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The Economic Geography of Cass Lake, Minnesota and its Surrounding Area

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THE ECONOMIC GEOGRAPHY OF CASS LAKE, MINNESOTA AND ITS SURROUNDING AREA

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This thesis, submitted by Leeland T. Engelhorn, in partial fulfillment of the requirements for the Degree of Master of Arts, is hereby approved by the committee in charge of his work.

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TABLE OF CONTENTS

LIST OF FIGURES

LIST OF FIGURES (Continued)

CHAPTER I

INTRODUCTION

Purpose of Study

The purpose of this study is to present some of the activities in the Cass Lake area and to show how the geography of the immediate region influences these activities.

Economic geography is stressed in this study because of its obvious practical value to all citizens of this particular area. A comprehensive view of the industrial, commercial and agricultural conditions is necessary to an understanding of the economic geography of this area. Economic geography here deals with major industries, basic resources, and local and regional centers of interest and of their natural conditions.

By means of a careful study of these items, it is hoped that assistance might be given toward gaining an understanding of the internal problems of the Cass Lake region and toward appreciating more fully the vital facts and interests which contribute to local livelihood in that region.

CHAPTER II

GEOGRAPHY OF THE CASS LAKE AREA

Geographical Location

In its mathematical location Cass Lake lies at 47 degrees 30 minutes north longitude by 94 degrees 40 minutes west latitude. It is located in the extreme northwest corner of Cass County which enjoys a position in north central Minnesota. Cass County is bordered on the north by Beltrami and Itasca counties, on the east by Itasca and Aitkin counties, on the south by Crow Wing, Morrison and Todd counties, and on the west by Hubbard and Wadena counties.

The city of Cass Lake is located on the west edge of Cass Lake between the lakes Pike Bay and Cass Lake. The city is relatively well situated in relation to the economic activities of this region of northern Minnesota. It is served by two major highways; U.S. 2 and U.S. 371 and by two railroads; the Great Northern and the Minneapolis, St. Paul and Sault St. Marie. The transportation facilities make Cass Lake accessible to all parts of the country by either highway or rail travel. It is located 14 miles southeast of Bemidji, 150 miles west of Duluth, 220 miles north of Minneapolis and St. Paul, 135 miles east of Grand Forks, North Dakota and 130 miles from Fargo, North Dakota.

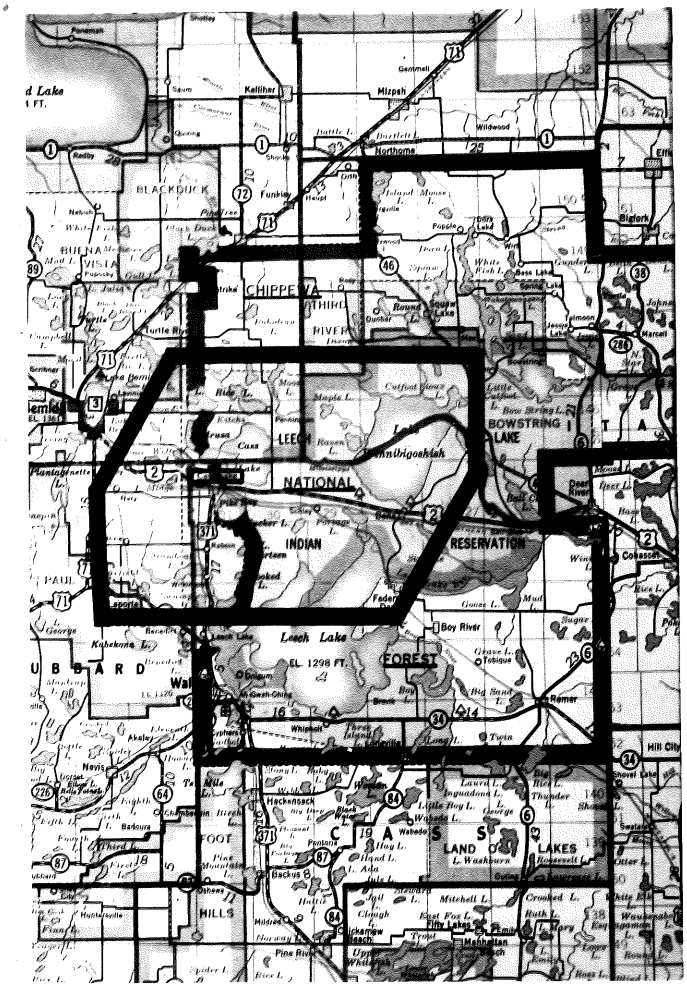

Figure 1. AREA MAP OF CASS LAKE, MINNESOTA (Small enclosed area represents the Agricultural, Resort and Trade area of Cass Lake, Larger area the Chippewa National Forest. Map from official Minnesota Highway map).

Topography

The topography of the region was primarily developed by glacial action in the recent past when great climatic changes produced the ice ages. The ice that covered this section in the earlier stages, as well as in the later Wisconsin period, came mainly from the Keewatin center west of Hudson Bay. In the middle Wisconsin iceage time a relatively small area between central Minnesota and Lake Superior was the last to be covered by ice from the Patrician center located a little east and north from Duluth. During the late Wisconsin period, the Keewatin ice moving south in the Red River valley, parted into two main streams.[1]

In west central Minnesota, the eastward spread of the late Keewatin ice carried it over the relatively high and hilly granite area. Here its movement was impeded. North from this point the eastward spread of the ice took advantage of a relatively low passage between the granite upland and the Mesabi Range through which the Mississippi passes.[2]

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[1]Nevin M. Fenneman, Phisiography of the Eastern U.S., (New York: McGraw Hill Co., 1938) pp. 569-570.

[2]Ibid., p. 570.

It is in this general area that Cass Lake is located and here the gravelly, sandy, or swampy plains of the glacial outwash are so common or extensive today. Within the borders of Cass County are many lakes, the largest ones being Leech Lake, Lake Winnibigoshish and Cass Lake. The northeastern part of the county, south of Lake Winnibigoshish, and the Mississippi River is a plain of sandy gravel covered by forests of Norway pine. To the south of this area, extending east and southeast of Federal Dam and Six Mile Lake, is a great till plain of a pebbly clay loam type. Extensive tracts of wet land are present on the plain east of Leech Lake toward Boy River. To the south of Cass Lake the soil is stony or of the pebbly clay loam type. This region, which covers several townships of this district, changes into a more sandy and gravelly tract of moraine and extends westward in a broad belt across Hubbard county to the headwaters of the Mississippi River. The till plains are in part clays and in part mixed soils with abrupt and frequent changes from a pebbly clay soil to a gravel and sand mixture. This part of the county was covered by the Keewatin ice sheet, the southern limit of which extended from Big Rice Lake eastward to Aitkin county. The greater part of the Keewatin drift has a clayey to sandy loam soil with a few boulders and cobblestones.[3]

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[3]Frank Leverett, Surface Formations and Agricultural Conditions of Northwestern Minnesota, (Washington D.C.: U.S. Geological Survey, 1938), p. 62.

As the Keewatin ice spread out eastward in Minnesota and westward into North Dakota, it carried and dragged along boulders, pebbles and clay of many kinds. The topography of this area shows that this ice sheet did not remain any great length of time and must have begun its retreat soon after reaching its peak of advance. It melted at the sides and southern edges more rapidly than it advanced. Rivers springing from the edge of the glacier carried out gravel and sand to form flat "outwash" deposits and gravel trains.[4]

In this district of north central Minnesota there are three great types of glacial deposits and consequently three general classes of soils. These are: (1) Moraines, (2) Till Plains or Ground moraines and (3) Outwash plains. There is a moraine that crosses southern Beltrami county near the town of Bemidji. This is located northwest and adjacent to the Cass Lake area. Just south of this lies an outwash plain. This particular outwash plain extends to Cass Lake and to the region south of Lake Winnibigoshish. The soils of this plain are generally sandy and in places have been blown into dunes. The intervening till plains, notably east and south of Bemidji, have an excellent loam soil. Another till plain, having a good quality of loam soil, although interspersed with moranic ridges and blocked channels containing many swamps,

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[4]Daniel E. Willard, Story of the North Star State, (St. Paul: Webb Publishing Co., 1922), p. 57.

extends east across the southern part of Beltrami and the northern part of Hubbard counties near the towns of Nary and Guthrie and then on into Cass county.[5]

The town of Cass Lake is located between Cass Lake and Pike Bay on the southern side of the above mentioned outwash plain. Lakes Winnibigoshish and Lake Bemidji are also on this same sandy plain and across this plain, from east to west, meanders the Mississippi River. North of this sandy plain is the large clayey moraine from which it was formed. Good clayey land again lies to the south. Many beautiful lakes lie in the depressions of this large sandy plain showing that the water table is not far below the surface.[6]

The drainage pattern of the Cass Lake area follows the course of the Mississippi River, which generally is to the east and the southeast in direction. Numerous creeks and small streams drain toward the lake itself. Two rather large rivers flow into the Mississippi from this region. Leech Lake River, flowing out of Leech Lake, forms the main drainage pattern for the southern portion, while the Turtle River, where it flows into Cass Lake, forms the drainage pattern for the northwest.

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[5]Ibid., pp. 241-242.

[6]Ibid., p. 327.

The glaciers have been the most effective tool in shaping the topography of northern Minnesota. The physical features of the Cass Lake area are part of the results, while the economic activites in the present Cass Lake region are examples of man's adjustment to this glaciated area.

Climate

As in the rest of Minnesota, Cass Lake has an extremely continental climatic type owing to its mid-continental location. It is characterized by wide variations in temperature, little winter precipitation, ample summer rainfall and a general tendency to extremes in all climatic features. The most important influence on the climate is the succession of high and low pressure systems that continually sweep across the northern states from west to east. The disturbances of western Canada and the northern Rocky mountain region, which follow a general pattern eastward across the upper Mississippi Valley, are succeeded by cooler polar air masses of the anti-cyclone type, and thus provide this area with alternating periods of warm and cold and of rainy weather and clear skies. The cyclonic control of climate gives Minnesota changeable weather that is stimulating and invigorating.[7]

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[7] Climate and Man, Yearbook of Agriculture (Washington: United States Department of Agriculture, 1941), p. 933.

Along with geological formation, climate has contrived to give the Cass Lake region its varied plant cover and the great forests which have been of a tremendous influence in making this a region of tourist trade and has made the timber industry and its related activities extremely important to local welfare. Some of this area's best publicity has been gained by its summer climate. Resort owners, and the agencies with which they work, publicize the "cool" northern Minnesota summers. Even though it is generally pleasant and cool during the resort season, this area can still boast of an adequate amount of sunshine. The average number of hours of sunshine is 2,604 or fifty seven percent of the total possible amount.[8]

Spring is a short but changeable season in this climatic region. In the month of March the rapidly lengthening days and higher sun is very noticeable. Early March is considered a part of the winter season even though there are some warm, thawing days. These are generally followed by cold air outbreaks and temperature drops with the reappearence of winter-like weather. Snow is often received as late as the early part of May. The real spring breakup and thaw takes place in late March or early April. By June, although it still

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[8] Ibid., p. 934.

is usually cool, the weather has made its change to summer. The long days bring higher temperatures and July and August are pleasant and warm, but not "hot". Summer extremes, of hot and cold, are uncommon.

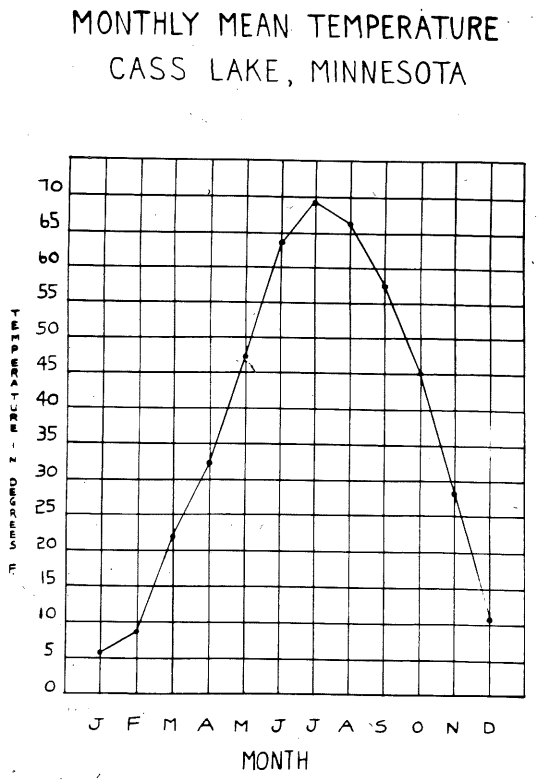
Most summer precipitation is in the form of thundershowers. September begins the autumn season. The days are usually warm and relatively dry with the weather remaining bright and clear through October. Midday at this time of year is warm, but the nights are often sharp and cool. The polar air masses frequently invade the area and spells of gloomy, cloudy weather are accompanied by rain. By November, summer has departed, snow is common and longer periods of cold, cloudy days are frequent. The winter season is extremely severe, long in duration and cold. Temperatures of well below zero readings are very common throughout December, January and February. On December 19, 1955, a low of -48 degrees was recorded at the U.S. Forest Experiment Station at Cass Lake. This is the absolute minimum for this area. High winds and blizzard conditions are uncommon, however, because of the protection of the timber.

On the following page a climatic summary of the Cass Lake, Minnesota, is presented.

Climatic Summary of the Cass Lake area.[9]

Yearly mean temperature	38.1	degrees F.
January mean temperature	5.3	degrees F.
July mean temperature	69.0	degrees F.
Highest temperature recorded	106	degrees F.
Lowest temperature recorded	-48	degrees F.
Average annual precipitation	22.92	inches.
Average annual snowfall	37.1	inches.
Average date of last killing frost	May 22.	
Average date of first killing frost	Sept. 23.	
Latest killing frost occured	June 14.	
Earliest killing frost occured	Sept. 4	
Average length of the growing season	124 days.	
Prevailing wind direction	Northwest.	

[9]U.S. Forest Service, Basic Data and Policy Section of the Timber Management Plan, Chippewa National Forest, Region Nine, (Cass Lake, Minn.; Forest Service, 1951), p. 14.



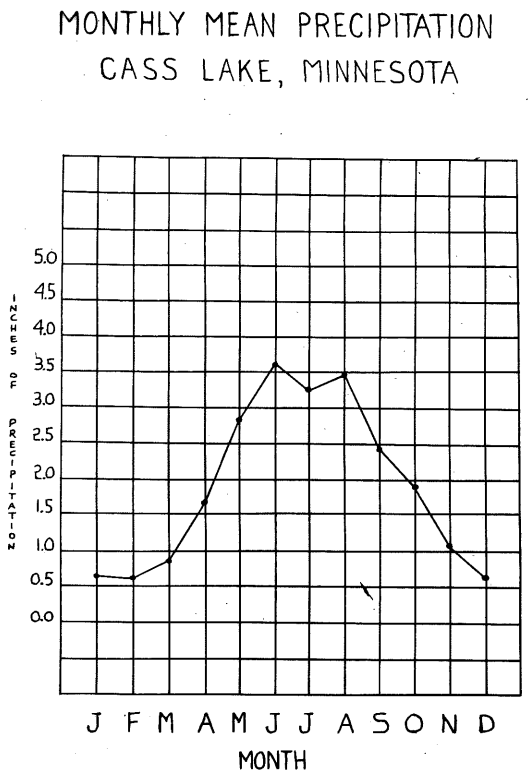


Figure 2. Climatic Data for Cass Lake, Minnesota.

Vegetation

The soils and timber types, in this area, are very closely related and in nearly every case the vegetation and timber types are excellent indicators of the soil type for that area. On the poorer sandy soils are found the Jack pine types with scattered Norway pine interspersed. The low vegetation is blueberry, sweet fern, wintergreen, hazel brush, and in the burned over areas, poor aspen and paper birch are to be found. On the better sandy soils, where a mixture of sand and clay is found to form a loam, Norway pine is, or originally was, the predominating type. The low vegetation here is bracken, wintergreen and hazel brush. The aspen and birch found on this soil type do much better than on the poorer sand soils. The best forest growth is found on the heavy clay type of soil where the northern white pine, mixed hardwoods and aspen stands are found. A heavy growth of underbrush thrives underneath these stands of trees.[10]

Although this region was primarily a coniferous forest, today both pines and hardwoods are found in the vicinity. A few of the important tree species are listed below:[11]

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[10]Ibid., p. 12.

[11]Ibid., pp. 17-20.

CONIFEROUS

1. Red Pine
2. Eastern White Pine
3. Jack Pine
4. White Spruce
5. Black Spruce
6. Balsam Fir
7. Tamarack
8. Northern White Cedar
9. Quaking Aspen

DECIDUOUS

1. Basswood
2. Sugar Maple
3. Paper Birch
4. Bur Oak
5. Elm
6. Black Ash
7. Northern Red Oak
8. Yellow Birch

Since the original forest was cut over, Jack pine has come into prominence because of its ability to reproduce on cut over land, its comparatively fast growth and its early maturity characteristics. Jack pine is used extensively for rough lumber and mine timber and is one of the more important pulpwood species.

Much of the forest area of this region has been under good management for many years. Good accessibility has helped the forest managers treat the timbered areas when needed. Frequent light cuts instead of one heavy cut mean that much material is harvested and put to use that would otherwise be crowded out, die or rot because of competition for growing

space. It also permits those trees that are left to grow faster.

Few of the original old-growth-timbered-stands are left. In those few areas where a scattering of virgin trees do remain, a new generation of timber has become well established and is growing rapidly and luxuriantly. In places, this new generation of trees is far enough advanced so that it now could be thinned and yield pulpwood and fence posts.

As the productivity of the forest increases, due to fire protection, management and reforestation, the revenue from forest products increases. During the year 1953 the Chippewa yielded approximately thirty two million board feet of timber for a cash return of approximately $225,000. The figure was greatly increased as the timber was cut into logs and processed into other products.

The total area of plantations on the Chippewa is approximately 45,000 acres, the bulk of which was planted during the Civilian Conservation Corp program. More tree plantings have taken place, from time to time, from other than emergency funds. In addition, there are approximately 20,000 acres of unsatisfactorily stocked areas which should be planted. Some of this area is denuded. Because of high costs and limited funds, the Forest Service is planting only 300 acres annually. During 1953, 296,000 trees were planted on 304

Figure 3. WHITE PINE STAND -- FOUR MILES EAST OF CASS LAKE ON HIGHWAY #2.

Figure 4. PLANTATION AREA NEAR CASS LAKE.

acres. Plantations and young immature stands of timber are given treatment to improve the quality and rate of growth. This work consists of liberating the more valuable species from brush and over topping trees of low value, thinning of dense stands to improve growth and pruning of crop trees as a means of improving the quality of products that these trees will produce when cut.[12]

Transportation

Two major railroads serve the Cass Lake community. These are the Great Northern and Soo Line. These railroads have been one of the large supporting factors in the Cass Lake village and have contributed much to the general economics of the area. The city of Cass Lake actually had its founding because of the installation of the railroads. The Great Northern line was the original line to push through when the land was still in virgin forest.

Today there are sixty people employed at the Cass Lake station. These are permanent residents of the city,

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[12]Louis C. Hermel, Annual Report, Fiscal Year 1953, Chippewa National Forest, (Cass Lake, 1954), pp. 2-3.

being employed full time in one of the following capacities:

1. Maintenance (under direction of Roadmaster).
2. Station employees (agents, clerks, telegraphers).
3. Trainmen (engineers, brakemen, firemen).

The payroll to Cass Lake employees by the Great Northern amounts to $267,000 annually. About half of the employees receive an average salary of $4,000 and the other half have a salary average of $4,800 to $5,000 depending upon the nature and responsibility of the job classification.

There are two passenger trains, which provide daily service to the Cass Lake region. One provides east bound service to Duluth and connecting points, while the west bound provides direct service to Grand Forks, North Dakota and points west, via the main Great Northern line. There are approximately five scheduled freights each day giving both east and west service. The number over that depends upon seasonal conditions and shipments through this area from out of state industries, agriculture or goods to other markets. An example of this would be the greater number of freight cars required during the shipment of North Dakota grain to the terminals in Duluth. This increase occurs during the fall season.

One item that is very important in the out shipments from this station, is a product of the local environment, namely forest products. The greatest number of cars shipped

from Cass Lake via, or through, the Great Northern freight service are composed of pulpwood, cut timber and posts.[13]

The Soo Line is the minor railroad of the Cass Lake area and provides a more limited passenger service and enjoys fewer daily freight shipments than the Great Northern. The total employees required is smaller in number. During the winter season, maintenance crews consist of one foreman and one helper. During the summer months of activity there are up to ten men employed besides the maintenance foreman, the total number at any time depends upon the job to be accomplished. These personnel are all hired from the Cass Lake region. There is one station agent located in Cass Lake permanently.

The annual local payroll of this company amounts to $25,000.

There are two passenger trains. One, eastbound, provides service to Duluth, Superior and connections to Chicago. The westbound has service to Thief River Falls and connections west to Minot, North Dakota. One daily freight train during the normal season is scheduled, however, the Soo Line, like the Great Northern, provides added freight service when local or regional demand requires such service.

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[13]Statements by L. R. Scofield, Agent, Great Northern R.R., Cass Lake, Minn., personal interview.

The nature of the out bound freight on the Soo Line likewise reflects the fact that the major industry of the Cass Lake area is the timber industry, for pulpwood and timber are the only important items shipped from this station.[14]

Population

In 1950, the population of the village of Cass Lake was 1,924. This showed an increase of 1.1% during the ten year period from 1940-1950. These figures show that this city barely held its own in population while the rest of the state enjoyed an increase of twelve per cent. Natural growth alone should have increased the total population about ten per cent and so this very small gain indicates that certain people are leaving the community. This lack of population growth is probably due to the lack of employment opportunities in the immediate area.

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[14]Statements by William Curran, Agent, Minneapolis, St. Paul and Sault St. Marie R.R., Cass Lake, Minn., by personal interview.

CHAPTER III

AGRICULTURAL INDUSTRY

Originally the farm lands of the Cass Lake area were covered with coniferous forests. Being in the high latitude belt of cone bearing forests where the winters are long and cold and the summers are short and moderately humid, the activity of bacteria and earth worms in the topsoil has been kept to a minimum. Most of the humus in these forests lies like a mat on top of the soil, litter and waste of trees does not mix well with the "A" horizon of the soil. With the slow decaying, the cover humus becomes highly acid and the slightly acid water seeping through leaches the soluble minerals from the top soil leaving it ashy gray in color (the brown oxide of iron is leached out). The average depth of the black humus topsoil is six inches on the cultivated soils and from four to five on the virgin lands. Deposition of iron oxides lower produces a brownish subsoil. These are called Podzols (ashy-soils) or grey forest soils common to coniferous forests.

There is a general accepted term for local soils among native farmers. Soils in this area are classified by farmers as either Jack pine sand soils or clayey types. The clayey types are accepted as the most desirable for agricultural practices. Technically they are of the Taylor Nebish type

comprised of glacial drift of the late Wisconsin period. These soils are of heavy till, calcareous, water-laid silts and clays with local sand deposits.[1]

The cool temperatures and frequent summer rains during the growing season favor hay and pasture. There is an abundance of good water for dairy herds and all general conditions favor this type of agricultural activity. Dairying, therefore, is easily the chief source of income for the farmer in this region.

It is estimated that ninety percent of the land here is under-developed agriculturally, but it is in a general state of accelerated development wherever specific types of farming can be practiced. Timber is cleared and lands are worked, wherever feasible, without great financial investment or agricultural gamble.

The average size farm in the Cass Lake area total approximately 120 acres. This figure represents cropland, woodlots, pasture and undeveloped areas. About sixty acres of this total represents the amount reserved for cropland cultivation by the farmer in this district. It is acknowledged

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[1] Soils and Men, Yearbook of Agriculture (Washington: United States Department of Agriculture, 1938), p. 1029.

to be fair farmland for crop raising, particularily those principal items which are necessary for the small dairy farm. This is the catagory in which the farmers here are placed.

Forage crops enjoy the greatest acreage. These consist of legumes, of which red clover and alfalfa are the most common. Brome grass seems to do the best of the various grasses tried in this region. Corn is raised initially for ensilage. The only grain crop grown to any extent is oats. It is a valuable and badly needed winter food for dairy cattle. This crop takes about ten per cent of the total acreage. Some potatoes are grown commercially but the entire market is local and the income from these sales is not a significant part of the agricultural income of this area.

The average farmer has twenty-five head of cattle which are all of the dairy type. Guernsey and Holstien are the accepted common breed stock. There is little or no processing of the raw product on the larger dairy farms as these farmers sell direct to local creameries. The larger farms have milking machines, cooling facilities and maintain storage space for but one or two days production. A farm pick-up service is provided. An example of this system is the service provided to seven dairy farmers all living in the Nary-Guthrie area. One of the farmers drives his truck to each of the other farms every other day and picks up the whole

milk to be taken to the co-op creamery at Bemidji, Minnesota. From three hundred to five hundred gallons are delivered every other day. Others take their whole milk to the creamery at Park Rapids, Minnesota using a similar collection system. Some of the smaller farm operators separate the cream on the farm, and sell this to a local cream station at either Walker or LaPorte, Minnesota. The skim or separated milk is utilized on the farm as feed for calves, pigs or other animals on the farm. A few of the larger dairy farmers have reported that they separate and sell the cream to either the Red Cap Dairy or David Park Dairy at Bemidji. These farmers all deliver their milk products individually. There is no cream selling station or local dairy in the village of Cass Lake. The local dairy service, to homes and local business establishments, retails dairy products from the co-op creamery of Bemidji.

In general, poultry growing is limited to the keeping of small flocks for private use with the small surplus in egg production marketed locally. There are several commercial ventures in turkey raising but most of these are a part time sideline to the general farming practice. The majority of the turkey growers are concentrated in the Guthrie area to the south and west of Cass Lake.

Most Cass Lake farmers buy and maintain similar farming equipment and farm buildings for their needs. These usually

consist of a dairy barn, a milk house, a machine shed or garage repair shop, a silo and a sheep shed in case any of these animals are raised. The dairy barns usually are large enough to accommodate between fifteen and thirty cattle. To the present date, dairying has been rather increasing and more farmers are entering this activity. The farm machine equipment usually consists of a tractor, essential haying equipment, all general tilling equipment, forage harvesters, manure spreaders and milking machines. The number of these machines would depend upon the size of the farm and the size of the herd that is kept.

Very little outside help, hired labor, is required on farms in this area. Reciprocal work agreements are common among neighbors who assist each other throughout the seasons when extra help is necessary. Except for the poorest farms, most are electrified by the Rural Electrification Administration. Sanitary and plumbing facilities are common on the better and more progressive farms. Septic tanks are easily dug and installed in the light sandy soil which provides excellent drainage from the pits. Water is very accessible and is provided by shallow sand point well pumps or deep well jets. The farm buildings seem to be adequate for the type of farm operations practised in this area.

There are some typical "brush farmers" in the area.

Figure 5. ALBIN CARLSON FARM, CASS LAKE. (Pasture land on the left, part of a cultivated field to the right. In the background is farmer's woodlot).

Figure 6. ALBIN CARLSON FARM, CASS LAKE. (In foreground is a trench silo commonly used by farmers of this region).

This term is used to describe those farmers with a very limited agricultural activity and a low income from their farming practices. Poor buildings and equipment identify these farms and generally employment is secured in other activities to add to the agricultural income. These farms are usually from forty to eighty acres in size. Few, or no, animals are kept. In most instances one or two milk cows are cared for to provide needed milk, a pig or two are butchered in the fall for meat and a small flock of chickens supply eggs and additional meat. A small farm of this type has little cropland. Most cultivation is in the form of a vegetable garden for personal use. Wild hay is primarily depended upon for animal feed although a few farmers may cultivate a number of acres of alfalfa for forage. Many of these farm types include a timbered area and a great part of the activity of the farmer is taken up in the cutting of bolts or posts for an income. Some of these farmers sell timber from their woodlot for pulp.

The following are overall investment estimates of the farms in this area:

1. $30,000--$35,000 ...largest and very best in area.
2. $12,000--$15,000 ...the average size dairy farm.
3. $ 5,000--$10,000 ...smaller farms.

In general, all farms in the Cass Lake area are privately owned, there is no corporation farming practiced,

and there are very few, if any, tenant farms.

Present day land values are listed in three catagories:

1. $30.00 per acre-- best farms.
2. $20.00 per acre-- average farms.
3. $ 5.00 per acre-- poorer farms.

Farming was established in this lake and timber region as a sideline to other types of employment that were offered in early times to the settlers of this area. Lumbering employees, railroad men and mill workers seeking land obtained it cheaply. Many of them cleared the timber for profit and then established their very small farms. Wherever these farms proved successful, expansion took place.

Erosion has been a minor problem to farmers of this area. Wind erosion is negligible because of excellent protection provided by the timber stands throughout the region. There is a small amount of sheet erosion in the clayey areas but its effects are not marked or considered dangerous enough to attempt special erosion controls such as contour plowing. Most farmers do express concern over the leaching process in the light soils. This is especially true during the growing seasons that receive above average precipitation. Most farmers spread a heavy concentration of animal manure on fields in the fall to counteract the serious loss of fertility from crops and moisture. No application of commercial fertilizers

(nitrogen type) are used to replace the leaching loss.[2]

One extremely important and unusual agricultural activity of this area is the wild rice industry. There are approximately twenty dealers in the Cass Lake field. Usually they are both buyers and processers of the wild rice. It has been estimated that about eight hundred people engage in the harvesting of this crop annually. About fifty per cent of these workers are local Indians, the rest are local or nearby residents. All of the rice processed in Cass Lake is harvested in the immediate vicinity, generally within a twenty mile radius of the city.[3]

Wild rice is a native aquatic grain, that grows in the shallow waters throughout much of northern Minnesota, similar to the cultivated rice of commercial growers. The two rices are not closely related and neither is the wild rice an ancestor of cultivated rice. The aspect of a wild rice stand changes with the seasons. In shallow water, in late spring, a single thin submerged leaf grows upward from the seed. In June, the leaves reach the water surface and

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[2]Statements by Albin Carlson, Farmer, Cass Lake, Minn., by personal interview.

[3]Statements by G. Peterson, Wild rice buyer, Cass Lake, Minn., by personal interview.

begin to spread out along the top of the water much like green ribbons. In early July flowering stalks appear above the surface of the water. These stalks later become the stout straw that bears the heads of grain. In August, the wild rice extends out of the water from two to six feet, at which time the mature stands, rippling in the wind, look like fields of cultivated grain. The heads that bear the grains ripen from the top downward over a period of about ten days. The grains fall as they ripen--they are not retained in the head as is the case with cultivated grains. These are many distinct strains, or varieties, of wild rice in Minnesota. Some varieties are tall, some are short, some have many grains to the head, others just a few, some have long grains, others contain short grains and some strains begin to ripen as early as August 15, while others do not ripen until a month later.

The early French voyageurs saw and used wild rice for food. Many of the present stands were here when the Chippewa Indians moved into the state in the eighteenth century. There were many battles and skirmishes, between the invading Chippewa and the resident Sioux, for possession of the wild rice lakes. The continuous fighting for possession of the rice stands points up the importance of this grain as a source of food to the primitive Minnesota Indians. Many of the

Indian settlements were found on or near rice stands and later most of the Indian reservations were set up to include some harvestable rice beds. It has been estimated that wild rice once made up about one fourth of the food of the local Indians.

Originally, the standing rice stems were gathered together and tied into sheaves or small shocks while the grain was still immature. The harvester then untied the sheaves and knocked the grains into his boat with a wooden flail. Sheaving has been replaced by the present method of flailing the stand. The flailing method is now required by law. This method requires two people and a narrow boat or canoe which is poled through the ripening rice stand by one of the harvesters. His seated partner, armed with a short cedar flail in each hand, gathers in and bends the heads over the boat. He then taps them with one of the flails to knock off the ripe grains. This is rather an inefficient harvesting method. Checks have been made in harvested areas and findings prove that less than twenty per cent of the crop is taken by this method even though the stand has been harvested several times during the ten day ripening period. Here inefficiency is a virtue for it allows much of the ripe rice to fall back into the lake for re-seeding and also to serve as food for waterfowl. An average harvester collects between thirty and forty pounds of processed rice per acre of the stand.

The wild rice, when harvested, has a chaffy hull much like that of oats. This must be removed before the grain can be used for food. First the grain is "cured" for a few days by spreading it on a rack in a fairly thick layer in the open air. Then it is parched. Parching consists of heating the grains until the hulls are dry and become brown and brittle. They can then be removed by threshing and winnowing. Smoke of the wood fire used for parching adds to the flavor of the rice.

Simple machines are used in all phases of processing the rice for market. A rotating metal drum over a fire is used for parching; a powered huller used for threshing and winnowing is done by a standard fanning mill. Most of the processing is now done by commercial processers who buy the "green" rice from the harvesters (green rice is rice which has been harvested but not parched). About two and one half pounds of green rice, as it comes from the stand, are required to make a pound of processed rice for the market.

Crop and harvest are greatly influenced by weather and water levels. Thus the area harvested varies greatly from year to year. Best rice harvests occur in years of declining water levels. In dry years more shallow water is available for the crop since stands usually do not grow in water deeper than three feet. Sudden rises in the water level

during June and July may pull and destroy the crop. If hot dry weather occurs while the wild rice is flowering in July, poor pollination may result and a light crop is harvested because the grains do no "set" as only hulls are produced. Usually, over a four year period, a stand or producing area will produce one bumper crop, two fair crops and one near failure.

In recent years, the value of wild rice has led to attempts at artificial planting. Checks of such plantings show that these attempts have not been too successful as wild rice is "fussy" as to proper soil and water conditions. It does not tolerate alkali waters, that is, those waters with sulfate salts. For this reason, most of the plantings in southern and western Minnesota have failed and few remain.[4]

The amount of finished (processed) rice from the Cass Lake vicinity in 1954 was approximately 50,000 pounds. Kalbfliesh and Peterson Rice Dealers estimated their 1954 supply at 15,000 pounds and at an average price of $1.50 per pound. Local prices are generally about $1.00 per pound while the retail price throughout the United States remains fairly stable at $1.50 per pound.

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[4]John B. Moyle, "Wild Rice--Past and Present", (Paper prepared by Research Supervisor, Fisheries Research Unit, Minnesota Department of Conservation, 1955), pp. 1-6.

The dealer usually packages his own product after receiving it from the thresher. The rice is generally put up in one pound packages for retail trade in local or distant markets. The largest market is provided by out of state buyers. The largest consumers of Cass Lake rice are Texas cities and California cities and the cities of Chicago and New York. It is also purchased in bulk by certain wholesale restauraunt suppliers and is then placed in one hundred pound containers.

It is estimated that the Cass Lake rice areas produce about twenty-five per cent of the total state production. It is one of the most, if not the most, important wild rice producing regions in the state. Other large producing areas are located at Nett Lake and the Vermillion River regions in northeastern Minnesota and around the Mitchell Dam area near Detroit Lakes, Minnesota.[5]

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[5]Peterson, op. cit., personal interview.

CHAPTER IV

FOREST INDUSTRY

Cass Lake has been an important crossroads of travel for nearly two hundred years, since a fur trading post had been established on the lake prior to 1760. Early explorations by traders, trappers and missionaries led to an early knowledge of the travel and transportation routes into this region. However, before the turn of the present century, Cass Lake still was virtually unknown except to those few fur traders, surveyors, missionaries and timber cruisers who had visited this locality. Due to an interest on the part of the timber cruisers, who noted the forest resources, railroads were projected into the area in 1898. With the coming of the railroad, an influx of people resulted and the village thrived. A land office was established in 1903 and the nearby timber on reservation lands was opened for sale.

The tract of land known today as the Chippewa National Forest was first established in 1908 as the Minnesota National Forest. It wasn't until twenty years later that it gained its present name. This national forest is a region rich in timber, game and fish. The wildlife value of this area was well known to the Sioux and the Chippewa Indian tribes who fought a long war over it. The forest now bears the name

of the victorious Chippewa who forced the vanquished Sioux to move farther to the south and west.

Much of its facilities are used by the tourists who visit this region annually. But despite its tourist attractions, the forest's main value is the work it provides local people and the timber supplied to industrial users. The forest stands are managed by the United States Forest Service and are cut selectively on a sustained yield basis to prevent exhaustion and provide a continued income.[1]

This forest is divided into seven ranger districts all supervised by the headquarters office located in the village of Cass Lake. In the immediate vicinity is the Cass Lake Ranger District of the Chippewa National Forest, which will be considered here as the local forest area. This district is the most representative of the Cass Lake region. The supervisor's headquarters are located here and therefore this district has a number of permanent employees. These employees give a considerable boost to the general economy of the Cass Lake region.

The number of permanent employees working at the office of the U.S. Forest Service is twenty four. One of the

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[1] Chippewa National Forest, (Washington: Government Printing Office, 1942). p. 1.

rangers located here is a state ranger (under supervision of the Minnesota Conservation Commission) who administers state forest lands in this vicinity. Another employee works for the Lake States Experimental Forest which is located near Pike Bay. These two additional offices bring the total to twenty six employees. These individuals are permanent Cass Lake residents and many have families and own homes here. Seasonal employees are also added and average about sixteen annually. These primarily consist of general laborers in all departments of the service. During the summer season, for a period of three months, the payroll is further expanded by the addition of two to three entomologists who work the forest from this office and thus reside in Cass Lake.

The total estimated payroll, from the local office, to the permanent employees engaged here would be between $124,000 to $126,000 annually.[2]

It is the policy of the Forest Service to devote each section of the forest to its best use and to provide scientific forest care to insure top productivity both commercially and pleasure-wise for the public.

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[2]Statements by Marcel Aune, Chief Clerk, U.S. Forest Service, Cass Lake, Minn., by personal interview.

Many benefits are derived by Cass Lake residents from the immediate forest area. It provides employment to a good share of the labor force of this area. Its supplies of timber are close to market and the large majority of the timber sales are made to local people and small timber operators, who buy it on the stump according to Forest Service standards. After being harvested the products are sold to various wood using industries or to other outlets.

It is estimated that there are approximately twenty five Cass Lake operators working annually in the surrounding vicinity. This is a permanent-full-time occupation for these people. These operators acquire timber through direct negotiation with the U.S. Forest Service Ranger, or bid for timber in the same office. Each of these operators has in his employ an average of two or three more laborers. A typical operator needs both cutters and truckers to get the timber out. Many of the "lumberjacks" are Cass Lake residents on a part time employment basis while others are engaged this way on a full time basis. Other loggers drift in from other cutting areas and then move on to secure other employment when the job has ended.

The full time operators average from $2,500 to $8,000 per year which is direct income from the forest. There are about five large operators in the Cass Lake area who would net

the upper figure of $8,000 annually. This would be a good year for them. The average year's cut will often bring closer to $5,000. There are approximately twenty small operators in the vicinity whose earnings are nearer the $2,000 average. These operators are called "gypos" by the cutters since they generally supplement their income by part time work in other fields of employment.

The larger operators have the following equipment which they consider essential in their logging operations. A Caterpillar tractor-- used for skidding the logs, horses-- used for skidding in places inaccessable to the tractor, two or more trucks (tandem style)-- for hauling logs, five or six shacks--to house the cutters, snow plow equipment--to clear roads, tools--to maintain their equipment and chains and peeling tools--to prepare the logs. Seventy per cent of the logging operations take place in the winter season because road conditions are better and skidding operations are less difficult. The winter operations consist of the removal of trees to piling areas that are accessable to trucks and where they can be loaded at any time.

There are about twenty five full time piece cutters in the Cass Lake vicinity who make this a full time occupation. Cutting takes place for ten months of the year. During the other two months the spring breakup prohibits transportation and access to the timber. November and October are the best

months for the cutters for the timber is then most accessible, the foliage is down, and the temperature is ideal for outdoor labor. Each full time cutter has about four hundred to five hundred dollars invested in such equipment as a power saw and other cutting tools. He must provide his own transportation to and from the job.

The piece cutter's job is to cut timber, to make trails for the skidder and to pile the timber cut. Each piece is called a "stick". Big logs are cut by thousands of board feet, the smaller logs by the running board feet. The operator "strips" the timber to be cut, which means marking it into sections by blazing the sides of the logs for identification. Each cutter then chooses a line of trees and works to his right until his strip has been cut. The current wages for cutters during the 1955-1956 season were as follows.

$.07 per stick for pulp--8 to 12 inches end diameter.
$.14 per stick for pulp--12 to 14 inches end diameter.
$.21 per stick for pulp--14 inches end diameter or over.

All balsam, pine and popple trees are "peeled", that is, the bark is removed by the use of a peeling iron. Peeling is done immediately after cutting during the summer months. If the bark is not taken off soon after cutting it becomes very difficult to remove from these species.[3]

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[3]Statements by Michael Riley, piece cutter, Cass Lake, Minn., by personal interview.

Figure 7. LOADING LOGS, CASS LAKE.
(Typical logging trucks and loading equipment. Willard Conner, Operator).

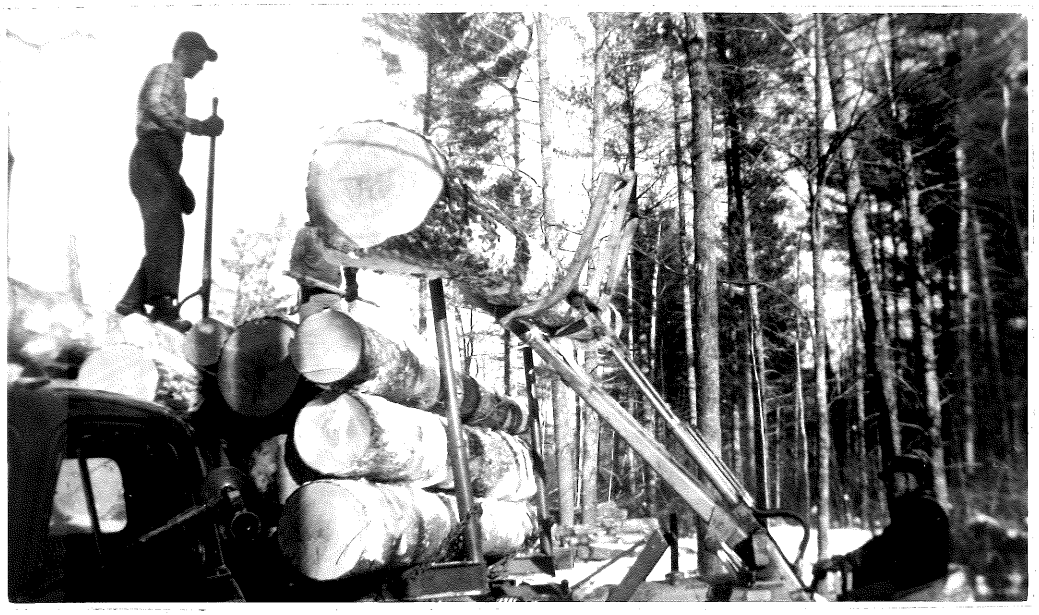

Figure 8. LOADING LOGS, CASS LAKE.
(Same equipment as Figure 7).

Figure 9. NEAR THE FINAL STEPS IN LOADING LOGS. CASS LAKE. (Willard Conner Operator).

Figure 10. LOADED TRUCKS, READY FOR SCALING. (Willard Conner, Operator).

Listed below are the 1955-1956 prices for cuttings in the Cass Lake area:[4]

1. Popple (aspen) pulp:

   $18-$20 per double cord[5] loaded in the railroad car.

2. Popple Bolts:

   $26 per double cord. Must be 100 inches long and eight inches on the small end inside the bark. This is used for box lumber and is sent to Wisconsin mills--mainly to Green Bay.

3. Birch:

   $40 per double cord loaded in the car. These are "match bolts"--used in match manufacturing.

4. Veneer:

   Use birch, oak, elm, basswood, aspen. Price is $80 to $160 per thousand board feet, depending upon the species, loaded in the car. It must be in ten foot lengths with a ten to twelve inch end, no knots, no "cat faces" (places where limbed). Twelve to sixteen foot length veneer must be twelve to fourteen inches on the top.

5. Posts:

   $24 per double cord. Must be 82 inches in length for fence posts.

6. Logs:

   Pine--10-12-14-16-18-20 feet in length. Prices delivered in Bemidji are: $40-$45 for Jack Pine per thousand board feet, $50-$60 for Red or White pine per thousand board feet, $60-$75 for premium "clear" White pine per thousand board feet. Nothing under an eight inch top is marketed and it must be straight with no red rot disease.

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[4]Statements by James Seward, Ranger, U.S. Forest Service, Cass Lake, Minn., by personal interview.

[5]A double cord is 8 feet by 8 feet by 4 feet high.

Because of the general dependence on woods work for all, or part of their livelihood, any drastic curtailment of market or plant facilities for timber has an immediate effect on the welfare of the people engaged in any part of the logging operation. Even though much of the labor is considered to be unskilled, most workers who are gainfully employed make an average living.

The forest in this area also provides other occupations and sources of income. Families, by permit, may acquire fuelwood, fence posts, dead logs and down saw logs. Cutting permits are also issued for electric lines and right of way privileges on Forest Service roads. The Rural Electrification Administration has brought lines to many families in the forest. Other permits are issued for the tapping of maple trees, the cutting of Christmas trees and the cutting of branches used for wreath making. In this area these latter activities are done on a minor and limited scale.[6]

The following statistics represent estimates prepared from data given in the County Forest Reports. Volume is shown in rough (unpeeled) cords, called single or standard cords; and cover the area within approximately fifty five miles

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[6]Chippewa National Forest, op. cit., pp. 7-8.

of Cass Lake.

Volumes shown are estimated annual allowable cut:[7]

SPECIES	VOLUME
White pine	10,789 cords.
Red pine	12,858 " .
Jack pine	35,192 " .
Black spruce	8,322 " .
Balsam fur	27,375 " .
Tamarack	13,887 " .
Cedar	9,538 " .
Yellow birch	1,800 " .
Sugar maple	2,935 " .
Basswood	5,423 " .
Elm	7,447 " .
Oak	16,451 " .
Aspen	162,451 " .
Balm of Gilead	8,679 " .
Paper birch	32,372 " .
Ash	5,359 " .
Grand Total	375,191 cords

or an estimated total of 187,595,500 board feet.

There are two lumber mills in the Cass Lake vicinity. The largest of the local mills doing sawing and planing is known as "Franks Mill" and is operated by Frank Polries. This plant cuts and planes lumber of any dimension depending upon individual request or market requirements. In addition to the mill activities, this plant is equipped to retail various

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[7]Statements by P. J. Fasset, Staff Officer in charge of Timber Management, U.S. Forest Service, Cass Lake, Minn., by personal interview.

building accessories, such as nails and hardware. The Frank's Mill employs four people on a permanent basis throughout the year. Seasonal employees are added at various times when required.

In this type of business, the spring season brings the peak of activity. No cutting for itself is done by the mill as all logs are purchased through an operator on consignment. These purchased logs are stockpiled during the winter season. About ninety per cent of these logs are obtained from Cass Lake loggers and are harvested in the immediate vicinity.

Types used by this mill include:

1. Red Pine.
2. Jack Pine.
3. White Pine.

All of these are used for dimensional lumber with the majority marketed locally. In addition some hardwoods are processed. Oak, both red and white, is used for railroad ties and birch, one inch lumber, is sold to outside woodworking companies where it is used in the manufacture of ironing boards, brush handles and similar products. These are generally marketed to Minneapolis and St. Paul processers.

The Frank's Mill has been in operation for eight years to date. During the period from 1947-1955 it has had to expand at times to meet market requirements. The equipment

in this type of mill has a present value of between $16,000 to $18,000. The average timber processed annually by such a mill is about 500,000 board feet. However, in peak production years it has reached 1,250,000 board feet. The mill pays out annually an average of $59,000 for forest products.[8]

Another important user of forest products in Cass Lake is the Wheeler, Bridge and Lumber Supply Company. This is one of several this company operates from their main office in Des Moines, Iowa. Other Wheeler Company plants, each with a different industrial specialty, are situated in such cities as Superior, Wisconsin, Onamia, Minnesota, Hastings and Norfolk, Nebraska and St. Louis Park, Minnesota. St. Louis Park contains their main office yard for this region.

The main activity in the Cass Lake Wheeler plant is the peeling of fence posts and the preparation of poles. At present time they are also engaged in the buying and selling of pulpwood and operate a portable saw mill in this operation. During the 1955 winter season this company sawed 500,000 board feet of timber besides a limited number of bridge pilings which they processed from local timber purchases.

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[8]Statements by Frank Polries, Owner of Frank's Mill, Cass Lake, Minn., by personal interview.

Their source of timber supply generally includes an area within a one hundred mile radius of the city of Cass Lake. However, the greatest volume of wood products are obtained much closer. The main sources handled from Cass Lake extend from the west to Red Lake, then south to Hackensack and then eastward toward Grand Rapids. A total of 5,000 cords of rough poles a year are handled at this plant, of which approximately one fourth is obtained locally. Tree types of poles used are Jack pine and Red pine. The Wheeler firm buys smooth poles which are free of scars and scaled in the following dimensions:

82 inch lengths with $3\frac{1}{2}$ to $5\frac{1}{2}$ inches in width.
100 inch lengths with 5 to 7 inch tops.
Guard rail posts--6 to 8 feet with tops of 8 to 9 inches.
Long poles (for telephone lines) and barn poles.

The most important piece of equipment used in this plant is a Hurricane post peeler. This machine peels posts free of all bark and then trims off the ends to desired sizes. The poles are first stock piled for aging for a period of one year, then graded to size, and lastly banded into bundles. When this last step has been completed the poles are shipped to the yard plant at St. Louis Park, Minnesota where they are treated. This treatment consists of creosoting the poles by a vacuum process. All poles are marketed from the St. Louis Park plant. No sales department is maintained in Cass Lake. Railroad cars are used exclusively for shipment of the poles from the Cass Lake plant.

Although the Wheeler plant maintains a year-around operation, it is considered to be seasonal as far as local employment is concerned. In the summer season, approximately twenty employees are utilized and are divided into two work shifts a day. In winter, about seven men are employed. The severe weather, at this time of year, prohibits peeling and most other plant activity. The main operation during the winter months is to stockpile the timber near the plant to assure an adequate supply of poles during the peak summer season. The company employs an average of fifteen men in logging to keep adequate stockpiles. All of the lumber employees are Cass Lake residents. The average payroll of the local office is $24,000 per year. Approximately $11,000 of this total is paid out during the five summer months of peak plant operation. The logging camp payroll runs about $500 per week. From April through September, about $5,000 per week is expended by the local office for the purchasing of forest products.

The Wheeler Lumber and Bridge Supply Company has been in business in the Cass Lake area for seven years. During this time, all of the plant's activities have been centered around the manufacturing of raw poles and posts. The company's finished products are distributed throughout the farming centers in the north central agricultural states. The states

of Minnesota, North Dakota, South Dakota and Iowa are the major outlet for their finished posts.

The operation of the Cass Lake mill is under the direction of Mr. Willard Conner, the plant superintendent, Mr. William Hanson, the production manager and camp superintendent, and Mr. Art Blakely, the clerk.[9]

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[9]Statements by Art Blakely, Clerk, Wheeler Lumber and Bridge Supply, Cass Lake, Minn., by personal interview.

Figure 11. RAILROAD CAR LOADED WITH PULPWOOD. (Wheeler Lumber and Bridge Supply Cass Lake, Minnesota).

Figure 12. POST STOCKPILE. (Foreground--unpeeled posts ready for processing. Background--posts are peeled, ends finished, banded and ready for shipment. Wheeler Lumber and Bridge Supply, Cass Lake, Minnesota.

CHAPTER V

RECREATION INDUSTRY

Up to the turn of the present century, the region surrounding Cass Lake was virtually unknown to the general population. Travel facilities were meager; there were no roads worthy of name, the automobile had not entered the picture and accommodations for transient visitors were not of the best. During the first years, the delights of fishing, hunting, and boating were left almost entirely to local residents. Many of them established summer homes on selected spots around local lakes and on Star Island. The need for suitable accommodations for the early tourist very soon became known. Eric Seelys and Frank Suitor built a tourist hotel on Star Island. Another small hotel was erected on Norway Beach and the present day Highland Inn served tourists at an early date. Within a few years private homes of non-residents commenced to appear around the lakes, but the real development of the tourist industry came with the advent of good roads and the general use of the automobile. The industry was helped to thrive after World War I, when the average citizen received shorter working hours, better vacation periods and more leisure time. As the tourist influx increased, more and more resorts were built to accommodate the increasing number of summer

visitors. The ever expanding tourist business literally changed the face of the lake region. Most of the choicest sites on lakes and streams are now occupied and developed or are in the process of development and enlargement.

Even before the advent of the real tourist and resort industry, the local towns and cities were giving publicity to this area and trying to sell it as a scenic attraction and tourist haven. At this time, summer homes were built and used but no real commercial resorts were in operation. Prior to the time of the automobile, the railroads ran many excursions through here catering to groups who chartered cars for travel. Special trains were made up with runs scheduled to Cass Lake and Bemidji. The Great Northern had a popular excursion which was made up in Grand Forks, North Dakota, for a one day trip to Cass Lake. Excursion trains were also made up in Duluth and the cities of Minneapolis and St. Paul offering week end trips to this region.

The first actual resort to be put in operation was one built by a Mr. Joe Williams in the year 1910. This was located on Norway Beach, east of the village of Cass Lake, and was considered to be more of a hunting and fishing lodge than a vacation home. In 1915 Eric Seelys and Frank Suitor built the first successful hotel venture. In 1910, H. H. Martin came to Cass Lake and built a summer home on Cass Lake, near

the present site of Highland Inn, which was later operated by him as a resort.

The real expansion in the resort business came about during the 1921 to 1923 period because of the greater use of automobiles and the building of better roads. Since that time it has changed consistently. The actual number of resorts since that time has remained about constant, however, the businesses have changed hands many times and appearances and facilities have changed.

Many summer homes still are located in the vicinity with the most prominent ones located on Star Island, an island near the western shore of Cass Lake.[1]

The Cass Lake resort region lies in a land of richness in forests, game and fish. Its flora and fauna are distinctively the reason for the great influx of tourists who have the advantage of these resources for sport or recreation. The area here has an unusual variety of animal wildlife. Black bear are frequently seen. Of the larger mammals, the whitetail deer is the most abundant. Deer are found everywhere in the forest region. Many are hunted and killed each season and during the summer they can be seen

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[1]Statements by Grant Utley, Editor of local newspaper, Cass Lake, Minn., by interview.

commonly along forest trails, highways and on the shores of lakes.

There is also an abundance of small animals and upland game. There is a good population of snowshoe hare, a fair number of cottontail rabbits and numerous squirrels are found in the forest. Of the upland game, grouse are plentiful and on the increase. Prairie chickens also are present and hunted during the annual fall season.

Of the fur-bearers and predators--not many wolves or foxes are to be found. The timber and brush wolves have become quite rare. Wildcats are more common but, in general, are controlled by the trappers and hunters. Many other small mammals are abundant. Beaver are common in the forest along with muskrat and skunk. These are valuable fur bearers and are sought annually by local trappers in the alloted season.

This region, with its many lakes and flowage areas, is a haven for thousands of waterfowl each year. Duck hunting is an important activity of this region. Great numbers are found during the nesting season, for the lakes provide adequate feed. This region lies in part of the Mississippi flyway which provides additional birds for good shooting conditions each fall. Among the species included are the mallard, the golden eye, the blue winged teal, the ring neck and the baldpate. Less abundant are such species as the black duck, the redhead,

the ruddy duck, the beaded merganser and the green winged teal.

Fishing, by far, makes up the greatest attraction to the tourist. Most of the resorts are of the type commonly termed a "fishing resort". This sport is good in Cass Lake and in the surrounding smaller lakes and streams. Catches are made of the following varieties: Wall-eyed pike, northern pike, black bass (both small and large mouth), perch, rock bass, crappies, sunfish and bullheads. The more avid fishermen try for the muskellunge which is found, in limited numbers, in the larger lakes of the area.

A sport which is popular in this region is winter fishing. Angling is a minor part of the activity and is done generally in isolated lakes where pan fish can be obtained. Darkhouse fishing, or spearing, is by far the most popular winter fishing activity. A fishouse or darkhouse is a small structure, generally large enough to hold two fishermen. Usually it is constructed of materials of light weight which make it semi-portable. A framework of 2" X 2" boards or 2" X 4" boards covered with tar paper, cardboard, or plywood is commonly used. However, some are far more complete and durable in structure. No windows are included unless the fisherman plans to angle in the house, then a window is required by law. A hole of moderate size (2' X 2') is cut in the floor. The house is then moved out on the ice and set down over a

previously chopped hole of the same approximate size as the hole in the floor of the fishhouse. The fisherman uses a lure or "decoy" to attract the fish. Fishing is usually done in areas where the water depth averages between eight and twelve feet. Fish are speared when they appear in the hole after being attracted by the lure. Live bait can be used but cannot contain a hook. The spear has from five to seven tines. A rope is attached to its shaft so the spear can be recovered after being thrown. Only certain species of fish may be speared in Minnesota waters. A separate set of winter fishing laws are enforced during this season. Walleyed pike spearing is prohibited. The most popular game fish speared is the northern pike, while "rough fish" (suckers and tullibees) can be taken in any quantity.

Wild life is considered as the province of each state, thus the state of Minnesota controls and regulates the taking of wildlife within the Chippewa National Forest just the same as elsewhere in the state. In regard to wildlife, the function of the Forest Service is to cooperate with the state in the management of this resource and to provide, as ideally as possible, the food and shelter upon which wildlife depends. During the period of 1950 to 1953, there were 280,000 acres of fishing lakes and 700 miles of fishing streams used by an average of 95,000 fishermen. During this period an average of

18,000 big game hunters invaded this area and annually harvested 3,000 animals of the estimated herd of 25,000 white-tailed deer. The forest is also noted for its water fowl hunting which accounts for a large share of the 18,000 small game hunters annually using the forest. The abundant waters make good fur bearing animal habitat and provide some 600 part-time trappers with additional income. In a large part of the forest, the largest land use is for recreation and wildlife production. This includes, not only the 280,000 acres of fishing and water-fowl lakes, but also, 133,000 acres of national forest lands, which, because of its swampy nature or for other reasons, will not produce commercial forests. The intensive timber management program practiced on the forest tends to be beneficial in maintaining habitat for forest wildlife species.[2] More food is produced where controlled cutting programs are practiced.

The resort industry is one of the dominant activities of the Cass Lake region. In area, this region extends northward to the vicinity of Lake Andrusia, Big Lake, Kitchi Lake and the north shore of Cass Lake. Eastward it stretches to Lake Winnibigoshish, and to the towns of Bena and Federal Dam. To the south it includes the northern extremeties of Leech Lake,

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[2]Hermel, op. cit., pp. 4-5.

which takes in such waters as Sucker Bay, Portage Bay and Steamboat Bay. Crooked Lake, Portage Lake and Steamboat Lake are within the Cass Lake resort limits also. The western boundary of the Cass Lake resort region is conceded to end in the vicinity of Grace Lake and Wolf Lake.

Within the above defined area, there are approximately seventy five resorts. This area also includes numerous boys and girls camps and several independent launch services and boat landings. The resorts of this region may be classified into three categories. These are (1) MODERN RESORTS--fully equipped for housekeeping, the cabins include hot and cold water, full bathrooms, linen service and fuel. (2) SEMI-MODERN --equipped for housekeeping, some cabins have running water both hot and cold. The essential difference between these resorts and the modern resorts is in the bathroom facilities. The semi-modern resorts generally use a central shower and lavatory building which serves the whole resort population. (3) RUSTIC RESORTS--no modern facilities are included. Some are equipped with central showers but outside toilets are still in use. This type of resort is definitely on the decline, Resort owners are finding that the tourist trade is demanding better facilities and those resorts which do not offer such facilities are losing a great share of the resort trade. More and more the present trend is for completely modern resorts.

Figure 13. TYPICAL SEMI-MODERN CABINS.
(Birch Villa Resort, Cass Lake).

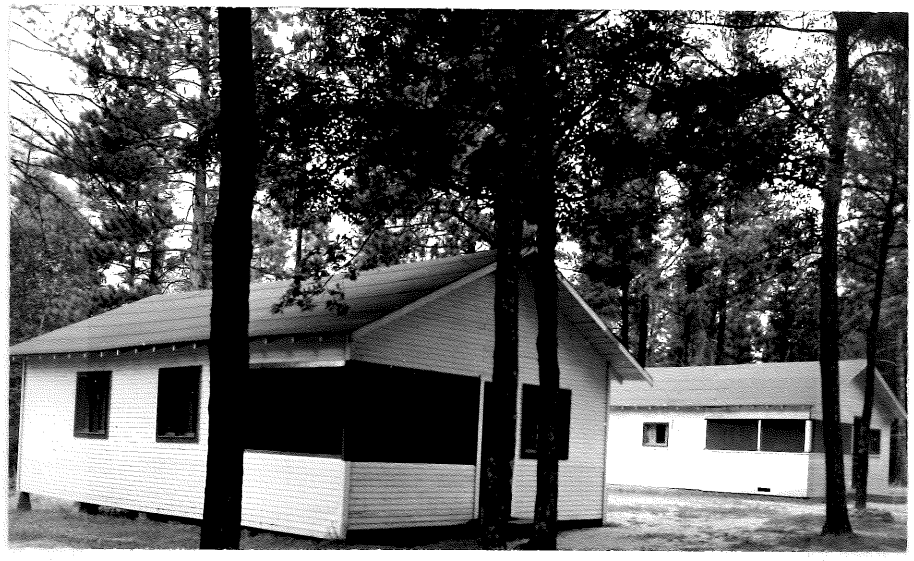

Figure 14. TYPICAL MODERN CABINS.
(Cass Lake Lodge Resort
Cass Lake, Minnesota).

Each year finds more resorts remodeling to add these factors which classify a resort as strictly modern. Many former fully semi-modern resorts now have one or two cabins which they advertise as fully modern. The cabins either have been altered to include modern facilities or have been recently added to existing facilities. Most of the rustic cabin resorts are now in the process of being changed to a semi-modern camp.

Prices fluctuate depending upon the type of resort, its location, its facilities and its plan. Basically the strictly modern resorts have a price range from $50.00 to $70.00 per week, depending upon the number of rooms of the accommodations. Semi-modern resorts have rates from $35.00 to $55.00 per week. Those resorts which offer the American plan have separate rates based on how luxurious they are.

Included in the Appendix of this report is a list of resorts in the Cass Lake area which belong (are listed) to the Cass Lake Civic and Commerce Association. This list will more fully describe some of the resorts in the Cass Lake vicinity and give in detail the plans, the facilities and the rates.

Since most of the resorts in the Cass Lake vicinity are of the semi-modern variety a description of a typical resort of this kind is given here to suggest how an average resort is operated, maintained and administrated. The following information was obtained from Mr. Paul D. Smith, owner and

operator of Birch Villa Resort on Cass Lake. Birch Villa is located one mile north of the city of Cass Lake, directly on the lake shore of Cass Lake. There are twelve cabins in this establishment, all of the wood frame variety. The best have hardwood flooring, the others have a linoleum surfacing. Birch Villa cabins are designed to accommodate any type of group from singles up to parties of eight. The resort is equipped with a public shower, bathrooms and ladies' and men's dressing rooms. The dressing rooms contain hot and cold running water for sanitary facilities. All of the cabins are well maintained even though during the resort season they receive a considerable amount of wear and usage. A resort owner must maintain a constant program of remodeling, reconstructing and refinishing in order to uphold the standards that he advertises. Carelessness and disrespect for property on the part of the occupants is one of the major problems with which the owner must cope with.

Birch Villa provides gas and water to all cabins. The cabins are equipped with inner spring mattresses and contain essential equipment for general housekeeping. Providing such services such as linens, blankets, dishes and silver, make up the greatest expense for this resort operator.

Along with the cabin facilities, Birch Villa has a lounge which is open to both customers and the general public.

As is true of most of the resorts of this area, the main activity at this resort is fishing. The average customer is a fisherman, although in recent years, there is a definite increase in the number of tourists who are vacationing without partaking in fishing as a major activity. To accommodate the influx of fishermen, Birch Villa maintains a complete fishing service. Boats are supplied for each cabin, some types of tackle can be purchased and minnows are supplied. Minnows are obtained by the resort owner from a regular minnow dealer who engages in the bait business on a commercial basis. A few of the resort customers bring their own private boats but this is a very infrequent practice. Motors are supplied, for an added charge, along with gas and oil and other general needs for the operation and maintenance of the motors. Each boat that is owned and operated by a resort must be licensed by the state and these must pass inspection by state employees. Launches are licensed also, at a cost of eight dollars per year, and the operator of these must have a pilots permit. Birch Villa operates a popular launch service. On launch trips, a guide and the boat are furnished generally for a four hour excursion, however, this service may be obtained for any requested length of time. The launch can accommodate eight people, but for larger groups, a boat holding five persons can be towed behind the launch. This service is popular with families at this resort who wish to go fishing as a group.

Guide service is provided at this resort for those customers who wish additional service and planned fishing trips. Another service provided to the customers at this resort is a daily mail delivery carried out by boat. Two mail deliveries are made daily to homes and resorts on Cass and Andrusia lakes from the Cass Lake Municipal Boat Landing.

The resort season is usually considered to be a period of ten to twelve weeks. This period begins about the last of May or first of June. At this time, most of the schools are out for the year and families with children are able to travel for their vacations. Prior to this time, some tourists do visit the resorts, but the majority of these parties are fishermen who come up for early angling.

As a matter of statistics, the greatest number of tourists who visit Birch Villa are out of state tourists. Many are regular patrons who return year after year on reservations. The state of Illinois sends the greatest number, Nebraska is second, Kansas is third and the states of Missouri, Iowa, North Dakota and South Dakota follow in that order. A great deal of trade also comes from in state as Minnesota people. An annual break-down of the visitors would place about sixty per cent of the customers at Birch Villa as residents of city areas while the remaining forty per cent would be rural inhabitants.

This resort must employ a number of people each summer. Besides the operator and his wife, there are four guides in service, a yard boy and a cabin girl. The duties of the yard boy are to mow the lawn, provide ice, clean and package fish and to assist the customers in various other ways. The cabin girl cleans the cabins and cares for the linens.

Accommodations in Birch Villa handle sixty persons per week during the peak season. Approximately six hundred people are customers every year and of these, about two hundred are classed as regulars.[3]

As far as seasonal business is concerned, the resorts of Cass Lake and the surrounding area, show the same general trends as do other resort businesses throughout the state of Minnesota. In 1952, Minnesota resorts were filled to forty-six per cent of their capacity for the period from May first to September thirtieth. More tourists come during July than any other month. This is the best reservation month. Housekeeping cabins reach a higher peak in July than other facilities. Combination plans do more business in the month of August. The American plan enjoys the most customers during June. Gross receipts at Minnesota resorts were up four per cent in

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[3]Statements by Paul D. Smith, Resort Operator, Cass Lake, Minn., by interview.

1952 over 1951. This was attributed to several causes. The prices were increased in some resorts that year, so with the same amount of business, the gross receipts were increased also. Many resorts had increased their number of available units and the size of the units had expanded. Highway traffic was also greater in most of the resort areas. In the overall percentage of customers, the greatest percentage of resort patrons come from the state of Minnesota--thirty eight per cent. Next was Illinois--nineteen per cent, Iowa--twelve per cent, Missouri--six per cent, North Dakota and Nebraska--four per cent each, Wisconsin--three per cent and South Dakota--two per cent.[4]

The Civic and Commerce Association of Cass Lake maintains an agency, in operation throughout the summer months, as a clearing house for information on the resort industry of this area. It also maintains a historical museum for visitors. Thirty resorts belong to this association and all these resorts received direct help from the association in the placement of tourists and resorters. In 1955, this agency placed 150 people either by written inquiry or by direct negotiation. A total of 4,100 people signed the guest book at the museum

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[4]Federal Reserve Bank of Minneapolis, Minnesota Resort Summary, (Minneapolis: Federal Reserve Bank, 1952). pp. 2-3.

Figure 15. BOAT HOUSE, DOCK AND HARBOR. CASS LAKE LODGE RESORT, CASS LAKE, MINNESOTA.

Figure 16. BEACH SCENE, CASS LAKE LODGE RESORT. CASS LAKE, MINNESOTA.

headquarters in 1955. It was observed that many visitors did not sign the guest book. This suggests the rather large transient population that visits this area each year during the period of three major resort months.

In addition to the resorts of this area, an important added activity is the boys and girls summer camps. These camps are privately owned and operated. A list of camps in the Cass Lake area follows:

1. Camp Cassaway....on Cass Lake--Girl Scouts.
2. Chippewa Camp....on Cass Lake--Boys. Private.
3. Kamaji.....on Wolf Lake--Girls. Private.
4. Mohegomi.....on Steamboat--Boys. Private.
5. Birchwood.....on Cass Lake--Girls. Private.
6. Wanaki.....on Cass Lake--Boys. Private.
7. Mission Camp.....on Cass Lake--Co-ed. Episcopal church.
8. Minne-wau-kan....on Andrusia--Co-ed. Lutheran church.

Besides the above mentioned facilities, the U.S. Forest Service maintains many separate areas for public use. Thirty two such camps, picnic grounds and roadside areas are located in the Chippewa National Forest. Seven of the thirty-two are situated in the Cass Lake area or in adjacent regions. At all camps can be found certain facilities for boating, picnicking, camping, fishing and bathing. In general, most of the facilities of these camps are free of charge.

Following is a list of these recreation areas:[5]

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[5]U.S. Forest Service, Chippewa National Forest Recreation Areas, (Cass Lake: Forest Service, 1955).

1. Star Island Camp and Picnic area on Star Island:

   On Star Island in Cass Lake near Cass Lake village. Available only by boat. Tables, fireplaces, well water, toilets.

2. South Pike Bay Camp and Picnic area on Pike Bay:

   Three miles south of Cass Lake on U.S. #371; east 2½ miles on Forest Road #137. Tables, fireplaces, well water and toilets.

3. Ojibway Beach Camp and Picnic Area on Pike Bay:

   Three and one-half miles east of Cass Lake village on U.S. #2; south ½ mile on Forest Road #137. Tables, fireplaces, well water and toilets.

4. Knutson Dam Camp and Picnic area on Cass Lake:

   Six miles east of Cass Lake village on U.S. #2. Nine miles north on Forest Road #3 to Knutson Dam. Tables, well water, fireplaces, toilets.

5. Lake 13 Camp and Picnic Area on Lake 13:

   Six miles south of Cass Lake village on U.S. #371; Four miles east on Forest Road #136. Tables, fireplaces, toilets and well water.

6. Norway Beach Camp and Picnic Area on Cass Lake:

   Four miles east of Cass Lake village on U.S. #2; one mile north on Forest Road. Tables, fireplaces, toilets, running water, bathhouse.

7. Lake Winnibigoshish Camp and Picnic area on Lake Winnibigoshish:

   Six miles east of Cass Lake village on U.S. #2; Three miles north on Forest Road #3; Nine miles northeast on Forest Road #171. Tables, fireplaces, toilets and well water.

The operation and maintenance of these areas by the Forest Service is becoming increasingly difficult each year as the facilities and equipment become older and as the numbers

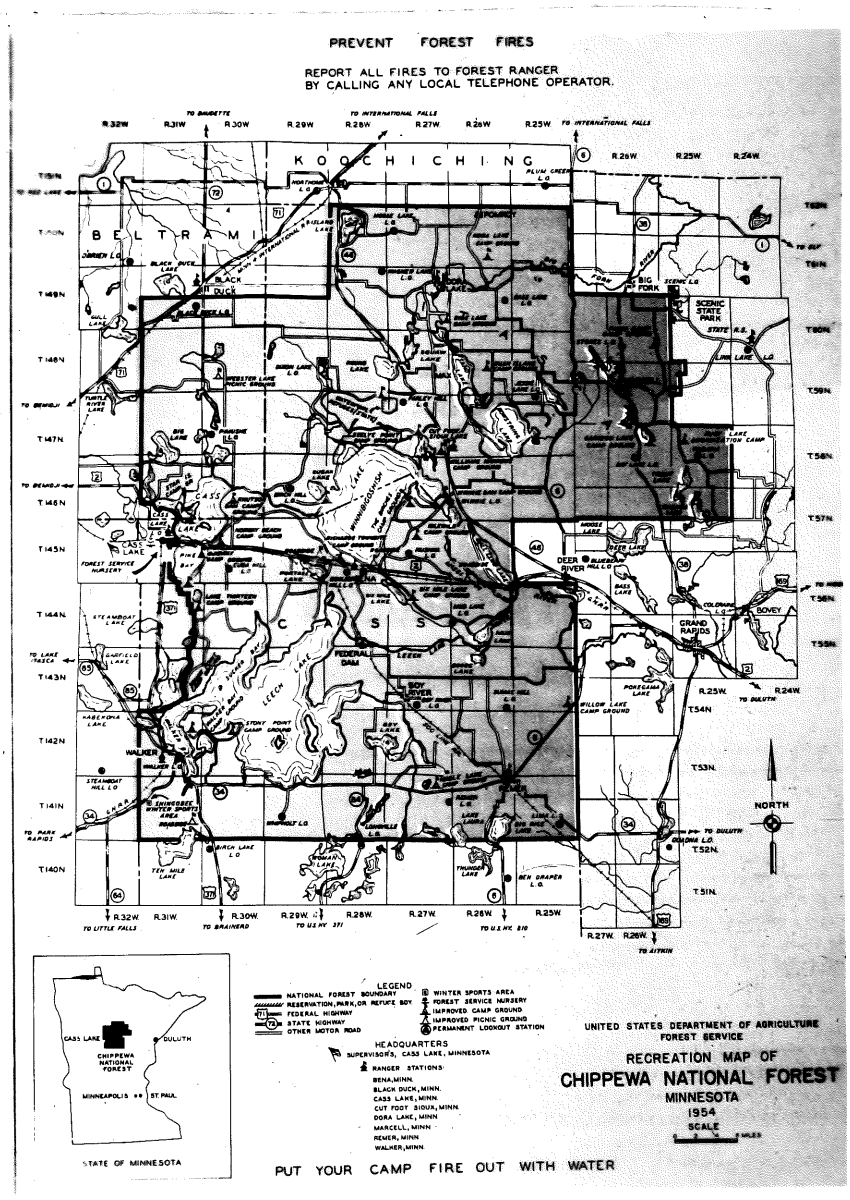

Figure 17. RECREATION MAP OF THE CHIPPEWA NATIONAL FOREST. CASS LAKE, MINN.

Figure 18. ROADSIDE PICNIC AREA NEAR PORTAGE LAKE. (One of many maintained by U.S. Forest Service).

Figure 19. PUBLIC LODGE BUILDING. NORWAY BEACH RECREATION AREA ON CASS LAKE.

using them increases. Many of the camping and picnic grounds are frequently used far in excess of their capacity. Such overcrowding increases the rate of deterioration of the site and over-taxes the sanitary facilities (latrines, garbage pits, incinerators). During 1953 approximately 300,000 people enjoyed the Chippewa Forest's facilities for hunting, fishing, swimming, canoeing and camping. Many hundreds more vacationed in privately owned resorts in, or adjacent to, this forested park.

Many summer homes are built on land which is rented from the government. There are two hundred forty such summer homes in the Chippewa Forest. One hundred fifty six of these, are located within the Cass Lake Ranger District. The majority of the homes are located on selected sites adjacent to Pike Bay, Cass Lake or Star Island. The permittees pay an annual fee for the lot varying from $25.00 to $40.00 depending upon desirability. Twenty five per cent of these rental receipts, as is true in the case of national forest timber sales receipts, also is turned over to the counties. The owner must also pay a personal property tax to the county.[6]

The future of the resort and tourist industry in the

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[6]Seward, op. cit., personal interview.

Figure 20. ONE OF THE MANY HOMES BUILT ON LAKESHORE SITES LEASED FROM THE U.S. FOREST SERVICE, CASS LAKE. (This year-around home is on West Pike Bay, Cass Lake, Minn.).

Figure 21. AREA OF VIRGIN RED PINE. (Located on West Pike Bay Loop Road, Cass Lake, Minn.).

the Cass Lake vicinity is dependent upon prosperity and increased leisure hours. With an expansion of the present existing facilities of the local resorts and a continuous maintenance program on all present facilities, Cass Lake seems assured of maintaining its present position as one of Minnesota's more restful vacation spots and a center for fishing and hunting sportsmen.

Several small enterprises located in the town of Cass Lake have a direct relationship to the recreation industry of the surrounding region. These are the commercial bait businesses, the boat manufacturing and repairing plant and the souvenir sidelines carried on by local merchants.

There are five separate wholesale and retail bait dealers in the Cass Lake village alone. All of these dealers carry a similar stock of baits which have proved to be well adapted to this locality. Live bait types stocked for local trade include minnows, shiners, river and lake chubs, suckers and worms. Each of these dealers also wholesale bait to the many resort-type retail outlets throughout the immediate area. Resorts, boat landings and launch services are the largest customers of these dealers. These businesses in turn serve as a retail bait outlet. However, bait must be sold at a retail price rate to the many actual retailers of the minnows.

Much of the live bait is obtained locally. Minnows and shiners are seined in nearby local lakes and streams. During the spring months, individual dealers build up their stocks for the later summer demand. One of the local bait dealers maintains a rearing pond in which he raises suckers, lake chubs and minnows. River chubs are not found locally and so are obtained primarily in central and southern Minnesota streams by each of the individual dealers. Mass transportation is very possible with the present day tank trucks that are used by all wholesale minnow dealers. These trucks are equipped with an automatic pump which forces a constant supply of oxygen into the water tank in which the fish are transported. Without this continuous supply of air to the water the minnows would soon perish. The bait business slacks off greatly during the restricted fishing season of winter months. During this season of the year, most of the bait dealers must engage in some other occupation if they hope to earn a fair yearly income.

The Larson Boat Works of Cass Lake is a small independent boat producer which employs but two men. These employees are the owner-operator and one son. The most important market for their product is the local area. Cass Lake resort owners are the largest buyers of this locally produced boat. A limited number of boats are also sold to local

fishermen and hunters. Within the last five years a new market has been found for some of these boats. This new market is located in such southern states as Florida, Texas and Louisiana. Through the use of boat trailers, several trips are made each winter to supply private boat orders from out-state customers.

The single type of boat produced in this local plant is the fourteen foot rowboat. However, this boat works also does construct eighteen to twenty foot craft. No launches are built or taken on order. An average of forty boats are produced each year, but, during the best market years up to one hundred craft have been manufactured here. In the early fall preceding the duck hunting season, a special type of duck boat is manufactured on order.

Some local oak is used in this plant. This oak is sawed and planed to proper dimensions in the plant itself. However, the bulk of the raw material used is Philippine mahogany which must be imported.[7]

One of the most profitable activities, which most local merchants engage in during the summer resort season, is the selling of souvenirs to the transient trade. Most stores,

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[7]Statements by Arnold Larson, Owner, Larson Boat Works, Cass Lake, Minn., by personal interview.

shops and gas stations handle these items. Oddly enough, only a very small percentage of the goods sold are authentic locally produced souvenirs. Much of the trade is in local scenery picture cards, cheap jewelry, metal products and wooden carvings. These articles are mass produced in other areas, but bear the name of the Cass Lake village. There is a limited amount of local Indian handicraft for sale. These articles consist primarily of birch bark products, wooden carvings, totem poles and leather goods. The leather products are generally of the beaded belt and moccasin variety. Very few local Indians engage in this type of work even though it is a profitable enterprise.

There is no souvenir shop in the village of Cass Lake which makes the selling of such items the major part of their trade.

CHAPTER VI

SUMMARY AND CONCLUSIONS

There are only four basic industries in the Cass Lake area which are of primary importance to the economy of this region. When any one of these basic industries suffers or is retarded, the entire area loses as a result. The inhabitants of this area should be vitally concerned and interested in the development of these basic industries or occupations, on which so many people in the immediate area must depend either directly or indirectly for their livelihood.

These four important economic activities are:

1. The Forest Products and Timber Industry.
2. The Tourist and Recreation Industry.
3. The Agricultural Industry.
4. Retail Trade and Services.

A major portion of the economy of this community and of the surrounding area is closely allied with the logging and products industry. This one activity alone provides the largest number of employment opportunities. The availability of timber has had a considerable effect on the stabilization of this community and its adjacent areas where the wood using industries or the woods work has become an important source of income to the local residents.

The health and economic security of the people of this region depends, to a great extent, upon how well the forests are managed and protected. An abuse of the timber land and the forested regions surrounding Cass Lake would require expensive corrective measures and decades of time if the land had to be restored. If this were permitted to happen, Cass Lake would indeed suffer economically and living standards would be lowered from their present levels. Primarily it is the obligation of forest workers to practice the kind of forestry that will safeguard the public's stake in the forest land. To protect its own vital interests, the general public will have to demand that all persons engaged in the forest industry work observe this obligation. Fortunately, most of the forested land in the Cass Lake area is under the control and management of either the federal or the state government agencies. Government employees administer the cutting policy. These employees are specialists in forest conservation and management. The people of this locality, almost entirely, depend upon the forest for employment. The timber industry employees, the resort owners and the local store and shop-keepers are obligated to cooperate with the federal and the state forest agencies in protecting and restoring the forest resources of this region. This cooperation is essential if the community is to continue to profit from the various forest

industries. These resources include adequate water supplies, numerous forest products, attractive recreational facilities, good habitat for local wildlife and protection against possible severe water erosion of the land.

Another important consideration to the people of this region is the resort, the tourist and the sporting trade. These recreational activities produce a good share of this community's income. This basic industry is too often slighted by persons who do not concern themselves with the problems that must be faced by those businesses which are engaged in the functions of the tourist industry. Cooperation is essential among all cross sections of business interests in the area if the resort industry is to develop and bring prosperity to all local people. To a certain extent, filling station operators, waitresses, merchants, guides, professional men and farmers are all dependent on the tourist dollar which, directly or indirectly, finds its way into the pockets of all local people.

Competition for the visitor's dollar is keen. Local businessmen of this area must be prepared to meet the challenge of other resort centers by a united interest in greater publicity and by providing a well balanced program. Only in this way will Cass Lake continue to attract tourists and hold them with the valuable recreational facilities of the

surrounding area. The natural climatic advantages of the summer season, and the recreational facilities of this region, must be stressed and publicized in all those parts of the country that might potentially provide tourists. Each year, better accommodations, as well as more diversified recreation and entertainment policies will have to be considered if this area is to continue to attract the traveling public. For many tourists, the diversified amusements available and the more attractive the resorts are will determine how long they will remain in an area.

Dairying and livestock raising is another important industry which contributes to the wholesale and retail trade of this area. This activity is quite stable and unlikely to show much growth since the possibility for its expansion is somewhat limited. Modern dairying is the result of urban conditions where improved transportation facilities and modern scientific techniques have developed. Large scale dairying is dependent on very good pasture conditions, an efficient system of distribution and a nearness to markets. Ideal pasture and feed conditions are limited in this region and will continue to restrict the industry to rather small scale operations.

The average farmer, who continues to farm progressively and who is ambitious in his agricultural program, can contribute

much to the stability of this area. Most farming is a full time occupation which requires various types of services that are profitable to any small community. The "brush farmer" seems destined to continue on a subsistence level and his marginal agricultural practices will contribute little to the dairy industry or to himself. In recent years the increasing importance of the pulpwood industry has given many farmers of this area a chance to supplement their income by selling pulpwood from their woodlots during the winter months. This added income means an increase in the buying power of many farmers.

The resort and tourist season is indirectly allied to the local farming industry also. Almost all of the food Minnesota tourists consume is produced within the state. The local farmer, with this captive market, does not have to compete with other agricultural areas for the consumers dollar. Fortunately, the tourist season coincides with the farm productivity peak thus making the tourist dollar a major consideration in the local farm picture. Many of the local dairy farmer's products are consumed by regional tourists and resorters thus providing an increased market during this season.

Retail trade and service establishments in Cass Lake are similar to those businesses commonly found in small villages throughout northern Minnesota. In each community,

they provide an additional source of employment by offering and supplying the fundamental goods and products needed by the residents of each locality. In a resort center such as Cass Lake, they especially depend upon seasonal business to maintain a certain level of prosperity. Because of its size and nearness, Bemidji's business establishments offer keen competition to the Cass Lake businessmen in all fields of retail trade. The accompaning graphs in the appendix show the great seasonal business fluctuation that takes place in this city. The normal demand of the tourists vacationing in the area plus sight-seeing tourists attracted to the city add greatly to the purchasing volume of the local residents.

It is interesting to note that Cass County, of which this city is a part, has one of the lowest per capita retail sales averages in the state of Minnesota. The local county figure is listed as $550 compared to the state average of about $980. Average income levels here are below state normals too. In 1954, the median family income was only $1,703 compared to a state median of $3,163. The average value of lands and buildings, owned by occupants in Cass county, was $5,047 as compared to the state average of $15,749. This Cass county figure was the lowest in the state. Only four counties in the state have a lower level of living index than does Cass county. The proportionate land area of the county in farms is 25.4% while the state average is 64.2%. Fifty two per cent of the

land in Cass county is non-taxable--being within federal or state property.[1]

By most standards, Cass Lake would appear to be ill suited for industrial expansion. Other cities, however, equally distant from mass markets and with even more limited in the way of raw materials, have achieved moderate industrial activity. Railroad transportation facilities are adequate with good connections to other areas, motor trucking service is available, contract carriers can meet any proposed demand from this area and local drayage and storage facilities have been adequate to date, or could be expanded if necessary. Electric power capacity to this area is 10,000 KWH while the present maximum demand is 350 KWH. This indicates that there is plenty of power still available for other purposes.

There are certain possible steps that could be attempted to stabilize the present income of Cass Lake and possibly increase the income from a few of the present local activities. The retail trade businesses might very well enjoy some expansion through more aggressive sales campaigns covering the Cass Lake region. An increase in the tourist population would also increase sales in local business places and here-in lies

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[1]G. M. Ellenson, Study of Factors Affecting Welfare in Cass County, Report from the Cass County Welfare Office (Walker, Minn., 1955). pp. 1-2.

one of the best opportunities to increase the income of the town of Cass Lake. An extensive advertising program carried out in large cities from Minnesota southward to the Gulf of Mexico would increase the number of tourists visiting the Cass Lake region. Such a program should be continuous and well planned to enable existing resorts to expand and to permit new resorts to be constructed. With an ever increasing population, a shorter work-week and an increase in the desire for traveling vacations, the resort centers which have fore-seen these conditions and planned to meet them will prosper the most.
And last, but not least, is the expansion that is possible in the forest industries. First; plans could be made to utilize fully all of the tree crops that are produced in the surrounding forests and woodlots; second, studies should be made on the possibility of manufacturing certain finished wood products in Cass Lake that are now being manufactured in other cities.
If the forest resources were more completely utilized, the Cass Lake area would enjoy payrolls far beyond those experienced at the present time. The various industries of Cass Lake have remained almost static during the last ten years but they do not suffer from any disease that cannot be cured by a certain amount of planning and original thinking.

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Peterson, G., Wild Rice Buyer, Cass Lake, Minnesota.

Polries, Frank, Owner of Frank's Mill, Cass Lake, Minnesota.

Riley, Michael, Piece cutter, Cass Lake, Minnesota

Scofield, L. R., Agent, Great Northern Railroad, Cass Lake, Minnesota

Seward, James, District Ranger, U.S. Forest Service, Cass Lake, Minnesota.

Smith, Paul D., Resort Owner, Cass Lake, Minnesota.

Utley, Grant, Editor of Local Newspaper, Cass Lake, Minnesota.

A P P E N D I X

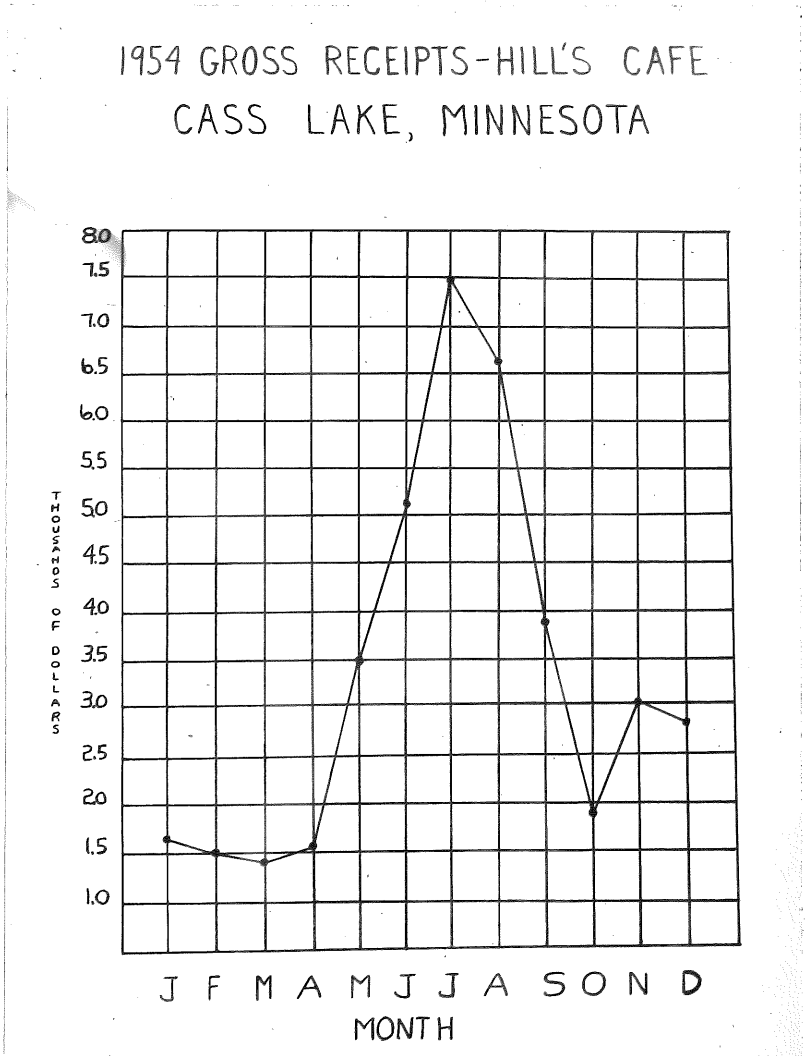

Figure 22. 1954 GROSS RECEIPTS AT HILL'S CAFE CASS LAKE, MINNESOTA.
(The great increase in volume is due to the resort and tourist trade. The sharp rise in November is due to the Minnesota deer hunting season).

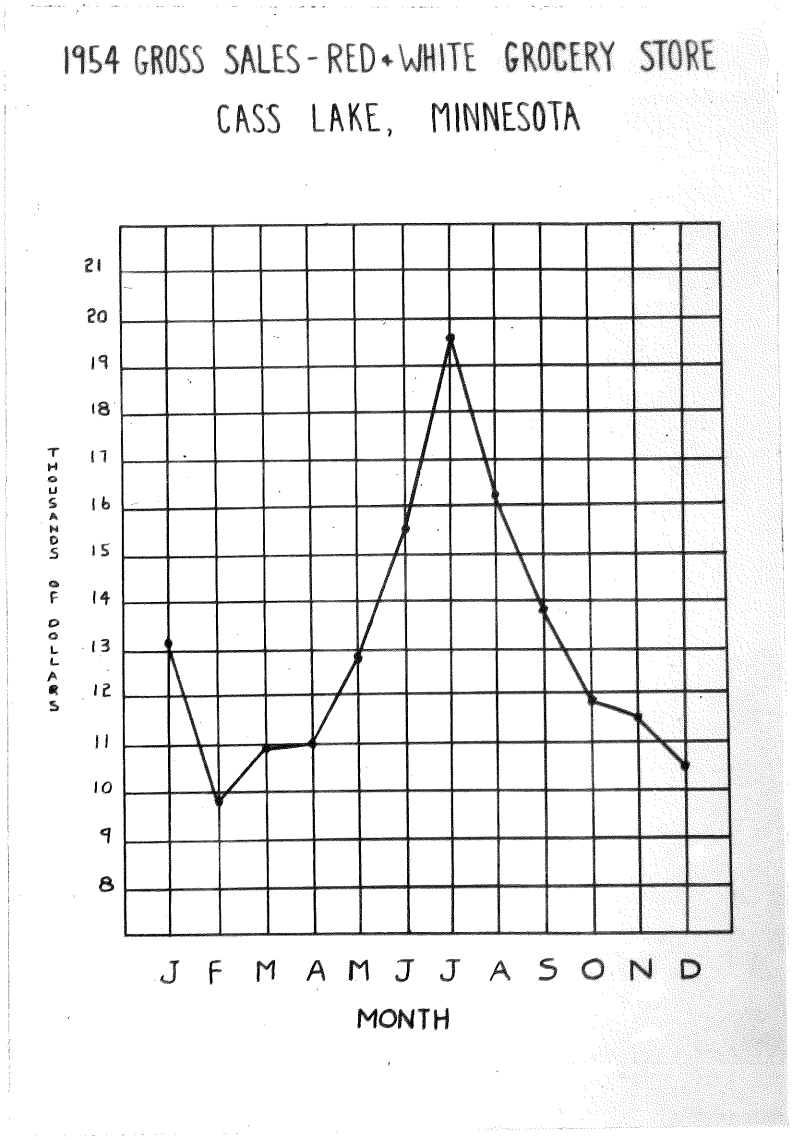

Figure 23. GROSS SALES OF THE RED AND WHITE GROCERY STORE, CASS LAKE, MINN. (The peak business months for this retail store reflect the added purchases of tourists and resorters).

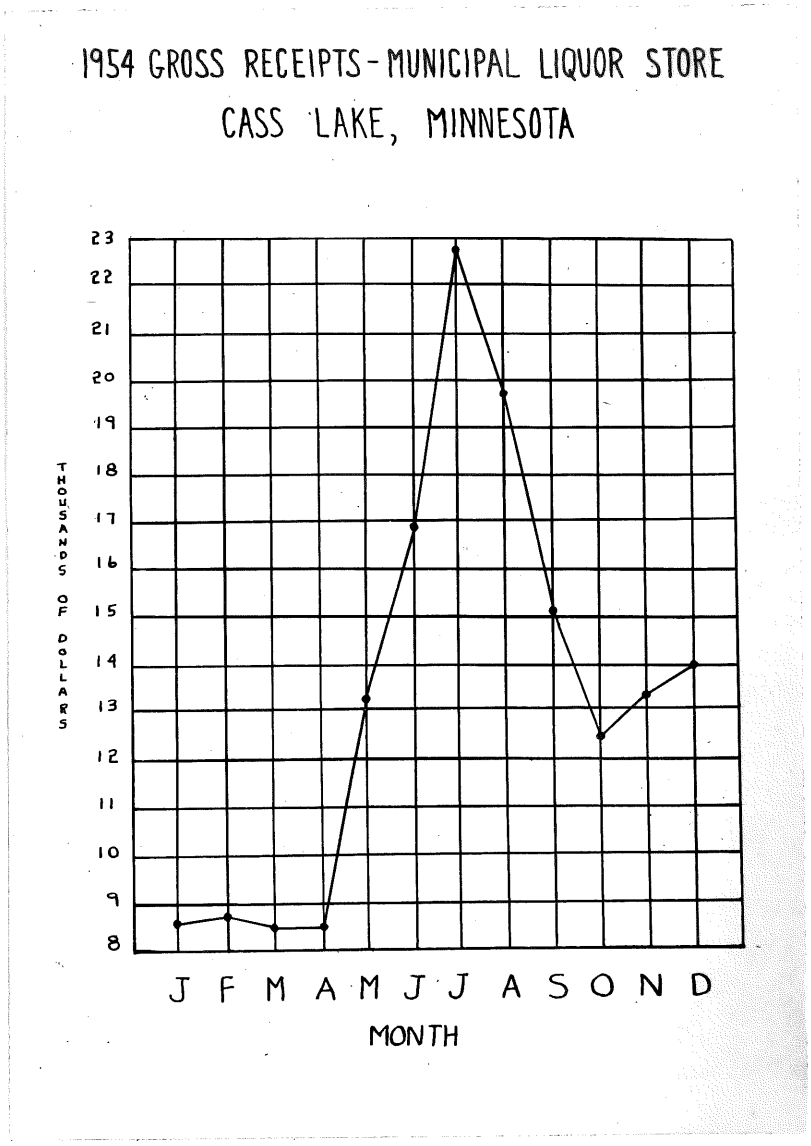

Figure 24. GROSS RECEIPTS OF THE MUNICIPAL LIQUOR STORE, CASS LAKE, MINN. (The great increase here is during the tourist and resort season. This business provides the village of Cass Lake one of its most important sources of revenue).

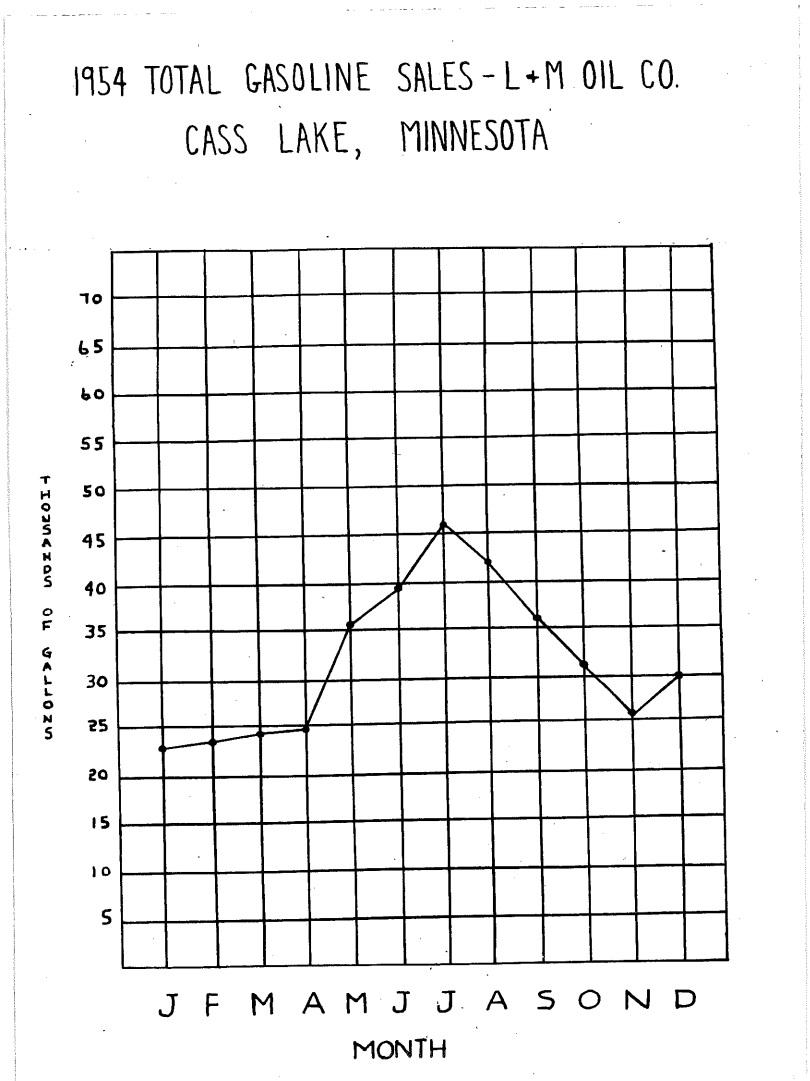

Figure 25. TOTAL GASOLINE SALES OF THE L & M OIL COMPANY. CASS LAKE, MINN. (Indicates the upswing in business during the summer months).

LIST OF RESORTS IN THE CASS LAKE AREA
Belonging to The Cass Lake Civic & Commerce Ass'n.

(No. 39) CASS LAKE BOAT DOCK — Chartered excursions, mail boat rides, speed boat rides, Taxi to Star Island, Row boats, baits motors C. L. Carahoof, Cass Lake, Minnesota. Phone 796.

(No. 12) WOLF LAKE RESORT — From Cass Lake, 5 miles west on Highway 2, then 2½ miles North, on Big Wolf Lake. Good fishing for walleyes and northerns. No hills. Calm Lake. 14 fully modern housekeeping cottages having natural wood interiors. Automatic gas heat. Gas for cooking. Electric refrigerators and water heaters. Innerspring mattresses. Individual bath rooms with showers and flush toilets. Bed linens. Couches, cupboard, clothes closets, Amusement lodge and store. Deep feeze fish storage. Good beach, shuffleboard. Guide service on launch. Rental motors, bait. Cottage rates - $50.00 to $65.00 per week including boat. Follow the pack, have fun. Mr. and Mrs. Greg Greul - Cass Lake Water Route. Phone 1844 R. Bemidji exchange.

(No. 21) BUCKHORN CAMP — has a fine dock, good beach and excellent boats. 8 Semi-modern cabins with electric refrigeration, lights, running water and flush toilets in 5 cabins. Licenses for sale — also fishing tackle, pop and minnows, gasoline and guide service. Located on beautiful Lake Andrusia and accessible to Cass Lake by boat. Also several other small lakes. Sheltered bays make it possible to fish at all times. Andrusia Lake is listed as a walleye lake but also has rock bass, northern pike, crappies, perch and bullheads. Mrs. R. H. Beeson.

(No. 24) DICK'S LODGE — On Cass Lake located 3½ miles Northwest on Old Highway No. 2. Our cottages are completely furnished for housekeeping having 110 volt electric lights, running water electric ranges for cooking, electric refrigeration, and inner-spring mattresses. Bedding, bed linens, silverware, dishes, cooking utensils oil heat, one boat furnished with each cottage. We have a central shower house, with hot and cold running water available at all times. Deep Freeze service, Children's playground. Cottages are on the lake level and lake front about 65 feet back from the waters edge giving one an unobstructed view of the lake. Good firm, sand beach for swimming. Launch for fishing and excursion trips at the resort. Dick L. Lillie, Prop. For further information write to Dick's Lodge, Cass Lake, Minnesota. Phone 480.

(No. 7) VIEW POINT RESORT — Located on a level of land surrounded on three sides by Little Wolf Lake, 12 miles southeast of Bemidji on U. S. No. 2 or 3 miles west of Cass Lake on U. S. 2. Five housekeeping cottages all located on the lake shore. All cottages are completely equipped for housekeeping with sinks, running water, electricity, gas for cooking, electric refrigeration, innerspring mattresses, bed linens, blankets and etc. Some cottages are modern. One round bottom boat furnished with each cottage. A fine safe sandy beach for excellent swimming. Fishing includes walleye, northern, bass, blue gills, crappies, and other panfish. Motors extra boat service, live bait, groceries, and soft drinks available. Reasonable rates. Write or phone Mr. and Mrs P. E. Grunwald, View Point Resort Cass Lake, Minnesota. Phone Cass Lake 746.

(No. 25) THE TREES — Modern housekeeping cabins on Allen's Bay, Cass Lake. Cabins have showers, toilets, hot and cold water. All bed linens and dishes furnished. Safe, sandy beach for children, ideal swimming beach. A state inspected 16 foot boat included with cabin. Prices are $45.00 to $55.00 for double cabin per week. $50.00 to $70.00 for larger cabins. One of the finest lakes for walleyes northerns and muskie, also pan fish. A $10.00 deposit required on all reservations. Located 7 miles north of Cass Lake road 24, watch for signs. Tel. 471 or write the "Trees", Cass Lake, Minnesota.

(No. 16) ANCHORAGE RESORT — On Lake Andrusia, 15 cabins, semi-modern, central showers. Boats motors to rent. Baits and general store, gas station, located on old Highway 2 and 371 between Cass Lake and Bemidji, South shore, sandy beach, especially for children. Andrusia is on the Mississippi chain, connecting with both Wolf and Cass Lakes by the river. Address Mr. and Mrs. Cecil Speer Props., Route 2, Cass Lake, Minnesota, Phone 591.

(No. 37) NORWAY BEACH RESORT — In the Chippewa National Forest, Heart of the virgin Norway Pines. Modern fully equipped housekeeping cottages. Electric refrigeration, gas heat, linen and blankets for beds, state inspected boat free with each cottage, excellent, safe, sand beach. Main lodge, shuffleboard court, water raft. Close to best walleyed pike fishing grounds. Four miles east of town on Highway No. 2, S. G. Trent, Cass Lake, Minnesota.


CARTOMAP
CASS LAKE
MINNESOTA
Showing
CASS, ANDRUSIA, WINNIBIGOSHISH and other LAKES in THAT VICINITY with HISTORICAL DATA PERTINENT to the AREA.
Copyright 1941 • W. A. FISHER COMPANY, VIRGINIA, MINNESOTA
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Acknowledgement for historical data: Minnesota Historical Society, St. Paul; Grant Utley of Cass Lake Times; A. G. Swindlhurst of Cass Lake.
PAVED HIGHWAYS
GOOD MOTOR ROADS
POOR MOTOR ROADS
LOOKOUT STATION
Indians traveled north from here to reach Red Lake.
Colonel Dixon, in command of an early out post observed: "Most quarrels between Indians (who were intoxicated) usually originated in disputes on each others bravery."
The white pine, once harvested in this region, was the clearest and most perfect timber that has ever been harvested in the U.S.A.
Politics
The American Fur Trading Co. had a force, in 1818, of 400 clerks and traders.. 2000 voyageurs.
The struggle between American and British fur interests was terrific. There were fighting, intrigues, etc.
Ancient Indian ceremonial mound.
Majority of early Indians dressed in clothing made from deer skins.
Headwaters of the Mississippi River 50 miles west of here by water.
G.C. Beltrami came in 1823 trying to establish the source of the Mississippi R.
Site of old Indian burial grounds.
Indian Burial Ground
Site of Bishop Whipple's Episcopal Indian Mission (about 1853) Head-stones still visible.
2nd printing press in Minnesota (1844) (Missionary) Brought in from Oberlin College
Approximate site (1794) of North-west Fur Co. Built by Perrault.
Site of earliest Indian village.. found by Schoolcraft in 1832.
Approximate site of American Fur Co. Trading Post in 1820.
Approximate site of North-west post
Site of Indian village in 1832
Young Indian bucks became unpopular with the squaw if he worked.. that is, hired out. Women did the work.
Zebulon Pike came up the Mississippi R. to Cass Lake in 1805.
Indians traveled Northeast from Lake Winnibigoshish to Lake of the Woods and Rainy Lake.
Approximate site of American Fur Trading Post about 1823.
Early travel route was down Mississippi River to Lake Superior and points south.
In early summer furs were moved down the Mississippi R. across Big Sandy Lake to Fond-Du-Lac near Duluth. Here they were taken down Lake Superior to headquarters. Traders would return later in summer with provisions for another year.
The American Fur trade centered on Mackinac Is. (Michigan). Here Astor, Stuart and Crooks organized and carried on the business of the American Fur Co.
Cass County.. established Sept. 1, 1851, was without organization until 1897.
Cass Lake is the capital of the Chippewa nation.
Modern resorts are numerous throughout this lake region.
Cass Lake was named after Gov. Lewis Cass of Michigan Territory... visited area in 1820.
It was not until 1832 that the source of the Mississippi R. was established in Itasca State Park by Henry Rowe Schoolcraft.
Beautiful stands of red and white pine... some 300 years old.
Wigwams were usually made from birch bark.. in conical form.. about 15 ft. in diameter. The entire family usually lived in same shelter. about 10 to 12 ft. high. Door was usually a buffalo skin.
Early Indians believed in Great Spirit and bad spirit. Old men in Grand Medicine dance would give young bucks wholesome instruction in morals, urging: quiet good behavior, honesty, truthfulness and to pay debts.. to injure no one.
The portage from Winnibigoshish thru Portage L. to Waboose Bay was used for centuries by early Indians.
J.A. Gilfillan writes: "Indians northwest of Cass Lake had the habit of plastering their backs with white clay.. it became dry and hard and on it painted all sorts of curious figures in red paint. They would stalk with this all summer."
Early Indians were generous to a fault.. the worst thing an Indian could say about another was that he was selfish like the white man.
Bug-Ah-Nay-Ge-Shing is buried on Sugar Point.
In 1898, on Sugar Point, there was a battle between Indians and U.S. troops.
Duck Hunting
James Duane Doty wrote in 1822: "All inhabitants concur in the statement that during the winter they fed whitefish to their horses and cattle."
PUT OUT YOUR CAMP FIRES WITH WATER!
Old Indian mounds
CASS LAKE
SCHLEY
BENA
FEDERAL DAM
WILKINSON
LA PORTE
BENEDICT
LEECH LAKE
From WALKER BRAINERD MINNEAPOLIS ST. PAUL
From BEMIDJI
From GRAND RAPIDS DULUTH
LAKE WINNIBIGOSHISH
CASS LAKE
PIKE BAY
LEECH LAKE
PORTAGE BAY
SUCKER BAY
STEAMBOAT BAY
MISSISSIPPI RIVER
LEECH LAKE RIVER
BOY RIVER
THIRD RIVER
SIX MILE BROOK
SIX MILE LAKE
BIG LAKE
ANDRUSIA LAKE
WOLF LAKE
GRACE LAKE
MIDGE LAKE
KITCHI LAKE
SUGAR LAKE
PORTAGE LAKE
STEAMBOAT LAKE
GARFIELD LAKE
KABEKONA LAKE
SWAMP LAKE
TURTLE RIVER LAKE
MOOSE LAKE
RICE LAKE
BIG BASS LAKE
LITTLE BASS L.
LITTLE WINNIBIGOSHISH LAKE
CUT FOOT SIOUX L.
LITTLE CUT FOOT SIOUX L.
STAR ISLAND
CEDAR ISLAND
O'NEILS PT.
STRAWBERRY PT.
TAMARACK POINT
RAVENS PT.
STONY POINT
TWO POINTS
OTTER TAIL POINT
BLACK DUCK POINT
SUGAR POINT
SQUAW POINT
CEDAR POINT
PINE POINT
GOOSE IS.
MINNESOTA ISLAND
WABOOSE BAY
M. ST. P. and S.S.M. RY.
G.N. RY.
MINN. and INT. RY.