2000 Population	17	15.32
85 and Over of 2000 Population	0	0.00

### Population By Race

	Number	Percent %
White	104	93.70
Black or African American	0	0.00
American Indian or Alaska Native	0	0.00
Asian	5	4.50
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	2	1.80
Total	111	100.00
Hispanic or Latino	8	7.21

### Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	0	0.00
5th to 6th grade	0	0.00
7th to 8th grade	5	5.81
9th grade	0	0.00
10th grade	0	0.00
11th grade	3	3.48
12th grade, no diploma	58	9.30
High school graduate (include equivalency)	47	54.65
Some college, less than 1 year	3	3.48
Some college, 1 or more years, no degree	15	17.44
Associate degree	3	3.48
Bachelor's degree	2	2.32
Master's degree	0	0.00
Professional school degree	0	0.00
Doctorate degree	0	0.00
Total	86	100.00

## Housing

	Number	Percent %
Number of Households	40	
Persons per Household	2.78	
Number of Housing Units	58	
Vacant Units Non Seasonal	4	6.89
Vacant Units Seasonal	14	24.13
Owner Occupied Units	39	67.24
Renter Occupied Units	1	1.72

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	5	8.19
Built 1995 to 1998	9	14.75
Built 1990 to 1994	2	3.27
Built 1980 to 1989	9	14.75
Built 1970 to 1979	11	18.03
Built 1960 to 1969	6	9.83
Built 1950 to 1959	4	6.55
Built 1940 to 1949	0	0.00
Built 1939 and Earlier	15	24.59
Total	61	100.00

## Heating Method

	Number	Percent %
Utility Gas	0	0.00
Bottled, tank, or LP gas	17	40.47
Electricity	0	0.00
Fuel Oil, kerosene, etc.	20	42.55
Coal or coke	0	0.00
Wood	5	11.90
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	42	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	4,514,600
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## Economic Development

	Number
Average Income	36,080
Median Income	26,250
Per Capita Income	11,462
Total Population	111
Total Income	1,570,300

## Poverty

	Number
Income below poverty level	2
Income at or above poverty level	43

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	2	3.33
Agriculture, forestry, fishing and hunting	2	3.33
Mining	0	0.00
Construction	5	8.33
Manufacturing	4	6.66
Wholesale trade	5	8.33
Retail trade	5	8.33
Transportation and warehousing, and utilities	8	13.33
Transportation and warehousing	5	8.33
Utilities	3	5.00
Information	0	0.00
Finance, insurance, real estate and rental and leasing	2	3.33
Finance and insurance	2	3.33
Real estate and rental and leasing	0	0.00
Professional , scientific, management, administrative, and waste management services	0	0.00
Professional ,scientific, and technical services	0	0.00
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	0	0.00
Educational, health and social services	22	36.66
Educational services	10	16.66
Health care and social assistance	12	20.00
Arts, entertainment, recreation, accommodation and food services	5	8.33
Arts, entertainment, and recreation	0	0.00
Accommodation and food services	5	8.33
Other services	2	3.33
Public Administration	0	0.00
Total	60	100.00

## Transportation

	<b>Number</b>	<b>Percent %</b>
Car, Truck or van	52	86.67
Drive alone	46	76.67
Carpooled	6	10.00
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	0	0.00
Other means	6	10.00
Worked at home	2	3.33
<b>Total</b>	<b>60</b>	<b>100.00</b>

<b>Mean Travel Time to Work</b>	<b>17.5</b>
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# Township of Loon Lake

## Population

	Number	Percent %
1970	183	
1980	209	
1990	264	
2000	376	
2002	393	
Percent % of Change 1990-2000	112	42.42
Percent % of Change 1970-2000		105.46
65 and Over of 2000 Population	45	11.97
85 and Over of 2000 Population	5	1.33

## Population By Race

	Number	Percent %
White	371	98.70
Black or African American	1	0.30
American Indian or alaska Native	0	0.00
Asian	1	0.30
Native Hawaiian and Oher Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	3	0.80
Total	376	100.00
Hispanic or Latino	0	0.00

## Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	0	0.00
5th to 6th grade	0	0.00
7th to 8th grade	18	7.43
9th grade	4	1.65
10th grade	5	2.06
11th grade	5	2.06
12th grade, no diploma	3	1.23
High school graduate (include equivalency)	82	33.88
Some college, less than 1 year	19	7.85
Some college, 1or more years, no degree	45	18.59
Associate degree	17	7.02
Bachelor's degree	36	14.87
Master's degree	5	7.06
Professional school degree	0	0.00
Doctorate degree	3	1.23
Total	242	100.00

## Housing

	Number	Percent %
Number of Households	143	
Persons per Household	2.63	
Number of Housing Units	185	
Vacant Units Non Seasonal	9	4.86
Vacant Units Seasonal	33	17.83
Owner Occupied Units	135	72.97
Renter Occupied Units	8	4.32

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	6	3.50
Built 1995 to 1998	12	7.01
Built 1990 to 1994	24	14.03
Built 1980 to 1989	28	16.37
Built 1970 to 1979	52	30.40
Built 1960 to 1969	9	5.26
Built 1950 to 1959	4	2.33
Built 1940 to 1949	9	5.26
Built 1939 and Earlier	27	15.78
Total	171	100.00

## Heating Method

	Number	Percent %
Utility Gas	10	7.29
Bottled, tank, or LP gas	71	51.82
Electricity	13	9.48
Fuel Oil, kerosene, etc.	15	10.94
Coal or coke	0	0.00
Wood	28	20.43
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	137	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	28,412,500
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## Economic Development

	Number
Average Income	44,287
Median Income	37,750
Per Capita Income	16,489
Total Poulation	376
Total Income	6,166,900

## Poverty

	Number
Income below poverty level	24
Income at or above poverty level	115

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	7	3.62
Agriculture, forestry, fishing and hunting	7	3.62
Mining	0	0.00
Construction	18	9.32
Manufacturing	12	6.21
Wholesale trade	5	2.59
Retail trade	31	16.06
Transportation and warehousing, and utilities	6	3.10
Transportation and warehousing	4	2.07
Utilities	2	1.03
Information	6	3.10
Finance, insurance, real estate and rental and leasing	9	4.66
Finance and insurance	9	4.66
Real estate and rental and leasing	0	0.00
Professional , scientific, management, administrative, and waste management services	10	5.18
Professional ,scientific, and technical services	5	2.59
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	5	2.59
Educational, health and social services	41	21.24
Educational services	18	9.32
Health care and social assistance	23	11.91
Arts, entertainment, recreation, accommodation and food services	37	19.37
Arts, entertainment, and recreation	6	3.10
Accommodation and food services	31	16.06
Other services	5	2.59
Pubic Administration	6	3.10
Total	193	100.00

## Transportation

	<b>Number</b>	<b>Percent %</b>
Car, Truck or van	174	90.16
Drive alone	164	84.97
Carpooled	10	5.18
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	2	1.04
Other means	2	1.04
Worked at home	15	7.77
<b>Total</b>	<b>193</b>	<b>100.00</b>

<b>Mean Travel Time to Work</b>	<b>19.7</b>
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# Township of Maple

## Population

	Number	Percent %
1970	263	
1980	251	
1990	257	
2000	291	
2002	310	
Percent % of Change 1990-2000	34	13.23
Percent % of Change 1970-2000		10.65
65 and Over of 2000 Population	32	11.00
85 and Over of 2000 Population	0	0.00

## Population By Race

	Number	Percent %
White	289	99.30
Black or African American	0	0.00
American Indian or Alaska Native	0	0.00
Asian	0	0.00
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	2	0.70
Total	291	100.00
Hispanic or Latino	0	0.00

## Education Attainment

	Number	Percent %
No Schooling completed	1	0.53
Nursery to 4th grade	0	0.00
5th to 6th grade	4	2.13
7th to 8th grade	7	3.74
9th grade	6	3.20
10th grade	5	2.67
11th grade	2	1.06
12th grade, no diploma	2	1.06
High school graduate (include equivalency)	89	47.59
Some college, less than 1 year	26	13.90
Some college, 1 or more years, no degree	21	11.22
Associate degree	8	4.27
Bachelor's degree	16	8.55
Master's degree	0	0.00
Professional school degree	0	0.00
Doctorate degree	0	0.00
Total	187	100.00

## Housing

	Number	Percent %
Number of Households	108	
Persons per Household	2.69	
Number of Housing Units	119	
Vacant Units Non Seasonal	5	4.20
Vacant Units Seasonal	6	5.04
Owner Occupied Units	97	81.51
Renter Occupied Units	11	9.24

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	10	8.40
Built 1995 to 1998	9	7.56
Built 1990 to 1994	10	8.40
Built 1980 to 1989	20	16.80
Built 1970 to 1979	25	21.00
Built 1960 to 1969	6	5.04
Built 1950 to 1959	4	3.36
Built 1940 to 1949	8	6.72
Built 1939 and Earlier	27	22.68
Total	119	100.00

## Heating Method

	Number	Percent %
Utility Gas	4	3.80
Bottled, tank, or LP gas	52	49.52
Electricity	0	0.00
Fuel Oil, kerosene, etc.	17	16.19
Coal or coke	0	0.00
Wood	32	30.47
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	105	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	20,390,000
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## Economic Development

	Number
Average Income	41,825
Median Income	36,250
Per Capita Income	14,583
Total Population	291
Total Income	4,272,700

## Poverty

	Number
Income below poverty level	7
Income at or above poverty level	96

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	23	15.13
Agriculture, forestry, fishing and hunting	23	15.13
Mining	0	0.00
Construction	22	14.47
Manufacturing	7	4.60
Wholesale trade	2	1.31
Retail trade	17	11.18
Transportation and warehousing, and utilities	7	4.60
Transportation and warehousing	7	4.60
Utilities	0	0.00
Information	15	9.86
Finance, insurance, real estate and rental and leasing	7	4.60
Finance and insurance	2	1.31
Real estate and rental and leasing	5	3.28
Professional , scientific, management, administrative, and waste management services	10	6.57
Professional ,scientific, and technical services	6	3.94
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	4	2.63
Educational, health and social services	25	16.44
Educational services	5	3.28
Health care and social assistance	20	13.16
Arts, entertainment, recreation, accommodation and food services	12	7.89
Arts, entertainment, and recreation	4	2.63
Accommodation and food services	8	5.26
Other services	5	3.28
Pubic Administration	0	0.00
Total	152	100.00

## Transportation

	<b>Number</b>	<b>Percent %</b>
Car, Truck or van	118	78.67
Drive alone	104	69.33
Carpooled	14	9.33
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	4	2.67
Other means	0	0.00
Worked at home	28	18.67
<b>Total</b>	<b>150</b>	<b>100.00</b>

<b>Mean Travel Time to Work</b>	<b>26.2</b>
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# Township of May

## Population

	Number	Percent %
1970	512	
1980	520	
1990	599	
2000	730	
2002	750	
Percent % of Change 1990-2000	131	21.87
Percent % of Change 1970-2000		42.58
65 and Over of 2000 Population	85	11.61
85 and Over of 2000 Population	3	0.41

## Population By Race

	Number	Percent %
White	715	97.90
Black or African American	0	0.00
American Indian or Alaska Native	7	1.00
Asian	2	0.30
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	1	0.10
Two or More Races	5	0.70
Total	730	100.00
Hispanic or Latino	11	1.51

## Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	3	0.63
5th to 6th grade	2	0.42
7th to 8th grade	40	8.42
9th grade	14	2.94
10th grade	11	2.31
11th grade	21	4.42
12th grade, no diploma	22	4.63
High school graduate (include equivalency)	172	36.21
Some college, less than 1 year	44	9.26
Some college, 1 or more years, no degree	68	14.31
Associate degree	42	8.84
Bachelor's degree	28	5.89
Master's degree	8	1.68
Professional school degree	0	0.00
Doctorate degree	0	0.00
Total	475	100.00

## Housing

	Number	Percent %
Number of Households	265	
Persons per Household	2.74	
Number of Housing Units	330	
Vacant Units Non Seasonal	34	10.30
Vacant Units Seasonal	31	9.39
Owner Occupied Units	238	72.12
Renter Occupied Units	27	8.18

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	7	1.97
Built 1995 to 1998	26	7.32
Built 1990 to 1994	30	8.45
Built 1980 to 1989	66	18.59
Built 1970 to 1979	67	18.87
Built 1960 to 1969	47	13.23
Built 1950 to 1959	25	7.04
Built 1940 to 1949	28	7.88
Built 1939 and Earlier	59	16.61
Total	355	100.00

## Heating Method

	Number	Percent %
Utility Gas	5	1.78
Bottled, tank, or LP gas	161	57.50
Electricity	14	5.00
Fuel Oil, kerosene, etc.	47	16.78
Coal or coke	0	0.00
Wood	50	17.85
Solar energy	0	0.00
Other fuel	3	1.07
No fuel used	0	0.00
Total	280	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	40,478,500
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## Economic Development

	Number
Average Income	41,320
Median Income	36,875
Per Capita Income	14,854
Total Population	730
Total Income	11,318,700

## Poverty

	Number
Income below poverty level	26
Income at or above poverty level	257

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	11	3.04
Agriculture, forestry, fishing and hunting	11	3.04
Mining	0	0.00
Construction	358	9.69
Manufacturing	79	21.88
Wholesale trade	12	3.32
Retail trade	39	10.80
Transportation and warehousing, and utilities	27	7.47
Transportation and warehousing	25	6.92
Utilities	2	0.55
Information	0	0.00
Finance, insurance, real estate and rental and leasing	11	3.04
Finance and insurance	11	3.04
Real estate and rental and leasing	0	0.00
Professional , scientific, management, administrative, and waste management services	13	3.60
Professional ,scientific, and technical services	3	0.83
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	10	2.77
Educational, health and social services	56	15.51
Educational services	22	6.09
Health care and social assistance	34	9.41
Arts, entertainment, recreation, accommodation and food services	37	10.24
Arts, entertainment, and recreation	2	0.55
Accommodation and food services	35	9.69
Other services	24	6.64
Public Administration	17	4.70
Total	361	100.00

## Transportation

	<b>Number</b>	<b>Percent %</b>
Car, Truck or van	341	94.99
Drive alone	290	80.78
Carpooled	51	14.21
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	7	1.95
Other means	3	0.84
Worked at home	8	2.23
<b>Total</b>	<b>259</b>	<b>100.00</b>

<b>Mean Travel Time to Work</b>	<b>25.7</b>
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# Township of McKinley

## Population

	Number	Percent %
1970	112	
1980	144	
1990	121	
2000	130	
2002	141	
Percent % of Change 1990-2000	9	7.44
Percent % of Change 1970-2000		16.07
65 and Over of 2000 Population	11	8.46
85 and Over of 2000 Population	1	0.77

## Population By Race

	Number	Percent %
White	125	96.20
Black or African American	0	0.00
American Indian or Alaska Native	5	3.80
Asian	0	0.00
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	0	0.00
Total	130	100.00
Hispanic or Latino	1	0.77

## Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	3	3.48
5th to 6th grade	0	0.00
7th to 8th grade	3	3.48
9th grade	5	5.81
10th grade	0	0.00
11th grade	5	5.81
12th grade, no diploma	1	1.16
High school graduate (include equivalency)	34	39.53
Some college, less than 1 year	14	16.27
Some college, 1 or more years, no degree	6	6.97
Associate degree	5	5.81
Bachelor's degree	10	11.62
Master's degree	0	0.00
Professional school degree	0	0.00
Doctorate degree	0	0.00
Total	86	100.00

## Housing

	Number	Percent %
Number of Households	47	
Persons per Household	2.77	
Number of Housing Units	75	
Vacant Units Non Seasonal	9	10.58
Vacant Units Seasonal	17	22.66
Owner Occupied Units	43	57.33
Renter Occupied Units	4	5.33

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	2	3.03
Built 1995 to 1998	2	3.03
Built 1990 to 1994	0	0.00
Built 1980 to 1989	9	13.63
Built 1970 to 1979	16	24.24
Built 1960 to 1969	2	3.03
Built 1950 to 1959	5	7.57
Built 1940 to 1949	9	13.63
Built 1939 and Earlier	21	31.81
Total	66	100.00

## Heating Method

	Number	Percent %
Utility Gas	0	0.00
Bottled, tank, or LP gas	7	14.00
Electricity	3	6.00
Fuel Oil, kerosene, etc.	8	16.00
Coal or coke	0	0.00
Wood	32	64.00
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	50	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	12,737,300
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## Economic Development

	Number
Average Income	31,683
Median Income	35,750
Per Capita Income	11,005
Total Population	130
Total Income	1,507,700

## Poverty

	Number
Income below poverty level	10
Income at or above poverty level	37

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	16	31.37
Agriculture, forestry, fishing and hunting	16	31.37
Mining	0	0.00
Construction	4	7.84
Manufacturing	10	19.60
Wholesale trade	2	3.92
Retail trade	4	7.84
Transportation and warehousing, and utilities	0	0.00
Transportation and warehousing	0	0.00
Utilities	0	0.00
Information	0	0.00
Finance, insurance, real estate and rental and leasing	0	0.00
Finance and insurance	0	0.00
Real estate and rental and leasing	0	0.00
Professional , scientific, management, administrative, and waste management services	5	9.85
Professional ,scientific, and technical services	3	5.88
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	2	3.92
Educational, health and social services	7	13.72
Educational services	0	0.00
Health care and social assistance	7	13.72
Arts, entertainment, recreation, accommodation and food services	2	3.92
Arts, entertainment, and recreation	0	0.00
Accommodation and food services	2	3.92
Other services	1	1.96
Public Administration	0	0.00
Total	51	100.00

## Transportation

	<b>Number</b>	<b>Percent %</b>
Car, Truck or van	36	70.59
Drive alone	24	47.06
Carpooled	12	23.53
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	9	17.65
Other means	1	1.96
Worked at home	5	9.80
<b>Total</b>	<b>51</b>	<b>100.00</b>

<b>Mean Travel Time to Work</b>	<b>25.5</b>
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# Township of Meadow Brook

## Population

	Number	Percent %
1970	159	
1980	155	
1990	140	
2000	183	
2002	193	
Percent % of Change 1990-2000	43	30.71
Percent % of Change 1970-2000		15.09
65 and Over of 2000 Population	27	14.75
85 and Over of 2000 Population	0	0

## Population By Race

	Number	Percent %
White	177	96.70
Black or African American	0	0.00
American Indian or Alaska Native	3	1.60
Asian	1	0.50
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	2	1.10
Total	183	100.00
Hispanic or Latino	0	0.00

## Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	0	0.00
5th to 6th grade	0	0.00
7th to 8th grade	13	9.09
9th grade	5	3.49
10th grade	0	0.00
11th grade	0	0.00
12th grade, no diploma	12	8.39
High school graduate (include equivalency)	57	39.86
Some college, less than 1 year	14	9.79
Some college, 1 or more years, no degree	26	18.18
Associate degree	14	9.79
Bachelor's degree	2	1.39
Master's degree	0	0.00
Professional school degree	0	0.00
Doctorate degree	0	0.00
Total	143	100.00

## Housing

	Number	Percent %
Number of Households	80	
Persons per Household	2.29	
Number of Housing Units	230	
Vacant Units Non Seasonal	9	3.91
Vacant Units Seasonal	141	61.30
Owner Occupied Units	76	33.04
Renter Occupied Units	4	1.73

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	2	0.92
Built 1995 to 1998	14	6.48
Built 1990 to 1994	11	5.09
Built 1980 to 1989	54	25.00
Built 1970 to 1979	75	34.72
Built 1960 to 1969	40	18.51
Built 1950 to 1959	2	0.92
Built 1940 to 1949	2	0.92
Built 1939 and Earlier	16	7.40
Total	216	100.00

## Heating Method

	Number	Percent %
Utility Gas	0	0.00
Bottled, tank, or LP gas	29	32.95
Electricity	4	4.54
Fuel Oil, kerosene, etc.	18	20.45
Coal or coke	5	5.68
Wood	32	36.36
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	88	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	13,451,300
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## Economic Development

	Number
Average Income	35,483
Median Income	35,278
Per Capita Income	14,869
Total Population	183
Total Income	3,152,200

## Poverty

	Number
Income below poverty level	15
Income at or above poverty level	71

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	17	18.08
Agriculture, forestry, fishing and hunting	17	18.08
Mining	0	0.00
Construction	2	2.12
Manufacturing	30	31.91
Wholesale trade	0	0.00
Retail trade	7	7.44
Transportation and warehousing, and utilities	5	5.31
Transportation and warehousing	5	5.31
Utilities	0	0.00
Information	2	2.12
Finance, insurance, real estate and rental and leasing	0	0.00
Finance and insurance	0	0.00
Real estate and rental and leasing	0	0.00
Professional , scientific, management, administrative, and waste management services	2	2.12
Professional ,scientific, and technical services	0	0.00
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	2	2.12
Educational, health and social services	10	10.63
Educational services	3	3.19
Health care and social assistance	7	7.44
Arts, entertainment, recreation, accommodation and food services	7	7.44
Arts, entertainment, and recreation	2	2.12
Accommodation and food services	5	5.31
Other services	5	5.31
Public Administration	5	5.31
Total	94	100.00

## Transportation

	<b>Number</b>	<b>Percent %</b>
Car, Truck or van	78	84.78
Drive alone	69	75.00
Carpooled	9	9.78
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	0	0.00
Other means	0	0.00
Worked at home	14	15.22
<b>Total</b>	<b>92</b>	<b>100.00</b>

<b>Mean Travel Time to Work</b>	<b>38.9</b>
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# Township of Moose Lake

## Population

	Number	Percent %
1970	119	
1980	123	
1990	153	
2000	142	
2002	139	
Percent % of Change 1990-2000	-11	-7.19
Percent % of Change 1970-2000		19.33
65 and Over of 2000 Population	14	9.86
85 and Over of 2000 Population	0	0

## Population By Race

	Number	Percent %
White	136	95.80
Black or African American	0	0.00
American Indian or Alaska Native	3	2.10
Asian	0	0.00
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	3	2.10
Total	142	100.00
Hispanic or Latino	1	0.70

## Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	0	0.00
5th to 6th grade	0	0.00
7th to 8th grade	1	1.56
9th grade	5	7.81
10th grade	3	4.68
11th grade	4	6.25
12th grade, no diploma	0	0.00
High school graduate (include equivalency)	28	43.75
Some college, less than 1 year	8	12.50
Some college, 1 or more years, no degree	7	10.93
Associate degree	0	0.00
Bachelor's degree	8	12.50
Master's degree	0	0.00
Professional school degree	0	0.00
Doctorate degree	0	0.00
Total	64	100.00

## Housing

	Number	Percent %
Number of Households	49	
Persons per Household	2.9	
Number of Housing Units	61	
Vacant Units Non Seasonal	4	6.55
Vacant Units Seasonal	8	13.11
Owner Occupied Units	41	67.21
Renter Occupied Units	8	13.11

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	3	5.45
Built 1995 to 1998	2	3.63
Built 1990 to 1994	2	3.63
Built 1980 to 1989	7	12.72
Built 1970 to 1979	11	20.00
Built 1960 to 1969	5	9.09
Built 1950 to 1959	5	9.09
Built 1940 to 1949	6	10.90
Built 1939 and Earlier	14	25.45
Total	55	100.00

## Heating Method

	Number	Percent %
Utility Gas	2	4.65
Bottled, tank, or LP gas	12	27.90
Electricity	0	0.00
Fuel Oil, kerosene, etc.	7	16.27
Coal or coke	0	0.00
Wood	22	51.16
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	43	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	9,463,900
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## Economic Development

	Number
Average Income	45,487
Median Income	43,333
Per Capita Income	15,687
Total Population	142
Total Income	2,039,300

## Poverty

	Number
Income below poverty level	12
Income at or above poverty level	34

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	3	5.00
Agriculture, forestry, fishing and hunting	3	5.00
Mining	0	0.00
Construction	2	3.27
Manufacturing	12	20.00
Wholesale trade	2	3.27
Retail trade	5	8.33
Transportation and warehousing, and utilities	2	3.27
Transportation and warehousing	2	3.27
Utilities	0	0.00
Information	4	6.66
Finance, insurance, real estate and rental and leasing	0	0.00
Finance and insurance	0	0.00
Real estate and rental and leasing	0	0.00
Professional , scientific, management, administrative, and waste management services	9	15.00
Professional ,scientific, and technical services	3	5.00
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	6	10.00
Educational, health and social services	6	10.00
Educational services	2	3.27
Health care and social assistance	4	6.66
Arts, entertainment, recreation, accommodation and food services	7	11.66
Arts, entertainment, and recreation	0	0.00
Accommodation and food services	7	11.66
Other services	8	13.33
Pubic Administration	0	0.00
Total	60	100.00

## Transportation

	Number	Percent %
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Car, Truck or van	54	94.74
Drive alone	42	73.68
Carpooled	12	21.05
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	2	3.51
Other means	0	0.00
Worked at home	1	1.75
Total	57	100.00

Mean Travel Time to Work	33.5
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## Township of Otter Tail Peninsula

### Population

	Number	Percent %
1970	0	
1980	0	
1990	40	
2000	43	
2002	45	
Percent % of Change 1990-2000	3	7.5
Percent % of Change 1970-2000		
65 and Over of 2000 Population	13	30.23
85 and Over of 2000 Population	1	2.33

### Population By Race

	Number	Percent %
White	37	86.00
Black or African American	0	0.00
American Indian or Alaska Native	1	2.30
Asian	0	0.00
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	5	11.60
Total	43	100.00
Hispanic or Latino	0	0.00

### Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	0	0.00
5th to 6th grade	0	0.00
7th to 8th grade	0	0.00
9th grade	0	0.00
10th grade	0	0.00
11th grade	2	6.45
12th grade, no diploma	4	12.90
High school graduate (include equivalency)	9	29.03
Some college, less than 1 year	2	6.45
Some college, 1 or more years, no degree	8	25.80
Associate degree	0	0.00
Bachelor's degree	6	19.35
Master's degree	0	0.00
Professional school degree	0	0.00
Doctorate degree	0	0.00
Total	31	100.00

## Housing

	Number	Percent %
Number of Households	22	
Persons per Household	1.95	
Number of Housing Units	91	
Vacant Units Non Seasonal	16	17.58
Vacant Units Seasonal	3	3.29
Owner Occupied Units	69	75.82
Renter Occupied Units	66	72.52

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	2	2.04
Built 1995 to 1998	4	4.08
Built 1990 to 1994	31	31.63
Built 1980 to 1989	9	9.18
Built 1970 to 1979	4	4.08
Built 1960 to 1969	2	2.04
Built 1950 to 1959	4	4.08
Built 1940 to 1949	31	31.63
Built 1939 and Earlier	11	11.22
Total	98	100.00

## Heating Method

	Number	Percent %
Utility Gas	0	0.00
Bottled, tank, or LP gas	9	42.85
Electricity	8	38.09
Fuel Oil, kerosene, etc.	2	9.52
Coal or coke	0	0.00
Wood	2	9.52
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	21	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	28,394,100
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## Economic Development

	Number
Average Income	54,511
Median Income	31,875
Per Capita Income	30,869
Total Population	43
Total Income	1,080,400

## Poverty

	Number
Income below poverty level	0
Income at or above poverty level	19

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	0	0.00
Agriculture, forestry, fishing and hunting	0	0.00
Mining	0	0.00
Construction	0	0.00
Manufacturing	0	0.00
Wholesale trade	2	10.52
Retail trade	2	10.52
Transportation and warehousing, and utilities	0	0.00
Transportation and warehousing	0	0.00
Utilities	0	0.00
Information	0	0.00
Finance, insurance, real estate and rental and leasing	2	10.52
Finance and insurance	0	0.00
Real estate and rental and leasing	2	10.52
Professional , scientific, management, administrative, and waste management services	0	0.00
Professional ,scientific, and technical services	0	0.00
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	0	0.00
Educational, health and social services	5	26.31
Educational services	3	9.67
Health care and social assistance	2	6.45
Arts, entertainment, recreation, accommodation and food services	6	31.57
Arts, entertainment, and recreation	0	0.00
Accommodation and food services	6	31.57
Other services	0	0.00
Public Administration	2	6.45
Total	19	100.00

## Transportation

	<b>Number</b>	<b>Percent %</b>
Car, Truck or van	7	36.84
Drive alone	7	36.84
Carpooled	0	0.00
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	0	0.00
Other means	0	0.00
Worked at home	12	63.16
<b>Total</b>	<b>19</b>	<b>100.00</b>

<b>Mean Travel Time to Work</b>	<b>16.4</b>
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# Township of Pike Bay

## Population

	Number	Percent %
1970	883	
1980	1,211	
1990	1,420	
2000	1,643	
2002	1,652	
Percent % of Change 1990-2000	223	15.7
Percent % of Change 1970-2000		86.07
65 and Over of 2000 Population	117	7.12
85 and Over of 2000 Population	11	0.67

## Population By Race

	Number	Percent %
White	463	28.20
Black or African American	0	0.00
American Indian or Alaska Native	1131	68.80
Asian	3	0.20
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	7	0.40
Two or More Races	39	2.40
Total	1,643	100.00
Hispanic or Latino	43	2.62

## Education Attainment

	Number	Percent %
No Schooling completed	2	0.22
Nursery to 4th grade	2	0.22
5th to 6th grade	6	0.67
7th to 8th grade	26	2.90
9th grade	26	2.90
10th grade	46	5.14
11th grade	19	2.12
12th grade, no diploma	24	2.68
High school graduate (include equivalency)	263	29.41
Some college, less than 1 year	85	9.80
Some college, 1 or more years, no degree	243	27.18
Associate degree	68	7.60
Bachelor's degree	57	6.37
Master's degree	21	2.34
Professional school degree	4	0.44
Doctorate degree	2	0.22
Total	894	100.00

## Housing

	Number	Percent %
Number of Households	528	
Persons per Household	3.11	
Number of Housing Units	724	
Vacant Units Non Seasonal	25	3.45
Vacant Units Seasonal	171	23.61
Owner Occupied Units	388	53.59
Renter Occupied Units	140	19.33

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	16	2.05
Built 1995 to 1998	64	8.20
Built 1990 to 1994	68	8.71
Built 1980 to 1989	166	21.28
Built 1970 to 1979	267	34.23
Built 1960 to 1969	68	8.71
Built 1950 to 1959	43	5.51
Built 1940 to 1949	56	7.17
Built 1939 and Earlier	32	4.10
Total	780	100.00

## Heating Method

	Number	Percent %
Utility Gas	40	7.40
Bottled, tank, or LP gas	272	50.37
Electricity	101	18.70
Fuel Oil, kerosene, etc.	71	13.14
Coal or coke	0	0.00
Wood	47	8.70
Solar energy	0	0.00
Other fuel	6	1.11
No fuel used	3	0.55
Total	540	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	45,577,600
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## Economic Development

	Number
Average Income	34,192
Median Income	28,792
Per Capita Income	10,589
Total Population	1,643
Total Income	18,128,100

## Poverty

	Number
Income below poverty level	130
Income at or above poverty level	407

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	28	4.19
Agriculture, forestry, fishing and hunting	28	4.19
Mining	0	0.00
Construction	42	6.28
Manufacturing	30	4.49
Wholesale trade	2	0.29
Retail trade	81	12.12
Transportation and warehousing, and utilities	23	3.44
Transportation and warehousing	22	3.29
Utilities	1	0.14
Information	4	0.59
Finance, insurance, real estate and rental and leasing	45	6.73
Finance and insurance	24	3.59
Real estate and rental and leasing	21	3.14
Professional , scientific, management, administrative, and waste management services	17	2.54
Professional ,scientific, and technical services	12	1.79
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	5	0.74
Educational, health and social services	159	23.80
Educational services	54	8.08
Health care and social assistance	105	15.71
Arts, entertainment, recreation, accommodation and food services	136	20.35
Arts, entertainment, and recreation	80	11.97
Accommodation and food services	56	8.38
Other services	28	4.19
Public Administration	73	10.92
Total	668	100.00

## Transportation

	<b>Number</b>	<b>Percent %</b>
Car, Truck or van	546	82.60
Drive alone	428	64.75
Carpooled	118	17.85
Public Transportation	27	4.08
Bus or trolley bus	21	3.18
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	6	0.91
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	29	4.39
Other means	5	0.76
Worked at home	54	8.17
<b>Total</b>	<b>661</b>	<b>100.00</b>

<b>Mean Travel Time to Work</b>	<b>15.9</b>
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## Township of Pine Lake

### Population

	Number	Percent %
1970	165	
1980	168	
1990	138	
2000	170	
2002	175	
Percent % of Change 1990-2000	32	23.19
Percent % of Change 1970-2000		3.03
65 and Over of 2000 Population	41	24.12
85 and Over of 2000 Population	1	0.59

### Population By Race

	Number	Percent %
White	150	88.20
Black or African American	0	0.00
American Indian or Alaska Native	8	4.70
Asian	2	1.20
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	10	5.90
Total	170	100.00
Hispanic or Latino	2	1.18

### Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	0	0.00
5th to 6th grade	0	0.00
7th to 8th grade	3	2.27
9th grade	2	1.51
10th grade	4	3.03
11th grade	4	3.03
12th grade, no diploma	3	2.27
High school graduate (include equivalency)	50	37.87
Some college, less than 1 year	14	10.60
Some college, 1 or more years, no degree	23	17.42
Associate degree	7	5.30
Bachelor's degree	14	10.60
Master's degree	3	2.27
Professional school degree	5	3.78
Doctorate degree	0	0.00
Total	132	100.00

## Housing

	Number	Percent %
Number of Households	81	
Persons per Household	2.1	
Number of Housing Units	262	
Vacant Units Non Seasonal	4	1.53
Vacant Units Seasonal	177	67.56
Owner Occupied Units	75	28.63
Renter Occupied Units	6	0.23

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	4	1.32
Built 1995 to 1998	36	11.84
Built 1990 to 1994	52	17.11
Built 1980 to 1989	68	22.37
Built 1970 to 1979	47	15.47
Built 1960 to 1969	36	11.84
Built 1950 to 1959	10	3.29
Built 1940 to 1949	46	15.13
Built 1939 and Earlier	5	1.65
Total	304	100.00

## Heating Method

	Number	Percent %
Utility Gas	2	2.78
Bottled, tank, or LP gas	46	63.89
Electricity	9	12.50
Fuel Oil, kerosene, etc.	5	6.94
Coal or coke	0	0.00
Wood	10	13.89
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	72	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	60,060,700
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## Economic Development

	Number
Average Income	51,384
Median Income	41,250
Per Capita Income	22,201
Total Population	170
Total Income	3,840,700

## Poverty

	Number
Income below poverty level	9
Income at or above poverty level	65

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	3	4.10
Agriculture, forestry, fishing and hunting	3	4.10
Mining	0	0.00
Construction	9	12.32
Manufacturing	2	2.73
Wholesale trade	0	0.00
Retail trade	31	42.46
Transportation and warehousing, and utilities	0	0.00
Transportation and warehousing	0	0.00
Utilities	0	0.00
Information	0	0.00
Finance, insurance, real estate and rental and leasing	2	2.73
Finance and insurance	2	2.73
Real estate and rental and leasing	0	0.00
Professional , scientific, management, administrative, and waste management services	3	4.10
Professional ,scientific, and technical services	3	4.10
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	0	0.00
Educational, health and social services	5	6.84
Educational services	0	0.00
Health care and social assistance	5	6.84
Arts, entertainment, recreation, accommodation and food services	11	15.06
Arts, entertainment, and recreation	4	5.14
Accommodation and food services	7	9.58
Other services	0	0.00
Pubic Administration	7	9.58
Total	73	100.00

## Transportation

	Number	Percent %
Car, Truck or van	59	83.10
Drive alone	46	64.79
Carpooled	13	18.31
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	3	4.23
Other means	4	5.63
Worked at home	5	7.04
Total	71	100.00

Mean Travel Time to Work	28.3
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## Township of Pine River

### Population

	Number	Percent %
1970	384	
1980	637	
1990	838	
2000	1,061	
2002	1,103	
Percent % of Change 1990-2000	223	26.61
Percent % of Change 1970-2000		176.30
65 and Over of 2000 Population	151	14.23
85 and Over of 2000 Population	6	0.57

### Population By Race

	Number	Percent %
White	1,038	97.80
Black or African American	1	0.10
American Indian or Alaska Native	8	0.80
Asian	5	0.50
Native Hawaiian and Other Pacific Islanders	1	0.10
Other Single Race	0	0.00
Two or More Races	8	0.80
Total	1,061	100.00
Hispanic or Latino	4	0.38

### Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	3	0.43
5th to 6th grade	6	0.87
7th to 8th grade	12	1.75
9th grade	0.24	3.50
10th grade	22	3.21
11th grade	15	1.19
12th grade, no diploma	12	1.75
High school graduate (include equivalency)	279	40.78
Some college, less than 1 year	95	13.88
Some college, 1 or more years, no degree	109	15.93
Associate degree	44	6.43
Bachelor's degree	44	6.43
Master's degree	10	1.46
Professional school degree	9	1.31
Doctorate degree	0	0.00
Total	684	100.00

## Housing

	Number	Percent %
Number of Households	394	
Persons per Household	2.69	
Number of Housing Units	469	
Vacant Units Non Seasonal	19	4.05
Vacant Units Seasonal	56	11.94
Owner Occupied Units	357	76.12
Renter Occupied Units	37	7.89

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	24	5.05
Built 1995 to 1998	53	11.58
Built 1990 to 1994	45	9.47
Built 1980 to 1989	111	23.37
Built 1970 to 1979	136	28.63
Built 1960 to 1969	36	7.58
Built 1950 to 1959	26	5.47
Built 1940 to 1949	13	2.73
Built 1939 and Earlier	31	6.53
Total	475	100.00

## Heating Method

	Number	Percent %
Utility Gas	40	10.18
Bottled, tank, or LP gas	174	44.27
Electricity	61	15.52
Fuel Oil, kerosene, etc.	29	7.38
Coal or coke	0	0.00
Wood	89	22.65
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	393	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	51,825,000
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## Economic Development

	Number
Average Income	41,619
Median Income	37,212
Per Capita Income	14,910
Total Population	1,061
Total Income	16,296,300

## Poverty

	Number
Income below poverty level	37
Income at or above poverty level	366

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	13	2.69
Agriculture, forestry, fishing and hunting	13	2.69
Mining	0	0.00
Construction	48	9.93
Manufacturing	65	13.45
Wholesale trade	12	2.48
Retail trade	64	13.25
Transportation and warehousing, and utilities	20	4.14
Transportation and warehousing	7	1.44
Utilities	13	2.69
Information	18	3.72
Finance, insurance, real estate and rental and leasing	18	3.72
Finance and insurance	2	0.41
Real estate and rental and leasing	16	3.31
Professional , scientific, management, administrative, and waste management services	15	3.10
Professional ,scientific, and technical services	11	2.27
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	4	0.82
Educational, health and social services	94	19.46
Educational services	37	7.66
Health care and social assistance	57	11.80
Arts, entertainment, recreation, accommodation and food services	50	10.35
Arts, entertainment, and recreation	14	2.89
Accommodation and food services	36	7.45
Other services	43	8.90
Public Administration	23	4.76
Total	483	100.00

## Transportation

	<b>Number</b>	<b>Percent %</b>
Car, Truck or van	439	93.01
Drive alone	366	77.54
Carpooled	73	15.47
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	2	0.42
Other means	4	0.85
Worked at home	27	5.72
<b>Total</b>	<b>472</b>	<b>100.00</b>

<b>Mean Travel Time to Work</b>	<b>22.4</b>
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# Township of Ponto Lake

## Population

	Number	Percent %
1970	271	
1980	384	
1990	453	
2000	530	
2002	528	
Percent % of Change 1990-2000	77	17
Percent % of Change 1970-2000		95.57
65 and Over of 2000 Population	132	24.91
85 and Over of 2000 Population	6	1.13

## Population By Race

	Number	Percent %
White	517	97.50
Black or African American	0	0.00
American Indian or Alaska Native	7	1.30
Asian	2	0.40
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	4	0.80
Total	530	100.00
Hispanic or Latino	2	0.40

## Education Attainment

	Number	Percent %
No Schooling completed	1	0.23
Nursery to 4th grade	0	0.00
5th to 6th grade	0	0.00
7th to 8th grade	25	5.92
9th grade	6	1.42
10th grade	6	1.42
11th grade	7	1.65
12th grade, no diploma	24	5.68
High school graduate (include equivalency)	154	36.49
Some college, less than 1 year	37	8.76
Some college, 1 or more years, no degree	67	15.87
Associate degree	17	4.02
Bachelor's degree	45	10.66
Master's degree	14	3.31
Professional school degree	8	1.89
Doctorate degree	11	2.60
Total	422	100.00

## Housing

	Number	Percent %
Number of Households	253	
Persons per Household	2.09	
Number of Housing Units	835	
Vacant Units Non Seasonal	8	1.00
Vacant Units Seasonal	574	68.74
Owner Occupied Units	241	28.86
Renter Occupied Units	12	1.44

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	8	0.94
Built 1995 to 1998	47	5.52
Built 1990 to 1994	81	9.52
Built 1980 to 1989	138	16.22
Built 1970 to 1979	170	19.98
Built 1960 to 1969	174	19.98
Built 1950 to 1959	113	13.28
Built 1940 to 1949	63	7.40
Built 1939 and Earlier	57	6.70
Total	851	100.00

## Heating Method

	Number	Percent %
Utility Gas	9	3.59
Bottled, tank, or LP gas	119	47.41
Electricity	55	21.91
Fuel Oil, kerosene, etc.	16	6.37
Coal or coke	0	0.00
Wood	52	20.72
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	251	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	112,376,500
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## Economic Development

	Number
Average Income	35,584
Median Income	27,105
Per Capita Income	17,642
Total Poulation	530
Total Income	8,556,500

## Poverty

	Number
Income below poverty level	27
Income at or above poverty level	225

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	8	3.98
Agriculture, forestry, fishing and hunting	8	3.98
Mining	2	0.00
Construction	18	8.95
Manufacturing	16	7.96
Wholesale trade	9	4.47
Retail trade	25	12.43
Transportation and warehousing, and utilities	12	5.97
Transportation and warehousing	4	1.99
Utilities	8	3.98
Information	13	6.46
Finance, insurance, real estate and rental and leasing	8	3.98
Finance and insurance	3	1.49
Real estate and rental and leasing	5	2.48
Professional , scientific, management, administrative, and waste management services	13	6.46
Professional ,scientific, and technical services	5	2.48
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	8	3.98
Educational, health and social services	32	15.92
Educational services	20	9.95
Health care and social assistance	12	5.97
Arts, entertainment, recreation, accommodation and food services	27	13.43
Arts, entertainment, and recreation	3	1.49
Accommodation and food services	24	11.94
Other services	12	5.97
Pubic Administration	8	3.98
Total	201	100.00

## Transportation

	<b>Number</b>	<b>Percent %</b>
Car, Truck or van	165	88.24
Drive alone	139	74.33
Carpooled	26	13.90
Public Transportation	1	0.53
Bus or trolley bus	0	0.00
Streetcar or trolley car	1	0.53
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	0	0.00
Other means	0	0.00
Worked at home	21	11.23
<b>Total</b>	<b>187</b>	<b>100.00</b>

<b>Mean Travel Time to Work</b>	<b>23.4</b>
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# Township of Poplar

## Population

	Number	Percent %
1970	207	
1980	217	
1990	201	
2000	173	
2002	175	
Percent % of Change 1990-2000	-28	-13.93
Percent % of Change 1970-2000		-16.43
65 and Over of 2000 Population	30	17.34
85 and Over of 2000 Population	2	1.16

## Population By Race

	Number	Percent %
White	167	96.50
Black or African American	0	0.00
American Indian or Alaska Native	1	0.60
Asian	0	0.00
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	5	2.90
Total	173	100.00
Hispanic or Latino	0	0.00

## Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	0	0.00
5th to 6th grade	2	1.90
7th to 8th grade	14	13.33
9th grade	2	1.90
10th grade	6	5.71
11th grade	5	4.76
12th grade, no diploma	0	0.00
High school graduate (include equivalency)	46	43.80
Some college, less than 1 year	9	8.57
Some college, 1 or more years, no degree	14	13.33
Associate degree	1	0.95
Bachelor's degree	4	3.80
Master's degree	2	1.90
Professional school degree	0	0.00
Doctorate Degree	0	0.00
Total	105	100.00

## Housing

	Number	Percent %
Number of Households	61	
Persons per Household	2.84	
Number of Housing Units	79	
Vacant Units Non Seasonal	6	7.59
Vacant Units Seasonal	12	15.19
Owner Occupied Units	56	7.19
Renter Occupied Units	5	6.33

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	0	0.00
Built 1995 to 1998	4	4.82
Built 1990 to 1994	0	0.00
Built 1980 to 1989	9	10.84
Built 1970 to 1979	24	28.92
Built 1960 to 1969	15	18.07
Built 1950 to 1959	12	14.46
Built 1940 to 1949	3	3.61
Built 1939 and Earlier	16	19.28
Total	83	100.00

## Heating Method

	Number	Percent %
Utility Gas	0	0.00
Bottled, tank, or LP gas	18	32.14
Electricity	0	0.00
Fuel Oil, kerosene, etc.	7	12.50
Coal or coke	0	0.00
Wood	31	53.36
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	56	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	12,777,800
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## Economic Development

	Number
Average Income	35,042
Median Income	36,875
Per Capita Income	11,915
2000 Population	173
Total Income	1,870,600

## Poverty

	Number
Income below poverty level	0
Income at or above poverty level	52

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	26	37.14
Agriculture, forestry, fishing and hunting	26	37.14
Mining	0	0.00
Construction	7	10.00
Manufacturing	16	22.85
Wholesale trade	6	8.57
Retail trade	1	1.42
Transportation and warehousing, and utilities	0	0.00
Transportation and warehousing	0	0.00
Utilities	0	0.00
Information	0	0.00
Finance, insurance, real estate and rental and leasing	2	2.85
Finance and insurance	2	2.85
Real estate and rental and leasing	0	0.00
Professional , scientific, management, administrative, and waste management services	0	0.00
Professional ,scientific, and technical services	0	0.00
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	0	0.00
Educational, health and social services	9	12.85
Educational services	7	10.00
Health care and social assistance	2	2.85
Arts, entertainment, recreation, accommodation and food services	2	2.85
Arts, entertainment, and recreation	2	2.85
Accommodation and food services	0	0.00
Other services	1	1.42
Pubic Administration	0	0.00
Total	70	100.00

## Transportation

	Number	Percent %
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Car, Truck or van	56	80.00
Drive alone	43	61.43
Carpooled	13	18.57
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	0	0.00
Other means	0	0.00
Worked at home	14	20.00
Total	70	100.00

Mean Travel Time to Work	35.1
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# Township of Powers

## Population

	Number	Percent %
1970	386	
1980	542	
1990	603	
2000	918	
2002	950	
Percent % of Change 1990-2000	315	52.24
Percent % of Change 1970-2000		137.82
65 and Over of 2000 Population	256	27.89
85 and Over of 2000 Population	71	7.73

## Population By Race

	Number	Percent %
White	900	98.00
Black or African American	1	0.10
American Indian or Alaska Native	13	1.40
Asian	0	0.00
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	1	0.10
Two or More Races	3	0.30
Total	918	100.00
Hispanic or Latino	0	0.00

## Education Attainment

	Number	Percent %
No Schooling completed	2	0.28
Nursery to 4th grade	0	0.00
5th to 6th grade	0	0.00
7th to 8th grade	19	2.69
9th grade	8	1.13
10th grade	24	3.40
11th grade	75	10.65
12th grade, no diploma	20	2.84
High school graduate (include equivalency)	265	37.64
Some college, less than 1 year	67	9.51
Some college, 1 or more years, no degree	84	11.93
Associate degree	43	6.10
Bachelor's degree	79	11.22
Master's degree	10	1.42
Professional school degree	8	1.13
Doctorate degree	0	0.00
Total	704	100.00

## Housing

	Number	Percent %
Number of Households	340	
Persons per Household	2.41	
Number of Housing Units	800	
Vacant Units Non Seasonal	19	2.36
Vacant Units Seasonal	441	55.13
Owner Occupied Units	313	39.13
Renter Occupied Units	27	3.38

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	21	2.56
Built 1995 to 1998	42	5.12
Built 1990 to 1994	43	5.24
Built 1980 to 1989	137	16.71
Built 1970 to 1979	233	28.42
Built 1960 to 1969	125	15.24
Built 1950 to 1959	91	11.10
Built 1940 to 1949	43	5.24
Built 1939 and Earlier	85	10.37
Total	820	100.00

## Heating Method

	Number	Percent %
Utility Gas	2	6.10
Bottled, tank, or LP gas	179	54.57
Electricity	51	15.55
Fuel Oil, kerosene, etc.	40	12.20
Coal or coke	0	0.00
Wood	56	17.07
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	328	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	97	100
Total	97	100

## Market Values

Estimated Market Value	92,137,300
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## Economic Development

	Number
Average Income	44,372
Median Income	40,547
Per Capita Income	19,140
2000 Population	918
Total Income	15,188,100

## Poverty

	Number
Income below poverty level	34
Income at or above poverty level	293

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	12	3.08
Agriculture, forestry, fishing and hunting	12	3.08
Mining	0	0.00
Construction	36	9.25
Manufacturing	38	9.76
Wholesale trade	17	4.37
Retail trade	58	14.91
Transportation and warehousing, and utilities	27	6.94
Transportation and warehousing	25	6.42
Utilities	2	0.51
Information	5	1.28
Finance, insurance, real estate and rental and leasing	27	6.94
Finance and insurance	19	0.25
Real estate and rental and leasing	8	2.05
Professional , scientific, management, administrative, and waste management services	10	2.57
Professional ,scientific, and technical services	8	2.05
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	2	0.51
Educational, health and social services	69	17.73
Educational services	18	4.62
Health care and social assistance	51	13.11
Arts, entertainment, recreation, accommodation and food services	28	7.19
Arts, entertainment, and recreation	4	1.02
Accommodation and food services	24	6.16
Other services	10	2.57
Pubic Administration	52	13.36
Total	389	100.00

## Transportation

	<b>Number</b>	<b>Percent %</b>
Car, Truck or van	363	93.56
Drive alone	305	78.61
Carpooled	58	14.95
Public Transportation	2	0.52
Bus or trolley bus	2	0.52
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	6	1.55
Other means	0	0.00
Worked at home	17	4.38
<b>Total</b>	<b>388</b>	<b>100.00</b>

<b>Mean Travel Time to Work</b>	<b>25.4</b>
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# Township of Remer

## Population

	Number	Percent %
1970	148	
1980	190	
1990	156	
2000	183	
2002	182	
Percent % of Change 1990-2000	27	17.31
Percent % of Change 1970-2000		23.65
65 and Over of 2000 Population	23	12.57
85 and Over of 2000 Population	3	1.64

## Population By Race

	Number	Percent %
White	179	97.80
Black or African American	0	0.00
American Indian or Alaska Native	3	1.60
Asian	0	0.00
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	1	0.50
Total	183	100.00
Hispanic or Latino	0	0.00

## Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	0	0.00
5th to 6th grade	0	0.00
7th to 8th grade	6	4.72
9th grade	0	0.00
10th grade	4	3.14
11th grade	3	2.36
12th grade, no diploma	2	1.57
High school graduate (include equivalency)	67	52.75
Some college, less than 1 year	6	4.72
Some college, 1 or more years, no degree	16	12.59
Associate degree	6	4.72
Bachelor's degree	13	10.23
Master's degree	3	2.36
Professional school degree	1	0.78
Doctorate degree	0	0.00
Total	127	100.00

## Housing

	Number	Percent %
Number of Households	73	
Persons per Household	2.51	
Number of Housing Units	96	
Vacant Units Non Seasonal	7	7.29
Vacant Units Seasonal	16	16.67
Owner Occupied Units	37	38.54
Renter Occupied Units	6	6.25

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	5	4.76
Built 1995 to 1998	17	16.19
Built 1990 to 1994	11	10.48
Built 1980 to 1989	7	6.67
Built 1970 to 1979	32	30.48
Built 1960 to 1969	18	17.14
Built 1950 to 1959	4	3.81
Built 1940 to 1949	0	0.00
Built 1939 and Earlier	11	10.47
Total	105	100.00

## Heating Method

	Number	Percent %
Utility Gas	0	0
Bottled, tank, or LP gas	45	58.44
Electricity	3	3.89
Fuel Oil, kerosene, etc.	22	28.57
Coal or coke	0	0
Wood	7	9.09
Solar energy	0	0
Other fuel	0	0
No fuel used	0	0
Total	77	100

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	9,166,500
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## Economic Development

	Number
Average Income	45,678
Median Income	35,000
Per Capita Income	17,006
Total Population	183
Total Income	3,214,100

## Poverty

	Number
Income below poverty level	17
Income at or above poverty level	57

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	1	1.10
Agriculture, forestry, fishing and hunting	1	1.01
Mining	0	0.00
Construction	8	8.08
Manufacturing	8	8.08
Wholesale trade	0	0.00
Retail trade	13	13.13
Transportation and warehousing, and utilities	7	7.07
Transportation and warehousing	4	4.04
Utilities	3	3.03
Information	7	7.07
Finance, insurance, real estate and rental and leasing	0	0.00
Finance and insurance	0	0.00
Real estate and rental and leasing	0	0.00
Professional , scientific, management, administrative, and waste management services	3	3.03
Professional ,scientific, and technical services	3	3.03
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	0	0.00
Educational, health and social services	16	16.16
Educational services	9	9.09
Health care and social assistance	7	7.07
Arts, entertainment, recreation, accommodation and food services	16	16.16
Arts, entertainment, and recreation	4	4.04
Accommodation and food services	12	12.12
Other services	13	13.13
Public Administration	4	7.07
Total	99	100.00

## Transportation

	Number	Percent %
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Car, Truck or van	80	80.81
Drive alone	61	61.62
Carpooled	19	19.19
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	0	0.00
Other means	0	0.00
Worked at home	19	19.19
Total	99	100.00

Mean Travel Time to Work	17.1
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# Township of Rogers

## Population

	Number	Percent %
1970	67	
1980	57	
1990	33	
2000	43	
2002	45	
Percent % of Change 1990-2000	10	30.3
Percent % of Change 1970-2000		-35.82
65 and Over of 2000 Population	11	25.58
85 and Over of 2000 Population	1	2.33

## Population By Race

	Number	Percent %
White	41	95.30
Black or African American	0	0.00
American Indian or Alaska Native	2	4.70
Asian	0	0.00
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	0	0.00
Total	43	100.00
Hispanic or Latino	0	0.00

## Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	0	0.00
5th to 6th grade	2	4.44
7th to 8th grade	0	0.00
9th grade	0	0.00
10th grade	3	6.66
11th grade	0	0.00
12th grade, no diploma	0	0.00
High school graduate (include equivalency)	18	40.00
Some college, less than 1 year	5	11.11
Some college, 1 or more years, no degree	2	4.44
Associate degree	0	0.00
Bachelor's degree	13	28.88
Master's degree	0	0.00
Professional school degree	0	0.00
Doctorate degree	2	4.44
Total	45	100.00

## Housing

	Number	Percent %
Number of Households	25	
Persons per Household	1.72	
Number of Housing Units	210	
Vacant Units Non Seasonal	9	4.29
Vacant Units Seasonal	176	83.81
Owner Occupied Units	24	11.43
Renter Occupied Units	1	0.48

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	14	5.88
Built 1995 to 1998	12	5.04
Built 1990 to 1994	39	16.39
Built 1980 to 1989	42	17.65
Built 1970 to 1979	31	13.03
Built 1960 to 1969	67	28.15
Built 1950 to 1959	21	8.82
Built 1940 to 1949	4	1.68
Built 1939 and Earlier	8	3.36
Total	238	100.00

## Heating Method

	Number	Percent %
Utility Gas	0	0.00
Bottled, tank, or LP gas	21	80.77
Electricity	2	7.69
Fuel Oil, kerosene, etc.	0	0.00
Coal or coke	0	0.00
Wood	3	11.54
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	26	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	22,128,200
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## Economic Development

	Number
Average Income	50,138
Median Income	36,667
Per Capita Income	28,367
Total Population	43
Total Income	1,276,500

## Poverty

	Number
Income below poverty level	2
Income at or above poverty level	24

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	0	0.00
Agriculture, forestry, fishing and hunting	0	0.00
Mining	0	0.00
Construction	0	0.00
Manufacturing	0	0.00
Wholesale trade	0	0.00
Retail trade	2	11.76
Transportation and warehousing, and utilities	0	0.00
Transportation and warehousing	0	0.00
Utilities	0	0.00
Information	0	0.00
Finance, insurance, real estate and rental and leasing	2	11.76
Finance and insurance	0	0.00
Real estate and rental and leasing	2	11.76
Professional , scientific, management, administrative, and waste management services	3	17.64
Professional ,scientific, and technical services	3	17.64
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	0	0.00
Educational, health and social services	5	29.41
Educational services	3	17.64
Health care and social assistance	2	11.76
Arts, entertainment, recreation, accommodation and food services	5	29.41
Arts, entertainment, and recreation	0	0.00
Accommodation and food services	5	29.41
Other services	0	0.00
Pubic Administration	0	0.00
Total	17	100.00

## Transportation

	Number	Percent %
Car, Truck or van	14	100.00
Drive alone	9	64.29
Carpooled	5	35.71
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	0	0.00
Other means	0	0.00
Worked at home	0	0.00
Total	14	100.00

Mean Travel Time to Work	27.5
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# Township of Salem

## Population

	Number	Percent %
1970	78	
1980	86	
1990	106	
2000	78	
2002	77	
Percent % of Change 1990-2000	-28	-26.42
Percent % of Change 1970-2000		0.00
65 and Over of 2000 Population	14	17.95
85 and Over of 2000 Population	0	0

## Population By Race

	Number	Percent %
White	76	97.40
Black or African American	0	0.00
American Indian or Alaska Native	2	2.60
Asian	0	0.00
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	0	0.00
Total	78	100.00
Hispanic or Latino	0	0.00

## Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	0	0.00
5th to 6th grade	0	0.00
7th to 8th grade	0	0.00
9th grade	0	0.00
10th grade	1	1.81
11th grade	3	5.45
12th grade, no diploma	0	0.00
High school graduate (include equivalency)	28	50.90
Some college, less than 1 year	6	10.90
Some college, 1 or more years, no degree	7	12.72
Associate degree	4	7.27
Bachelor's degree	0	0.00
Master's degree	6	10.90
Professional school degree	0	0.00
Doctorate degree	0	0.00
Total	55	100.00

## Housing

	Number	Percent %
Number of Households	33	
Persons per Household	2.36	
Number of Housing Units	54	
Vacant Units Non Seasonal	4	9.26
Vacant Units Seasonal	17	31.48
Owner Occupied Units	33	61.11
Renter Occupied Units	0	0.00

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	2	3.85
Built 1995 to 1998	10	19.23
Built 1990 to 1994	0	0.00
Built 1980 to 1989	16	30.77
Built 1970 to 1979	6	11.54
Built 1960 to 1969	0	0.00
Built 1950 to 1959	8	13.38
Built 1940 to 1949	6	11.54
Built 1939 and Earlier	4	7.69
Total	52	100.00

## Heating Method

	Number	Percent %
Utility Gas	0	0.00
Bottled, tank, or LP gas	18	54.55
Electricity	0	0.00
Fuel Oil, kerosene, etc.	0	0.00
Coal or coke	0	0.00
Wood	15	45.46
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	33	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	4,604,100
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## Economic Development

	Number
Average Income	53,028
Median Income	52,500
Per Capita Income	18,322
Total Population	78
Total Income	1,703,900

## Poverty

	Number
Income below poverty level	0
Income at or above poverty level	32

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	5	9.80
Agriculture, forestry, fishing and hunting	5	9.80
Mining	0	0.00
Construction	0	0.00
Manufacturing	11	21.56
Wholesale trade	0	0.00
Retail trade	3	5.88
Transportation and warehousing, and utilities	12	23.52
Transportation and warehousing	11	21.56
Utilities	1	1.97
Information	0	0.00
Finance, insurance, real estate and rental and leasing	0	0.00
Finance and insurance	0	0.00
Real estate and rental and leasing	0	0.00
Professional , scientific, management, administrative, and waste management services	0	0.00
Professional ,scientific, and technical services	0	0.00
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	0	0.00
Educational, health and social services	11	21.56
Educational services	0	0.00
Health care and social assistance	11	21.56
Arts, entertainment, recreation, accommodation and food services	7	13.72
Arts, entertainment, and recreation	2	3.92
Accommodation and food services	5	9.80
Other services	0	0.00
Public Administration	2	3.92
Total	51	100.00

## Transportation

	Number	Percent %
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Car, Truck or van	37	72.55
Drive alone	31	60.78
Carpooled	6	11.76
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	0	0.00
Other means	8	15.69
Worked at home	6	11.76
Total	51	100.00

Mean Travel Time to Work	28.8
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# Township of Shingobee

## Population

	Number	Percent %
1970	1,275	
1980	1,472	
1990	1,481	
2000	1,745	
2002	1,788	
Percent % of Change 1990-2000	264	17.83
Percent % of Change 1970-2000		36.86
65 and Over of 2000 Population	353	20.23
85 and Over of 2000 Population	37	2.12

## Population By Race

	Number	Percent %
White	1,466	84.00
Black or African American	7	0.40
American Indian or Alaska Native	239	13.70
Asian	2	0.10
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	7	0.40
Two or More Races	24	1.40
Total	1,745	100.00
Hispanic or Latino	20	1.15

## Education Attainment

	Number	Percent %
No Schooling completed	18	1.38
Nursery to 4th grade	6	0.46
5th to 6th grade	11	0.84
7th to 8th grade	38	2.92
9th grade	6	0.46
10th grade	62	4.78
11th grade	32	2.46
12th grade, no diploma	48	3.70
High school graduate (include equivalency)	337	25.98
Some college, less than 1 year	112	8.63
Some college, 1 or more years, no degree	205	15.80
Associate degree	72	5.55
Bachelor's degree	209	16.11
Master's degree	99	7.63
Professional school degree	34	2.62
Doctorate degree	8	0.61
Total	1,297	100.00

## Housing

	Number	Percent %
Number of Households	652	
Persons per Household	2.44	
Number of Housing Units	1,194	
Vacant Units Non Seasonal	40	3.35
Vacant Units Seasonal	502	42.04
Owner Occupied Units	583	48.83
Renter Occupied Units	69	5.79

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	37	3.00
Built 1995 to 1998	140	11.34
Built 1990 to 1994	117	9.47
Built 1980 to 1989	227	18.38
Built 1970 to 1979	258	20.89
Built 1960 to 1969	190	15.39
Built 1950 to 1959	98	7.94
Built 1940 to 1949	87	7.04
Built 1939 and Earlier	81	6.56
Total	1,235	100.00

## Heating Method

	Number	Percent %
Utility Gas	7	1.05
Bottled, tank, or LP gas	317	47.31
Electricity	164	24.48
Fuel Oil, kerosene, etc.	81	12.09
Coal or coke	0	0.00
Wood	101	15.08
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	670	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0.00
Nursing Homes	21	13.46
Other institutions	0	0.00
College dormitories	0	0.00
Military quarters	0	0.00
Other non institutional group quarters	135	86.54
Total	156	100.00

## Market Values

Estimated Market Value	239,651,900
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## Economic Development

	Number
Average Income	51,585
Median Income	41,818
Per Capita Income	20,407
Total Poulation	1,754
Total Income	35,589,800

## Poverty

	Number
Income below poverty level	51
Income at or above poverty level	609

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	6	0.73
Agriculture, forestry, fishing and hunting	6	0.73
Mining	0	0.00
Construction	82	10.07
Manufacturing	25	3.07
Wholesale trade	10	1.22
Retail trade	118	14.49
Transportation and warehousing, and utilities	10	1.22
Transportation and warehousing	10	1.22
Utilities	0	0.00
Information	21	2.57
Finance, insurance, real estate and rental and leasing	51	6.26
Finance and insurance	26	3.19
Real estate and rental and leasing	25	3.07
Professional , scientific, management, administrative, and waste management services	48	5.89
Professional ,scientific, and technical services	24	2.94
Management of companies and enterprises	2	0.24
Administrative and support and waste management services	22	2.70
Educational, health and social services	203	24.93
Educational services	87	10.68
Health care and social assistance	116	14.25
Arts, entertainment, recreation, accommodation and food services	119	14.61
Arts, entertainment, and recreation	68	8.35
Accommodation and food services	51	6.26
Other services	50	6.14
Pubic Administration	71	8.72
Total	814	100.00

## Transportation

	Number	Percent %
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Car, Truck or van	728	90.55
Drive alone	643	79.98
Carpooled	85	10.57
Public Transportation	9	1.12
Bus or trolley bus	7	0.87
Streetcar or trolley car	2	0.25
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	36	4.48
Other means	0	0.00
Worked at home	31	3.86
Total	804	100.00

Mean Travel Time to Work	16.8
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# Township of Slater

## Population

	Number	Percent %
1970	134	
1980	201	
1990	204	
2000	249	
2002	252	
Percent % of Change 1990-2000	45	22.06
Percent % of Change 1970-2000		85.82
65 and Over of 2000 Population	36	14.46
85 and Over of 2000 Population	2	0.80

## Population By Race

	Number	Percent %
White	227	91.20
Black or African American	0	0.00
American Indian or Alaska Native	7	2.80
Asian	2	0.80
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	3	1.20
Two or More Races	10	4.00
Total	249	100.00
Hispanic or Latino	4	1.61

## Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	0	0.00
5th to 6th grade	0	0.00
7th to 8th grade	13	8.07
9th grade	8	4.96
10th grade	2	1.24
11th grade	5	3.10
12th grade, no diploma	3	1.86
High school graduate (include equivalency)	83	51.55
Some college, less than 1 year	15	9.31
Some college, 1 or more years, no degree	17	12.97
Associate degree	6	9.72
Bachelor's degree	9	6.87
Master's degree	0	0.00
Professional school degree	0	0.00
Doctorate degree	0	0.00
Total	161	100.00

## Housing

	Number	Percent %
Number of Households	92	
Persons per Household	2.38	
Number of Housing Units	175	
Vacant Units Non Seasonal	13	7.43
Vacant Units Seasonal	70	13.00
Owner Occupied Units	87	49.71
Renter Occupied Units	5	2.86

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	6	3.39
Built 1995 to 1998	15	8.48
Built 1990 to 1994	11	6.21
Built 1980 to 1989	26	14.69
Built 1970 to 1979	38	21.47
Built 1960 to 1969	23	12.99
Built 1950 to 1959	22	12.43
Built 1940 to 1949	22	12.43
Built 1939 and Earlier	14	7.91
Total	177	100.00

## Heating Method

	Number	Percent %
Utility Gas	2	2.17
Bottled, tank, or LP gas	48	52.17
Electricity	16	17.39
Fuel Oil, kerosene, etc.	15	16.30
Coal or coke	0	0.00
Wood	11	11.96
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	92	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	30	100
Total	30	100

## Market Values

Estimated Market Value	17,657,000
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## Economic Development

	Number
Average Income	32,424
Median Income	26,932
Per Capita Income	13,941
Total Population	249
Total Income	3,234,200

## Poverty

	Number
Income below poverty level	16
Income at or above poverty level	83

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	0	0.00
Agriculture, forestry, fishing and hunting	0	0.00
Mining	0	0.00
Construction	13	14.94
Manufacturing	15	17.24
Wholesale trade	0	0.00
Retail trade	2	2.29
Transportation and warehousing, and utilities	4	4.59
Transportation and warehousing	0	0.00
Utilities	4	4.59
Information	2	2.29
Finance, insurance, real estate and rental and leasing	3	3.44
Finance and insurance	0	0.00
Real estate and rental and leasing	3	3.44
Professional , scientific, management, administrative, and waste management services	5	5.74
Professional ,scientific, and technical services	5	5.74
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	0	0.00
Educational, health and social services	32	36.78
Educational services	11	12.64
Health care and social assistance	21	24.13
Arts, entertainment, recreation, accommodation and food services	6	6.89
Arts, entertainment, and recreation	2	2.29
Accommodation and food services	4	4.59
Other services	0	0.00
Public Administration	5	5.74
Total	87	100.00

## Transportation

	<b>Number</b>	<b>Percent %</b>
Car, Truck or van	68	85.00
Drive alone	58	72.50
Carpooled	10	12.50
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	4	5.00
Other means	0	0.00
Worked at home	8	10.00
<b>Total</b>	<b>80</b>	<b>100.00</b>

Mean Travel Time to Work	27.7
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# Township of Smoky Hollow

## Population

	Number	Percent %
1970	51	
1980	79	
1990	51	
2000	61	
2002	55	
Percent % of Change 1990-2000	10	19.61
Percent % of Change 1970-2000		19.61
65 and Over of 2000 Population	9	14.75
85 and Over of 2000 Population	1	1.64

## Population By Race

	Number	Percent %
White	60	98.40
Black or African American	0	0.00
American Indian or Alaska Native	1	1.60
Asian	0	0.00
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	0	0.00
Total	61	100.00
Hispanic or Latino	0	0.00

## Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	0	0.00
5th to 6th grade	0	0.00
7th to 8th grade	0	0.00
9th grade	3	6.81
10th grade	0	0.00
11th grade	4	9.09
12th grade, no diploma	0	0.00
High school graduate (include equivalency)	9	20.45
Some college, less than 1 year	8	18.18
Some college, 1 or more years, no degree	14	40.90
Associate degree	0	0.00
Bachelor's degree	6	13.63
Master's degree	0	0.00
Professional school degree	0	0.00
Doctorate degree	0	0.00
Total	44	100.00

## Housing

	Number	Percent %
Number of Households	28	
Persons per Household	2.18	
Number of Housing Units	109	
Vacant Units Non Seasonal	2	1.83
Vacant Units Seasonal	79	72.48
Owner Occupied Units	28	25.69
Renter Occupied Units	0	0.00

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	3	2.66
Built 1995 to 1998	2	1.77
Built 1990 to 1994	0	0.00
Built 1980 to 1989	19	16.81
Built 1970 to 1979	19	16.81
Built 1960 to 1969	27	23.89
Built 1950 to 1959	23	20.35
Built 1940 to 1949	6	5.31
Built 1939 and Earlier	14	12.39
Total	113	100.00

## Heating Method

	Number	Percent %
Utility Gas	0	0.00
Bottled, tank, or LP gas	15	51.72
Electricity	2	6.89
Fuel Oil, kerosene, etc.	2	6.89
Coal or coke	0	0.00
Wood	10	34.49
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	29	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	9,201,900
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## Economic Development

	Number
Average Income	26,437
Median Income	21,875
Per Capita Income	15,042
Total Population	61
Total Income	722,000

## Poverty

	Number
Income below poverty level	3
Income at or above poverty level	24

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	0	0.00
Agriculture, forestry, fishing and hunting	0	0.00
Mining	0	0.00
Construction	2	15.38
Manufacturing	0	0.00
Wholesale trade	0	0.00
Retail trade	4	30.76
Transportation and warehousing, and utilities	0	0.00
Transportation and warehousing	0	0.00
Utilities	0	0.00
Information	0	0.00
Finance, insurance, real estate and rental and leasing	3	23.07
Finance and insurance	3	23.07
Real estate and rental and leasing	0	0.00
Professional , scientific, management, administrative, and waste management services	0	0.00
Professional ,scientific, and technical services	0	0.00
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	0	0.00
Educational, health and social services	0	0.00
Educational services	0	0.00
Health care and social assistance	0	0.00
Arts, entertainment, recreation, accommodation and food services	4	30.76
Arts, entertainment, and recreation	4	30.76
Accommodation and food services	0	0.00
Other services	0	0.00
Pubic Administration	0	0.00
Total	13	100.00

## Transportation

	<b>Number</b>	<b>Percent %</b>
Car, Truck or van	3	33.33
Drive alone	3	33.33
Carpooled	0	0.00
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	0	0.00
Other means	0	0.00
Worked at home	6	66.67
<b>Total</b>	<b>9</b>	<b>100.00</b>

Mean Travel Time to Work	5
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# Township of Sylvan

## Population

	Number	Percent %
1970	465	
1980	846	
1990	1,268	
2000	1,965	
2002	2,108	
Percent % of Change 1990-2000	697	54.97
Percent % of Change 1970-2000		322.58
65 and Over of 2000 Population	200	10.18
85 and Over of 2000 Population	5	0.25

## Population By Race

	Number	Percent %
White	1,928	98.10
Black or African American	1	0.10
American Indian or Alaska Native	3	0.20
Asian	5	0.30
Native Hawaiian and Other Pacific Islanders	2	0.10
Other Single Race	1	0.10
Two or More Races	25	1.30
Total	1,965	100.00
Hispanic or Latino	13	0.66

## Education Attainment

	Number	Percent %
No Schooling completed	8	0.64
Nursery to 4th grade	0	0.00
5th to 6th grade	0	0.00
7th to 8th grade	30	2.40
9th grade	16	1.28
10th grade	43	3.44
11th grade	43	3.44
12th grade, no diploma	36	2.88
High school graduate (include equivalency)	484	38.81
Some college, less than 1 year	60	4.81
Some college, 1 or more years, no degree	200	16.03
Associate degree	88	7.05
Bachelor's degree	190	15.23
Master's degree	25	2.00
Professional school degree	14	1.12
Doctorate degree	10	0.80
Total	1,247	100.00

## Housing

	Number	Percent %
Number of Households	717	
Persons per Household	2.74	
Number of Housing Units	1,083	
Vacant Units Non Seasonal	42	3.88
Vacant Units Seasonal	324	29.92
Owner Occupied Units	663	61.22
Renter Occupied Units	54	4.99

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	43	3.95
Built 1995 to 1998	124	11.38
Built 1990 to 1994	117	10.73
Built 1980 to 1989	239	21.93
Built 1970 to 1979	225	20.64
Built 1960 to 1969	125	11.47
Built 1950 to 1959	117	10.73
Built 1940 to 1949	51	4.68
Built 1939 and Earlier	49	4.50
Total	1,090	100.00

## Heating Method

	Number	Percent %
Utility Gas	32	4.56
Bottled, tank, or LP gas	438	62.48
Electricity	85	12.13
Fuel Oil, kerosene, etc.	60	8.56
Coal or coke	0	0.00
Wood	74	10.56
Solar energy	0	0.00
Other fuel	8	1.14
No fuel used	4	0.57
Total	701	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	3	100
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	3	100

## Market Values

Estimated Market Value	147,011,000
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## Economic Development

	Number
Average Income	47,394
Median Income	47,173
Per Capita Income	17,493
Total Population	1,965
Total Income	33,795,800

## Poverty

	Number
Income below poverty level	45
Income at or above poverty level	653

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	21	2.16
Agriculture, forestry, fishing and hunting	21	2.16
Mining	0	0.00
Construction	116	11.97
Manufacturing	153	15.78
Wholesale trade	36	3.71
Retail trade	126	13.00
Transportation and warehousing, and utilities	22	2.27
Transportation and warehousing	15	1.54
Utilities	7	0.72
Information	20	7.06
Finance, insurance, real estate and rental and leasing	47	4.85
Finance and insurance	35	3.61
Real estate and rental and leasing	12	1.23
Professional , scientific, management, administrative, and waste management services	61	6.29
Professional ,scientific, and technical services	25	2.57
Management of companies and enterprises	4	0.41
Administrative and support and waste management services	32	3.30
Educational, health and social services	189	19.50
Educational services	70	7.22
Health care and social assistance	119	12.28
Arts, entertainment, recreation, accommodation and food services	83	8.56
Arts, entertainment, and recreation	6	0.61
Accommodation and food services	77	7.94
Other services	44	4.54
Public Administration	51	5.26
Total	969	100.00

## Transportation

	<b>Number</b>	<b>Percent %</b>
Car, Truck or van	883	93.54
Drive alone	760	80.51
Carpooled	123	13.03
Public Transportation	5	0.53
Bus or trolley bus	5	0.53
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	6	0.64
Other means	7	0.74
Worked at home	43	4.56
<b>Total</b>	<b>944</b>	<b>100.00</b>

<b>Mean Travel Time to Work</b>	<b>22.2</b>
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# Township of Thunder Lake

## Population

	Number	Percent %
1970	119	
1980	194	
1990	178	
2000	262	
2002	277	
Percent % of Change 1990-2000	84	47.19
Percent % of Change 1970-2000		120.17
65 and Over of 2000 Population	77	29.39
85 and Over of 2000 Population	6	2.29

## Population By Race

	Number	Percent %
White	251	95.80
Black or African American	0	0.00
American Indian or Alaska Native	9	3.40
Asian	0	0.00
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	2	0.80
Total	262	100.00
Hispanic or Latino	0	0.00

## Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	0	0.00
5th to 6th grade	0	0.00
7th to 8th grade	2	0.87
9th grade	2	0.87
10th grade	3	1.31
11th grade	7	3.05
12th grade, no diploma	8	3.49
High school graduate (include equivalency)	107	46.72
Some college, less than 1 year	8	3.49
Some college, 1 or more years, no degree	40	17.46
Associate degree	13	5.67
Bachelor's degree	21	9.17
Master's degree	11	4.80
Professional school degree	7	3.05
Doctorate degree	0	0.00
Total	229	100.00

## Housing

	Number	Percent %
Number of Households	134	
Persons per Household	1.96	
Number of Housing Units	541	
Vacant Units Non Seasonal	37	6.84
Vacant Units Seasonal	370	68.39
Owner Occupied Units	121	22.37
Renter Occupied Units	13	2.40

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	17	3.10
Built 1995 to 1998	62	11.29
Built 1990 to 1994	79	14.39
Built 1980 to 1989	107	19.49
Built 1970 to 1979	117	21.31
Built 1960 to 1969	54	9.84
Built 1950 to 1959	47	8.56
Built 1940 to 1949	26	4.74
Built 1939 and Earlier	40	7.29
Total	549	100.00

## Heating Method

	Number	Percent %
Utility Gas	3	2.26
Bottled, tank, or LP gas	76	57.14
Electricity	47	35.34
Fuel Oil, kerosene, etc.	3	2.26
Coal or coke	0	0.00
Wood	4	3.01
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	133	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	97,179,800
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## Economic Development

	Number
Average Income	39,992
Median Income	32,083
Per Capita Income	20,111
Total Population	262
Total Income	5,349,400

## Poverty

	Number
Income below poverty level	15
Income at or above poverty level	118

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	0	0.00
Agriculture, forestry, fishing and hunting	0	0.00
Mining	0	0.00
Construction	8	7.92
Manufacturing	4	3.96
Wholesale trade	0	0.00
Retail trade	32	31.68
Transportation and warehousing, and utilities	4	3.96
Transportation and warehousing	2	1.98
Utilities	2	1.98
Information	0	0.00
Finance, insurance, real estate and rental and leasing	8	7.92
Finance and insurance	4	3.96
Real estate and rental and leasing	4	3.96
Professional , scientific, management, administrative, and waste management services	0	0.00
Professional ,scientific, and technical services	0	0.00
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	0	0.00
Educational, health and social services	16	15.84
Educational services	12	11.88
Health care and social assistance	4	3.96
Arts, entertainment, recreation, accommodation and food services	13	12.87
Arts, entertainment, and recreation	0	0.00
Accommodation and food services	13	12.87
Other services	8	7.92
Pubic Administration	8	7.92
Total	101	100.00

## Transportation

	Number	Percent %
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Car, Truck or van	85	85.86
Drive alone	71	71.72
Carpooled	14	14.14
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	2	2.02
Other means	2	2.02
Worked at home	10	10.10
Total	99	100.00

Mean Travel Time to Work	22.5
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# Township of Torrey

## Population

	Number	Percent %
1970	106	
1980	146	
1990	113	
2000	122	
2002	121	
Percent % of Change 1990-2000	9	7.96
Percent % of Change 1970-2000		15.09
65 and Over of 2000 Population	27	22.13
85 and Over of 2000 Population	1	0.82

## Population By Race

	Number	Percent %
White	119	97.50
Black or African American	0	0.00
American Indian or Alaska Native	3	2.50
Asian	0	0.00
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	0	0.00
Total	122	100.00
Hispanic or Latino	0	0.00

## Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	0	0.00
5th to 6th grade	0	0.00
7th to 8th grade	2	2.29
9th grade	4	4.59
10th grade	6	6.89
11th grade	2	2.29
12th grade, no diploma	2	2.29
High school graduate (include equivalency)	41	47.12
Some college, less than 1 year	7	8.04
Some college, 1 or more years, no degree	8	9.19
Associate degree	7	8.04
Bachelor's degree	6	6.89
Master's degree	0	0.00
Professional school degree	2	2.29
Doctorate degree	0	0.00
Total	87	100.00

## Housing

	Number	Percent %
Number of Households	57	
Persons per Household	2.14	
Number of Housing Units	172	
Vacant Units Non Seasonal	13	7.56
Vacant Units Seasonal	102	59.30
Owner Occupied Units	56	32.56
Renter Occupied Units	1	0.58

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	10	5.85
Built 1995 to 1998	28	16.37
Built 1990 to 1994	9	5.26
Built 1980 to 1989	9	5.26
Built 1970 to 1979	33	19.30
Built 1960 to 1969	42	24.56
Built 1950 to 1959	10	5.85
Built 1940 to 1949	24	14.05
Built 1939 and Earlier	6	3.51
Total	171	100.00

## Heating Method

	Number	Percent %
Utility Gas	0	0.00
Bottled, tank, or LP gas	29	59.18
Electricity	2	4.08
Fuel Oil, kerosene, etc.	3	6.12
Coal or coke	0	0.00
Wood	15	30.61
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	49	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	16,452,300
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## Economic Development

	Number
Average Income	41,461
Median Income	35,714
Per Capita Income	18,231
Total Population	122
Total Income	1,968,900

## Poverty

	Number
Income below poverty level	2
Income at or above poverty level	44

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	3	6.00
Agriculture, forestry, fishing and hunting	3	6.00
Mining	0	0.00
Construction	6	12.00
Manufacturing	1	2.00
Wholesale trade	0	0.00
Retail trade	5	10.00
Transportation and warehousing, and utilities	7	14.00
Transportation and warehousing	5	10.00
Utilities	2	4.00
Information	2	4.00
Finance, insurance, real estate and rental and leasing	7	14.00
Finance and insurance	7	14.00
Real estate and rental and leasing	0	0.00
Professional , scientific, management, administrative, and waste management services	4	8.00
Professional ,scientific, and technical services	2	4.00
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	2	4.00
Educational, health and social services	15	30.00
Educational services	0	0.00
Health care and social assistance	15	30.00
Arts, entertainment, recreation, accommodation and food services	0	0.00
Arts, entertainment, and recreation	0	0.00
Accommodation and food services	0	0.00
Other services	0	0.00
Pubic Administration	0	0.00
Total	50	100.00

## Transportation

	<b>Number</b>	<b>Percent %</b>
Car, Truck or van	50	100.00
Drive alone	46	92.00
Carpooled	4	8.00
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	0	0.00
Other means	0	0.00
Worked at home	0	0.00
<b>Total</b>	<b>50</b>	<b>100.00</b>

<b>Mean Travel Time to Work</b>	<b>29.5</b>
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# Township of Trelipe

## Population

	Number	Percent %
1970	113	
1980	144	
1990	119	
2000	174	
2002	176	
Percent % of Change 1990-2000	55	46.22
Percent % of Change 1970-2000		53.98
65 and Over of 2000 Population	42	24.14
85 and Over of 2000 Population	3	1.72

## Population By Race

	Number	Percent %
White	171	98.30
Black or African American	0	0.00
American Indian or Alaska Native	3	1.70
Asian	0	0.00
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	0	0.00
Total	174	100.00
Hispanic or Latino	0	0.00

## Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	0	0.00
5th to 6th grade	0	0.00
7th to 8th grade	10	7.93
9th grade	1	0.79
10th grade	4	3.17
11th grade	2	1.58
12th grade, no diploma	4	3.17
High school graduate (include equivalency)	62	49.20
Some college, less than 1 year	8	6.34
Some college, 1 or more years, no degree	11	8.73
Associate degree	12	9.52
Bachelor's degree	5	3.96
Master's degree	5	3.96
Professional school degree	2	1.58
Doctorate degree	0	0.00
Total	126	100.00

## Housing

	Number	Percent %
Number of Households	81	
Persons per Household	2.15	
Number of Housing Units	271	
Vacant Units Non Seasonal	7	2.58
Vacant Units Seasonal	183	67.52
Owner Occupied Units	78	28.78
Renter Occupied Units	3	1.11

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	0	0.00
Built 1995 to 1998	11	3.69
Built 1990 to 1994	19	6.38
Built 1980 to 1989	45	15.10
Built 1970 to 1979	65	21.81
Built 1960 to 1969	48	16.11
Built 1950 to 1959	60	20.13
Built 1940 to 1949	24	8.05
Built 1939 and Earlier	26	8.72
Total	298	100.00

## Heating Method

	Number	Percent %
Utility Gas	0	0.00
Bottled, tank, or LP gas	41	52.56
Electricity	13	16.67
Fuel Oil, kerosene, etc.	7	8.97
Coal or coke	0	0.00
Wood	17	21.79
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	78	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	33,662,600
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## Economic Development

	Number
Average Income	36,004
Median Income	30,208
Per Capita Income	16,671
Total Population	174
Total Income	2,717,300

## Poverty

	Number
Income below poverty level	14
Income at or above poverty level	59

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	1	1.47
Agriculture, forestry, fishing and hunting	1	1.47
Mining	0	0.00
Construction	8	11.76
Manufacturing	6	8.82
Wholesale trade	4	5.88
Retail trade	14	20.58
Transportation and warehousing, and utilities	7	10.29
Transportation and warehousing	7	10.29
Utilities	0	0.00
Information	0	0.00
Finance, insurance, real estate and rental and leasing	2	2.94
Finance and insurance	0	0.00
Real estate and rental and leasing	2	2.94
Professional , scientific, management, administrative, and waste management services	5	7.35
Professional ,scientific, and technical services	0	0.00
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	5	7.35
Educational, health and social services	10	14.70
Educational services	1	1.47
Health care and social assistance	9	13.23
Arts, entertainment, recreation, accommodation and food services	4	5.88
Arts, entertainment, and recreation	0	0.00
Accommodation and food services	4	5.88
Other services	2	2.94
Public Administration	5	7.35
Total	68	100.00

## Transportation

	<b>Number</b>	<b>Percent %</b>
Car, Truck or van	63	92.65
Drive alone	54	79.41
Carpooled	9	13.24
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	0	0.00
Other means	0	0.00
Worked at home	5	7.35
<b>Total</b>	<b>68</b>	<b>100.00</b>

<b>Mean Travel Time to Work</b>	<b>33.5</b>
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# Township of Turtle Lake

## Population

	Number	Percent %
1970	317	
1980	469	
1990	506	
2000	699	
2002	709	
Percent % of Change 1990-2000	193	38.14
Percent % of Change 1970-2000		120.50
65 and Over of 2000 Population	119	17.02
85 and Over of 2000 Population	3	0.43

## Population By Race

	Number	Percent %
White	455	65.10
Black or African American	2	0.30
American Indian or Alaska Native	213	30.50
Asian	3	0.40
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	2	0.30
Two or More Races	24	3.40
Total	699	100.00
Hispanic or Latino	9	1.29

## Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	3	0.64
5th to 6th grade	5	1.07
7th to 8th grade	21	4.51
9th grade	2	0.43
10th grade	8	1.72
11th grade	12	2.85
12th grade, no diploma	13	2.79
High school graduate (include equivalency)	190	40.86
Some college, less than 1 year	41	8.81
Some college, 1 or more years, no degree	103	22.15
Associate degree	20	4.30
Bachelor's degree	28	6.02
Master's degree	17	3.65
Professional school degree	2	0.43
Doctorate degree	0	0.00
Total	465	100.00

## Housing

	Number	Percent %
Number of Households	271	
Persons per Household	2.58	
Number of Housing Units	610	
Vacant Units Non Seasonal	23	3.77
Vacant Units Seasonal	316	51.80
Owner Occupied Units	228	31.38
Renter Occupied Units	43	7.05

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	19	3.20
Built 1995 to 1998	44	7.42
Built 1990 to 1994	68	11.47
Built 1980 to 1989	126	21.25
Built 1970 to 1979	185	31.20
Built 1960 to 1969	62	10.46
Built 1950 to 1959	38	6.41
Built 1940 to 1949	32	5.40
Built 1939 and Earlier	19	3.20
Total	593	100.00

## Heating Method

	Number	Percent %
Utility Gas	6	2.23
Bottled, tank, or LP gas	170	63.20
Electricity	23	8.55
Fuel Oil, kerosene, etc.	34	12.64
Coal or coke	0	0.00
Wood	36	13.38
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	269	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	103,570,500
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## Economic Development

	Number
Average Income	43,907
Median Income	38,750
Per Capita Income	17,049
Total Population	699
Total Income	11,474,000

## Poverty

	Number
Income below poverty level	19
Income at or above poverty level	239

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	3	1.06
Agriculture, forestry, fishing and hunting	3	1.06
Mining	0	0.00
Construction	41	14.48
Manufacturing	10	3.53
Wholesale trade	0	0.00
Retail trade	23	8.12
Transportation and warehousing, and utilities	0	0.00
Transportation and warehousing	0	0.00
Utilities	0	0.00
Information	2	0.70
Finance, insurance, real estate and rental and leasing	16	5.65
Finance and insurance	7	2.47
Real estate and rental and leasing	9	3.18
Professional , scientific, management, administrative, and waste management services	11	3.88
Professional ,scientific, and technical services	6	2.12
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	5	1.76
Educational, health and social services	49	17.31
Educational services	25	8.08
Health care and social assistance	24	8.48
Arts, entertainment, recreation, accommodation and food services	90	31.80
Arts, entertainment, and recreation	36	12.72
Accommodation and food services	54	19.08
Other services	11	3.88
Public Administration	26	9.18
Total	283	100.00

## Transportation

	<b>Number</b>	<b>Percent %</b>
Car, Truck or van	218	81.04
Drive alone	165	61.34
Carpooled	53	19.70
Public Transportation	9	3.35
Bus or trolley bus	9	3.35
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	27	10.04
Other means	0	0.00
Worked at home	15	5.58
<b>Total</b>	<b>269</b>	<b>100.00</b>

<b>Mean Travel Time to Work</b>	<b>21.1</b>
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# Township of Wabedo

## Population

	Number	Percent %
1970	157	
1980	273	
1990	269	
2000	375	
2002	381	
Percent % of Change 1990-2000	106	39.41
Percent % of Change 1970-2000		138.85
65 and Over of 2000 Population	111	29.6
85 and Over of 2000 Population	7	1.87

## Population By Race

	Number	Percent %
White	369	98.40
Black or African American	0	0.00
American Indian or Alaska Native	2	0.50
Asian	1	0.30
Native Hawaiian and Other Pacific Islanders	1	0.30
Other Single Race	0	0.00
Two or More Races	2	0.50
Total	375	100.00
Hispanic or Latino	4	1.06

## Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	0	0.00
5th to 6th grade	0	0.00
7th to 8th grade	17	5.05
9th grade	4	1.19
10th grade	0	0.00
11th grade	2	0.59
12th grade, no diploma	17	5.05
High school graduate (include equivalency)	114	33.92
Some college, less than 1 year	46	13.69
Some college, 1 or more years, no degree	44	13.09
Associate degree	10	2.97
Bachelor's degree	60	17.85
Master's degree	17	5.05
Professional school degree	5	1.48
Doctorate degree	0	0.00
Total	336	100.00

## Housing

	Number	Percent %
Number of Households	175	
Persons per Household	2.14	
Number of Housing Units	650	
Vacant Units Non Seasonal	14	21.54
Vacant Units Seasonal	461	70.92
Owner Occupied Units	168	25.85
Renter Occupied Units	7	1.08

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	11	1.61
Built 1995 to 1998	66	9*.68
Built 1990 to 1994	74	10.85
Built 1980 to 1989	133	19.50
Built 1970 to 1979	92	13.49
Built 1960 to 1969	110	16.13
Built 1950 to 1959	74	10.85
Built 1940 to 1949	69	10.18
Built 1939 and Earlier	53	7.77
Total	682	100.00

## Heating Method

	Number	Percent %
Utility Gas	0	0.00
Bottled, tank, or LP gas	87	47.03
Electricity	65	35.16
Fuel Oil, kerosene, etc.	6	3.24
Coal or coke	0	0.00
Wood	27	14.60
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	185	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	132,906,000
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## Economic Development

	Number
Average Income	43,206
Median Income	36,979
Per Capita Income	21,022
Total Population	375
Total Income	8,114,500

## Poverty

	Number
Income below poverty level	9
Income at or above poverty level	174

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	0	0.00
Agriculture, forestry, fishing and hunting	0	0.00
Mining	0	0.00
Construction	11	7.97
Manufacturing	2	1.44
Wholesale trade	7	5.07
Retail trade	33	23.91
Transportation and warehousing, and utilities	5	3.62
Transportation and warehousing	5	3.62
Utilities	0	0.00
Information	4	2.89
Finance, insurance, real estate and rental and leasing	16	11.59
Finance and insurance	0	0.00
Real estate and rental and leasing	16	11.59
Professional , scientific, management, administrative, and waste management services	12	8.69
Professional ,scientific, and technical services	7	5.07
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	5	3.62
Educational, health and social services	20	14.49
Educational services	8	5.79
Health care and social assistance	12	8.69
Arts, entertainment, recreation, accommodation and food services	6	4.34
Arts, entertainment, and recreation	2	1.44
Accommodation and food services	4	2.89
Other services	8	5.79
Public Administration	14	10.14
Total	138	100.00

## Transportation

	<b>Number</b>	<b>Percent %</b>
Car, Truck or van	121	91.67
Drive alone	106	80.30
Carpooled	15	11.36
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	5	3.79
Other means	0	0.00
Worked at home	6	4.55
<b>Total</b>	<b>132</b>	<b>100.00</b>

<b>Mean Travel Time to Work</b>	<b>23.7</b>
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# Township of Walden

## Population

	Number	Percent %
1970	344	
1980	374	
1990	348	
2000	405	
2002	408	
Percent % of Change 1990-2000	57	16.38
Percent % of Change 1970-2000		17.73
65 and Over of 2000 Population	52	12.84
85 and Over of 2000 Population	5	1.23

## Population By Race

	Number	Percent %
White	402	99.30
Black or African American	0	0.00
American Indian or Alaska Native	1	0.20
Asian	0	0.00
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	1	0.20
Two or More Races	1	0.20
Total	405	100.00
Hispanic or Latino	2	0.49

## Education Attainment

	Number	Percent %
No Schooling completed	3	1.15
Nursery to 4th grade	2	0.77
5th to 6th grade	0	0.00
7th to 8th grade	20	7.72
9th grade	4	1.54
10th grade	4	1.54
11th grade	9	3.47
12th grade, no diploma	11	4.24
High school graduate (include equivalency)	104	40.15
Some college, less than 1 year	14	5.40
Some college, 1 or more years, no degree	58	22.39
Associate degree	14	5.40
Bachelor's degree	12	4.63
Master's degree	3	1.15
Professional school degree	1	0.38
Doctorate degree	0	0.00
Total	259	100.00

## Housing

	Number	Percent %
Number of Households	143	
Persons per Household	2.8	
Number of Housing Units	166	
Vacant Units Non Seasonal	13	7.83
Vacant Units Seasonal	10	6.02
Owner Occupied Units	125	75.30
Renter Occupied Units	18	10.84

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	15	8.82
Built 1995 to 1998	21	12.35
Built 1990 to 1994	8	4.71
Built 1980 to 1989	37	21.77
Built 1970 to 1979	19	11.18
Built 1960 to 1969	21	12.35
Built 1950 to 1959	10	5.88
Built 1940 to 1949	16	9.41
Built 1939 and Earlier	23	13.53
Total	170	100.00

## Heating Method

	Number	Percent %
Utility Gas	8	5.26
Bottled, tank, or LP gas	71	46.71
Electricity	10	6.58
Fuel Oil, kerosene, etc.	26	17.11
Coal or coke	0	0.00
Wood	37	24.34
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	152	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	4	100
Total	4	100

## Market Values

Estimated Market Value	25,841,700
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## Economic Development

	Number
Average Income	38,104
Median Income	34,063
Per Capita Income	13,678
Total Population	405
Total Income	5,703,900

## Poverty

	Number
Income below poverty level	19
Income at or above poverty level	136

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	29	15.76
Agriculture, forestry, fishing and hunting	29	15.76
Mining	0	0.00
Construction	25	13.58
Manufacturing	15	8.15
Wholesale trade	5	2.71
Retail trade	12	6.52
Transportation and warehousing, and utilities	4	2.17
Transportation and warehousing	2	1.08
Utilities	2	1.08
Information	13	7.06
Finance, insurance, real estate and rental and leasing	8	4.34
Finance and insurance	4	2.17
Real estate and rental and leasing	4	2.17
Professional , scientific, management, administrative, and waste management services	11	5.97
Professional ,scientific, and technical services	11	5.97
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	0	0.00
Educational, health and social services	37	20.10
Educational services	8	4.34
Health care and social assistance	29	15.76
Arts, entertainment, recreation, accommodation and food services	20	10.86
Arts, entertainment, and recreation	6	3.26
Accommodation and food services	14	7.60
Other services	5	2.71
Public Administration	0	0.00
Total	184	100.00

## Transportation

	<b>Number</b>	<b>Percent %</b>
Car, Truck or van	159	86.89
Drive alone	148	80.87
Carpooled	11	6.01
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	4	2.19
Other means	3	1.64
Worked at home	17	9.29
<b>Total</b>	<b>183</b>	<b>100.00</b>

<b>Mean Travel Time to Work</b>	<b>22.7</b>
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# Township of Wilkinson

## Population

	Number	Percent %
1970	195	
1980	277	
1990	207	
2000	270	
2002	276	
Percent % of Change 1990-2000	63	30.43
Percent % of Change 1970-2000		38.46
65 and Over of 2000 Population	44	16.30
85 and Over of 2000 Population	4	1.48

## Population By Race

	Number	Percent %
White	179	66.30
Black or African American	0	0.00
American Indian or Alaska Native	82	30.40
Asian	2	0.70
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	2	0.47
Two or More Races	5	1.90
Total	270	100.00
Hispanic or Latino	0	0.00

## Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	0	0.00
5th to 6th grade	0	0.00
7th to 8th grade	1	0.58
9th grade	4	2.32
10th grade	6	3.48
11th grade	13	7.55
12th grade, no diploma	0	0.00
High school graduate (include equivalency)	80	46.51
Some college, less than 1 year	19	11.04
Some college, 1 or more years, no degree	21	12.20
Associate degree	2	1.16
Bachelor's degree	18	10.46
Master's degree	6	3.48
Professional school degree	0	0.00
Doctorate Degree	2	1.16
Total	172	100.00

## Housing

	Number	Percent %
Number of Households	106	
Persons per Household	2.55	
Number of Housing Units	179	
Vacant Units Non Seasonal	8	4.47
Vacant Units Seasonal	65	36.31
Owner Occupied Units	92	51.40
Renter Occupied Units	14	7.82

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	3	2.31
Built 1995 to 1998	25	19.23
Built 1990 to 1994	5	3.85
Built 1980 to 1989	29	22.31
Built 1970 to 1979	27	20.77
Built 1960 to 1969	7	5.38
Built 1950 to 1959	13	10.00
Built 1940 to 1949	6	4.62
Built 1939 and Earlier	15	11.54
Total	130	100.00

## Heating Method

	Number	Percent %
Utility Gas	0	0.00
Bottled, tank, or LP gas	41	41.00
Electricity	22	22.00
Fuel Oil, kerosene, etc.	12	12.00
Coal or coke	0	0.00
Wood	21	21.00
Solar energy	0	0.00
Other fuel	4	4.00
No fuel used	0	0.00
Total	100	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	19,192,800
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## Economic Development

	Number
Average Income	38,240
Median Income	30,750
Per Capita Income	15,628
2000 Population	270
Total Income	3,860,000

## Poverty

	Number
Income below poverty level	11
Income at or above poverty level	88

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	2	1.76
Agriculture, forestry, fishing and hunting	2	1.76
Mining	0	0.00
Construction	17	15.04
Manufacturing	4	3.53
Wholesale trade	0	0.00
Retail trade	0	0.00
Transportation and warehousing, and utilities	6	5.30
Transportation and warehousing	6	5.30
Utilities	0	0.00
Information	3	2.65
Finance, insurance, real estate and rental and leasing	7	6.19
Finance and insurance	7	6.19
Real estate and rental and leasing	0	0.00
Professional , scientific, management, administrative, and waste management services	0	0.00
Professional ,scientific, and technical services	0	0.00
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	0	0.00
Educational, health and social services	36	31.85
Educational services	24	21.23
Health care and social assistance	12	10.61
Arts, entertainment, recreation, accommodation and food services	21	18.58
Arts, entertainment, and recreation	12	10.61
Accommodation and food services	9	7.96
Other services	8	7.07
Public Administration	9	7.96
Total	113	100.00

## Transportation

	Number	Percent %
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Car, Truck or van	99	87.61
Drive alone	88	77.88
Carpooled	11	9.73
Public Transportation	10	8.85
Bus or trolley bus	10	8.85
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	0	0.00
Other means	2	1.77
Worked at home	2	1.77
Total	113	100.00

Mean Travel Time to Work	18.9
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# Township of Wilson

## Population

	Number	Percent %
1970	432	
1980	469	
1990	426	
2000	551	
2002	581	
Percent % of Change 1990-2000	125	29.34
Percent % of Change 1970-2000		27.55
65 and Over of 2000 Population	73	13.25
85 and Over of 2000 Population	9	1.63

## Population By Race

	Number	Percent %
White	539	97.80
Black or African American	0	0.00
American Indian or Alaska Native	5	0.90
Asian	1	0.20
Native Hawaiian and Other Pacific Islanders	1	0.20
Other Single Race	0	0.00
Two or More Races	5	0.90
Total	551	100.00
Hispanic or Latino	4	0.72

## Education Attainment

	Number	Percent %
No Schooling completed	2	0.53
Nursery to 4th grade	0	0.00
5th to 6th grade	5	1.34
7th to 8th grade	19	5.10
9th grade	5	1.34
10th grade	13	3.49
11th grade	10	2.68
12th grade, no diploma	13	3.49
High school graduate (include equivalency)	114	30.64
Some college, less than 1 year	51	13.70
Some college, 1 or more years, no degree	73	19.62
Associate degree	30	8.06
Bachelor's degree	26	6.98
Master's degree	8	2.15
Professional school degree	3	0.80
Doctorate degree	0	0.00
Total	372	100.00

## Housing

	Number	Percent %
Number of Households	208	
Persons per Household	2.65	
Number of Housing Units	228	
Vacant Units Non Seasonal	7	3.07
Vacant Units Seasonal	13	5.70
Owner Occupied Units	188	82.46
Renter Occupied Units	20	8.77

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	25	10.25
Built 1995 to 1998	16	6.56
Built 1990 to 1994	16	6.56
Built 1980 to 1989	31	12.70
Built 1970 to 1979	54	22.13
Built 1960 to 1969	32	13.11
Built 1950 to 1959	19	7.78
Built 1940 to 1949	22	9.02
Built 1939 and Earlier	29	11.86
Total	244	100.00

## Heating Method

	Number	Percent %
Utility Gas	54	24.66
Bottled, tank, or LP gas	96	43.84
Electricity	6	2.74
Fuel Oil, kerosene, etc.	24	10.96
Coal or coke	0	0.00
Wood	37	16.89
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	2	0.91
Total	219	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	28,587,200
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## Economic Development

	Number
Average Income	33,521
Median Income	30,833
Per Capita Income	12,945
2000 Population	551
Total Income	7,482,200

## Poverty

	Number
Income below poverty level	44
Income at or above poverty level	182

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	26	9.12
Agriculture, forestry, fishing and hunting	26	9.12
Mining	0	0.00
Construction	38	13.33
Manufacturing	27	9.47
Wholesale trade	4	1.40
Retail trade	40	14.03
Transportation and warehousing, and utilities	11	3.85
Transportation and warehousing	4	1.40
Utilities	7	2.45
Information	14	4.91
Finance, insurance, real estate and rental and leasing	18	6.31
Finance and insurance	14	4.91
Real estate and rental and leasing	4	1.40
Professional , scientific, management, administrative, and waste management services	18	6.31
Professional ,scientific, and technical services	15	5.26
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	3	1.05
Educational, health and social services	38	13.33
Educational services	13	4.56
Health care and social assistance	25	8.77
Arts, entertainment, recreation, accommodation and food services	28	9.82
Arts, entertainment, and recreation	2	0.70
Accommodation and food services	26	9.12
Other services	21	7.36
Public Administration	2	0.70
Total	285	100.00

## Transportation

	Number	Percent %
Car, Truck or van	225	78.95
Drive alone	204	71.58
Carpooled	21	7.37
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	4	1.40
Walked	17	5.96
Other means	6	2.11
Worked at home	33	11.58
Total	285	100.00

Mean Travel Time to Work	19.5
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# Township of Woodrow

## Population

	Number	Percent %
1970	274	
1980	449	
1990	459	
2000	667	
2002	695	
Percent % of Change 1990-2000	208	45.32
Percent % of Change 1970-2000		143.43
65 and Over of 2000 Population	225	33.73
85 and Over of 2000 Population	11	1.65

## Population By Race

	Number	Percent %
White	658	98.70
Black or African American	1	0.10
American Indian or Alaska Native	0	0.00
Asian	0	0.00
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	1	0.10
Two or More Races	7	1.00
Total	667	100.00
Hispanic or Latino	1	0.10

## Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	0	0.00
5th to 6th grade	0	0.00
7th to 8th grade	13	2.40
9th grade	0	0.00
10th grade	12	2.21
11th grade	12	2.21
12th grade, no diploma	11	2.03
High school graduate (include equivalency)	206	38.07
Some college, less than 1 year	34	6.28
Some college, 1 or more years, no degree	94	17.37
Associate degree	17	3.14
Bachelor's degree	93	17.19
Master's degree	35	6.46
Professional school degree	6	1.10
Doctorate degree	8	1.47
Total	541	100.00

## Housing

	Number	Percent %
Number of Households	327	
Persons per Household	2.04	
Number of Housing Units	1,216	
Vacant Units Non Seasonal	14	1.15
Vacant Units Seasonal	920	75.66
Owner Occupied Units	314	25.82
Renter Occupied Units	13	1.07

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	58	4.65
Built 1995 to 1998	101	8.10
Built 1990 to 1994	117	9.38
Built 1980 to 1989	222	17.80
Built 1970 to 1979	206	16.52
Built 1960 to 1969	227	18.20
Built 1950 to 1959	153	12.27
Built 1940 to 1949	85	6.82
Built 1939 and Earlier	78	6.26
Total	1,247	100.00

## Heating Method

	Number	Percent %
Utility Gas	0	0.00
Bottled, tank, or LP gas	115	37.22
Electricity	92	29.77
Fuel Oil, kerosene, etc.	19	6.15
Coal or coke	0	0.00
Wood	83	26.86
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	309	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Market Values

Estimated Market Value	216,705,100
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## Economic Development

	Number
Average Income	46,115
Median Income	35,987
Per Capita Income	23,201
Total Population	667
Total Income	14,500,000

## Poverty

	Number
Income below poverty level	18
Income at or above poverty level	289

## Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	0	0.00
Agriculture, forestry, fishing and hunting	0	0.00
Mining	0	0.00
Construction	17	8.67
Manufacturing	17	8.67
Wholesale trade	3	1.53
Retail trade	473	21.93
Transportation and warehousing, and utilities	5	2.55
Transportation and warehousing	5	2.55
Utilities	0	0.00
Information	7	3.57
Finance, insurance, real estate and rental and leasing	10	5.10
Finance and insurance	7	3.57
Real estate and rental and leasing	3	1.53
Professional , scientific, management, administrative, and waste management services	17	8.67
Professional ,scientific, and technical services	15	7.65
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	2	1.02
Educational, health and social services	29	14.79
Educational services	22	11.22
Health care and social assistance	7	3.57
Arts, entertainment, recreation, accommodation and food services	13	6.63
Arts, entertainment, and recreation	3	1.53
Accommodation and food services	10	5.10
Other services	13	6.63
Pubic Administration	22	11.22
Total	196	100.00

## Transportation

	<b>Number</b>	<b>Percent %</b>
Car, Truck or van	143	75.26
Drive alone	135	71.05
Carpooled	8	4.21
Public Transportation	2	1.05
Bus or trolley bus	2	1.05
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	13	6.84
Other means	0	0.00
Worked at home	32	16.84
Total	190	100.00

Mean Travel Time to Work	22.4
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# Township of North Cass UT

## Population

	Number	Percent %
1970	0	
1980	2	
1990	299	
2000	348	
2002	N/A	
Percent % of Change 1990-2000	49	16.39
Percent % of Change 1970-2000		0.00
65 and Over of 2000 Population	32	9.20
85 and Over of 2000 Population	5	1.44

## Population By Race

	Number	Percent %
White	125	35.90
Black or African American	0	0.00
American Indian or Alaska Native	220	63.20
Asian	0	0.00
Native Hawaiian and Other Pacific Islanders	1	0.30
Other Single Race	0	0.00
Two or More Races	2	0.60
Total	348	100.00
Hispanic or Latino	6	1.72

## Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	0	0.00
5th to 6th grade	0	0.00
7th to 8th grade	22	9.77
9th grade	10	4.44
10th grade	49	21.77
11th grade	8	3.55
12th grade, no diploma	0	0.00
High school graduate (include equivalency)	87	38.66
Some college, less than 1 year	4	1.77
Some college, 1 or more years, no degree	28	12.44
Associate degree	10	4.44
Bachelor's degree	5	2.22
Master's degree	2	0.88
Professional school degree	0	0.00
Doctorate degree	0	0.00
Total	225	100.00

## Housing

	Number	Percent %
Number of Households	119	
Persons per Household	2.92	
Number of Housing Units	274	
Vacant Units Non Seasonal	7	2.56
Vacant Units Seasonal	148	54.01
Owner Occupied Units	87	31.75
Renter Occupied Units	32	11.68

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	1	0.38
Built 1995 to 1998	3	1.13
Built 1990 to 1994	119	44.74
Built 1980 to 1989	56	21.05
Built 1970 to 1979	46	17.29
Built 1960 to 1969	19	7.14
Built 1950 to 1959	2	0.75
Built 1940 to 1949	12	4.51
Built 1939 and Earlier	8	3.01
Total	266	100.00

## Heating Method

	Number	Percent %
Utility Gas	0	0.00
Bottled, tank, or LP gas	79	65.83
Electricity	0	0.00
Fuel Oil, kerosene, etc.	8	6.67
Coal or coke	0	0.00
Wood	33	27.50
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	120	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Economic Development



	Number
Average Income	37,600
Median Income	30,500
Per Capita Income	12,751
Total Population	348
Total Income	4,603,200

### Poverty

	Number
Income below poverty level	36
Income at or above poverty level	94

### Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	2	1.22
Agriculture, forestry, fishing and hunting	2	1.22
Mining	0	0.00
Construction	4	2.45
Manufacturing	21	12.88
Wholesale trade	14	8.58
Retail trade	22	13.49
Transportation and warehousing, and utilities	3	1.84
Transportation and warehousing	3	1.84
Utilities	0	0.00
Information	0	0.00
Finance, insurance, real estate and rental and leasing	0	0.00
Finance and insurance	0	0.00
Real estate and rental and leasing	0	0.00
Professional , scientific, management, administrative, and waste management services	10	6.13
Professional ,scientific, and technical services	0	0.00
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	10	6.13
Educational, health and social services	30	18.40
Educational services	0	0.00
Health care and social assistance	30	18.40
Arts, entertainment, recreation, accommodation and food services	33	20.24
Arts, entertainment, and recreation	10	6.13
Accommodation and food services	23	14.11
Other services	15	9.20
Public Administration	9	5.52
Total	163	100.00

### Transportation

	Number	Percent %
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Car, Truck or van	126	78.75
Drive alone	110	68.75
Carpooled	16	10.00
Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	16	10.00
Other means	15	9.38
Worked at home	3	1.88
Total	160	100.00

Mean Travel Time to Work	14.7
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# Township of North Central Cass UT

## Population

	Number	Percent %
1970	317	
1980	407	
1990	12	
2000	24	
2002	N/A	
Percent % of Change 1990-2000	12	100
Percent % of Change 1970-2000		-92.43
65 and Over of 2000 Population	7	29.17
85 and Over of 2000 Population	0	0

## Population By Race

	Number	Percent %
White	15	62.50
Black or African American	0	0.00
American Indian or Alaska Native	9	37.50
Asian	0	0.00
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	0	0.00
Total	24	100.00
Hispanic or Latino	0	0.00

## Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	0	0.00
5th to 6th grade	0	0.00
7th to 8th grade	0	0.00
9th grade	0	0.00
10th grade	0	0.00
11th grade	0	0.00
12th grade, no diploma	0	0.00
High school graduate (include equivalency)	4	57.14
Some college, less than 1 year	0	0.00
Some college, 1 or more years, no degree	2	28.57
Associate degree	0	0.00
Bachelor's degree	1	14.28
Master's degree	0	0.00
Professional school degree	0	0.00
Doctorate degree	0	0.00
Total	7	100.00

## Housing

	Number	Percent %
Number of Households	10	
Persons per Household	2.4	
Number of Housing Units	55	
Vacant Units Non Seasonal	1	1.82
Vacant Units Seasonal	44	80.00
Owner Occupied Units	8	14.55
Renter Occupied Units	2	3.64

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	4	5.48
Built 1995 to 1998	27	36.99
Built 1990 to 1994	8	10.96
Built 1980 to 1989	6	8.21
Built 1970 to 1979	16	21.92
Built 1960 to 1969	1	1.37
Built 1950 to 1959	7	9.59
Built 1940 to 1949	4	5.48
Built 1939 and Earlier	0	0.00
Total	73	100.00

## Heating Method

	Number	Percent %
Utility Gas	0	0.00
Bottled, tank, or LP gas	3	100.00
Electricity	0	0.00
Fuel Oil, kerosene, etc.	0	0.00
Coal or coke	0	0.00
Wood	0	0.00
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	3	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Economic Development

	Number
Average Income	71,600
Median Income	71,250
Per Capita Income	32,314
Total Population	24
Total Income	226,200

### Poverty

	Number
Income below poverty level	0
Income at or above poverty level	3

### Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	0	0
Agriculture, forestry, fishing and hunting	0	0
Mining	0	0
Construction	0	0
Manufacturing	0	0
Wholesale trade	0	0
Retail trade	0	0
Transportation and warehousing, and utilities	0	0
Transportation and warehousing	0	0
Utilities	0	0
Information	0	0
Finance, insurance, real estate and rental and leasing	0	0
Finance and insurance	0	0
Real estate and rental and leasing	0	0
Professional , scientific, management, administrative, and waste management services	0	0
Professional ,scientific, and technical services	0	0
Management of companies and enterprises	0	0
Administrative and support and waste management services	0	0
Educational, health and social services	0	0
Educational services	0	0
Health care and social assistance	0	0
Arts, entertainment, recreation, accommodation and food services	0	0
Arts, entertainment, and recreation	0	0
Accommodation and food services	0	0
Other services	0	0
Public Administration	0	0
Total	0	0

### Transportation

	<b>Number</b>	<b>Percent %</b>
Car, Truck or van	0	0
Drive alone	0	0
Carpooled	0	0
Public Transportation	0	0
Bus or trolley bus	0	0
Streetcar or trolley car	0	0
Subway or elevated	0	0
Railroad	0	0
Ferry boat	0	0
Taxicab	0	0
Motorcycle	0	0
Bicycle	0	0
Walked	0	0
Other means	0	0
Worked at home	0	0
Total	0	0

Mean Travel Time to Work	0
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# Township of Wahnena UT

## Population

	Number	Percent %
1970	139	
1980	190	
1990	187	
2000	197	
2002	N/A	
Percent % of Change 1990-2000	10	5.35
Percent % of Change 1970-2000		41.73
65 and Over of 2000 Population	20	10.15
85 and Over of 2000 Population	3	1.52

## Population By Race

	Number	Percent %
White	187	94.90
Black or African American	0	0.00
American Indian or Alaska Native	6	3.00
Asian	0	0.00
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	4	2.00
Total	197	100.00
Hispanic or Latino	0	0.00

## Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	0	0.00
5th to 6th grade	0	0.00
7th to 8th grade	5	4.95
9th grade	6	5.94
10th grade	0	0.00
11th grade	0	0.00
12th grade, no diploma	7	6.93
High school graduate (include equivalency)	49	48.51
Some college, less than 1 year	2	1.98
Some college, 1 or more years, no degree	27	26.73
Associate degree	3	2.97
Bachelor's degree	2	1.98
Master's degree	0	0.00
Professional school degree	0	0.00
Doctorate degree	0	0.00
Total	101	100.00

## Housing

	Number	Percent %
Number of Households	67	
Persons per Household	2.94	
Number of Housing Units	86	
Vacant Units Non Seasonal	3	3.49
Vacant Units Seasonal	16	18.60
Owner Occupied Units	60	69.77
Renter Occupied Units	7	8.14

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	0	0.00
Built 1995 to 1998	11	13.75
Built 1990 to 1994	12	15.00
Built 1980 to 1989	8	10.00
Built 1970 to 1979	7	8.75
Built 1960 to 1969	23	28.75
Built 1950 to 1959	5	6.25
Built 1940 to 1949	0	0.00
Built 1939 and Earlier	14	17.50
Total	80	100.00

## Heating Method

	Number	Percent %
Utility Gas	0	0.00
Bottled, tank, or LP gas	28	44.44
Electricity	9	14.29
Fuel Oil, kerosene, etc.	16	25.40
Coal or coke	0	0.00
Wood	10	15.87
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	63	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Economic Development



	Number
Average Income	31,102
Median Income	26,607
Per Capita Income	9,026
Total Population	197
Total Income	1,696,800

### Poverty

	Number
Income below poverty level	11
Income at or above poverty level	48

### Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	11	20.00
Agriculture, forestry, fishing and hunting	11	20.00
Mining	0	0.00
Construction	6	10.90
Manufacturing	15	27.27
Wholesale trade	0	0.00
Retail trade	1	1.81
Transportation and warehousing, and utilities	4	7.27
Transportation and warehousing	4	7.25
Utilities	0	0.00
Information	0	0.00
Finance, insurance, real estate and rental and leasing	2	3.63
Finance and insurance	2	3.63
Real estate and rental and leasing	0	0.00
Professional , scientific, management, administrative, and waste management services	0	0.00
Professional ,scientific, and technical services	0	0.00
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	0	0.00
Educational, health and social services	7	12.72
Educational services	1	1.81
Health care and social assistance	6	10.91
Arts, entertainment, recreation, accommodation and food services	7	12.72
Arts, entertainment, and recreation	0	0.00
Accommodation and food services	7	12.72
Other services	0	0.00
Pubic Administration	2	3.63
Total	55	100.00

### Transportation

	Number	Percent %
Car, Truck or van	40	72.73
Drive alone	40	72.73
Carpooled	0	0.00

Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	0	0.00
Other means	4	7.27
Worked at home	11	20.00
Total	55	100.00

Mean Travel Time to Work	20.1
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# Township of East Cass UT

## Population

	Number	Percent %
1970	30	
1980	62	
1990	14	
2000	43	
2002	N/A	
Percent % of Change 1990-2000	29	207.14
Percent % of Change 1970-2000		43.33
65 and Over of 2000 Population	10	23.26
85 and Over of 2000 Population	1	2.33

## Population By Race

	Number	Percent %
White	42	97.70
Black or African American	0	0.00
American Indian or Alaska Native	0	0.00
Asian	0	0.00
Native Hawaiian and Other Pacific Islanders	0	0.00
Other Single Race	0	0.00
Two or More Races	1	2.30
Total	43	100.00
Hispanic or Latino	0	0.00

## Education Attainment

	Number	Percent %
No Schooling completed	0	0.00
Nursery to 4th grade	0	0.00
5th to 6th grade	0	0.00
7th to 8th grade	5	14.28
9th grade	3	8.57
10th grade	0	0.00
11th grade	0	0.00
12th grade, no diploma	0	0.00
High school graduate (include equivalency)	18	51.42
Some college, less than 1 year	0	0.00
Some college, 1 or more years, no degree	5	14.28
Associate degree	0	0.00
Bachelor's degree	4	11.42
Master's degree	0	0.00
Professional school degree	0	0.00
Doctorate degree	0	0.00
Total	35	100.00

## Housing

	Number	Percent %
Number of Households	21	
Persons per Household	2.05	
Number of Housing Units	49	
Vacant Units Non Seasonal	5	10.20
Vacant Units Seasonal	23	46.94
Owner Occupied Units	20	40.81
Renter Occupied Units	1	2.41

## Age of Housing

	Number	Percent %
Built 1999 to March 2000	0	0.00
Built 1995 to 1998	4	10.26
Built 1990 to 1994	0	0.00
Built 1980 to 1989	2	5.13
Built 1970 to 1979	8	20.51
Built 1960 to 1969	2	5.13
Built 1950 to 1959	2	5.13
Built 1940 to 1949	17	43.59
Built 1939 and Earlier	4	10.26
Total	39	100.00

## Heating Method

	Number	Percent %
Utility Gas	0	0.00
Bottled, tank, or LP gas	9	3.75
Electricity	0	0.00
Fuel Oil, kerosene, etc.	7	29.17
Coal or coke	0	0.00
Wood	8	33.33
Solar energy	0	0.00
Other fuel	0	0.00
No fuel used	0	0.00
Total	24	100.00

## Group Quarter

	Number	Percent %
Correctional institutions	0	0
Nursing Homes	0	0
Other institutions	0	0
College dormitories	0	0
Military quarters	0	0
Other non institutional group quarters	0	0
Total	0	0

## Economic Development

	Number
Average Income	39,210
Median Income	36,250
Per Capita Income	18,175
Total Population	43
Total Income	799,700

### Poverty

	Number
Income below poverty level	0
Income at or above poverty level	20

### Industry

	Number	Percent %
Agriculture, forestry, Fishing and hunting and mining	4	12.50
Agriculture, forestry, fishing and hunting	4	12.50
Mining	0	0.00
Construction	2	6.25
Manufacturing	5	15.62
Wholesale trade	0	0.00
Retail trade	2	6.25
Transportation and warehousing, and utilities	0	0.00
Transportation and warehousing	0	0.00
Utilities	0	0.00
Information	0	0.00
Finance, insurance, real estate and rental and leasing	0	0.00
Finance and insurance	0	0.00
Real estate and rental and leasing	0	0.00
Professional , scientific, management, administrative, and waste management services	6	18.75
Professional ,scientific, and technical services	3	9.37
Management of companies and enterprises	0	0.00
Administrative and support and waste management services	3	9.37
Educational, health and social services	2	6.25
Educational services	2	6.25
Health care and social assistance	0	0.00
Arts, entertainment, recreation, accommodation and food services	9	258.12
Arts, entertainment, and recreation	4	12.50
Accommodation and food services	5	15.62
Other services	0	0.00
Pubic Administration	2	6.25
Total	32	100.00

### Transportation

	Number	Percent %
Car, Truck or van	32	100.00
Drive alone	25	78.13
Carpooled	7	21.88

Public Transportation	0	0.00
Bus or trolley bus	0	0.00
Streetcar or trolley car	0	0.00
Subway or elevated	0	0.00
Railroad	0	0.00
Ferry boat	0	0.00
Taxicab	0	0.00
Motorcycle	0	0.00
Bicycle	0	0.00
Walked	0	0.00
Other means	0	0.00
Worked at home	0	0.00
Total	32	100.00

Mean Travel Time to Work	48.1
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## CASS COUNTY PRE-DISASTER MITIGATION QUESTIONNAIRE

### Executive Summary (as of 02/06/2004)

Thank you in advance for your participation in the Cass County Pre-Disaster Mitigation survey. You are receiving this questionnaire as 1 of 1,630 households that were randomly selected from the 10,900 households (approximately 15%) in Cass County to participate in this survey. The information you provide throughout this survey will be used in identifying and assessing potential disasters within the County and developing a plan aimed to prevent or lessen the impacts of disasters in the future. We ask that you please take a few minutes to complete this questionnaire and return it in the enclosed **postage paid** envelope by January 30, 2004. All results of this survey will be published in your local newspaper in the spring of 2004. Again, thank you for your participation in ensuring a safer Cass County.

### **GENERAL INFORMATION**

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1. Name of city or township you live in: -----Please See Attachment A-----

*Please circle one:* CITY or TOWNSHIP

2. How many people live in your household?

Number of People	Number of Responses	Percent of Total (%)
No Response	21	5.7
1	36	9.8
2	213	57.7
3	32	8.7
4	43	11.7
5	13	3.5
6	6	1.6
7	2	0.5
8	2	0.5
10	1	0.3

3. How familiar do you feel you are you with Pre-Disaster or Hazard Mitigation Planning?  
(Please circle one answer)

1. Very Familiar **4, 1.1%**  
 2. Somewhat Familiar **46, 12.5%**  
 3. Not Familiar, **307, 83.2%**  
 No Response, **12, 3.3%**

### **NATURAL DISASTER INFORMATION**

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4. In the past five years, have you had direct experience with a natural disaster such as severe weather, flood, wildfire, or similar type of natural disaster in Cass County?
- Yes (If YES, continue with Question 5) **118, 32%**
  - No (If NO, please skip to Question 8) **244, 66.1%**
  - No Response **7, 1.9%**
5. If you answered YES to Question 4, which of these natural disasters have you experienced? (Please check all that apply) [**118 respondents**]
- Drought, **10**
  - Windstorm (Resulting in Damage/Injury), **85**
  - Dust Storm, **0**
  - Thunderstorm (Resulting in Damage/Injury), **42**
  - Flood, **5**
  - Tornado, **7**
  - Wildfire, **2**
  - Winter Storm (Resulting in Damage/Injury), **8**
  - Household Fire, **3**
  - Other (Specify) Hail Storms, **6**
  - Other (Specify) Camp Ripley Flares, **1**
  - Other (Specify) Asian Beetles, **1**
6. If you answered YES to Question 4, did the disaster result in property damage or personal injury to you or your neighbors? (**out of 118**)
- Yes **108, 91.5%**
  - No **7, 6.0%**
  - No Response **3, 2.5%**
- If Yes, which of the following: (**out of 108**)
- Property Damage **107, 99.1%**
  - Personal Injury **1, 0.9%**
7. If you answered YES to Question 4, in your opinion were there measures that could have been taken prior to the disaster that would have prevented or reduced damage or harm to persons or property that was caused by the disaster? (**out of 118**)
- Yes **13, 11.0%**
  - No **98, 83.1%**
  - No Response **7, 5.9%**



8. In your opinion, how concerned are you with the following natural disasters effecting Cass County in the future? (Please circle a number for each hazard)

Natural Disaster/Mean	Extremely Concerned (1)	Very Concerned (2)	Concerned (3)	Somewhat Concerned (4)	Not Concerned (5)	No Response
<b>Drought/3.53</b>	18, 4.9%	44, 11.9%	92, 24.9%	89, 24.1%	81, 22.0%	45, 12.2%
<b>Windstorm/3.28</b>	18, 4.9%	65, 17.6%	115, 31.2%	81, 22.0%	57, 15.4%	33, 8.9%
<b>Dust Storm/4.84</b>	3, 0.8%	3, 0.8%	16, 4.3%	49, 13.3%	246, 66.7%	52, 14.1%
<b>Thunderstorm/3.39</b>	13, 3.5%	49, 13.3%	114, 30.9%	99, 26.8%	52, 14.1%	42, 11.4%
<b>Flood/4.30</b>	4, 1.1%	12, 3.3%	44, 11.9%	82, 22.2%	174, 47.2%	53, 14.4%
<b>Tornado/2.88</b>	48, 13.0%	76, 20.6%	114, 30.9%	72, 19.5%	29, 7.9%	30, 8.1%
<b>Wildfire/2.81</b>	54, 14.6%	90, 24.4%	98, 26.6%	64, 17.3%	34, 9.2%	29, 7.9%
<b>Winter Storm/3.52</b>	18, 4.9%	36, 9.8%	100, 27.1%	101, 27.4%	71, 19.2%	43, 11.7%
<b>Household Fire/2.98</b>	49, 13.3%	58, 15.7%	112, 30.4%	74, 20.1%	37, 10.0%	39, 10.6%
<b>Other: Asian Beetle Infestation/2.00</b>	0	1, 100%	0	0	0	
<b>Other: Insect Infestation/3.00</b>	0	0	1, 100%	0	0	
<b>Other: Milfoil (not rated)</b>	0	0	0	0	0	
<b>Other: Septic Tank Freeze due to lack of snow &amp; cold temp/1.00</b>	1, 100%	0	0	0	0	
<b>Other: Camp Ripley/1.00</b>	1, 100%	0	0	0	0	
<b>Other: Hailstorms/4.00</b>	0	0	0	2/100%	0	
<b>Other: Lymes Disease/2.00</b>	0	1, 100%	0	0	0	
<b>Other: Deer Over-population/2.00</b>	0	1, 100%	0	0	0	

**HUMAN-CAUSED AND TECHNOLOGICAL DISASTER INFORMATION**

9. In the past five years, have you had direct experience with a human-caused and/or technological disaster such as civil disorder, aircraft or motor vehicle accident, hazardous material accident, or similar types of human-caused or technological disaster within Cass County?

- Yes (If YES, continue with Question 10) **36, 9.8%**
- No (If NO, please skip to Question 12) **324, 87.8%**
- No Response **9, 2.4%**

10. If you answered YES to Question 9, which of these human-caused and technological disasters have you experienced? (Please check all that apply) **[36 respondents]**

- Dam Failure, **3**
- Industrial Accidents, **0**
- Drinking Water Contamination, **5**
- Nuclear Accidents, **0**

- Civil Disorder, **1**
- Pipeline-related Disasters, **2**
- Railroad-related Accident, **0**
- Hazardous Material Accidents, **2**
- Aircraft Accident, **0**
- Arson, **2**
- Motor-Vehicle Accident, **21**
- Crimes against Persons or Property, **10**
- Energy Shortage/System Failure, **8**
- Wastewater/Drinking Water System Failure, **4**
- Other: Camp Ripley, **1**
- Other: Contaminated Land, **1**
- Other: Garage Fire, **1**
- Other: House Explosion, **1**
- Other: Sewers Freezing Up, **1**
- Other: Mailbox Again, **1**

11. If you answered YES to Question 9, in your opinion were there measures that could have been taken prior to the disaster that would have prevented or reduced damage or harm to persons or property that was caused by the disaster? (out of 36)

- Yes **25, 69.4%**
- No **11, 30.6%**

12. How concerned are you with the following human-caused and technological disasters effecting Cass County in the future? (Please circle a number for each hazard)

Natural Disaster/Mean	Extremely Concerned (1)	Very Concerned (2)	Concerned (3)	Somewhat Concerned (4)	Not Concerned (5)	No Response
Dam Failure/4.37	10, 2.7%	16, 4.3%	33, 8.9%	54, 14.6%	219, 59.3%	36, 10.0%
Industrial Accidents/4.20	6, 1.6%	9, 2.4%	60, 16.3%	94, 25.5%	162, 43.9%	38, 10.3%
Drinking Water Contamination/3.03	46, 12.5%	72, 19.5%	104, 28.2%	74, 20.1%	50, 13.6%	23, 6.2%
Nuclear Accidents/4.19	16, 4.3%	19, 5.1%	43, 11.7%	61, 16.5%	190, 51.5%	40, 10.8%
Civil Disorder/4.05	11, 3.0%	24, 6.5%	57, 15.4%	83, 22.5%	156, 42.3%	38, 10.3%
Pipeline-related Disasters/4.17	8, 2.2%	17, 4.6%	55, 14.9%	81, 22.0%	170, 46.1%	38, 10.3%
Railroad-related Accidents/4.41	5, 1.4%	11, 3.0%	37, 10.0%	66, 17.9%	210, 56.9%	40, 10.8%
Hazardous Material Accidents/3.75	26, 7.0%	21, 5.7%	71, 19.2%	115, 31.2%	107, 29.0%	29, 7.9%
Aircraft Accident/4.14	11, 3.0%	13, 3.5%	54, 14.6%	94, 25.5%	158, 42.8%	39, 10.6%
Arson/3.49	26, 7.0%	40, 10.8%	89, 24.1%	104, 28.2%	77, 20.9%	33, 8.9%
Motor-Vehicle Accident/3.11	28, 7.6%	67, 18.2%	118, 32.0%	85, 23.0%	38, 10.3%	33, 8.9%
Crimes against Person or Property/ 2.67	58, 15.7%	96, 26.0%	121, 32.8%	57, 15.4%	20, 5.4%	17, 4.6%
Energy Shortage--System Failure/3.15	38, 10.3%	61, 16.5%	102, 27.6%	94, 25.5%	48, 13.0%	26, 7.0%
Wastewater--Drinking Water System Failure/3.16	39, 10.6%	71, 19.2%	91, 24.7%	77, 20.9%	63, 17.1%	28, 7.6%
Other: Break ins/3.00	0	0	1, 100%	0	0	
Other: Electric Failure/1.67	2, 66.7%	0	1, 33.3%	0	0	
Other: Police Protection/3.00	0	0	1,100%	0	0	
Other: Road Maintenance/1.00	1, 100%	0	0	0	0	
Other: Powerline Maintenance/1.00	1, 100%	0	0	0	0	

<b>Other: Hold ups/3.00</b>	0	0	1, 100%	0	0
<b>Other: Youth Gangs/1.00</b>	1, 100%	0	0	0	0
<b>Other: Theft/1.00</b>	1, 100%	0	0	0	0
<b>Other: Meth Labs/1.00</b>	1, 100%	0	0	0	0
<b>Other: Ice Accident on the Lake/1.00</b>	1, 100%	0	0	0	0
<b>Other: Impaired Driving/1.00</b>	1, 100%	0	0	0	0
<b>Other: Lake Water Contamination/2.00</b>	0	1, 100%	0	0	0
<b>Other: Land Contamination/2.00</b>	0	1, 100%	0	0	0
<b>Other: Snowmobiles, boats, 4-wheelers/1.00</b>	1, 100%	0	0	0	0

13. Looking at all of the natural, human-caused and technological disasters presented in Questions 8 and 12, check the ones you feel Cass County could prevent or lessen the impacts of through advance planning. (Please check all that apply)

- Drought, **22**
- Dust Storm, **4**
- Flood, **62**
- Wildfire, **194**
- Household Fire, **70**
- Nat. Other: Camp Ripley, **1**
- Windstorm (Resulting in Damage/Injury), **44**
- Thunderstorm (Resulting in Damage/Injury), **53**
- Tornado, **85**
- Winter Storm (Resulting in Damage/Injury), **64**
- Nat. Other: Ice Accident on Lake, **1**
- Nat. Other: Insect Infestation, **1**
- Dam Failure, **123**
- Drinking Water Contamination, **237**
- Civil Disorder, **130**
- Railroad-related Accident, **51**
- Aircraft Accident, **24**
- Motor-Vehicle Accident, **118**
- Energy Shortage/System Failure, **188**
- Wastewater/Drinking Water System Failure, **206**
- Other: Break-ins when we are not around our cabin/Seasonal Resident, **1**
- Other: Contaminated Land, **1**
- Other: Gang/Drug/etc., **1**
- Other: Under aged Drinking/Parties, **1**
- Industrial Accidents, **72**
- Nuclear Accidents, **53**
- Pipeline-related Disasters, **78**
- Hazardous Material Accidents, **116**
- Arson, **72**
- Crime against Persons/Property, **181**

14. Would you be willing to participate in Cass County’s Pre-Disaster Mitigation Planning process by attending meetings, developing goals and objectives, or similar functions?

Yes (If YES, please fill in your contact information in Question 15) **25, 6.8%**

No **320, 86.7%**

No Response **24, 6.5%**

15. If you answered YES to Question 14, please provide the following information and check the method of contact that works best for you:

_____	(_____)_____
Name	Daytime Telephone <input type="checkbox"/>
_____	(_____)_____
Address <input type="checkbox"/>	Fax Machine (if available) <input type="checkbox"/>
_____	_____
City, State, Zip	Email Address (if available) <input type="checkbox"/>

End of Survey – Thank You!

# APPENDIX

## E

### Adoption Resolutions

# CASS

R'vd	Jurisdiction	Date
<input checked="" type="checkbox"/>	County	<u>7/6/07</u>
<input checked="" type="checkbox"/>	Backus	<u>7/12/07</u>
<input type="checkbox"/>	Bena 1/m 9/25	<u>                    </u>
<input checked="" type="checkbox"/>	Boy River will get in 9/25	<u>11/16/07</u>
<input checked="" type="checkbox"/>	Cass Lake	<u>7/19/07</u>
<input checked="" type="checkbox"/>	Chicamaw Beach	<u>6-21-07</u>
<input checked="" type="checkbox"/>	East Gull Lake	<u>7/11/07</u>
<input checked="" type="checkbox"/>	Federal Dam	<u>8/16/07</u>
<input checked="" type="checkbox"/>	Hackensack	<u>7/12/07</u>
<input checked="" type="checkbox"/>	Lake Shore	<u>7/6/07</u>
<input checked="" type="checkbox"/>	Longville	<u>7/17/07</u>
<input checked="" type="checkbox"/>	Pillager	<u>6-22-07</u>
<input checked="" type="checkbox"/>	Pine River	<u>7/12/07</u>
<input checked="" type="checkbox"/>	Remer 1/m 9/25	<u>11/19/07</u>
<input checked="" type="checkbox"/>	Walker no machine	<u>10/24/07</u>

CERTIFIED COPY OF RESOLUTION COUNTY BOARD OF CASS COUNTY

RESOLUTION NO. 40-07

ADOPTED: July 3, 2007

Commissioner Foster offered Resolution No. 40-07 and moved its adoption; Commissioner Peterson seconded:

RESOLUTION FOR APPROVAL OF THE HAZARD MITIGATION PLAN

WHEREAS, the County of Cass [the County] is participating in a hazard mitigation planning process as established under the Federal Disaster Mitigation Act of 2000; and

WHEREAS, the Region Five Development Commission, under the guidelines established by the Act, has provided a framework for the development of the Cass County Hazard Mitigation Plan; and

WHEREAS, the Federal Disaster Mitigation Act of 2000 and h MA require communities to adopt a hazard mitigation action plan to be eligible for pre-disaster and post-disaster federal funding for mitigation purposes; and

WHEREAS, the plan is a record of the County's potential risks and hazards and commitment to reducing the long-term consequences of natural, human caused and technological hazards; and

WHEREAS, the plan outlines mitigation goals, identifies risk reduction strategies for hazards that threaten the area, and discusses the ongoing risk reduction strategies to be undertaken with the jurisdiction; and

WHEREAS, the plan has been reviewed by members of this Board, staff, and the public; and

WHEREAS, the plan has been approved by FEMA pending final adoption by each participating jurisdiction, and

WHEREAS, County Board adoption and adoption by local units of government is required for final approval by FEMA Region V.

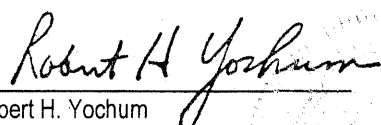
NOW THEREFORE BE IT RESOLVED, that the Cass County's Hazard Mitigation Plan is approved in its entirety, and that the County will pursue available funding opportunities for implementation of the proposals designated therein, will upon receipt of such funding or other necessary resources, seek to implement the actions contained in the mitigation objectives and also upon approval authorize the Region Five Development Commission to submit on the County's behalf the plan to all cities within the County for approval.

Resolution No. 40-07 was adopted by majority vote: Ayes: Demgen, Dowson, Foster, Kangas, Peterson. Nays: None.

STATE OF MINNESOTA                    }  
County of Cass                            }    ss.  
Office of County Administrator        }

I, Robert H. Yochum, Administrator of the County of Cass, do hereby certify that I have compared the foregoing with the original resolution filed in my office on the 3<sup>rd</sup> day of July A. D. 2007, and the same is a true and correct copy of the whole thereof.

WITNESS MY HAND AND SEAL OF MY OFFICE  
at Walker, Minnesota, this 3<sup>rd</sup> day of July, A. D. 2007.

  
Robert H. Yochum  
County Administrator

**City of Backus**

RESOLUTION FOR APPROVAL OF THE HAZARD MITIGATION

**WHEREAS**, the County of Cass [the County] is participating in a hazard mitigation planning process as established under the Federal Disaster Mitigation Act of 2000; and

**WHEREAS**, the City of Backus has had the opportunity to participate in the planning process; and

**WHEREAS**, the City of Backus by resolution supported the Cass County planning efforts; and

**WHEREAS**, the City of Backus by resolution on June 6, 2005 approved the 2005 version of the Cass County Hazard Mitigation Plan; and

**WHEREAS**, the Region Five Development Commission, under the guidelines established by the Act, has provided a framework for the development of the Cass County Hazard Mitigation Plan; and

**WHEREAS**, the Federal Disaster Mitigation Act of 2000 and FEMA require communities to adopt a hazard mitigation action plan to be eligible for pre-disaster and post-disaster federal funding for mitigation purposes; and

**WHEREAS**, the plan is a record of the County's potential risks and hazards and commitment to reducing the long-term consequences of natural, human caused and technological hazards; and

**WHEREAS**, the plan outlines mitigation goals, identifies risk reduction strategies for hazards that threaten the area, and discusses the ongoing risk reduction strategies to be undertaken with the jurisdiction; and

**WHEREAS**, the plan has been reviewed by members of this Board, staff, and the public; and

**WHEREAS**, the plan has been approved by FEMA pending final adoption by each participating jurisdiction, and

**WHEREAS**, County Board adoption and adoption by local units of government is required for final approval by FEMA Region V; and

**WHEREAS**, this resolution does not preclude the City of Backus from preparing a separate plan sometime in the future should it desire to do so.

**NOW THEREFORE BE IT RESOLVED**, that the Cass County's Hazard Mitigation Plan is approved in its entirety, and that the City of Backus will support the County's effort to implement the *Action Plan* of the *Cass County Hazard Mitigation Plan* to the extent specified by the City, and support City and County efforts to secure necessary funding for implementation actions.

Adopted this 2nd day of July, 2007

Chloe F. Smith  
Chairman / Mayor

Attest: Carol Wredenburg  
City Clerk/Treasurer



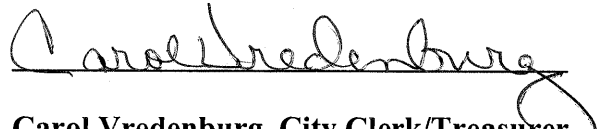
STATE OF MINNESOTA  
City of Backus  
Office of City Clerk}

}  
}

ss.

I, Carol Vredenburg, City Clerk/Treasurer of the City of Backus, do hereby certify that I have compared the foregoing with the original resolution No. 07-05 filed in my office on the 2nd day of July A.D. 2007, and the same is a true and correct copy of the whole thereof.

WITNESS MY HAND AND SEAL OF MY OFFICE  
at Backus Minnesota, this 11th day of July, A.D. 2007

  
Carol Vredenburg, City Clerk/Treasurer  
City of Backus MN

NOV 16 2007

Resolution Number 2-2007

**City of Boy River**

RESOLUTION FOR APPROVAL OF THE HAZARD MITIGATION

**WHEREAS**, the County of Cass [the County] is participating in a hazard mitigation planning process as established under the Federal Disaster Mitigation Act of 2000; and

**WHEREAS**, the City of Boy River has had the opportunity to participate in the planning process; and

**WHEREAS**, the Region Five Development Commission, under the guidelines established by the Act, has provided a framework for the development of the Cass County Hazard Mitigation Plan; and

**WHEREAS**, the Federal Disaster Mitigation Act of 2000 and FEMA require communities to adopt a hazard mitigation action plan to be eligible for pre-disaster and post-disaster federal funding for mitigation purposes; and

**WHEREAS**, the plan is a record of the County's potential risks and hazards and commitment to reducing the long-term consequences of natural, human caused and technological hazards; and

**WHEREAS**, the plan outlines mitigation goals, identifies risk reduction strategies for hazards that threaten the area, and discusses the ongoing risk reduction strategies to be undertaken with the jurisdiction; and

**WHEREAS**, the plan has been reviewed by members of this Board, staff, and the public; and

**WHEREAS**, the plan has been approved by FEMA pending final adoption by each participating jurisdiction, and

**WHEREAS**, County Board adoption and adoption by local units of government is required for final approval by FEMA Region V; and

**WHEREAS**, this resolution does not preclude the City of Boy River from preparing a separate plan sometime in the future should it desire to do so.

**NOW THEREFORE BE IT RESOLVED**, that the Cass County's Hazard Mitigation Plan is approved in its entirety, and that the City of Boy River will support the County's effort to implement the *Action Plan* of the *Cass County Hazard Mitigation Plan* to the extent specified by the City, and support City and County efforts to secure necessary funding for implementation actions.

Adopted this 13 day of NOV., 2007

John L. Gyle - Mayor  
Chairman

Attest: Barbara Dunsen



**RESOLUTION 15-2007**  
**RESOLUTION FOR APPROVAL OF THE HAZARD MITIGATION**

**WHEREAS**, the County of Cass (the County) is participating in a hazard mitigation planning process as established under the Federal Disaster Mitigation Act of 2000; and

**WHEREAS**, the City of Cass Lake has had the opportunity to participate in the planning process; and

**WHEREAS**, the City of Cass Lake by resolution supported the Cass County planning efforts; and

**WHEREAS**, the City of Cass Lake by resolution on May 23, 2005 approved the 2005 version of the Cass County Hazard Mitigation Plan; and

**WHEREAS**, the Region Five Development Commission, under the guidelines established by the Act, has provided a framework for the development of the Cass County Hazard Mitigation Plan; and

**WHEREAS**, the Federal Disaster Mitigation Act of 2000 and FEMA require communities to adopt a hazard mitigation action plan to be eligible for pre-disaster and post-disaster federal funding for mitigation purposes; and

**WHEREAS**, the plan is a record of the County's potential risks and hazards and commitment to reducing the long-term consequences of natural, human caused and technological hazards; and

**WHEREAS**, the plan outlines mitigation goals, identifies risk reduction strategies for hazards that threaten the area, and discusses the ongoing risk reduction strategies to be undertaken with the jurisdiction; and

**WHEREAS**, the plan has been reviewed by members of this Board, staff, and the public; and

**WHEREAS**, the plan has been approved by FEMA pending final adoption by each participating jurisdiction, and

**WHEREAS**, County Board adoption and adoption by local units of government is required for final approval by FEMA Region V; and

**WHEREAS**, this resolution does not preclude the City of Cass Lake from preparing a separate plan sometime in the future should it desire to do so.

**NOW THEREFORE BE IT RESOLVED**, that the Cass County's Hazard Mitigation Plan is approved in its entirety, and that the City of Cass Lake will support the County's effort to implement the *Action Plan* of the *Cass County Hazard Mitigation Plan* to the extent specified by the City and support City and County efforts to secure necessary funding for implementation actions.

Adopted this 12<sup>th</sup> day of July, 2007

Wayne LaDuke  
Wayne LaDuke, Mayor

Attest: Ashley Rosch  
Ashley Rosch, Deputy Clerk

## City of Chickamaw Beach

### RESOLUTION FOR APPROVAL OF THE HAZARD MITIGATION

**WHEREAS**, the County of Cass [the County] is participating in a hazard mitigation planning process as established under the Federal Disaster Mitigation Act of 2000; and

**WHEREAS**, the City of Chickamaw Beach has had the opportunity to participate in the planning process; and

**WHEREAS**, the City of Chickamaw Beach by resolution supported the Cass County planning efforts; and

**WHEREAS**, the City of Chickamaw Beach by resolution on June 21, 2005 approved the 2005 version of the Cass County Hazard Mitigation Plan; and

**WHEREAS**, the Region Five Development Commission, under the guidelines established by the Act, has provided a framework for the development of the Cass County Hazard Mitigation Plan; and

**WHEREAS**, the Federal Disaster Mitigation Act of 2000 and FEMA require communities to adopt a hazard mitigation action plan to be eligible for pre-disaster and post-disaster federal funding for mitigation purposes; and

**WHEREAS**, the plan is a record of the County's potential risks and hazards and commitment to reducing the long-term consequences of natural, human caused and technological hazards; and

**WHEREAS**, the plan outlines mitigation goals, identifies risk reduction strategies for hazards that threaten the area, and discusses the ongoing risk reduction strategies to be undertaken with the jurisdiction; and

**WHEREAS**, the plan has been reviewed by members of this Board, staff, and the public; and


**WHEREAS**, the plan has been approved by FEMA pending final adoption by each participating jurisdiction, and

**WHEREAS**, County Board adoption and adoption by local units of government is required for final approval by FEMA Region V; and

**WHEREAS**, this resolution does not preclude the City of Chickamaw Beach from preparing a separate plan sometime in the future should it desire to do so.

**NOW THEREFORE BE IT RESOLVED**, that the Cass County's Hazard Mitigation Plan is approved in its entirety, and that the City of Chickamaw Beach will support the County's effort to implement the *Action Plan* of the *Cass County Hazard Mitigation Plan* to the extent specified by the City, and support City and County efforts to secure necessary funding for implementation actions.

Adopted this 19th day of June, 2007

  
\_\_\_\_\_  
Chairman  
MAYOR

Attest:   
\_\_\_\_\_  
CLERK

**City of East Gull Lake**

RESOLUTION FOR APPROVAL OF THE HAZARD MITIGATION

**WHEREAS**, the County of Cass [the County] is participating in a hazard mitigation planning process as established under the Federal Disaster Mitigation Act of 2000; and

**WHEREAS**, the City of East Gull Lake has had the opportunity to participate in the planning process; and

**WHEREAS**, the City of East Gull Lake by resolution supported the Cass County planning efforts; and

**WHEREAS**, the City of East Gull Lake by resolution on June 7, 2005 approved the 2005 version of the Cass County Hazard Mitigation Plan; and

**WHEREAS**, the Region Five Development Commission, under the guidelines established by the Act, has provided a framework for the development of the Cass County Hazard Mitigation Plan; and

**WHEREAS**, the Federal Disaster Mitigation Act of 2000 and FEMA require communities to adopt a hazard mitigation action plan to be eligible for pre-disaster and post-disaster federal funding for mitigation purposes; and

**WHEREAS**, the plan is a record of the County's potential risks and hazards and commitment to reducing the long-term consequences of natural, human caused and technological hazards; and

**WHEREAS**, the plan outlines mitigation goals, identifies risk reduction strategies for hazards that threaten the area, and discusses the ongoing risk reduction strategies to be undertaken with the jurisdiction; and

**WHEREAS**, the plan has been reviewed by members of this Board, staff, and the public; and

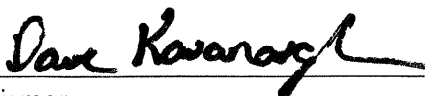
**WHEREAS**, the plan has been approved by FEMA pending final adoption by each participating jurisdiction, and

**WHEREAS**, County Board adoption and adoption by local units of government is required for final approval by FEMA Region V; and


**WHEREAS**, this resolution does not preclude the City of East Gull Lake from preparing a separate plan sometime in the future should it desire to do so.

**NOW THEREFORE BE IT RESOLVED**, that the Cass County's Hazard Mitigation Plan is approved in its entirety, and that the City of East Gull Lake will support the County's effort to implement the *Action Plan* of the *Cass County Hazard Mitigation Plan* to the extent specified by the City, and support City and County efforts to secure necessary funding for implementation actions.

Adopted this third day of July, 2007



Chairman

Attest: 

## City of Federal Dam

### RESOLUTION FOR APPROVAL OF THE HAZARD MITIGATION

**WHEREAS**, the County of Cass [the County] is participating in a hazard mitigation planning process as established under the Federal Disaster Mitigation Act of 2000; and

**WHEREAS**, the City of Federal Dam has had the opportunity to participate in the planning process; and

**WHEREAS**, the City of Federal Dam by resolution supported the Cass County planning efforts; and

**WHEREAS**, the City of Federal Dam by resolution on June 13, 2005 approved the 2005 version of the Cass County Hazard Mitigation Plan; and

**WHEREAS**, the Region Five Development Commission, under the guidelines established by the Act, has provided a framework for the development of the Cass County Hazard Mitigation Plan; and

**WHEREAS**, the Federal Disaster Mitigation Act of 2000 and FEMA require communities to adopt a hazard mitigation action plan to be eligible for pre-disaster and post-disaster federal funding for mitigation purposes; and

**WHEREAS**, the plan is a record of the County's potential risks and hazards and commitment to reducing the long-term consequences of natural, human caused and technological hazards; and

**WHEREAS**, the plan outlines mitigation goals, identifies risk reduction strategies for hazards that threaten the area, and discusses the ongoing risk reduction strategies to be undertaken with the jurisdiction; and

**WHEREAS**, the plan has been reviewed by members of this Board, staff, and the public; and

**WHEREAS**, the plan has been approved by FEMA pending final adoption by each participating jurisdiction, and


**WHEREAS**, County Board adoption and adoption by local units of government is required for final approval by FEMA Region V; and

**WHEREAS**, this resolution does not preclude the City of Federal Dam from preparing a separate plan sometime in the future should it desire to do so.

**NOW THEREFORE BE IT RESOLVED**, that the Cass County's Hazard Mitigation Plan is approved in its entirety, and that the City of Federal Dam will support the County's effort to implement the *Action Plan* of the *Cass County Hazard Mitigation Plan* to the extent specified by the City, and support City and County efforts to secure necessary funding for implementation actions.

Adopted this 13 day of August, 2007

  
Chairman

Attest:   
Clerk-Treasurer

**City of Lake Shore**

RESOLUTION FOR APPROVAL OF THE HAZARD MITIGATION

**WHEREAS**, the County of Cass [the County] is participating in a hazard mitigation planning process as established under the Federal Disaster Mitigation Act of 2000; and

**WHEREAS**, the City of Lake Shore has had the opportunity to participate in the planning process; and

**WHEREAS**, the City of Lake Shore by resolution supported the Cass County planning efforts; and

**WHEREAS**, the City of Lake Shore by resolution on June 27, 2005 approved the 2005 version of the Cass County Hazard Mitigation Plan; and

**WHEREAS**, the Region Five Development Commission, under the guidelines established by the Act, has provided a framework for the development of the Cass County Hazard Mitigation Plan; and

**WHEREAS**, the Federal Disaster Mitigation Act of 2000 and FEMA require communities to adopt a hazard mitigation action plan to be eligible for pre-disaster and post-disaster federal funding for mitigation purposes; and

**WHEREAS**, the plan is a record of the County's potential risks and hazards and commitment to reducing the long-term consequences of natural, human caused and technological hazards; and

**WHEREAS**, the plan outlines mitigation goals, identifies risk reduction strategies for hazards that threaten the area, and discusses the ongoing risk reduction strategies to be undertaken with the jurisdiction; and

**WHEREAS**, the plan has been reviewed by members of this Board, staff, and the public; and

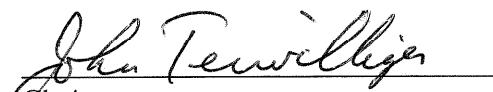
**WHEREAS**, the plan has been approved by FEMA pending final adoption by each participating jurisdiction, and

**WHEREAS**, County Board adoption and adoption by local units of government is required for final approval by FEMA Region V; and

**WHEREAS**, this resolution does not preclude the City of Lake Shore from preparing a separate plan sometime in the future should it desire to do so.

**NOW THEREFORE BE IT RESOLVED**, that the Cass County's Hazard Mitigation Plan is approved in its entirety, and that the City of Lake Shore will support the County's effort to implement the *Action Plan* of the *Cass County Hazard Mitigation Plan* to the extent specified by the City, and support City and County efforts to secure necessary funding for implementation actions.

Adopted this 25<sup>th</sup> day of June, 2007

  
Chairman

Attest: 

**CITY OF HACKENSACK  
RESOLUTION #2007-04**

**RESOLUTION FOR APPROVAL OF THE HAZARD MITIGATION**

**WHEREAS**, the County of Cass (the County) is participating in a hazard mitigation planning process as established under the Federal disaster Mitigation Act of 2000; and

**WHEREAS**, the City of Hackensack by resolution supported the Cass County planning efforts; and

**WHEREAS**, the City of Hackensack by resolution on June 6, 2005 approved the 2005 version of the Cass County Hazard Mitigation Plan; and

**WHEREAS**, the Region Five Development Commission, under the guidelines established by the Act, has provided a framework for the development of the Cass County Hazard Mitigation Plan; and

**WHEREAS**, the Federal Disaster Mitigation Act of 2000 and FEMA require communities to adopt a hazard mitigation action plan to be eligible for pre-disaster and post-disaster federal funding for mitigation purposes; and

**WHEREAS**, the plan is a record of the County's potential risks and hazards and commitment to reducing the long-term consequences of natural, human caused and technological hazards; and

**WHEREAS**, the plan outlines mitigation goals, identifies risk reduction strategies for hazards that threaten the area, and discusses the ongoing risk reduction strategies to be undertaken with the jurisdiction; and

**WHEREAS**, the plan has been reviewed by members of this Board, staff, and the public; and

**WHEREAS**, the plan has been approved by FEMA pending final adoption by each participating jurisdiction, and

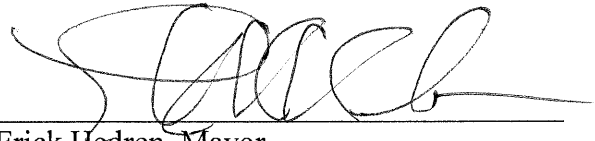
**WHEREAS**, County Board adoption and adoption by local units of government is required for final approval by FEMA, Region V; and

**WHEREAS**, this resolution does not preclude the City of Hackensack from preparing a separate plan sometime in the future should it desire to do so.

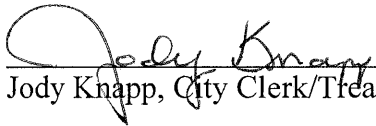
**NOW THEREFORE BE IT RESOLVED**, that the Cass County's Hazard Mitigation Plan is approved in its entirety, and that the City of Hackensack will support the County's effort to implement the *Action Plan* of the *Cass County Hazard Mitigation Plan* to the extent specified by the City, and support City and County efforts to secure necessary funding for implementation actions.



Adopted this 2<sup>nd</sup> day of July, 2007

A handwritten signature in black ink, appearing to read "ERICK HEDREN", written over a horizontal line.

Erick Hedren, Mayor

ATTEST: A handwritten signature in black ink, appearing to read "Jody Khapp", written over a horizontal line.  
Jody Khapp, City Clerk/Treasurer

**City of Longville**

RESOLUTION FOR APPROVAL OF THE HAZARD MITIGATION

**WHEREAS**, the County of Cass [the County] is participating in a hazard mitigation planning process as established under the Federal Disaster Mitigation Act of 2000; and

**WHEREAS**, the City of Longville has had the opportunity to participate in the planning process; and

**WHEREAS**, the City of Longville by resolution supported the Cass County planning efforts; and

**WHEREAS**, the City of Longville by resolution on June 22, 2005 approved the 2005 version of the Cass County Hazard Mitigation Plan; and

**WHEREAS**, the Region Five Development Commission, under the guidelines established by the Act, has provided a framework for the development of the Cass County Hazard Mitigation Plan; and

**WHEREAS**, the Federal Disaster Mitigation Act of 2000 and FEMA require communities to adopt a hazard mitigation action plan to be eligible for pre-disaster and post-disaster federal funding for mitigation purposes; and

**WHEREAS**, the plan is a record of the County's potential risks and hazards and commitment to reducing the long-term consequences of natural, human caused and technological hazards; and

**WHEREAS**, the plan outlines mitigation goals, identifies risk reduction strategies for hazards that threaten the area, and discusses the ongoing risk reduction strategies to be undertaken with the jurisdiction; and

**WHEREAS**, the plan has been reviewed by members of this Board, staff, and the public; and

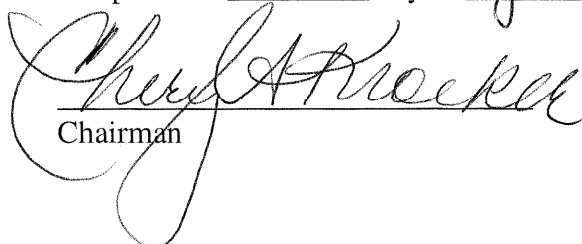
**WHEREAS**, the plan has been approved by FEMA pending final adoption by each participating jurisdiction, and

**WHEREAS**, County Board adoption and adoption by local units of government is required for final approval by FEMA Region V; and

**WHEREAS**, this resolution does not preclude the City of Longville from preparing a separate plan sometime in the future should it desire to do so.

**NOW THEREFORE BE IT RESOLVED**, that the Cass County's Hazard Mitigation Plan is approved in its entirety, and that the City of Longville will support the County's effort to implement the *Action Plan* of the *Cass County Hazard Mitigation Plan* to the extent specified by the City, and support City and County efforts to secure necessary funding for implementation actions.

Adopted this 7-11-07 day of July, 2007

  
Chairman

Attest: 

**City of Pillager**

RESOLUTION FOR APPROVAL OF THE HAZARD MITIGATION

**WHEREAS**, the County of Cass [the County] is participating in a hazard mitigation planning process as established under the Federal Disaster Mitigation Act of 2000; and

**WHEREAS**, the City of Pillager has had the opportunity to participate in the planning process; and

**WHEREAS**, the City of Pillager by resolution supported the Cass County planning efforts; and

**WHEREAS**, the City of Pillager by resolution on June 14, 2005 approved the 2005 version of the Cass County Hazard Mitigation Plan; and

**WHEREAS**, the Region Five Development Commission, under the guidelines established by the Act, has provided a framework for the development of the Cass County Hazard Mitigation Plan; and

**WHEREAS**, the Federal Disaster Mitigation Act of 2000 and FEMA require communities to adopt a hazard mitigation action plan to be eligible for pre-disaster and post-disaster federal funding for mitigation purposes; and

**WHEREAS**, the plan is a record of the County's potential risks and hazards and commitment to reducing the long-term consequences of natural, human caused and technological hazards; and

**WHEREAS**, the plan outlines mitigation goals, identifies risk reduction strategies for hazards that threaten the area, and discusses the ongoing risk reduction strategies to be undertaken with the jurisdiction; and

**WHEREAS**, the plan has been reviewed by members of this Board, staff, and the public; and

**WHEREAS**, the plan has been approved by FEMA pending final adoption by each participating jurisdiction, and

**WHEREAS**, County Board adoption and adoption by local units of government is required for final approval by FEMA Region V; and

**WHEREAS**, this resolution does not preclude the City of Pillager from preparing a separate plan sometime in the future should it desire to do so.

**NOW THEREFORE BE IT RESOLVED**, that the Cass County's Hazard Mitigation Plan is approved in its entirety, and that the City of Pillager will support the County's effort to implement the *Action Plan* of the *Cass County Hazard Mitigation Plan* to the extent specified by the City, and support City and County efforts to secure necessary funding for implementation actions.

Adopted this 19<sup>th</sup> day of June, 2007

  
\_\_\_\_\_  
Chairman

Attest:   
\_\_\_\_\_

**City of Pine River**

RESOLUTION FOR APPROVAL OF THE HAZARD MITIGATION

**WHEREAS**, the County of Cass [the County] is participating in a hazard mitigation planning process as established under the Federal Disaster Mitigation Act of 2000; and

**WHEREAS**, the City of Pine River has had the opportunity to participate in the planning process; and

**WHEREAS**, the City of Pine River by resolution supported the Cass County planning efforts; and

**WHEREAS**, the City of Pine River by resolution on June 14, 2005 approved the 2005 version of the Cass County Hazard Mitigation Plan; and

**WHEREAS**, the Region Five Development Commission, under the guidelines established by the Act, has provided a framework for the development of the Cass County Hazard Mitigation Plan; and

**WHEREAS**, the Federal Disaster Mitigation Act of 2000 and FEMA require communities to adopt a hazard mitigation action plan to be eligible for pre-disaster and post-disaster federal funding for mitigation purposes; and

**WHEREAS**, the plan is a record of the County's potential risks and hazards and commitment to reducing the long-term consequences of natural, human caused and technological hazards; and

**WHEREAS**, the plan outlines mitigation goals, identifies risk reduction strategies for hazards that threaten the area, and discusses the ongoing risk reduction strategies to be undertaken with the jurisdiction; and

**WHEREAS**, the plan has been reviewed by members of this Board, staff, and the public; and

**WHEREAS**, the plan has been approved by FEMA pending final adoption by each participating jurisdiction, and

**WHEREAS**, County Board adoption and adoption by local units of government is required for final approval by FEMA Region V; and

**WHEREAS**, this resolution does not preclude the City of Pine River from preparing a separate plan sometime in the future should it desire to do so.

**NOW THEREFORE BE IT RESOLVED**, that the Cass County's Hazard Mitigation Plan is approved in its entirety, and that the City of Pine River will support the County's effort to implement the *Action Plan* of the *Cass County Hazard Mitigation Plan* to the extent specified by the City, and support City and County efforts to secure necessary funding for implementation actions.

Adopted this 11 day of July, 2007

Jim Selman  
Chairman Mayor

Attest: Wanda Monga

Resolution Number 11-01-07**City of Remer****RESOLUTION FOR APPROVAL OF THE HAZARD MITIGATION**

**WHEREAS**, the County of Cass [the County] is participating in a hazard mitigation planning process as established under the Federal Disaster Mitigation Act of 2000; and

**WHEREAS**, the City of Remer has had the opportunity to participate in the planning process; and

**WHEREAS**, the City of Remer by resolution supported the Cass County planning efforts; and

**WHEREAS**, the Region Five Development Commission, under the guidelines established by the Act, has provided a framework for the development of the Cass County Hazard Mitigation Plan; and

**WHEREAS**, the Federal Disaster Mitigation Act of 2000 and FEMA require communities to adopt a hazard mitigation action plan to be eligible for pre-disaster and post-disaster federal funding for mitigation purposes; and

**WHEREAS**, the plan is a record of the County's potential risks and hazards and commitment to reducing the long-term consequences of natural, human caused and technological hazards; and

**WHEREAS**, the plan outlines mitigation goals, identifies risk reduction strategies for hazards that threaten the area, and discusses the ongoing risk reduction strategies to be undertaken with the jurisdiction; and

**WHEREAS**, the plan has been reviewed by members of this Board, staff, and the public; and

**WHEREAS**, the plan has been approved by FEMA pending final adoption by each participating jurisdiction, and

**WHEREAS**, County Board adoption and adoption by local units of government is required for final approval by FEMA Region V; and

**WHEREAS**, this resolution does not preclude the City of Remer from preparing a separate plan sometime in the future should it desire to do so.

**NOW THEREFORE BE IT RESOLVED**, that the Cass County's Hazard Mitigation Plan is approved in its entirety, and that the City of Remer will support the County's effort to implement the *Action Plan of the Cass County Hazard Mitigation Plan* to the extent specified by the City, and support City and County efforts to secure necessary funding for implementation actions.

Adopted this 13 day of November, 2007

Donald Welch  
Chairman

Attest: Elizabeth Blundell

**CITY OF WALKER**  
**RESOLUTION 20-2007**  
**A Resolution for approval of the Hazard Mitigation**

**WHEREAS**, the County of Cass (the County) is participating in a hazard mitigation planning process as established under the Federal Disaster Mitigation Act of 2000; and

**WHEREAS**, the City of Walker has had the opportunity to participate in the planning process; and

**WHEREAS**, THE region five Development Commission, under the guidelines established by the Act, has provided a framework for the development of the Cass County Hazard Mitigation Plan; and

**WHEREAS**, the Federal Disaster Mitigation Act of 2000 and FEMA require communities to adopt a hazard mitigation action plan to be eligible for pre-disaster and post-disaster federal funding for mitigation purposes; and

**WHEREAS**, the plan is a record of the County's potential risks and hazards and commitment to reducing the long-term consequences of natural, human caused and technological hazards; and

**WHEREAS**, the plan outlines mitigation goals, identifies risk reduction strategies for hazards that threaten the area, and discusses the ongoing risk reduction strategies to be undertaken with the jurisdiction; and

**WHEREAS**, the plan has been reviewed by members of this Board, staff, and the public; and

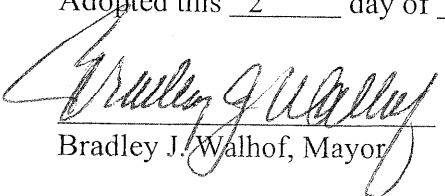
**WHEREAS**, the plan has been approved by FEMA pending final adoption by each participating jurisdiction; and

**WHEREAS**, County Board adoption and adoption by local units of government is required for final approval by FEMA Region V; and

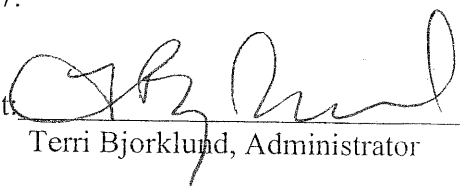
**WHEREAS**, this resolution does not preclude the City of Walker from preparing a separate plan sometime in the future should it desire to do so.

**NOW THEREFORE BE IT RESOLVED**, that the Cass County's Hazard Mitigation Plan is approved in its entirety, and that the City of Walker will support the County's effort to implement the *Action Plan* of the *Cass County Hazard Mitigation Plan* to the extent specified by the City, and support City and County efforts to secure necessary funding for implementation actions.

Adopted this 2<sup>nd</sup> day of July, 2007.

  
Bradley J. Walhof, Mayor

Attest

  
Terri Bjorklund, Administrator

**Process Participants  
First Invitation to Participate - Mailing List**

First Name	Last Name	Title	Agency	Address	City	St	Zip	Phone
Dennis	Landborg		Aitkin County Sheriffs Department	217 2nd St. NW	Aitkin	MN	56431	(218) 927-2138
Christopher	Manydeed		Anishinabe Legal Services	PO Box 157	Cass Lake	MN	56633	(218) 335-2223
			Arvig Communications	160 2nd Ave SW	Perham	MN	56573	(218) 346-5500
			Bi County CommunityAction Programs Inc	PO Box 99	Ah Gwah Ching	MN	56430	(218) 547-3438
Michael	Carey	Emergency Management Director	Cass County	PO Box 1119	Walker	MN	56484	(218) 547-1424
Ane	Rogers	Public Health Nurse	Cass County Health, Human & Veterans Services	PO Box 519	Walker	MN	56484	(218) 547-1340
			Cass County HRA	PO Box 33	Backus	MN	56435	(218) 947-3993
			Cass County NRCS	300 Minnesota Ave	Walker	MN	56484	
			Cass County SWCD	PO Box 3000	Walker	MN	56484	
Shannon	Pfeiffer		Cass County Victims Services	PO Box 3000	Walker	MN	56484	(218) 547-7422
			Cass Lake Food Shelf	PO Box 785	Cass Lake	MN	56633	(218) 692-3265
			Charter Communication	PO Box 766	Brainerd	MN	56401	
Dale	Vrendenburg	Police	City of Backus	PO Box 44	Backus	MN	56435	(218) 947-3221
Ronald	Barchus	Fire Chief	City of Backus	PO Box 44	Backus	MN	56435	(218) 947-3221
Terry	Conner	Fire Chief	City of Cass Lake	PO Box 877	Cass Lake	MN	56633	(218) 335-2238
Larry	Johnosn	Police Chief	City of Cass Lake	PO Box 877	Cass Lake	MN	56633	(218) 335-2238
Mel	Rateike	Police	City of Hackensack	PO Box 490	Hackensack	MN	56452	(218) 675-6400
Clarence	Moore	Fire Chief	City of Hackensack	PO Box 490	Hackensack	MN	56452	(218) 675-6400
John	Bukovich	Police Chief	City of Lake Shore	8583 Interlachen Rd	Lake Shore	MN	56468	(218) 963-2148
Allan	Weaver	Fire Chief	City of Longville	PO Box 217	Longville	MN	56655	(218) 363-2022
Charles	Ratz	Police Chief	City of Longville	PO Box 217	Longville	MN	56655	(218) 363-2022
Sherri	Richardson	Ambulance Supervisor	City of Longville	PO Box 217	Longville	MN	56655	(218) 363-2022
Craig	Boyer	Utilities Supervisor	City of Pillager	306 W elm Ave	Pillager	MN	56473	(218) 746-3322
Randy	Lee	Fire Chief	City of Pillager	306 W elm Ave	Pillager	MN	56473	(218) 746-3322
Tom	Youngblom	Police Chief	City of Pillager	306 W elm Ave	Pillager	MN	56473	(218) 746-3322
Keith	Farnam	Fire Chief	City of Pine River	PO Box 87	Pine River	MN	56474	(218) 587-2440
Steve	Abraham	Police Chief	City of Pine River	PO Box 87	Pine River	MN	56474	(218) 587-2440
Paul	Swentkofske	Fire Chief	City of Remer	PO Box 54	Remer	MN	56672	(218) 566-4156
Mona	Glassmann	Ambulance Director	City of Walker	PO Box 207	Walker	MN	56484	(218) 547-1619
Scott	Bruns	Fire Chief	City of Walker	PO Box 207	Walker	MN	56484	(218) 547-1619
Mark	Kimmerle	Police Chief	City of Walker	PO Box 207	Walker	MN	56484	(218) 547-1619
			Consolidated Telephone Co	PO Box 972	Brainerd	MN	56401	(218) 829-3531
David	Schuldheisz		Crow Wing Emergency Management	326 Laurel St	Brainerd	MN	56401	(218) 829-1711
			Crow Wing Power	PO Box 507	Brainerd	MN	56401	
			Department of Economic Security	1919 6th St. S	Brainerd	MN	56401	
			Emily Telephone	PO Box 100	Emily	MN	56447	
Paul	Fairbanks	Cass County Enviornmental Services Officer	Enviornmental Services	PO Box 1119	Walker	MN	56484	
Chris	Swenson		Family Safety Nework of Cass County	PO Box 1162	Walker	MN	56484	(218) 547-1636

Process Participants  
First Invitation to Participate - Mailing List

Donna	Day		Family Violence Prevention/ Intervention	6530 Highway 2 NW	Cass Lake	MN	56633	(218) 335-8270
			Fraser Nelson Post #613	PO Box 264	Pine River	MN	56474	
John	Lombard		Hubbard County Emergency Management	301 Court Ave	Park Rapids	MN	56470	(218) 732-3135
Pat	Medure		Itasca County Sheriffs Department	555 18th Ave SW	Cambridge	MN	55008	(763) 689-3591
			Itasca/ Mantrap	PO Box 192	Park Rapids	MN	56470	
			Johnson Telephone Co	PO Box 39	Remer	MN	56672	(218) 566-2302
			Johnson Telephone Compnay	PO Box 39	Remer	MN	56672	
Harry	Entwistle		Leech Lake Band of Ojibwe	6530 Highway 2 NW	Cass Lake	MN	56633	(218) 335-8280
			Legion Post #202	PO Box 325	Hackensack	MN	56452	(218) 675-9191
			Longville Food Shelf	PO Box 308	Longville	MN	56655	(218) 363-3348
Mark	Breneman	Chair	May Township	6610 124th St SW	Motley	MN	56466	(218) 352-6419
Gary	Frazer		Minnesota Chippewa Tribe	PO Box 217	Cass Lake	MN	56633	(218) 335-8581
Roy	Holmes	Regional Program Director	Minnesota Department of Public Safety	444 Cedar St. Suite 223	St. Paul	MN	55101	
			Minnesota DNR	1601 Minnesota Dr	Brainerd	MN	56401	
			Minnesota Power	PO Box 368	Pine River	MN	56474	
Dan	Steward		MN BWSR	217 S 7th St. Suite 202	Brainerd	MN	56401	
Mary	Safgren		MN DOT	1991 Industrial Park Rd	Baxter	MN	56425	
Walt	Haas		MN PCA Brainerd	1800 College Rd S	Baxter	MN	56425	
Dianne	Werkman		Morrison County Emergency Management	213 SE First Ave	Little Falls	MN	56347	(320) 632-2673
Patricia	Charlson	Executive Director	Northern Lakes Chapter of the American Red Cross	2029 South 6th St. Suite 109	Brainerd	MN	56401	(218) 829-4004
			Outing Food Shelf	1534 Plummer Pt Rd NE	Outing	MN	56662	(218) 792-5256
Brain	Bissonette		Paul Bunyan Telephone	1616 Calihan Ave	Bemidji	MN	56601	(218) 444-1234
			Pillager Food Shelf	305 W Fir St	Pillager	MN	56473	(218) 746-4009
			Pine River Food Shelf	PO Box 282	Pine River	MN	56474	(218) 587-4500
Carol	Christenson		Pine River HRA	312 1st St. S	Pine River	MN	56474	(218) 587-4929
			Remer Food Shelf	PO Box 67	Remer	MN	56672	
Elaine	Gamache		Sexual Assault Program	PO Box 1472	Bemidji	MN	56619	(218) 444-9524
			TDS Telecom	PO Box 395	Pequot	MN	56472	
Wayne	Terry	Emergency Management Director	Wadena County	415 Jefferson St. S	Wadena	MN	56482	(218) 631-7617
Kari	Tomperi		Wadena County SWCD	4 Alfred St NE	Wadena	MN	56482	
			Walker American Legion Spence Ross Post #134	PO Box 186	Walker	MN	56484	(218) 547-1011
			Walker Food Shelf	PO Box 1101	Walker	MN	56484	(218) 547-1713
			Walker HRA	PO Box 217	Walker	MN	56484	(218) 547-1822
			Walker Rotary Club	PO Box 1023	Walker	MN	56484	(218) 547-1000
		Emergency Management Director	Beltrami County	613 Minnesota Ave NW	Bemidji	MN	56601	



## Process Participants

### Mailing List

The following list is a list of people who were interested in the process. Some were regular attendees, other only wanted to be kept abreast of the progress of the plan. Region Five included these people in nearly all mailings.

\*\*\*\*NOTE: These are all the people this mailing went to.\*\*\*\*

Ann Swanson  
Shingobee Township Clerk  
P.O. Box 34  
Walker, MN 56484-

Dawn Berg  
Leech Lake Township  
PO Box 1055  
Walker, MN 56484-

Patricia Gramke  
Otter Tail Peninsula Clerk  
12962 Sunset Beach Rd. N  
Bena, MN 56626-

Arliss Baird  
Pike Bay Clerk  
P.O. Box 1355  
Cass Lake, MN 56633-

Marla Harper  
Wilkinson Township Clerk  
P.O. Box 337  
Cass Lake, MN 56633-

Mandy Giffen  
Torrey Township Clerk  
8328 Co. Road 65 NE  
Deer River, MN 56636-

Carol M. Ross  
Gould Township Clerk  
10592 Sugar Pt. Dr. NW  
Federal Dam, MN 56641-

Dorothea L. Felton  
Kego Township Clerk  
238 Forbes Lane  
Longville, MN 56655-

Mary Jane Lewis  
Inguadona Township  
4874 Mix Lane NE  
Longville, MN 56655-

Barbara Anderson  
Wabedo Township Clerk  
1535 Bergen Ln. NE  
Longville, MN 56655-

Diane Olds  
Beulah Township Clerk  
7724 Co. Rd. 58 NE  
Outing, MN 56662-

Glen Mechelke  
Crooked Lake Township Clerk  
5292 Lake Washburn Rd. NE  
Outing, MN 56662-

Kenneth Krussow  
Thunder Lake Township Clerk  
6507 Krussow Dr. NE  
Remer, MN 56672-

Nancy Green  
Slater Township Clerk  
7227 Lakeside Park Dr. NE  
Remer, MN 56672-

Jacqueline Landrith  
Trelipe Township Clerk  
3978 Co. 55 NE  
Remer, MN 56672-

Patricia Ritter  
Salem Township Clerk  
9671 Co. 52 NE  
Remer, MN 56672-

Francine Hogate  
Lima Township Clerk  
7933 - 64th St. NE  
Remer, MN 56672-

Marya VanDover  
Boy Lake Township Clerk  
2154 - 82nd St. NE  
Boy River, MN 56672-

Kim Bader  
Boy River Clerk  
2611 NE 112th St.  
Boy River, MN 56672-

Muriel Reid  
Rogers Township Clerk  
3996 E. Swift Lake Dr. NE  
Remer, MN 56672-

Tina Carlson  
Remer Township Clerk  
6770 Atlas Trail NE  
Remer, MN 56672-4479

Wendi Brusseau  
City of East Gull Lake Clerk  
10790 Squaw Pt. Rd.  
East Gull Lake, MN 56401-3088

Carol Vredenburg  
City of Backus Clerk  
PO Box 44  
Backus, MN 56435-0044

Jody Knapp  
City of Hackensack Clerk  
PO Box 490  
Hackensack, MN 56452-0490

Angie Feierabend  
City of Lake Shore Clerk  
8583 Interlachen Rd.  
Lake Shore, MN 56468-8700

Terri Wickham  
City of Pillager Clerk  
306 Elm Ave. W.  
Pillager, MN 56473-8037

Wanda Mongan  
City of Pine River Clerk  
PO Box 87  
Pine River, MN 56474-0087

Dalene Seaton  
City of Chickamaw Beach  
6659 Indian Trail Lane  
Pine River, MN 56474-6071

Stephen Michael  
City of Walker Clerk  
PO Box 207  
Walker, MN 56484-0207

Nadeen Chase  
City of Bena Clerk  
PO Box 67  
Bena, MN 56626-

Renee Eckerly  
City of Cass Lake Clerk  
PO Box 877  
Cass Lake, MN 56633-0877

Darcy Tonga  
City of Federal Dam  
PO Box 162  
Federal Dam, MN 56641-0162

Marjorie Brennan  
City of Longville Clerk  
PO Box 217  
Longville, MN 56655-0217

Elizabeth Blundell  
City of Remer Clerk  
PO Box 54  
Remer, MN 56672-0054

Kelly Fogle  
City of Boy River Clerk  
112 Main St. S.  
Boy River, MN 56672-1088



Steve Kuha  
Cass County Assessor  
PO Box 3000  
Walker MN 56484

Dorothy Opheim  
Cass County Public Health  
PO Box 519  
Walker MN 56484

John Sumption  
PO Box 3000  
Walker MN 56484

Tim Richardson  
PO Box 3000  
Walker MN 56484

Randy Fisher  
Cass County Sheriff  
PO Box 1119  
Walker MN 56484

Ann Rogers  
Cass County Public Health  
PO Box 519  
Walker MN 56484

Marlee Morrison  
Cass County Public Health  
PO Box 519  
Walker MN 56484

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Paul Fairbanks  
Cass County  
PO Box 3000  
Walker MN 56484-3000

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Susan Sundberg  
Smokey Hollow Township Clerk  
4065 Mejdrich Dr. NE  
Swatara, MN 55785-

Marla Yoho  
Fairview Township Clerk  
11491 Gull Lake Road SW  
Brainerd, MN 56401-

Kathy M. Soukup  
Ponto Lake Township Clerk  
838 - 20th Ave. NW  
Backus, MN 56435-

Peggy Richards  
McKinley Township Clerk  
1262 State 64 SW  
Backus, MN 56435-

Sharon Nadeau  
Pine River Township Clerk  
3355 Eagle Lake Dr. SW  
Backus, MN 56435-

Janice Lamay  
Deerfield Township Clerk  
1795 Co. 41 NW  
Backus, MN 56435-

Grace Salie  
Bull Moose Township Clerk  
5509 State 87 SW  
Backus, MN 56435-

Powers Township Clerk  
1122 W. Big Portage Lake Br  
Backus, MN 56435-3038

Marita Peterson  
Woodrow Township Clerk  
3811 - 23rd Ave. NW  
Hackensack, MN 56452-

Mary Falk  
Birch Lake Township Clerk  
PO Box 37  
Hackensack, MN 56452-

Lorraine Stromquist  
Hiram Township Clerk  
4175 Co. 71 NW  
Hackensack, MN 56452-

Wanda Lutzke  
Byron Township Clerk  
7714 SW 96th St.  
Motley, MN 56466-

Darlene Holmberg  
May Township Clerk  
6375 - 112th St. SW  
Motley, MN 56466-

Enid C. Nelson  
Meadow Brook Township Clerk  
6536 - 92nd St. SW  
Motley, MN 56466-

Yvonne Sampson  
Becker Township Clerk  
11781 - 75th Ave. SW  
Motley, MN 56466-

Ardell Schultz  
Homebrook Township Clerk  
8765 County Rd 1 SW  
Pequot Lakes, MN 56472-

Marian Maine  
Maple Township Clerk  
7053 - 37th Ave. SW  
Pequot Lakes, MN 56472-

Robert Littman  
Loon Lake Township Clerk  
1554 SW 64th St.  
Pequot Lakes, MN 56472-

Sharon Smith  
Sylvan Township Clerk  
12956 - 24th Ave. SW  
Pillager, MN 56473-

Gloria Sawyer  
Blind Lake Township Clerk  
1651 - 8th St. NE  
Pine River, MN 56474-

Joni Tulenchik  
Walden Township Clerk  
4217 - 44th St. SW  
Pine River, MN 56474-

Rayetta Risland  
Wilson Township Clerk  
1621 SW 35th St.  
Pine River, MN 56474-

Le Sears  
Barclay Township Clerk  
1392 - 24th St. SW  
Pine River, MN 56474-

Linda Neumann  
Bungo Township Clerk  
4146 - 52nd Ave. SW  
Pine River, MN 56474-

Linda Kuschel  
Ansel Township Clerk  
3288 SW 84th Ave.  
Sebeka, MN 56477-

Hope Johnson  
Poplar Township Clerk  
7450 - 64th St. SW  
Staples, MN 56479-

Delaine Achermann  
Moose Lake Township Clerk  
6801 - 60th Street SW  
Staples, MN 56479-

Lynette L. Emery  
Turtle Lake Township Clerk  
3527 - 64th St. NW  
Walker, MN 56484-

Isobel Brown  
Pine Lake Township  
7044 Diamond Pt. Rd. NW  
Whipholt, MN 56484-

Dennis Lang  
1224 Green Gables Rd  
East Gull Lake MN 56401

Sandra Linn  
Natural Health Consultant  
1651 8th St NE  
Pine River MN 56474

Tannis Loverink  
4190 68th Ave NE  
Remer MN 56672

Katie Lowe  
Merit Care Clinic  
PO Box 1390  
Walker MN 56484

SheldonB. Matthees  
1 Minack Lane  
Bela Vista AR 72714

Thomas W. McKernon  
2095 Princeton Ave  
St. Paul MN 55105

Barbara L Morrill  
PO Box 685 7754 Hawthorn Trail  
NW  
Walker MN 56484

Roy Murphy  
Mitigation Planner  
444 Cedar Street Suite 223  
St. Paul MN 55101

Pat O'Regan  
Executive Director  
PO box 133  
Staples MN 56479

Jerry Peterson  
City of Pine River  
2054 25th St SW  
Pine River MN 56474

Bruce Premo  
222 Aspen Ave NW  
Cass Lake MN 56633

Muriel Reid  
3996 E Swift Lake Dr. NE  
Remer MN 56672

Orville Rosenberry  
Box 117  
Walker MN 56484

Ralph Schmidt  
1037 N Hunter Lake RD  
Longville MN 56655

Robert Schuld  
13866 Hardy Lake RD SW  
Pillager MN 56473

Le Sears  
Secretary Treasure District 2  
1392 24th St. SW  
Pine River MN 56474

Tom Sheridan  
1665 Whipholt Bch Rd  
Walker MN 56484

Pete Smallen  
16325 Fairgreen  
Rosemount MN 55068

David C. Smith  
14123 13th Ave SW  
Pillager MN 56425

Walt Sowers  
District 2  
8798 56th St. SW  
Verndale MN 56481

Bryon Stilley  
Crow Wing Power  
3155 40th St. SW  
Pine River MN 56474

Brenda Thorsen  
1268 Smith Dr NW  
Pine River MN 56474

Richard Tweet  
PO Box 103  
Backus MN 56435

Richard Weiss  
Supervisor  
3089 Bungo Cr. Lane S.W  
Pine River MN 56474

Reno C. Wells  
Turtle Lake Township  
4944 State 371 NW  
Hackensack MN 56452

Ruth A.M. Wittner,  
Etal  
7161 US 2 NW  
Cass Lake MN 56633

Bob Yochum  
Cass County  
303 MN Ave West  
Walker MN 56484

Mark Zaczkowski  
60 State 84 SW  
Pine River MN 56474

Deborah Pile  
Local Planning Assistance Center  
58 Cedar Street  
St Paul, MN 55155

Elizabeth Adkins  
2634 20th Ave SW  
Pine River MN 56474

Richard Baird  
District 5  
PO Box 56  
Cass Lake MN 56633

Bill Bielort  
PO Box 969  
Walker MN 56484

Larry Brusseau  
5546 7th St NE  
Fridley MN 55432

Rick A Croaker  
PO Box 412  
Cass Lake MN 56633

Jim Demgen  
Cass County Commissioner  
878 Birch Lane N  
East Gull Lake MN 56401

Carol Emery  
PO Box 65  
Walker MN 56484

Michael J Froehlig  
2483 Island Lake Dr NW  
Longville MN 56655

Don Hoppe  
Cass County  
4085 Forseman Point Dr. NW  
Hackensack MN 56452

Connie Kaylor  
Supervisor  
PO Box 895  
Walker MN 56484

Deanna Anderson  
8320 Gullwood Rd  
Lake Shore MN 56468

Rev. Brett Balfour  
1877 26th Ave SW  
Backus MN 56435

Bill Bliss  
Cass County Townboards  
648 Co Rd 47 NE  
Longville MN 56655

Mike Carey  
Emergency Management Director  
PO Box 1119  
Walker MN 56484

Wayne Crowley  
3108 40th ST Sw  
Pine River MN 56474

Joe M. DeRosier  
11244 birch Island Road  
East Gull Lake MN 56401-3077

K.O. Farrell  
PO Box 12  
Walker MN 56484

Max Gilbert  
Supervisor  
2638 Birch Park Drive NW  
Backus MN 56438

Roy Huddle  
1696 Whipholt Beach Road NW  
Walker MN 56484

Leonard C. Kieffer  
4888 Woodland Dr. NW  
Hackensack MN 56452

Phil Aulwes  
District 3  
1209 26th Ave NW  
Backus MN 56435

Larry Beaver  
District 5  
16348 60th Ave NW  
Cass Lake MN 56633

Mark Breneman  
District 1  
6610 124th St SW  
Motley MN 56466

Larry Chia  
PO Box 7  
Hackensack MN 56452

Sandy Dahmen  
Merit Care Clinic  
PO Box 1390  
Walker MN 56484

Robert Doty  
2499 Doty Ave SW  
Pine River MN 56474

LeRoy Flickinger  
District 1  
11746 65 th Ave SW  
Motley MN 56466

Roy Holmes  
Regional Program Coordinator  
402 Se 11th Street  
Grand Rapids MN 55744

Andy Johnson  
15802 W Oaks  
Minnetonka MN 55345

Sandra Kushman  
3732 16th St. SW  
Backus MN 56435

Process Participants  
Human Caused/Technical Team Members

Bill Bliss  
Cass County Townboards  
648 Co Rd 47 NE  
Longville MN 56655

Mike Carey  
Emergency Management Director  
PO Box 1119  
Walker MN 56484

Jim Demgen  
Cass County Commissioner  
878 Birch Lane N  
East Gull Lake MN 56401

Carol Emery  
PO Box 65  
Walker MN 56484

Don Hoppe  
Cass County  
4085 Forseman Point Dr. NW  
Hackensack MN 56452

Roy Huddle  
1696 Whipholt Beach Road NW  
Walker MN 56484

Connie Kaylor  
Supervisor  
PO Box 895  
Walker MN 56484

Leonard C. Kieffer  
4888 Woodland Dr. NW  
Hackensack MN 56452

Sandra Kushman  
3732 16th St. SW  
Backus MN 56435

Bruce Premo  
222 Aspen Ave NW  
Cass Lake MN 56633

Orville Rosenberry  
Box 117  
Walker MN 56484

Ralph Schmidt  
1037 N Hunter Lake RD  
Longville MN 56655

Tom Sheridan  
1665 Whipholt Bch Rd  
Walker MN 56484

Richard Weiss  
Supervisor  
3089 Bungo Cr. Lane S.W  
Pine River MN 56474

Mark Zaczkowski  
60 State 84 SW  
Pine River MN 56474



Process Participants  
Natural Hazards Team

Andy Johnson  
15802 W Oaks  
Minnetonka MN 55345

Bryon Stilley  
Crow Wing Power  
3155 40th St. SW  
Pine River MN 56474

Jerry Peterson  
City of Pine River  
2054 25th St SW  
Pine River MN 56474

Reno C. Wells  
Turtle Lake Township  
4944 State 371 NW  
Hackensack MN 56452

Richard Weiss  
Supervisor  
3089 Bungo Cr. Lane S.W  
Pine River MN 56474

Connie Kaylor  
Supervisor  
PO Box 895  
Walker MN 56484

# FUNDING SOURCES

Funding Source	Tornado	Flooding	Winter Storms	Drought	Severe Summer Storms	Wind Storm	Extreme Temp	Wildfire	Infectious Disease	Groundwater Depletion	Groundwater Contamination	Hazardous Material Accident (Transportation)	Hazardous Material Accident (Fixed Facilities)	Power Grid Failure	Dam Failure	Computer Viruses	Terrorism	Railroad Interference with Emergency Response	Financial Assistance	Technical Assistance
<b>FEDERAL SOURCES</b>																				
Business and Industry Loans	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	
CDC - Investigations and Technical Assistance									X										X	
CEPP Technical Assistance Grants Program									X			X	X						X	X
Community Assistance Program - State Support Services Element (NIL)		X													X					X
Community Development Block Grant/Economic Development Initiative		X				X								X		X				
Community Development Block Grant/ Entitlement Grants	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Community Development Block Grant/ Small Cities Program	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Community Disaster Loans	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Community Facilities Loans and grants	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Community Outreach Partnership Center Program	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Conservation Reserve Program	X	X				X													X	X
Cooperative Forestry Research								X											X	
Cora Brown Fund	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Direct Housing Natural Disaster (very low/low income loans)	X	X			X	X		X											X	
Disaster Housing Program	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Economic Adjustment Assistance	X	X				X									X				X	
Economic Development Tech Assistance		X																	X	X
Emergency Advance Measures for Flood Protection		X		X									X		X				X	
Emergency Community Water Assistance Grants		X		X					X				X	X			X		X	
Emergency Conservation Program	X	X		X		X							X						X	
Emergency Flood and Shelter National Board Program		X		X					X				X	X			X		X	

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<b>FEDERAL SOURCES</b>																				
Emergency Management Institute-Resident Ed Program	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
Emergency Management Institute-Training Assistance	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
Emergency Management Performance Grants	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Emergency Operations Flood Response and Post-Flood Response		X													X				X	
Emergency Rehabilitation of Flood Control Works		X													X				X	
Engineering Grants	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Farmland Protection Program		X																	X	
Fire Suppression Assistance								X											X	
Flood Insurance		X													X					X
Flood Mitigation Assistance		X																	X	
Flood Plain Management Services		X													X					X
Flood Control Projects		X													X				X	
Forestry Incentives Program	X					X													X	
Forestry Research	X	X																	X	
Grants for Public Works and Economic Development		X												X	X					
Grants-in-Aid for Railroad Safety												X								X
Hazard Mitigation Grant Program	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
HazMat Training Program for Implementation of SARA												X	X							X
Health Program for toxic Substance and Disease Registry													X						X	
Historic Preservation Funds Grants-in Aid	X	X	X		X	X														X
HOME Investment Partnerships Program		X			X	X													X	
Hydrologic Research		X		X							X				X				X	
Individual and Family Grant Program	X		X				X	X							X				X	

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<b>FEDERAL SOURCES</b>																				
Planning Grants (HazMat Emergency Preparedness Grant)												X	X						X	
Motor Carrier Safety												X								X
National Dam Safety Program															X					X
National Pollutant Discharge Elimination System											X								X	
National Urban Search and Rescue Response System	X													X			X		X	
North American Wetlands Conservation Fund		X								X									X	
Planning(Land and Water Conservation Fund Grants)		X								X									X	
Physical Disaster Loans	X	X	X		X	X								X						
Pipeline Safety											X	X							X	
Project Impact: Building Disaster - Resistant Communities	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Protection Clearing and Straightening Channels		X																	X	
Public Assistance Grant Program	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Public Health and Social Services Emergency Fund									X										X	
Railroad Safety												X								X
Resource Conservation and Development		X		X			X	X		X										X
River, Trails, and Conservation Assistance		X																		X
Rural Business Opportunity Grants		X																	X	
Rural Development Grants		X												X					X	
Rural Electrification Loans	X		X		X	X								X					X	
Rural Housing and Economic Development	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Rural Housing Site Loans and Self - Help Housing and Development Loans		X																	X	
Snagging and Clearing for Flood Control		X													X				X	
Soil and Water Conservation	X		X			X	X			X	X									X

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<b>FEDERAL SOURCES</b>																				
Superfund Technical Assistance Grants for Citizen Groups at Priority Sites													X						X	X
Surveys, Studies, Investigations and Special Purpose Grants									X	X	X	X	X						X	
Technology Development for Environmental Management												X							X	
Very Low Income Housing Repair Loans/Grants	X	X			X	X	X	X											X	
Very Low to Moderate Income Housing Loans	X	X			X	X	X	X											X	
Water and Waste Disposal System for Rural Communities		X							X				X	X		X	X		X	
Water/Waste Disposal Loans/Grants		X							X				X	X					X	
Watershed Protection and Flood Prevention		X							X	X	X				X				X	X
Watershed Surveys and Planning		X		X						X	X									X
Weatherization Assistance for Low-Income Persons							X												X	
Wetlands Protection -Development Grants		X																	X	
Wetlands Reserve Program		X																	X	X
Wildlife Habitat Incentive Program		X																	X	

# FUNDING SOURCES

Funding Source
<b>STATE &amp; LOCAL SOURCES</b>
Minnesota Department of Public Safety Programs
Flood Damage Reduction Grant Assistance Program
Citizen Corps Grant Program
Local Taxes & Levies
Bonds
General Fund
Debt Capacity
Self Insurance Funds
Increased Rates
Corporate & Private Donations
Benefit Services Charges
Reserve Funds
Local Improvement Districts

# Cass County Hazard Mitigation Plan

## Future Updates

The following are brief suggestions of what future updates of this plan should include. These suggestions are based on information received from reviewing agencies.

- ✓ Show an annual percent chance of occurrence or number of events per year.
- ✓ A description of vulnerability of current buildings, infrastructure and critical facilities for each hazard area.
- ✓ A description of vulnerability of future buildings, infrastructure and critical facilities for each hazard area. This type of information could come from comprehensive plans or local development / zoning plans.
- ✓ Include dollar loss estimates for buildings, infrastructure, and critical facilities as they relate to each hazard.
- ✓ Show how loss estimates for each hazard area were determined.
- ✓ General land use is addressed however in future updates development trends should be discussed in the plans. A helpful tool, if available, would be to include a current land use map next to a 20 year old land use map to show any changes in the county.
- ✓ Identify any projects that were addressed for structures in the floodplain. (relocation, buy out, elevation).
- ✓ Address if relocation or elevation projects were considered for structures vulnerable to flooding.
- ✓ Update all historical information to current date.