THE LAND USE
OF
ERAMOSA TOWNSHIP

A THESIS

PRESENTED TO

THE FACULTY OF THE DEPARTMENT OF GEOGRAPHY

McMASTER UNIVERSITY

HAMILTON, ONTARIO

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OF THE REQUIREMENTS FOR THE DEGREE

BACHELOR OF ARTS

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INTRODUCTION

1. The Aim of This Thesis

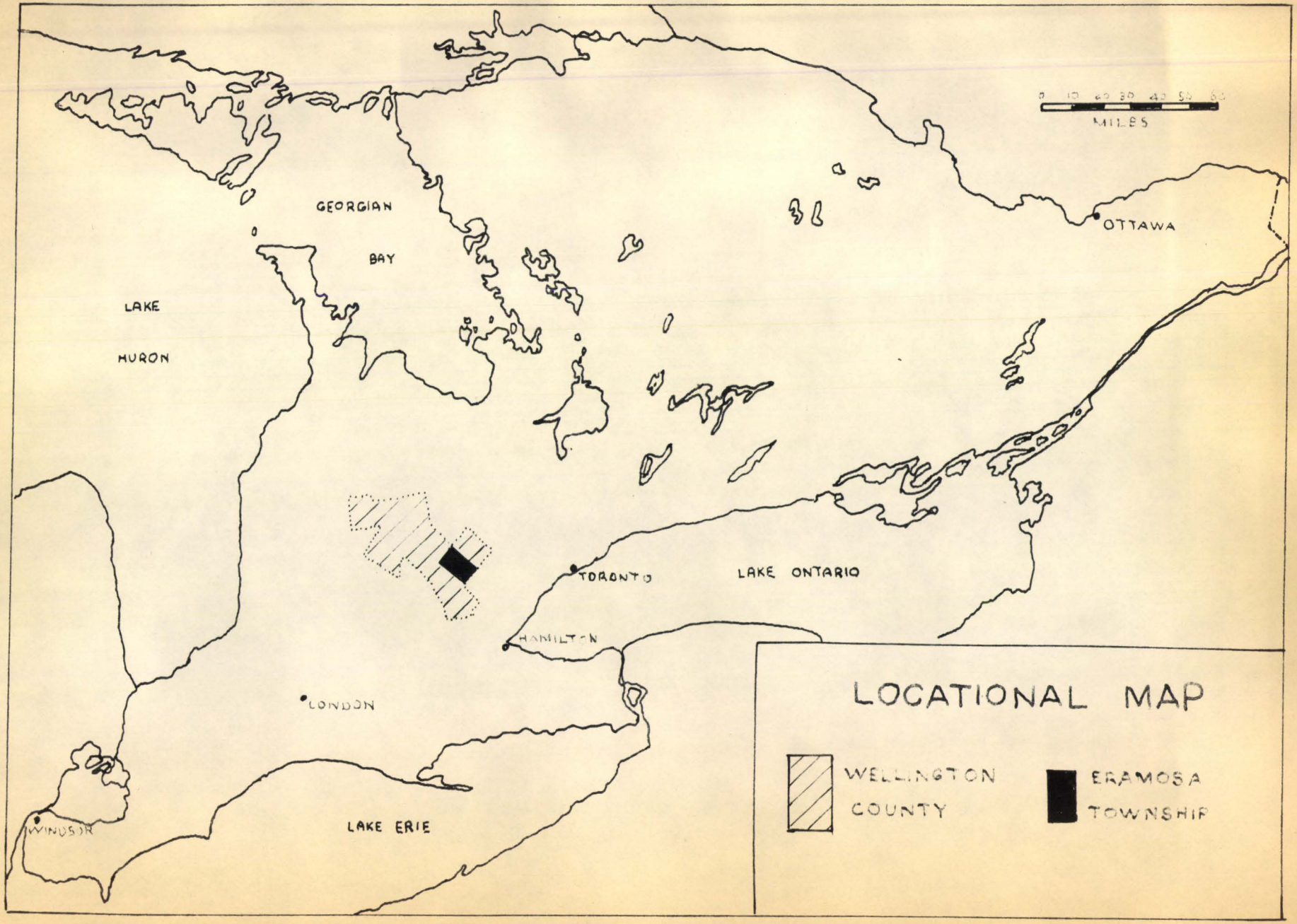
The aim of this thesis is to portray the land use of Eramosa Township and to enquire whether the factors usually stated to control land use (physical and historical) apply in this area. In other words, it is to discover how the land is used and why it is used in this way.

In order to present a systematic study, a description of the physical landscape will first be given. This will establish a basis for evaluation of the land use pattern. Following this will be a discussion of the historical setting, showing how the land was first used and how this land use evolved over the years to its present pattern. Chapters IV and V will be concerned with the present land use, both rural and urban. In the Conclusion we shall see how much the physical and historical factors have affected the present land use pattern.

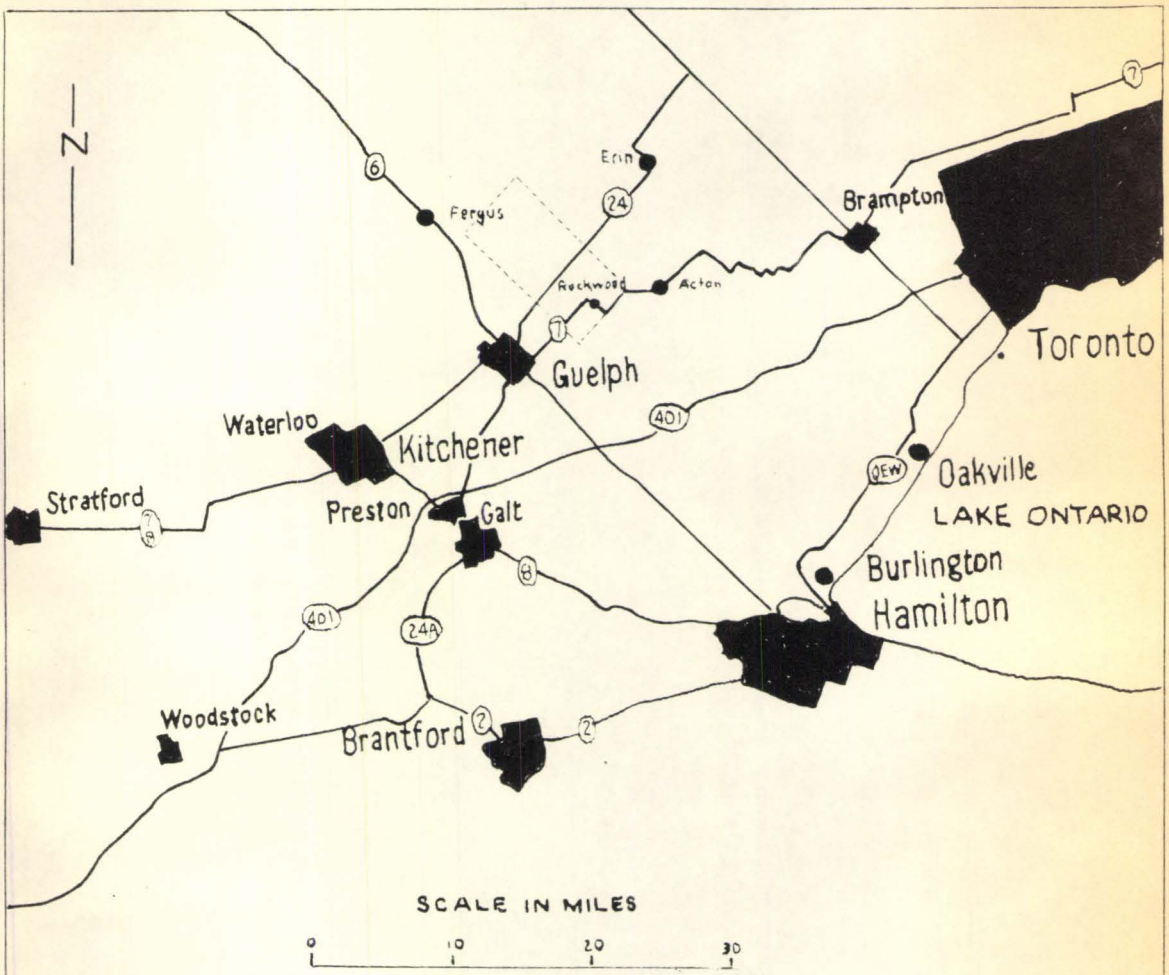
In the time available for this study it was not possible to look into all aspects of the land use of Eramosa. One item most lacking is statistical evidence to back up some of the statements that are made.

2. Size and Location of Eramosa

Eramosa Township is located in southern Wellington County in Southern Ontario (see Map 1 on page 2). The

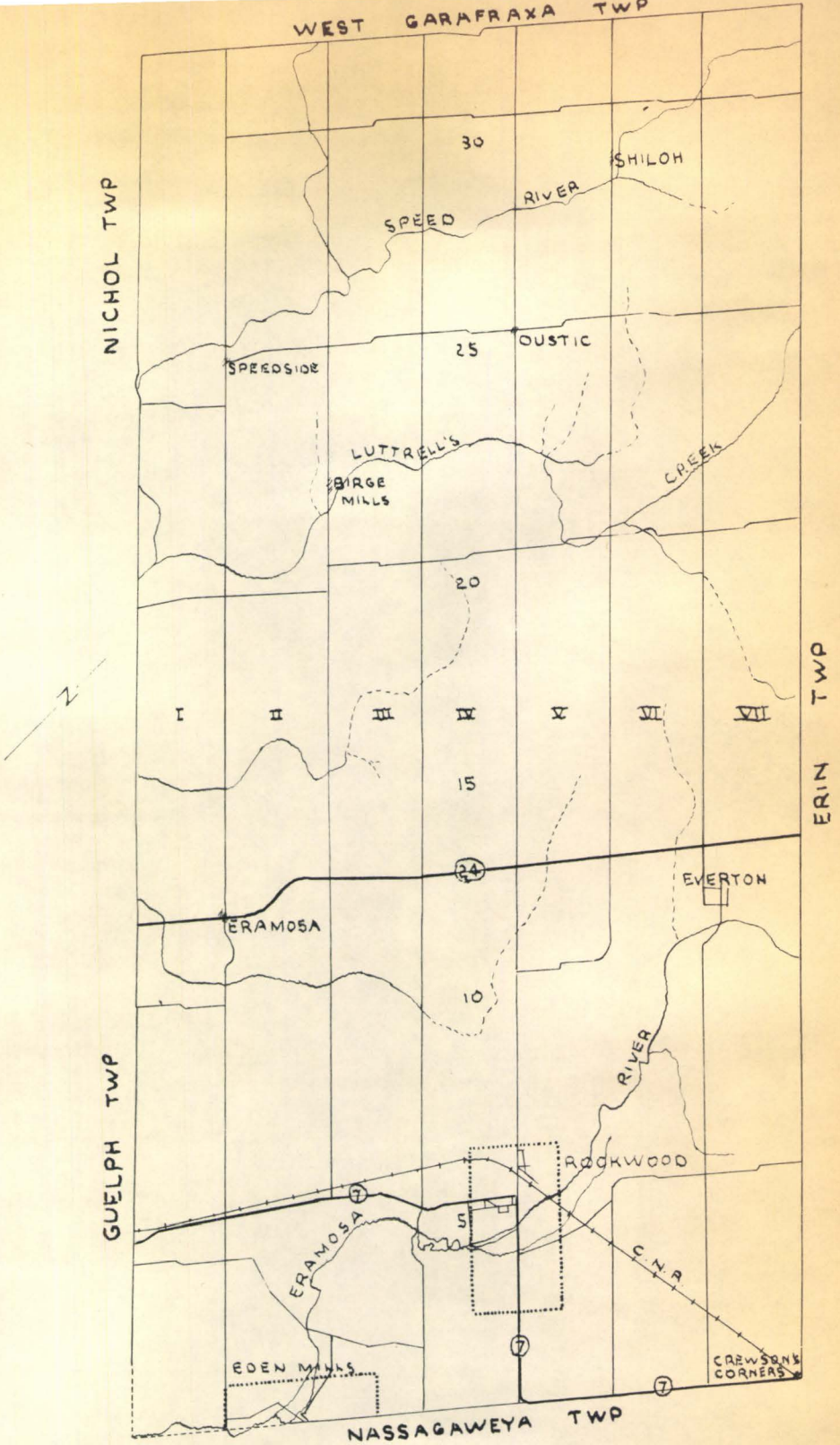

0 10 20 30 40 50 60
MILES
GEORGIAN
BAY
LAKE
HURON
OTTAWA
TORONTO
LAKE ONTARIO
HAMILTON
LONDON
WINDSOR
LAKE ERIE
LOCATIONAL MAP
WELLINGTON
COUNTY
ERAMOSA
TOWNSHIP

MAP 1



ERAMOSA AND ITS ENVIRONS

MAP 2



ERAMOSA TOWNSHIP

MILES

1 ½ 0 1 2 3

ORIENTATION MAP

MAP 3

township is 21 miles by 6 miles in size and has an area of about 46,000 acres. Neighbouring the township to the south-west are Puslinch, Guelph, and Nichol Townships, to the north-west West Garafraxa Township, to the north-east Erin Township, and to the south-east Nassagaweya Township in Halton County.

Located within 40 miles of Eramosa (see Map 2 on page 3) are metropolitan Toronto (1961 population of 1,824,000), metropolitan Hamilton (395,000), metropolitan Kitchener (155,000), Brantford (55,000), and Guelph (40,000). Thus, Eramosa has within a short distance an urban population totalling over 2½ million people.

3. Population

In 1961 Eramosa had a population of 3,093, of which 82% were of British ancestry. There were 1,400 people, or 45.3% of the population, living on farms. The remainder of the population lived in three small villages along the Eramosa River, or in new suburban developments that have sprung up along the main roads. The three villages in the township are Rockwood (863), Eden Mills (171), and Everton (80).

4. Transportation

The southern part of the township is traversed by two, east-west, paved, all-weather provincial highways (see Maps 2 and 3 on pages 3 and 4). These are Highway 7 which traverses the province from Sarnia in the west to

Ottawa in the east, and Highway 24 (this has recently been straightened and repaved in Eramosa) which provides connections to Guelph and Galt in the west.

The internal road network of Eramosa is also well-developed (see Map 3 on page 4) with Concession roads running N.W.-S.E. (called Lines) at approximately 4/5 of a mile intervals, and N.E.-S.W. roads (called Side Roads) at approximately 2 mile intervals. For the most part these are gravel roads maintained by the township, but there is a rather important paved road (the Fifth Line) running N.W.-S.E. through Rockwood and Oustic maintained by the county.

The main line of the C.N.R., running from Sarnia, through Kitchener and Guelph, to Toronto, crosses the township in the south. A station at Rockwood provides freight and passenger service. No other railway lines traverse the township.

II

THE PHYSICAL LANDSCAPE

1. Bedrock Geology

(a) Bedrock Stratigraphy

The bedrock of Eramosa consists of Paleozoic dolomites laid down in the Silurian period. The strata dip approximately 30 feet per mile towards the south-west. Two formations occur: the Lockport and the Guelph dolomites.

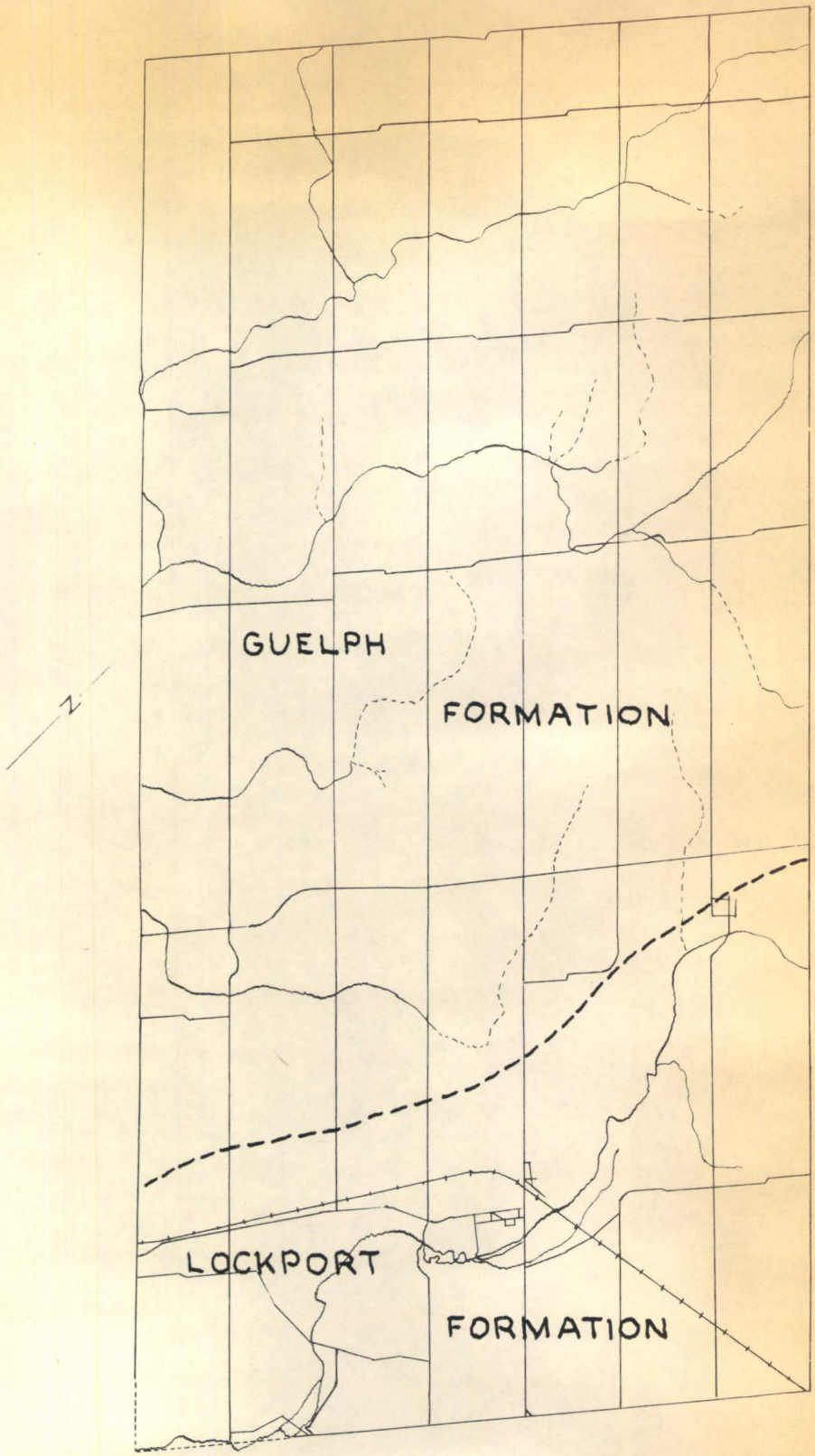
The Lockport Formation is a light grey to bluish dolomite occurring in the southern third of the township. It is almost entirely covered by thick glacial deposits, however, there are some spectacular outcrops along the Eramosa River at Rockwood and Everton.

Underlying the northern two-thirds of Eramosa is the Guelph Formation, consisting of a grey, buff, or brown dolomite. Unlike the Lockport, this formation does not have any outcrops in the township although the bedrock does come close to the surface in several places (i.e., along Luttrell's Creek).

An interesting structural feature in the township is the occurrence of a small anticline at Rockwood. One of the flanks of this anticline is visible in the abandoned quarry south of Valley Road.

(b) Bedrock Forms

Along the Eramosa River at Rockwood there are a number



ERAMOSA TOWNSHIP

MILES

1 ½ 0 1 2 3

BEDROCK GEOLOGY

AFTER CALEY

MAP 4

of caves found in the dolomitic outcrops. Some of these caves have been described by Weber[1] who thinks these are among the most interesting caves in Ontario. The largest cave, having a 10 foot high entrance, occurs at the base of a 50 foot cliff along Valley Road.

In the same area of the caves a number of well-developed "potholes" occur. The largest of these measuring 18 feet in diameter and 25 feet deep, is found on the south bank of the river, and is called locally "The Devil's Pit". On the north bank of the river, on land owned by the Grand Valley Conservation Authority, a number of smaller "potholes" are found. Some of these have been linked together to form a present alternate channel for the Eramosa River. Others occur by themselves and have been partially filled in by organic debris. Some of these "potholes" seem to be more of a solution feature than strictly the result of grinding action.

2. Pleistocene Geology

The unconsolidated Pleistocene deposits of the last glaciation (Wisconsin) play an important role in determining the kind and intensity of present land use in Eramosa. Except where bedrock outcrops, these deposits occur everywhere, however, they vary greatly in composition and form. The Pleistocene Geology of Eramosa has recently been mapped in detail by P. R. Karrow[2] and, therefore, the following discussion of glacial deposits will be based on his work. A

ERAMOSA TOWNSHIP

SCALE 1 INCH TO 1 MILE

PLEISTOCENE GEOLOGY

- 9 MODERN ALLUVIUM : GRAVEL, SAND, SILT.
- 8 SWAMPS AND BOGS : PEAT, MUCK, MARL.
- 7 LACUSTRINE, KAME, AND OUTWASH SAND.
- 6 POND DEPOSITS : SILT AND CLAY.
- 5 OUTWASH GRAVEL.
- 4 KAMES AND ESKERS : SAND AND GRAVEL.
- 3 WENTWORTH TILL : BUFF OR PINK SANDY TILL.
- 2 CLAY TILL, SILTY SAND TILL.
- 1 BEDROCK.

AFTER KARROW

map of the Pleistocene Geology appears on page 10.

(a) Distribution of Superficial Deposits

The Pleistocene deposit having the greatest superficial extent in Eramosa is a buff to pink-buff coloured, silty-sandy till having a particle size distribution of 15% clay, 30% silt, and 55% sand. This till which occasionally has gravel and pebbles distributed throughout has been given the name Wentworth Till by Karrow.

Lying beneath this Wentworth Till is an older till which forms the core of many of the drumlins, but which appears at the surface only at two places in the township (number 2 on the map). This older till shows a particle size distribution of 55% clay, 25% silt, and 20% sand.

South of the intersection of Highway 24, and the Second Line, is a small till deposit formed by local ponding during the later stages of glacial retreat. This deposit has a greater percentage of silt and clay than of sand.

Next to the tills the most common glacial deposits are sands and gravels of eskers, kames, and outwash deposits. Karrow defines kame as irregular accumulations of partly-sorted glacial debris deposited at the edge of the ice. Outwash deposits are carried away from the edge of the glacier by vast quantities of meltwater during the melting of the ice. Outwash gravel and sand are characterized by level to undulating surfaces marked here and there by stream channels, while the surface of a kame is usually rough and hummocky[3]. The distribution of these sands and gravels can be seen on

the map. Sands and gravels of kames and eskers (number 4 on the map) have a tendency to be located south of the Eramosa River and in the north-eastern section of the township between stream courses. Outwash gravel tends to have a greater concentration in the north-east. Kame and outwash sand (number 7 on the map) tend to be located both along stream courses and between stream courses.

Scattered throughout the township are swamps and bogs which represent muck-filled depressions along former stream courses. Also combinations of sand and silt have been deposited as modern alluvium where streams have overflowed their banks.

(b) Distribution of Surface Forms

Pleistocene deposits composed of the same range of materials do not always take the same surface form. A prime example of this in Eramosa is Wentworth Till which comprises hummocky moraine, drumlins, and nearly level till plain.

South of Rockwood, the Wentworth Till takes the appearance of a hummocky ground moraine. This is an extension of the Paris Moraine which has its greatest extent just to the south of the township boundary.

However, the majority of the Wentworth Till in the township forms part of the Guelph Drumlin Field as described by Chapman and Putnam[4]. The drumlins of Eramosa are concentrated in an area bounded in the south by Highway 7, in the east by the Fourth Line, in the north by Side Road 20, and in the west by the township line. Many of the drumlins

here are of the low, broad, oval type, whose gentle slopes gradually blend into one another. In many cases it is extremely difficult to pick out a single drumlin in the landscape. The general axial alignment of these drumlins is N.W.-S.E.

There are, however, a few well-formed drumlins in the township. One of the most obvious straddles the Third Line immediately south of Highway 24. This feature has a length of about four fifths of a mile, a width of 600 yards, and a height of 75 feet. This drumlin is exceptional in the township as the majority of the drumlins do not rise much above 30 feet.

The remaining areas of Wentworth Till take the form of gently rolling or nearly level till plain with occasional signs of fluting.

The kame deposits, which are principally formed of gravel and sand in Eramosa, exhibit the roughest topography found in the township. Outwash deposits, on the other hand, have relatively gentle slopes. The outwash gravels and sands are primarily found along former glacial spillway channels.

There is one small esker found in the township. It can be seen on the Pleistocene Geology map if a line is drawn due westward from the C.N.R. tracks running from Crewson's Corners to Rockwood. The esker has a length of about $3\frac{1}{2}$ miles in the township. Sections of it are not too easily noticed on the ground, while other sections show the classic

esker form.

Winding among the Pleistocene deposits of Eramosa are former spillway channels. All of the present day streams flow in these channels, and where there is no permanent stream flowing, the remnant channel is often swampy. The channels of the Eramosa and Speed Rivers are often picked as prime examples of a spillway in southern Ontario. Along their banks two or more terraces are often found in the outwash gravel deposits, indicating changes in the base level of the glacial lakes during the retreat of the Wisconsin glacier.

3. Soils

A complete and detailed description of the soils in Eramosa Township has recently been published in the Soil Survey of Wellington County, therefore I will base my description on soils only as they relate to land use, in this case, whether the soils are good for agriculture or not.

On page 15 there is a soil map showing the distribution of the various soil types in the township. In the legend the soils are arranged in their respective soil catenas. A soil catena is defined as soils that have developed on similar parent material but differ in the characteristics of the solum as a result of differences in drainage[5].

(a) Description of Soils by Crop Ratings

In the Soil Survey of Wellington County[6] there is a

ERAMOSA TOWNSHIP

SCALE 1 INCH TO 1 MILE

SOIL MAP

AFTER WELLINGTON COUNTY SOIL MAP

GOOD DRAINAGE — IMPERFECT DRAINAGE — POOR DRAINAGE

SOILS DEVELOPED ON GLACIAL TILL

- Dl DUMFRIES LOAM
- Gl GUELPH LOAM
- Hl HARRISTON LOAM
- Kl KILLEAN LOAM
- Ll LONDON LOAM
- Pl PERTH LOAM
- Lyl LILY LOAM
- Pal PARKHILL LOAM

SOILS DEVELOPED ON OUTWASH

- Fs FOX SANDY LOAM
- Bg BURFORD LOAM
- Cg CALEDON FINE SANDY LOAM
- Hf HILLSBURGH SANDY LOAM
- Db DONNYBROOK SANDY LOAM
- Bs BRADY SANDY LOAM
- Bl BRISBANE LOAM
- Grs GRANBY SANDY LOAM
- Gil GILFORD LOAM

SOIL DEVELOPED ON SHALLOW LOAM TILL OVERLYING LIMESTONE

- Fl FARMINGTON LOAM

SOILS DEVELOPED ON RECENT ALLUVIAL DEPOSITS

- B.L BOTTOM LAND (VARIABLE DRAINAGE)

SOILS DEVELOPED ON ORGANIC DEPOSITS

- M MUCK

ERAMOSA TOWNSHIP

SCALE 1 INCH TO 1 MILE

CROP RATINGS

1 GOOD CROPLAND : HARRISTON LOAM , GUELPH LOAM.

2 GOOD TO FAIR CROPLAND : LONDON LOAM , PERTH LOAM, CALEDON FINE SANDY LOAM , BURFORD LOAM .

3 FAIR CROPLAND : FOX SANDY LOAM , DUMFRIES LOAM, HILLSBURGH FINE SANDY LOAM.

4 FAIR TO POOR CROPLAND : PARKHILL LOAM BRISBANE LOAM, DONNYBROOK SANDY LOAM , BRADY SANDY LOAM , KILLEAN LOAM,

5 POOR CROPLAND : GILFORD LOAM , LILY LOAM , GRANBY SANDY LOAM.

6 UNSUITABLE FOR CROPS : MUCK , BOTTOM LAND, FARMINGTON LOAM,

chart rating soils according to their suitability for different crops. This has been done assuming that normal farm practices are carried out on these soils. It is recognized that there are differences in the characteristics of some of the soils in one group, but these characteristics have only a slight effect on the ability of the soil to produce crops. A map showing the distribution of these soils according to type of cropland is found on page 16, and a chart showing the suitability of each soil for a crop is found in Appendix I.

(i) Good Cropland

The soils in this grouping give higher than average yields, and are adaptable to a greater variety of crops. They are well-drained and have an ideal texture with few stones. The one drawback of these soils is the tendency for surface erosion to occur on the steeper slopes, especially during periods of high water runoff. The Harriston and Guelph loams are among the most productive and fertile soils in southern Ontario.

(ii) Good to Fair Cropland

These soils all have certain limitations in crop production which make them less suitable and less productive than the previous group. Soil fertility is somewhat of a problem so frequent uses of fertilizers are required to keep yields up. The London and Perth loams are imperfectly drained and require artificial drainage to make them more productive. The Caledon fine sandy loam and Burford loam

are well drained but have only a moderate water holding capacity due to the coarseness of the underlying parent material. The Burford loam is further handicapped by gravel, stones, and cobbles which usually occur throughout the profile, but rarely inhibit cultivation.

(iii) Fair Cropland

The soils in this group are faced with limitations in crop production because of coarse texture, susceptibility to erosion, stoniness, and relatively low natural fertility. The coarse texture of the Fox sandy loam and the Hillsburgh fine sandy loam results in these soils having low moisture holding capacities and are susceptible to erosion because of rapid runoff of rain water. The Dumfries loam has stones throughout its profile which must be removed before cultivation is possible. Like the Hillsburgh soils, the Dumfries loam also is very susceptible to erosion on cultivated hummocks.

(iv) Fair to Poor Cropland

Generally the characteristics of these soils limit their suitability to a few crops or to agricultural uses that do not require cultivation (i.e., pasture). All of these soils are of low natural fertility. Parkhill loam, Brisbane loam, Brady sandy loam, and Killean loam are all inadequately drained as they usually occur in depressional areas with a high water table. Killean loam also has stones throughout its profile. Donnybrook sandy loam is an excessively drained, gravelly soil occupying hills and ridges,

and is the only soil in this group which has an erosion problem.

(v) Poor Cropland

The characteristics of these soils pretty well limit their use to grazing or to forestry. They are all poorly drained, occurring in depressional areas. Erosion is not a hazard, but they are all low in natural fertility.

(vi) Submarginal Soils

These soils are not suitable for use as agricultural land because of poor drainage, or stoniness and shallowness. Muck consist of organic deposits that have accumulated in swampy depressions, and Bottom Land are soils that occur on variable textured alluvial deposits in river and creek beds that are subject to periodic flooding. Farmington loam is a shallow soil developed on loamy till that has a depth of less than one foot over underlying limestone bedrock.

(b) Relationship of Crop Ratings to Physiography

The physiography of an area plays an important part in determining the type of soil that may be formed. Basically in Eramosa there are four physiographic types: till plains, kames, outwash, and spillway channels. Each of these broadly effects the land use capability of the soils.

Except for the morainic area in the south the best soils of the township are found on the tills because the parent material is not coarse and stony and is relavively well drained.

The Good to Fair, Fair, and Fair to Poor Cropland has

its greatest distribution on the kames and outwash which appear in the south and in the north-east sections of the township. Here the materials are coarser presenting a greater erosion hazard on the slopes and a lower natural fertility.

The poorest agricultural soils in the township occur in the poorly drained depressions along former spillway channels. Most of this poorer land is still forested or is used for grazing.

4. Climate

There is no meteorological station in Eramosa Township, therefore this section will be based on the climatic statistics for Guelph which lies just a few miles to the west, and the climatic maps of Putnam and Chapman[7]. The climatic data for Guelph is found in Appendix II.

The climate of Eramosa is generally described as humid continental with warm summers and cold winters. The climatic controls in the township can be briefly stated to be (1) the prevalence of a westerly wind from the direction of Lake Huron, 70 miles away, (2) the relatively high elevations of the township (1,125 feet in the south and 1,450 feet in the north-east) for southern Ontario, and (3) the changeability of weather patterns with the alternate passing of highs from the north-west and lows from the south-west.

(a) Temperature

The yearly mean temperature at Guelph is 44° F., with

the coldest month being February at 18° F., and July the warmest month at 68° F.

(b) Precipitation

Precipitation is pretty well even throughout the year averaging 30", but there is a slight summer maximum. The two wettest months are July and August with 3.07" and 2.86" of precipitation, and the two driest months are February and March with 1.74" and 1.79" (most of which falls in the form of snow). Precipitation is quite adequate for cultivation although there is a tendency for more potential evapotranspiration than actual precipitation in late summer. Snowfall averages just over 50 inches per year.

(c) Length of Growing Season

Of vital importance to agriculture is the length of the growing season, which is defined as the interval in days between the last killing frost in spring and the first killing frost in fall. The data for the length of the growing season is taken from the climatic maps appearing in Putnam and Chapman's article The Climate of Southern Ontario.

In the southern-most part of Eramosa the growing season begins about April 16th and ends about October 27th, while in the north it begins about April 19th and ends about October 23rd. This averages out to approximately a 187 day growing season in the north and a 196 day growing season in the south. The average length of frost free period ranges from 133 days along the southern boundary to 126 days along the northern boundary.

5. Vegetation

Eramosa Township lies just on the southern boundary of the Huron-Ontario Section of the Great Lakes - St. Lawrence Forest Region, (according to J.S. Rowe in Forest Regions of Canada). Essentially this is a mixed forest vegetation.

Samuel Ryckman, who surveyed the township in 1819 before any settlement took place, found mostly beech, elm, maple and basswood on the well drained sites, and cedar, black ash, tamarack, elder, and elm on the poorly drained sites. At present a great deal of the original forest cover has been cut down, but 18% of the township is still forested, much of which is regrowth.

The Speed Conservation Report breaks the remaining woodland into 14 different forest cover types. A table of their composition can be found in Appendix III.

White Cedar occupies 2,850 acres or 33% of the remaining forest cover. This tree is found in the spillway channels with poor drainage and high water table, and serves as the chief source of fence posts and poles in the township.

The next largest forest cover type is aspen which occupies 2,264 acres or 26.3% of the remaining forest. Aspen will grow on any site except in the wettest swamps, and is typically a pioneer species which often follows overgrazing or fire.

Sugar maple (790 acres or 9.2%) comes next. Sugar maple in combination with beech once covered a larger part of the

well-drained, loamy, fertile soils of the township, but a great deal of this was cut down when the land was cleared for agriculture. A great many of the beech trees were then cut down for use as poles or firewood, leaving almost pure sugar maple stands.

The wettest soils of the township are occupied by the black ash - white elm - red maple combination (8.0%), and white elm. These cover types are found in the spillways or in small depressions and swamps.

In summing up this section, the majority of uncleared land (about 70%) is found in the spillway channels of the Speed and Eramosa Rivers and their tributaries. The original forest cover on the well-drained land has largely been cleared to make way for agriculture or urban settlement.

6. Natural Drainage

The major streams in Eramosa follow the general south-western dip of the topography. The two main rivers are the Speed and the Eramosa, with Luttrell's Creek being an important tributary of the Speed.

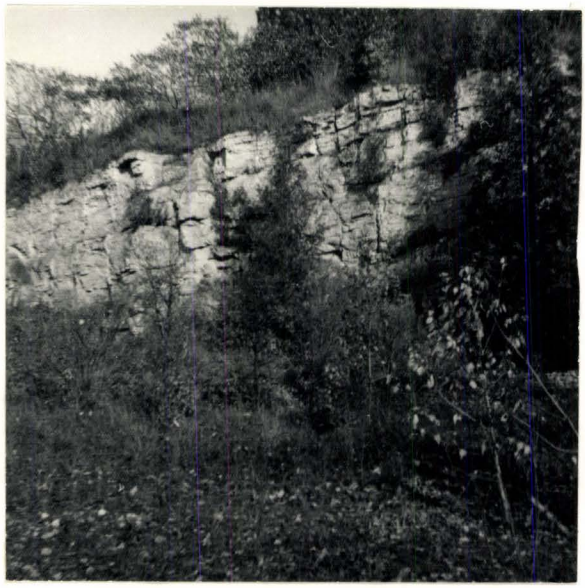
Although both the Speed and the Eramosa Rivers occupy former glacial spillway channels, they have completely different characteristics. In many places along the Eramosa River bedrock outcrops to form spectacular cliffs of up to 50 feet in height. The Speed River, on the other hand, exhibits no bedrock outcrops, but flows in a wide flat-bottomed channel.

The tributaries of these rivers are not well developed. They wander lazily through the low lying areas and a few swampy depressions.

The Speed and Eramosa Rivers meet at Guelph and join the south-flowing Grand River at Preston.

7. Summary

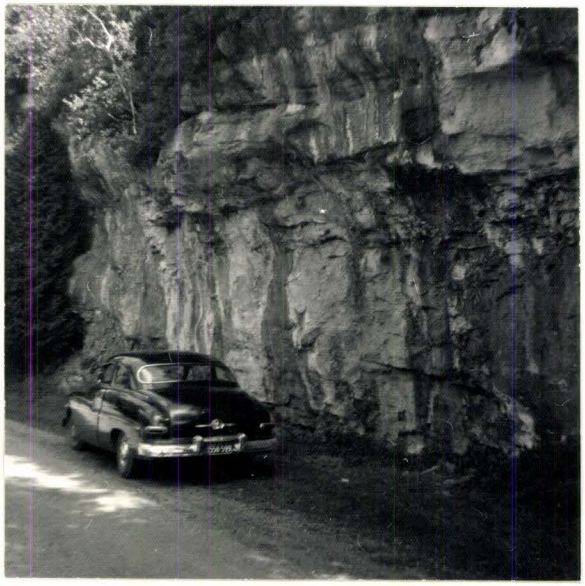
The surface features of Eramosa Township are composed of glacial deposits underlain by dolomitic limestone. These deposits include kames and outwash located chiefly in the south and in the north-east, with till deposits between them. Former spillways form interconnecting channels through these deposits. The better soils tend to be located on the tills with less fertile soils located on the sands and gravels of the kames and outwash deposits. The climate is humid continental with warm summers and cold winters. The natural vegetation is mixed forest, but most of the well-drained land has been cleared for agriculture, leaving the majority of remaining woodland in the poorly drained spillway channels. Two main rivers, the Speed and the Eramosa, cross the township flowing towards the south-west.



1. Exposed flank of an anticline at Rockwood. The dip is towards the North-east.

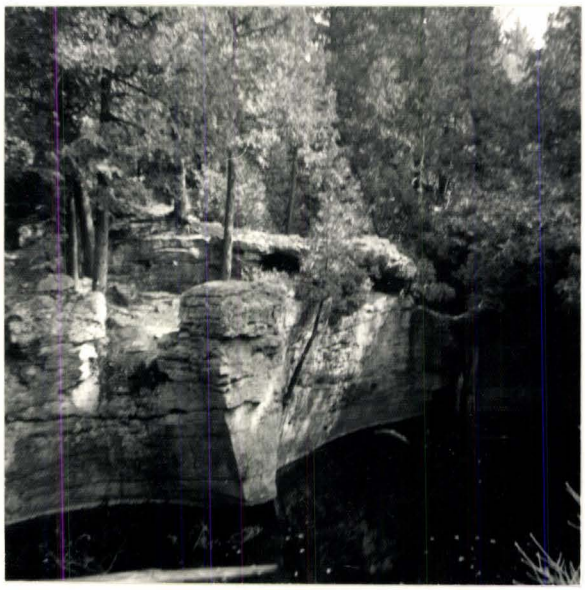
2. Lockport dolomitic outcrop at Rockwood.

3. This cave found along Valley Road at Rockwood has an entrance over 10 feet in height.



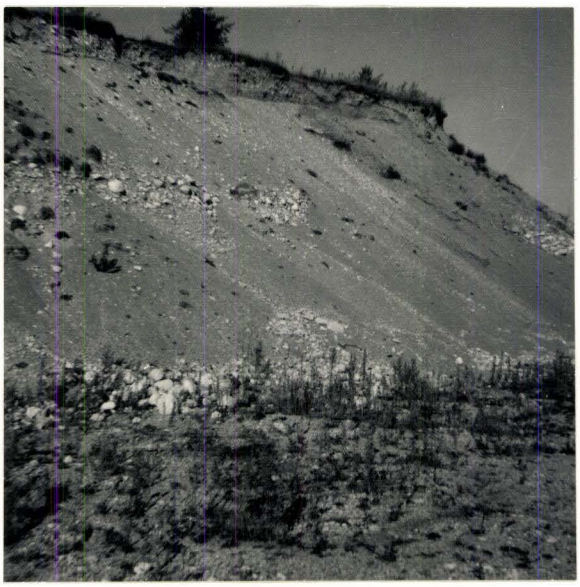
4. A cliff of massive Lockport dolomite along Valley Road.

5. A partially filled pothole at the Grand Valley Conservation Authority Park at Rockwood.



6. Potholes which have been linked together to form an alternate channel for the Eramosa River at Rockwood.

7. Outwash gravel deposit found at Lot 22E½, Concession 5.



8. Outwash sand and gravel deposit found at Lot 32W½, Concession 7.

9. Deposit of Wentworth Till found at Lot 32E½, Concession 3.

10. Topography typical of Wentworth Till with a long, low drumlin in the background.

11. Smooth topography of the Wentworth Till at Lot 20, Concession 3.

12. Hummocky moraine found on the Wentworth Till at Lot 1, Concession 3.

13. Hummocky kame topography found at Lot 1W½, Concession 5.

14. Terrace (in the background) formed in outwash gravel along the south side of Luttrell's Creek at the Fifth Line.

15. Hummocky kame topography found at Lot 3W½, Concession 6.

16. Hummocky topography of kame and outwash gravel deposits found at Lot 32W½, Concession 7.

17. Soil profile of Guelph loam, one of the best soils in the township, found at Lot 21W½, Concession 5.

18. Soil profile of Hillsburgh fine sandy loam found at Lot 31E½, Concession 5.

19. Profile of Farmington loam at Lot 6W½, Concession 4. Note the limestone bedrock which comes very close to the surface.

20. A stand of predominantly sugar maple, white elm, and aspen on well-drained Wentworth Till, found at Lot 24E½, Concession 2.

21. Massive dolomite cliff found bordering the Eramosa River in the Fourth Concession.

22. Forested dolomitic outcrops along the Eramosa River in the Fourth Concession.

23. The wide gravelly stream bed of the Speed River at Lot 21W½, Concession 1.

24. The slow flowing Speed River in the Sixth Concession.

III

THE HISTORICAL SETTING

The chief sources of information for this chapter are Frank Day's Here and There in Eramosa, Hazel Mack's History of Eden Mills and Vicinity, the County of Wellington Historical Atlas, R. L. Jones' History of Agriculture in Ontario, and the Census of Canada 1851 - 1961.

1. Pre-settlement - Before 1820

(a) Before 1819

As far as we know, the territory which is now Eramosa Township, was not the site of any permanent settlement before 1819. The township was, however, part of the hunting grounds of the Mississaga Indians.

In 1792, on the orders of the Governor of Upper Canada, John Graves Simcoe, a line was surveyed beginning at Burlington on Lake Ontario and running due north-west back of the lake to where the Town of Arthur now stands[1]. This Base Line, as it was called, was to separate the recently purchased government land west of the line from the territory of the Mississagas to the east. A section of the Base Line was soon to become the south-west boundary of Eramosa Township. In 1818 a large tract of land (648,000 acres) was surrendered to the government by the Mississaga Indians. Included in this tract was the territory of Eramosa Township[2].

(b) The Township Survey-1819

In the summer of 1819 the government set out to survey its recently purchased land. To Eramosa came the Deputy Surveyor of Upper Canada, Samuel Ryckman, who laid out the present boundaries of the township in that year. The name Eramosa came into existance at this time. It is believed to come from the Indian word "un-ne-mo-sah" meaning "dog"[3].

The township was divided into seven concession blocks with 32 lots in each. Each lot in a concession was approximately 200 acres in size. Road allowances were laid out at the same time. Fortunately the concession lines run parallel to the general trend of the drumlins (N.W.-S.E.) making the slopes easier to cultivate on the contour.

In his Field Book of the Survey of the Township of Eramosa, Samuel Ryckman left a record of what the township was like before settlement took place. Besides the actual survey figures, Ryckman gives a brief description of the type of land and vegetation found on each lot.

2. Early Settlement 1820-1850

(a) The First Settlers

The three Ramsey brothers were the first settlers in Eramosa Township. They were from northern Ireland and they came to Upper Canada in 1819 after having lived in the United States for a few years. They were each given 100 acre lots at the southern end of the Third Concession, and in 1820 they started to clear this land. They built a small

shelter and cleared a patch of land on which they raised the first crop of potatoes in Wellington County[4]. In 1821 a few more settlers trickled into the township to take up land.

For the first few decades or so the land in the township was given away free to any person who would claim it and perform a few simple settlement duties. A large portion of the land was given to officers and to United Empire Loyalists who held the land for speculation. Also 1/7 of the land was given over to Clergy Reserves and 1/7 to Crown Reserves. Eventually the Crown Reserves were sold to the Canada Company for settlement.

With large blocks of land held for future use, settlement in the township proceeded slowly, with the first settlers being Scottish, Irish, English, and Quakers from the United States.

In 1826, it is recorded that there were 27 households and a total population of 112. There were only 221 acres under cultivation, and the settlers owned 4 horses, 17 oxen and 51 cows[5]. As can be seen from these figures the first few years were taken up with the clearing of the land.

(b) Settlement from 1827-1840

During this period the settlement growth was still slow, but was gaining momentum by the late 1830's. In 1829 there were 49 households and in 1840 this had increased to 87, with a total population of 862[6].

By 1840 the population was composed of more recent

immigrants from the British Isles, chiefly from northern Ireland, the Highlands of Scotland, and from England. A number of settlers also came from Susquehanna County in Pennsylvania, being of English and Scottish stock[7].

Settlers came from two main directions at this time, from the south and from the west. Prior to 1832 the southern access route was the Guelph Road from Burlington to what is now Rockwood. In 1832, the York Road was built from Toronto to Guelph passing through the southern part of the township. This route became another entry for settlers coming to Eramosa. From the direction of Guelph (founded in 1827 by the head of the Canada Company, John Galt) and Galt, the western access route entered the township at about Lot 20. Thus, the first areas of the township settled were in the south, and in the west along the Second Line.

It is difficult to know exactly what the economy of the township was like during this period as few records are in existence. Probably it was similar to the surrounding townships where a non-commercial type of agriculture was still prevalent, as the land was still largely being cleared of trees and stumps, and being prepared for more intensive cultivation. Wheat was quite likely the most important cash crop.

Unlike other areas of southern Ontario, lumbering for export did not become important in Eramosa chiefly for two reasons. In the first place most of the trees were hardwoods and thus unsuitable for the square timber trade where

white pine was in demand. Secondly, the river systems flowed in the wrong direction. In order to get to the great exporting centre of Montreal, timber had to float down the Speed to the Grand River and then down to Lake Erie where it had to make a long journey through the Great Lakes.[8] However, the making of potash from the trees was an important second industry on many farms during this period.

(c) Settlement from 1840-1848

This decade of settlement is characterized by a rapid acceleration of population growth and of land clearing. This fact can be seen by comparing the results of the Census of 1842 and of 1848 (which can be found, along with later Census material, in Appendix IV). In 1842 the population was 1,269 (an increase of 400 since 1840) and in 1848 this had risen to 1,970. The new settlers were also chiefly from the British Isles, and they entered the township by the same routes as the earlier settlers. In most cases the land was bought from the Crown, the Canada Company, and from speculators who were now selling their land.

From 1842 to 1848 the area of land occupied increased by 35%, from 24,445 acres to 32,146 acres. The land under crops still remained fairly low (5,898 acres in 1842 and 8,645 acres in 1848) but it was increasing steadily.

The chief grain crop in 1842 was oats with 22,973 bu. being produced, followed by wheat with 9,297 bu. Six years later, wheat was the leading grain crop with 59,701 bu. (a 600% increase), while oats was second with 35,971 bu.

(a 50% increase). The great increase in wheat production can probably be explained by the passing of the Canada Corn Act by the British Parliament in 1843, which allowed almost free entry of wheat into the protected British market[9]. Oats was a traditional food crop of the Scottish settlers, besides being the chief fodder crop for the livestock.

Potatoes, during this time, had a widespread acreage as it was the traditional food crop of the Irish settlers. Production of potatoes fell from 17,708 bu. in 1842 to 12,644 bu. in 1848, probably because many farmers were changing production to wheat to cash in on the boom.

The livestock kept by the farmers consisted chiefly of meat cattle, hogs, and sheep. Generally the livestock was of very poor quality at this time. The fairly large number of sheep (2,370 in 1842 and 2,461 in 1848) was due to the fact that it was a traditional animal with many of the Scottish and northern English immigrants. There was also a growing demand for wool as seen by the establishment of a woollen or carding mill at Rockwood by 1850.

(d) Beginnings of Urban Settlements

In the 1840's small urban hamlets (urban in this sense means non-farm) were established to serve the surrounding farm areas. All of these hamlets were mill sites on the Eramosa River.

(i) Rockwood

The settlement at Rockwood was first called Brothers-town after the Quakers who settled the area in the 1820's,

and built a church in 1832. In the 1840's the name was changed to Strange's Mills, after Squire Strange, who built a saw and grist mill beside the Eramosa River. The name of Rockwood did not come into use until the 1850's and is probably derived from the masses of limestone rocks and trees in the area. The settlement in the 1840's soon became a bustling place and by 1850 had 2 grist mills, a saw mill, a carding mill, a school, 2 churches, and 2 taverns.

(ii) Eden Mills

In an area largely settled by Presbyterian Scots, a wooden saw and grist mill was built by the Krib brothers in 1842, on Lot 1 of the Second Concession. Originally called Krib's Mills the name was changed to Eden Mills in 1846. It soon became a little settlement, and sometime before 1850, the first store in the township was opened here.

(iii) Everton

Little is known of Everton before 1850, except that a saw mill was established beside the Eramosa River and was operated by the Evert family. The area surrounding Everton was chiefly settled by Highland Scots who belonged to the religious sect known as the Disciples of Christ, and by Irish Catholics.

(e) The Township in 1850

In 1850 a map of Eramosa was published by the Advertiser Office at Guelph showing the land which had been settled up to that time, and also the various commercial and manufacturing sites. This map was reprinted in Here and There

in Eramosa, and I have used some of the information found on this map to illustrate what the township was like at that time. As can be seen from Map 8 on page 45, the north-east section of the township is still largely uninhabited. Two reasons for this could be that it is furthest from the main entry points, and has the poorer agricultural land (see maps in Chapter II).

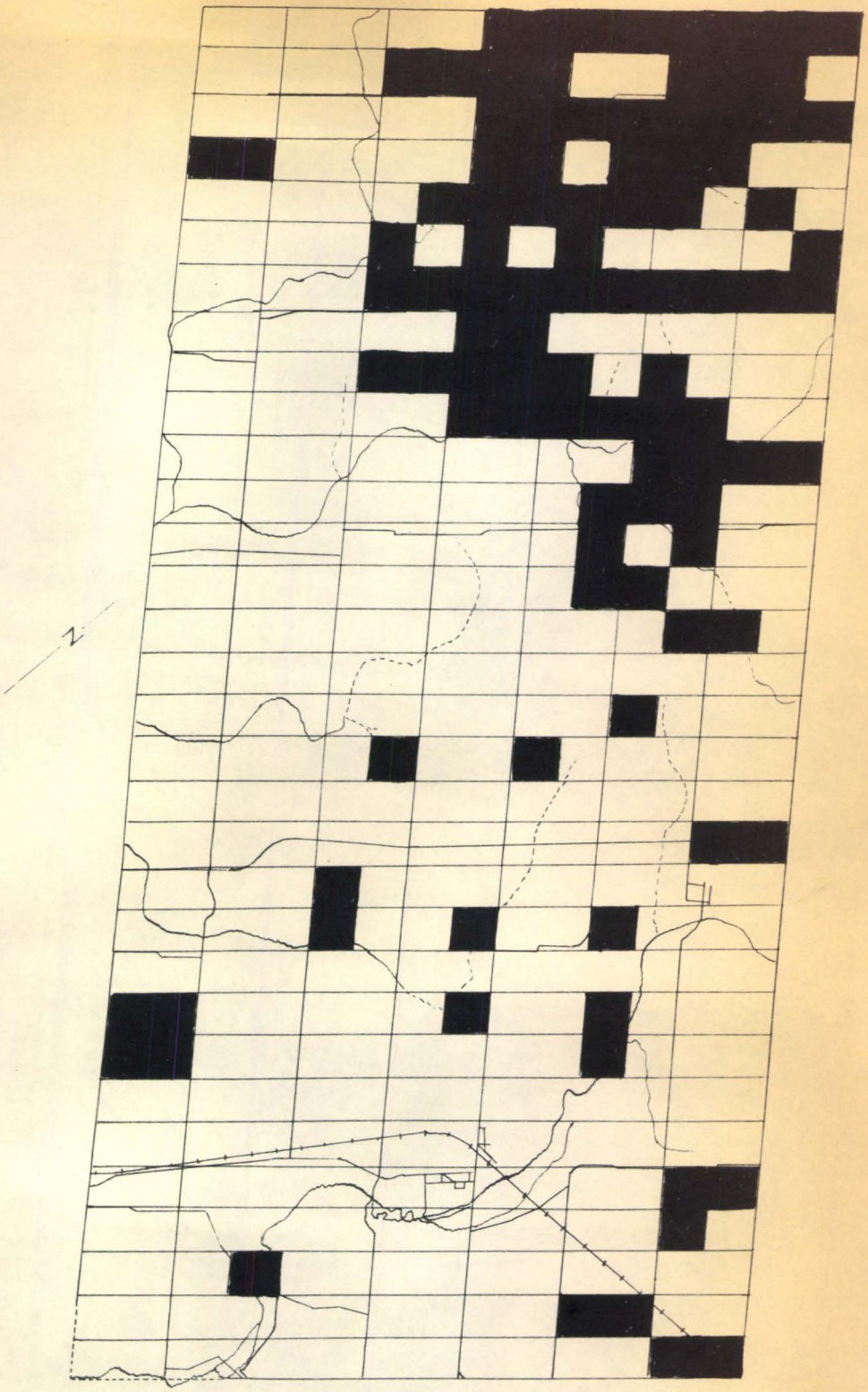
The township in 1850 had 5 schools, 6 churches, 5 saw mills, 2 carding mills, 2 stores, 4 blacksmith shops, 4 taverns, 1 tannery and 3 grist mills. From Map 9 on page 46 it can be seen that these are located in the southern and western parts of the township where the majority of the people live. Except for one saw mill, all the mills are located on the Eramosa River. The saw mills were all small, providing lumber for the local construction of buildings going on at this time.

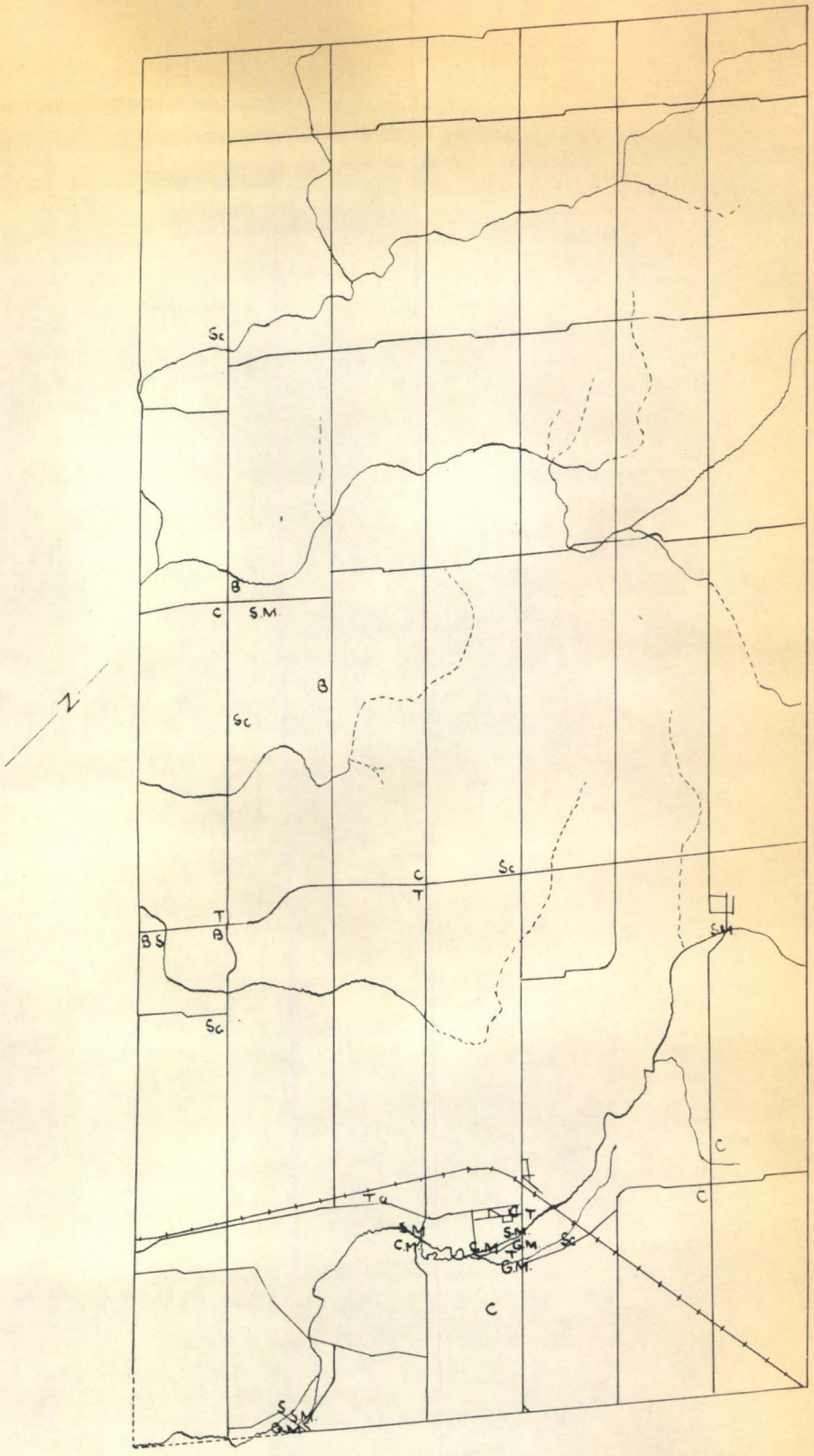
3. Era of Consolidation 1851-1891

(a) Period of Prosperity 1851-1871

In the 20 year period from 1851 to 1871, Eramosa had a period of prosperity of which she is only now beginning to experience again. The rapid population growth of the 1840's continued throughout the 1850's so that by 1861 there were 3,604 people. Population growth slowed down in the 1860's but in 1871 Eramosa reached its highest population level.

The prosperity of this period resulted from a combination


N
ERAMOSA TOWNSHIP
1 ½ 0 1 2 3
MILES
UNSETTLED LOTS BY 1850



ERAMOSA TOWNSHIP

MILES

1 ½ 0 1 2 3

1850

Sc	SCHOOL	C.M.	CARDING MILL	T	TAVERN
C	CHURCH	S	STORE	Ta	TANNERY
S.M.	SAW MILL	B	BLACKSMITH	G.M.	GRIST MILL

NOTE : RAILWAY WAS NOT BUILT UNTIL 1855

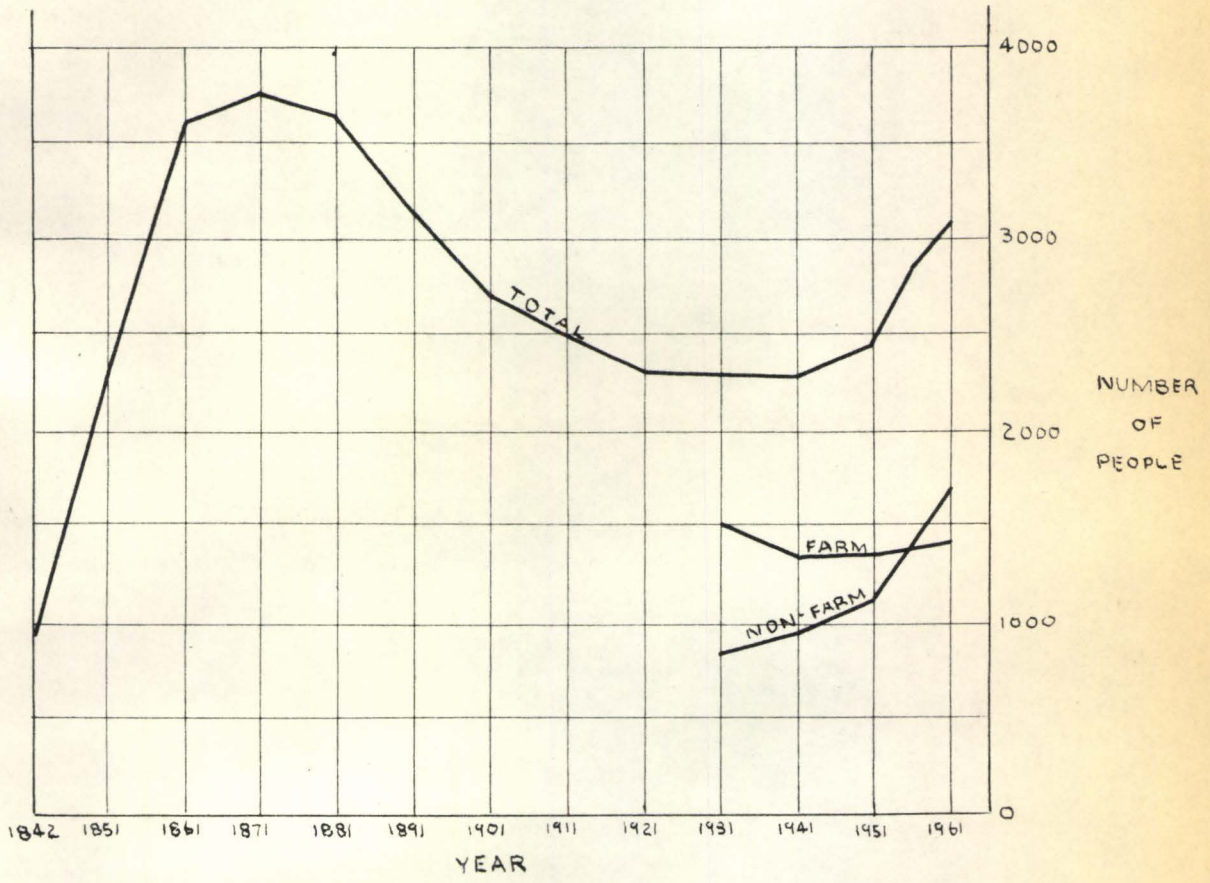
MAP 9

of factors. One of these was the building of the Grand Trunk Railway (now the C.N.R.) from Toronto to Sarnia, passing through the southern part of Eramosa, in 1855. A railway station was established at Rockwood, enabling the township to have improved connections with the province's largest urban market at Toronto.

Another important factor increasing prosperity was the Reciprocity Treaty with the United States, which allowed free entry into the American market of Canadian raw products, from 1854-1866. Last, but not least of the factors in this surge of prosperity, was that the residents of southern Ontario began to have confidence in themselves, feeling that they had finally arrived on the world scene. There was a prevailing mood of optimism in the country.

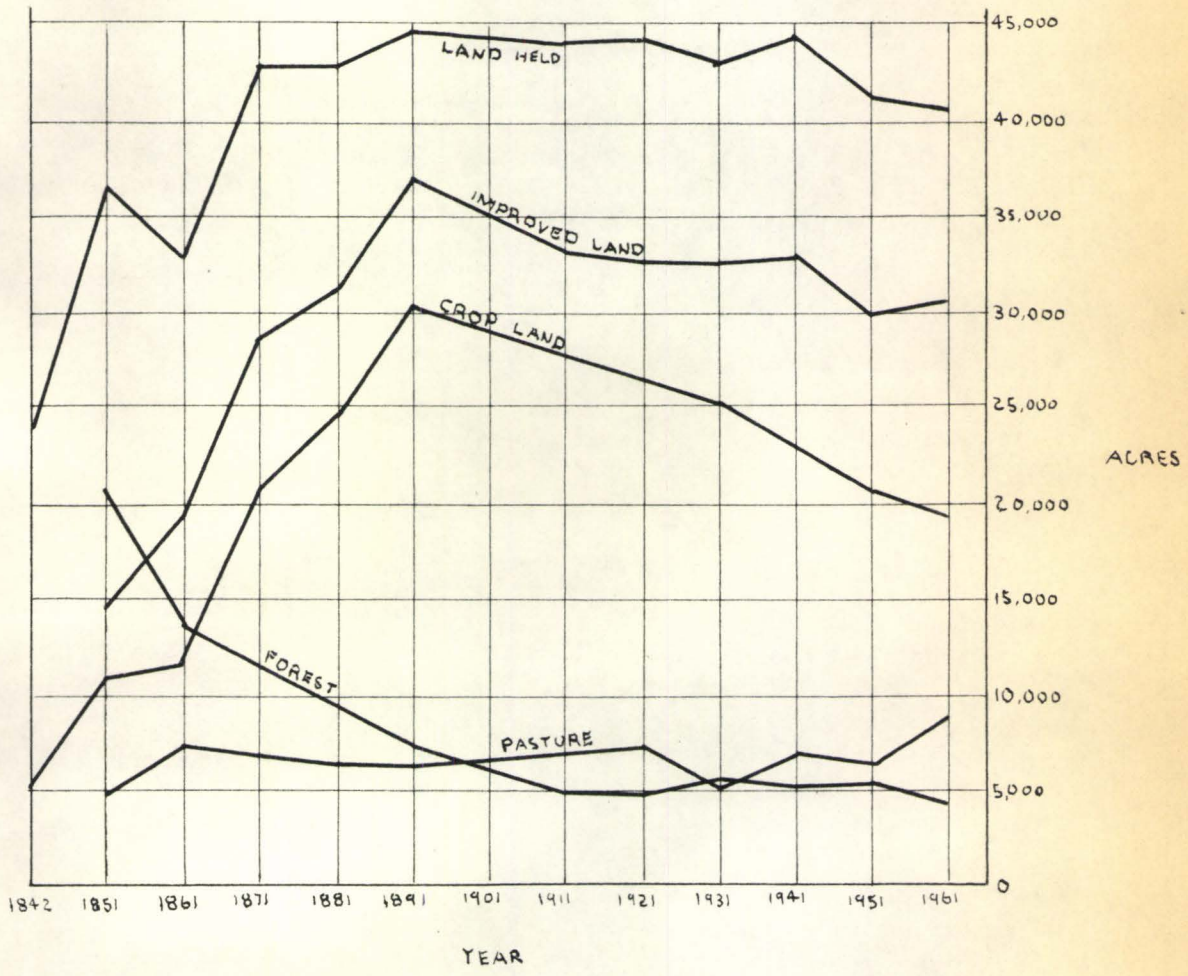
This period of prosperity is seen in the changing land use of Eramosa. In 1851, Eramosa could still be considered a backwoods or pioneer community, but this was not the case in 1871. This change can be seen in the Census records for this period found in Appendix IV and in the graphs on the following pages.

From 1851 to 1871 the amount of land occupied did not change drastically, although it rose from 36,605 acres to 43,386 acres with the settling of the north-eastern section of the township. The point to note is that the total amount of improved land nearly doubled (16,241 acres to 28,862 acres) while the total amount of land under crops more than doubled (10,935 acres to 21,469 acres). These figures show that



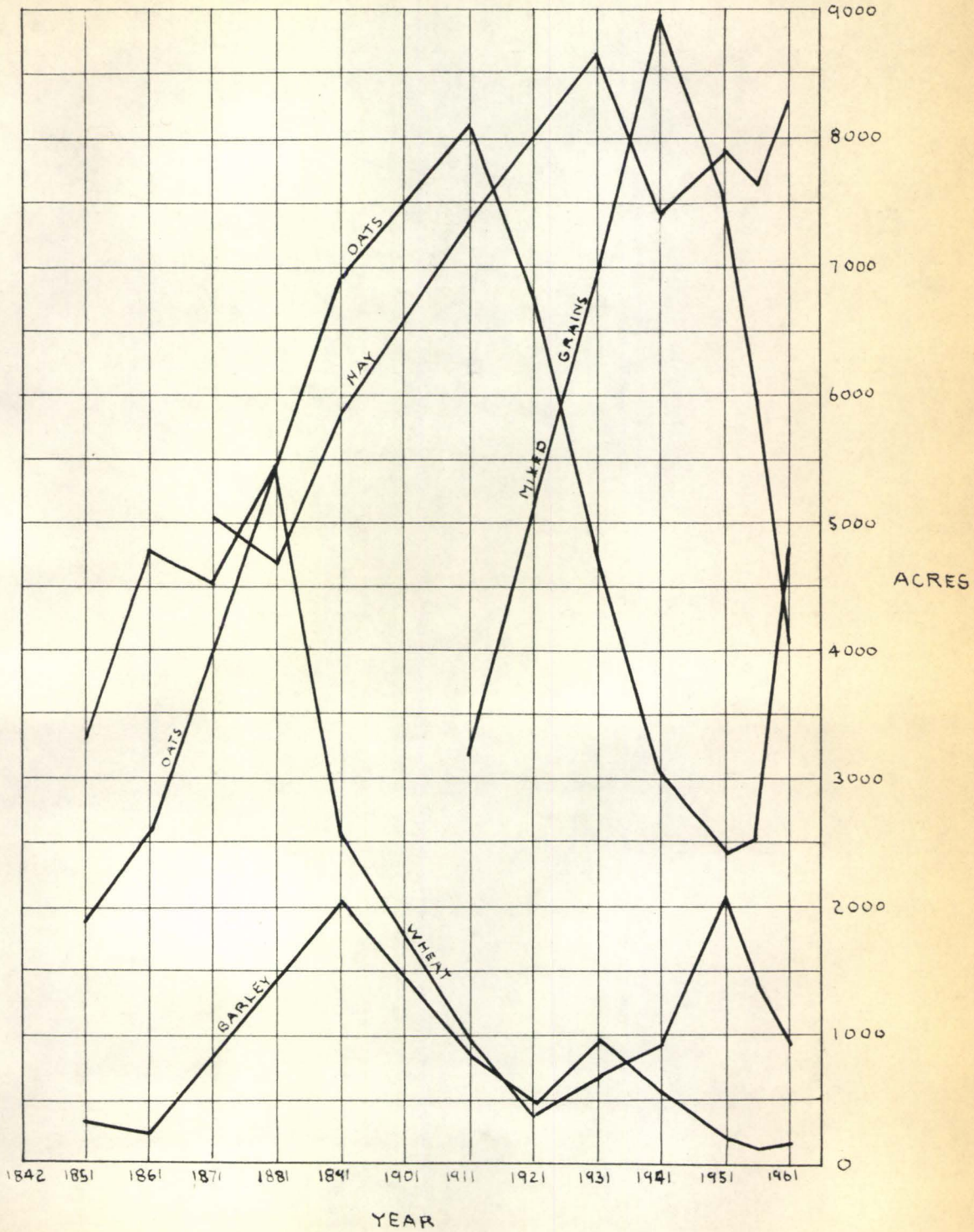
POPULATION TREND

GRAPH 1



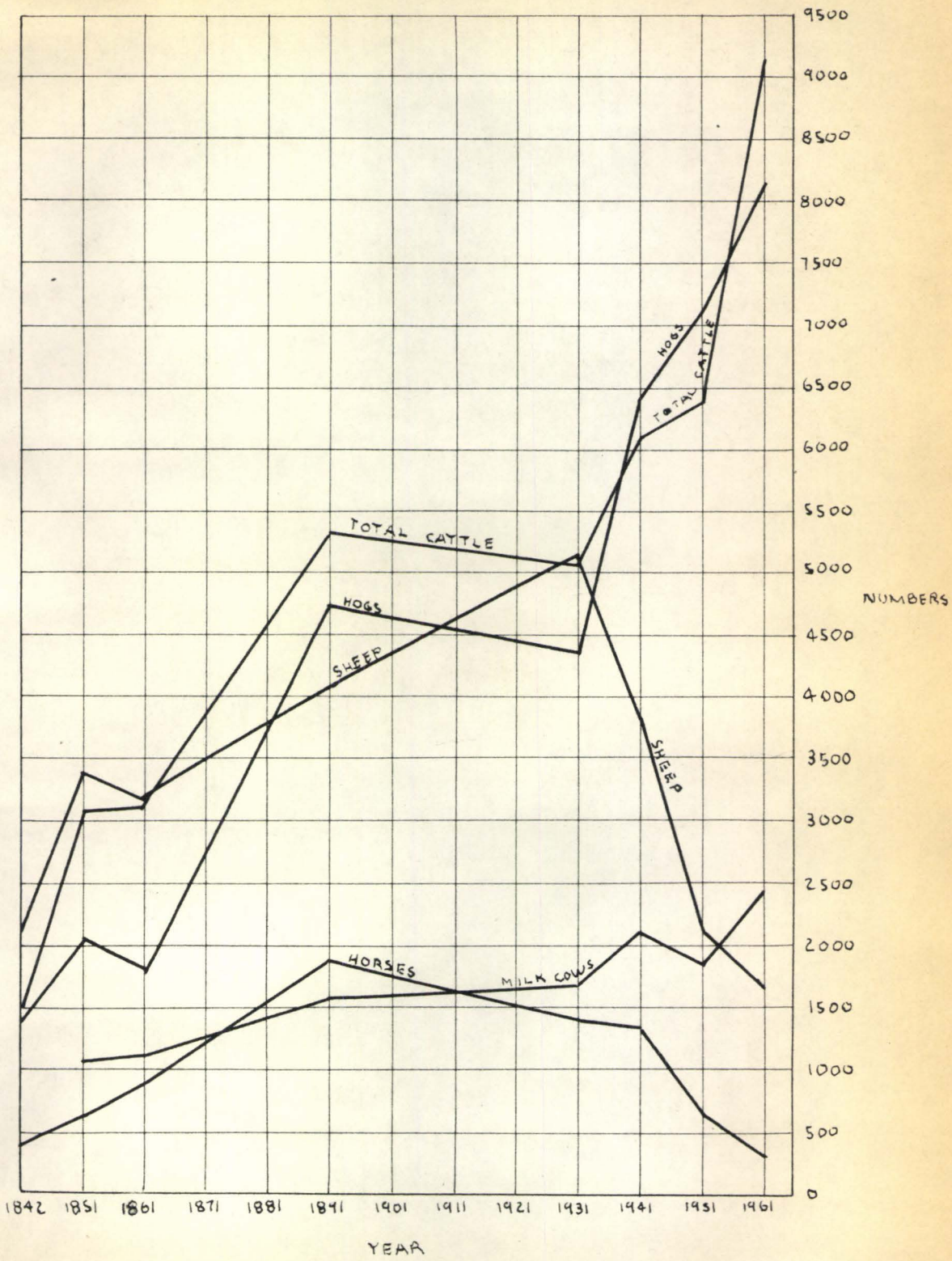
LAND USE TRENDS

GRAPH 2



FIELD CROP TRENDS

GRAPH 3



LIVESTOCK TRENDS

GRAPH 4

the land was rapidly being cleared of trees in order to be put to agricultural use.

Wheat remained the most important cash crop during this period (4,538 acres in 1871) as there was a good market in the United States for this product. Oats remained the second most valuable grain crop, serving largely as fodder for the livestock. As can be seen from the Census data, peas and root crops (chiefly turnips) were important throughout this period. Peas were used as a fodder crop (especially for hogs) at this time in southern Ontario and was grown in a crop rotation with grains. Turnips, also grown for fodder, formed a more important crop in Eramosa than in neighbouring townships because a waxing plant at Rockwood exported turnips to the United States.

The Census records do not give information on the number of livestock in the township throughout this period. However, cattle, sheep and hogs were fairly important in the farm economy and there was probably a great rise in the number of horses in order to cope with an increasing amount of farm work done in the township.

(b) Urban Development by 1871

In 1871 Lovell's Directory, giving information on many of the small urban centres of the province, was published. Much of this information has been reprinted in Here and There in Eramosa. It must be remembered that these rural hamlets were much more important to the surrounding farm communities than at the present time.

(i) Rockwood

Rockwood in 1871 was the largest centre in the township with a population of about 600. The village, located on a main road and railway connecting Guelph and Toronto, contained grist, saw, and oatmeal mills, a large woollen factory, a stove factory, limestone quarries, and a Montreal Telegraph Co. office.[10] It was also the site of the Rockwood Academy which was founded in 1853 and was an important private school for boys in the province.

(ii) Eden Mills

The population of Eden Mills in 1871 was about 300. The village had expanded into neighbouring Nassagaweya Township but more than half the population lived in Eramosa Township. The centre of the village was the saw mill and the flour mill, but listed in its population were 4 shoemakers, 3 blacksmiths, 2 cabinet makers, 1 doctor, 1 cooper, 1 hotel keeper, 1 tailor, 1 pumpmaker, 1 weaver, and 1 postmaster.[11]

(iii) Everton

In 1871 Everton had a population of 250 with 3 churches, 2 hotels, 3 blacksmith shops, a grocery store, tailor's shop, implement agency, cabinet maker's shop, carding mill, cooper's shop, stove factory, potash plant, along with flour, feed and saw mills.[12]

(iv) Oustic

Oustic was established at the intersection of the Fifth Line (the main road from Rockwood to Fergus) and Side Road 25, sometime in the period between 1851 and 1871. In 1871 there

was a population of 25 with a blacksmith, weaver, boot and shoemaker, hotel keeper, postmaster and merchant, and a pumpmaker listed as residents.[13]

(v) Other Centres

There were a number of other small centres in Eramosa. Along Luttrell's Creek in the Third Concession a grist mill was established and became a small hamlet known as Birge Mills. Similarly a small hamlet called Shiloh was established with the building of a saw mill in 1865 on the Speed River in the Sixth Concession. Small centres were also established at Speedside and Crewson's Corners.

(c) Beginning of the Decline of Population 1871-1891

In the year 1871 the population of Eramosa was at its peak. After 1871 it started to decline and did not stop declining until the Census of 1951. Even though the population declined the amount of land cleared for cultivation increased until 1891.

The year 1891 saw the township reach its peak in the amount of land occupied (44,867 acres), the amount of improved land (37,150 acres), and the amount of land under crops (30,278 acres). Yet this was a time when there were 600 fewer people on the land than in 1871. One of the reasons for this was the fact that new labour saving devices were beginning to be introduced on the farms, releasing labour for other jobs. Some of the people moved to the cities to get jobs in the factories, or they moved to the new farm lands that were being opened up in Western Canada by the

completion of the C.P.R. in 1886.

The same type of crops were grown in 1891 as in 1871, but oats (6,863 acres) had now replaced wheat (2,624 acres) as the chief grain crop of the township. Wheat declined in importance because it could not compete either in price or in quality with the prairie wheatlands which had just been opened up for settlement. Oats increased in acreage in order to provide fodder for the increasing number of livestock on Eramosa farms. Eramosa at this time was beginning to turn away from being a cash crop farming area (because its chief cash crop, wheat, could no longer compete), to a livestock raising area serving the growing urban market of southern Ontario. Sheep remained fairly important at this time, providing wool for the woollen factory at Rockwood. Barley had its greatest acreage in the township at this time primarily in response to a growing number of breweries in southern Ontario. Barley was also exported to breweries in the United States.[14]

4. The Modern Era 1891-1951

Although this period covers a span of 60 years, coming right up to the present, it can be treated as a whole because of a similar pattern of development. It was in the 1890's that the changes to the present land use pattern had its beginnings. These changes will be discussed under two headings: (a) Changes in rural land use, and (b) changes in urban land use.

(a) Changes in Rural Land Use

Throughout this 60 year span the population decline, which started in the 1870's, continued, reaching the low point in 1941, before starting to climb again. The 1941 population of 2,287 was only 74% of the total population recorded in 1871. The period of greatest decline were the decades before World War I. This was a time of intensive settlement of western Canada, rapid rise in urban population, and of rapid farm mechanization releasing labour for other jobs. The smaller farm units were becoming less economical, and larger and larger farm units came to take their place resulting in a decrease in the total number of occupiers of land.

After 1891 there is a gradual decrease in the acreage of improved land and land under crops. This decrease is simply the reflection of farmers giving up trying to farm the poorer quality land in the township. At the same time there is noted in the Census a gradual increase in the amount of land under forest.

Wheat acreage continued to decline in the first part of this period, as it was not able to compete with western grains. The Census after 1931 show an increase in wheat acreage. This increase in the 1930's and 1940's is a reflection of Eramosa farmers taking advantage of crop failures out west during the depression and dust bowl days, and of the demand for wheat during World War II.

The production of peas and root crops shows a serious

decline throughout this period. This was part of a trend which saw these crops being replaced by grains as feed for livestock. The decline of pea production was also due to the pea weavil blight in the 1890's. The acreage of root crops was somewhat kept up by the presence of a turnip waxing plant in Rockwood. When the waxing plant went out of business in the 1940's, the acreage in turnips decreased faster than before.

The increasing popularity of mixed grains is seen throughout this period. Mixed grains is a term used to denote the growing of oats and barley together in the same field. In the case of Eramosa, oats is always the dominant grain of the two. This fact helps to explain the apparent decrease in the acreage of oats throughout this period. Oats really did not decline but came to be grown more and more with barley as a mixed grain.

Throughout this period can be noted the sharp decline of wheat, while crops used as fodder in livestock production (i.e., oats, hay, pasture) held fairly steady acreages at a time when a good deal of land was going out of production. This was a reflection of the changing of Eramosa from a cash crop farming area to a livestock raising area. This livestock increase was in response to a growing urban market's demand for dairy products such as milk and butter, poultry products, and meat products such as beef and pork. As a result there was an increase in the number of cattle, the number of hogs and the number of poultry throughout this

period.

The main trend in the land use of this 60 years is the gradual change in the farm economy from crop to livestock production, (as wheat could no longer compete with that from western Canada), in order to take advantage of the closeness to growing urban markets.

(b) Changes in Urban Land Use

The small urban hamlets also lost population during this period. Such communities as Oustic, Shiloh, Speedside, and Crewson's Corners, by the end of this period had declined so much that one would never suspect they were once prosperous little hamlets. The larger centres of Eden Mills and Everton lost all their industries, except for the mills.

The reason for this decline was that the small village plants and workshops could no longer compete with the newer large scale manufacturing industries growing up in the larger towns and cities. With the depopulation of the surrounding countryside their markets were also severely cut. The growth of mail-order business and the introduction of faster means of transport to larger centres, also brought on a reduction in the amount of local retail trade. People put out of work in these small centres by the above factors tended to go to the larger centres themselves, thus increasing the dominance of the larger centres over the countryside.

Rockwood was the one village in Eramosa which did not lose population, as its number remained steady at about 600 over the greater part of this period. There are a number

of reasons for this lack of decline. First of all, and probably most significant was that it was on the main transportation routes. It had a station on a main line of the C.N.R., and in 1927, Highway 7 was built through the village providing an excellent paved highway to Guelph in the west and Toronto in the east. Perhaps of less significance is that Rockwood is the governmental centre for the township. The grist mill and the quarry remained active throughout this period but the woollen mill ceased operations in the 1920's and the turnip plant folded in the 1940's.

5. Summary

Eramosa Township was surveyed in 1819 and settlement began in 1820. Population growth was slow at first but increased rapidly after 1840, reaching its peak in 1871 and then declined. Cash crops, particularly wheat, were important in the township until the opening of the Canadian west in the 1880's, and then declined in importance, being replaced by livestock farming. Mill sites were the basis for village settlements which reached a peak in the 1870's and then declined in population.

25. The old water powered grist mill at Eden Mills which is now used as a saw mill.

26. This abandoned woollen mill at Rockwood was the township's most important manufacturing industry in the late 19th century.

27. Now a National Historic Site this large limestone building housed Rockwood Academy, which was one of the finest private boys' schools in Ontario from 1853 - 1883.

28. One of the first industries in Rockwood was this feed mill, which is still operating today on water power.

29. This old frame building housed a saw mill at Everton.

30. Practically all that remains of Shiloh is this abandoned school which was built in 1872.

IV

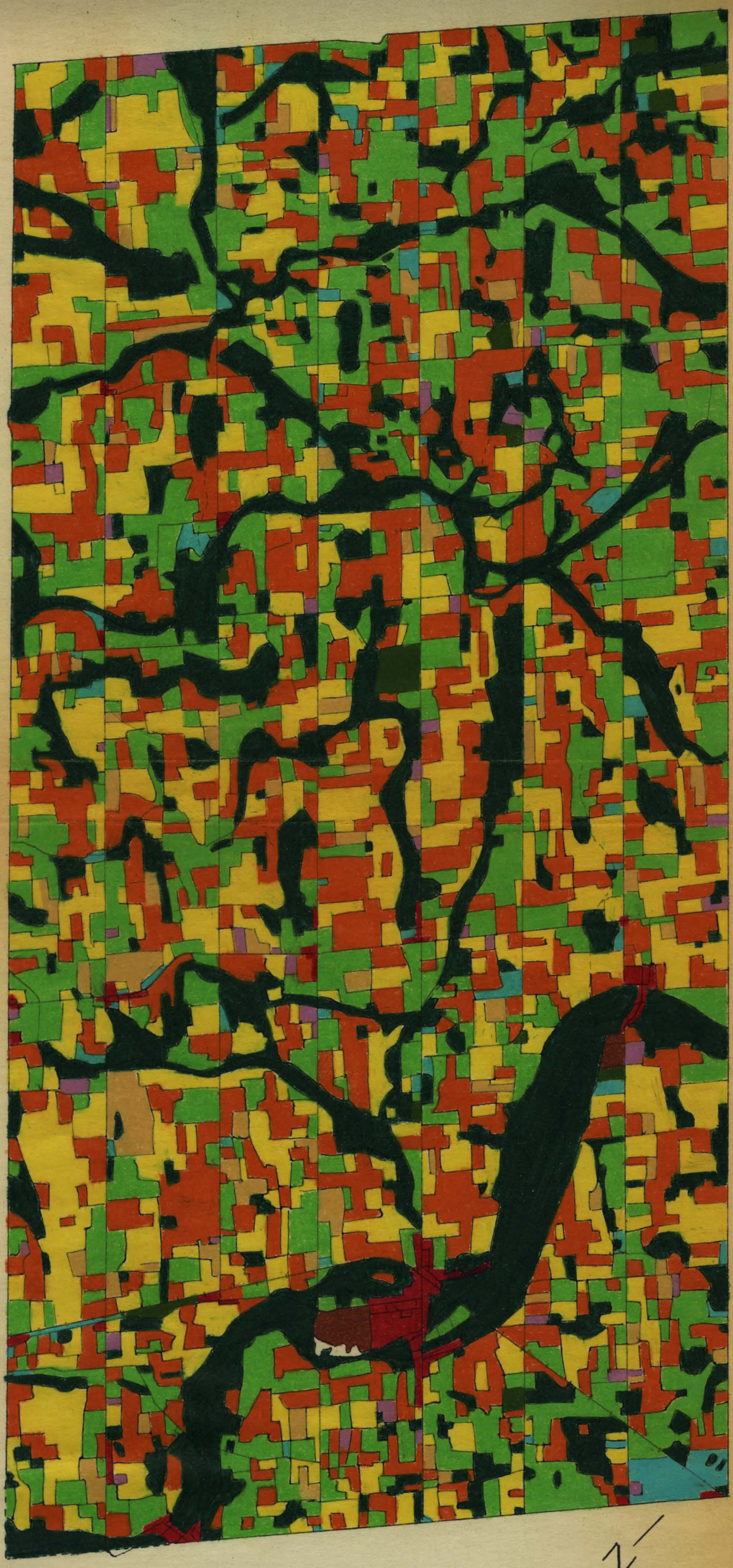
PRESENT RURAL LAND USE

1. The Use of the Land

The land use of Eramosa Township in 1963, can be seen on a land use map found on page 64. This map was compiled by the author in September 1963 by traversing the entire township and recording the use of each field on a sheet of acetate overlying an air photograph mosaic with a scale of one inch to the mile. However, because of the limitations of scale on a map this size certain detail had to be left out. For instance farm yards and cemeteries were not mapped, but these deleted details do not affect greatly the overall pattern of land use as seen on the map.

(a) Small Grains

This category includes wheat (both winter and summer varieties), oats, barley and rye. The small grains have their greatest occurrence on the better soils of the township, principally the Guelph and Harriston loams. According to the 1961 Census oats is the leading small grain with 4,768 acres or 24% of the total land under crops. Not far behind with 4,092 acres is mixed grains, which is oats and barley sown together in the same field. In 1951 mixed grains was the leading crop with 7,504 acres while oats was second with only 2,433 acres. This might seem to be a major shift in crops but this is not the case. It just means that more farmers are now tending to grow oats by itself instead of it



ERAMOSA TOWNSHIP

SCALE 1 INCH TO 1 MILE

LAND USE 1963

- SMALL GRAINS
- CORN
- HAY
- PASTURE
- OTHER CROPS
- IDLE LAND
- WOODLAND
- REFORESTED
- URBAN
- RECREATIONAL
- QUARRY

MAP 10

being mixed in with barley.

Wheat was the third most important grain crop in 1961 with 954 acres, followed by barley with 186 acres and rye with 34 acres. The acreage of wheat has varied greatly from year to year, while that of barley has shown a steady decline since the 1890's. Rye has always been a minor grain crop in Eramosa, probably because it has never been a traditional crop with the farmers and because there is no great demand for rye on the market.

The vast majority of the small grain crop is used as fodder to feed the farmer's livestock. Very little of it is grown as a cash crop.

(b) Corn

In 1961 there were 1,007 acres of corn grown in the township. This was the greatest acreage of corn grown in one year in Eramosa up to that time and quite likely the 1963 acreage is still higher. In the past Eramosa has not been climatically suited for growing corn, but now, with the new varieties of quick growing hybrids, this is no longer true. Farmers have begun to switch to corn, not because it is a better feed for livestock than hay or other grains, but because a much greater tonnage per acre can be harvested than any other grain crop. In many cases it can double the carrying capacity of livestock for a farm.

Corn has a widespread distribution in Eramosa but there is a tendency for it to be located on the well-drained, fertile, gently rolling till soils. The vast majority of

the corn is grown for ensilage. The new popularity of this crop is evidenced by an increasing number of silos that have been built in the past few years.

(c) Hay

Hay is the crop with the largest acreage in the township, having occupied first place ever since records were kept. In 1961 there were 8,259 acres or 42% of the total cropland devoted to hay production. This category of hay includes alfalfa, clover, timothy, bromegrass, and birdsfoot trefoil. Hay has a widespread distribution throughout the township, tending to be grown on slightly poorer soils than the small grains or corn.

A hay field is usually kept in production for about 3 years (although it is sometimes as great as 7 or 8 years) before it is plowed up and reseeded. At least 2 hay crops and sometimes 3 are taken off a field each year.

(d) Pasture

Pasture, in this classification, includes both permanent pasture and pasture which is in rotation with other crops. Often it was difficult to determine if a field was a pasture or an old hay field. In cases such as this the field was classified as pasture. In 1961 there were 8,927 acres or 22% of all occupied land classed as pasture by the Census. This compares to only 6,218 acres or 15% of all occupied land in 1951. Therefore pastureland has shown a significant increase in the past 10 years. The reason for this increase is that the poorer cropland has been pulled out of

production and has been given over to pasture.

Pasture is found on all types of soil but is most common on the poorer grades of cleared land. Thus, pasture has a greater density in the south-eastern corner and in the north-eastern quarter of the township as this is where there is a greater concentration of poorer quality land.

(e) Other Crops

This category was established to cover crops which do not have great enough acreage in the township to form a separate category. These crops include potatoes, root crops, orchards, nursery crops, vegetables and strawberries.

In 1961 potatoes occupied only 70 acres in the township, this being the smallest acreage in that crop since records were kept. The production of potatoes has dropped because it can not profitably compete with the large scale production found on the sandy soils to the north-east of the township. Other root crops, such as turnips, are grown only in very small quantities at the present time.

The orchards are in all cases old apple orchards, of about an acre in size, that are located next to the farm yard on many of the farms of the township. These old orchards have a wide distribution in the township with the majority of them not being properly cared for. Apples are still picked from some of these trees for home consumption, but often they are wormy for lack of attention. Some of these old orchards are being used as pasture fields.

In the township there are 3 commercial nurseries who

specialize in small shrubs and flowers for marketing to florists in Guelph. Vegetable and strawberry crops are confined to a few places in the township covering only a few acres.

(f) Idle Land

Land which can be called idle is often difficult to classify because it may actually be used for some purpose which is not obvious to the viewer (i.e., fallow land). Therefore, my criteria for idle land was: land which had small scrubby trees and tall weeds growing on it, and which had clearly not been used for agricultural purposes, for one reason or another, for the past few years. It was found that this category has its greatest occurrence on the poorly drained land of the township.

(g) Woodland and Swamps

Included in this classification are forested areas, scrubland, and swamps. As can be seen by comparing the Land Use Map (Map 10) with the Pleistocene Geology Map (Map 5) the woodland cover of the township has its greatest distribution in the former spillway channels.

According to the Speed Conservation Report the area of woodland in 1953 was 7,849 acres. Of this 3,749 acres or 48% was used as grazing land by the owners. Only 606 acres were fenced off. The majority of farmers in the township do not take adequate care of their woodlots, as recommended by the Conservation Authority, and many ignore their woodlots entirely.

(h) Reforestation

Reforestation, while not important in the township, has made great strides in the past 10 years on the poorer quality land, thanks to the work of the Grand Valley Conservation Authority and its reforestation assistance program. In 1954 the Authority purchased a 100 acre tract of land at Concession IV, Lot 19E½ and reforested it with Scotch pine and other species of conifers. Along Highway 7 in the Second Concession a demonstration plantation was planted in 1925 by the Ontario Department of Highways. Tall Scotch pines now border the highway along this section. Recently, two Christmas tree farms have been established, under private management, on land that was recommended by the Authority for reforestation.

(j) Other Categories

On the land use map are shown urban, recreational, and quarry categories. These will be discussed in greater detail in the next chapter on urban land use.

2. Types of Farming

(a) Introduction

Eramosa Township can be classified as a mixed livestock farming area. The term mixed is used to indicate that the source of income for farmers usually derives from more than one type of livestock. Few cash crops are grown in the township. The livestock that predominates in Eramosa is cattle. Practically every farmer in the township has at

least a few head of cattle, while a few have up to 100 head of cattle. The cattle are of two kinds, dairy cattle and beef cattle. The majority of farmers specialize in either dairy farming or beef farming. Hogs and poultry raising are commonly combined with cattle farming. Sheep raising is of importance on a few farms only.

(b) Number, Productivity and Size of Farms

The total number of farms listed in the 1961 Census for Eramosa was 295, while the total number of commercial farms was 237. A commercial farm is a category used by the Census to indicate a farm whose total value of products sold is $1,200 a year or greater. This is a useful category as it indicates fairly well the number of farms into which some effort is made to make money by farming the land. In 1951 the total number of farms in Eramosa was listed at 299, while the total number of commercial farms was 262. Thus, in a ten year period from 1951 to 1961 there was a drop of 4 in the number of farms in the township, but a drop of 25 in the number of commercial farms.

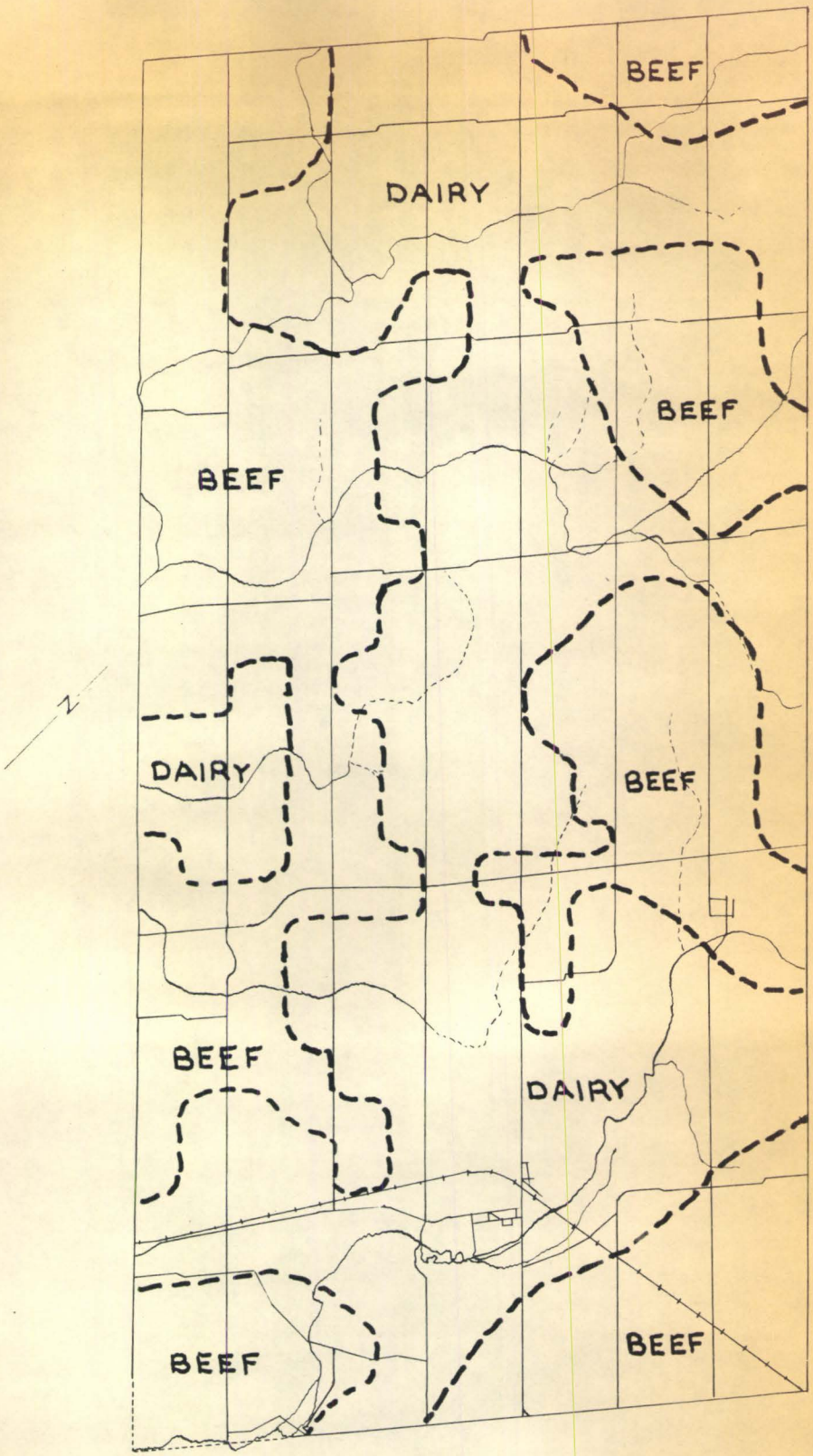
The distribution of income by farms is not given on a township basis in the Census, but is given on a county basis. Assuming that the same trend would apply in Eramosa Township as in Wellington County, it is found that in the ten year period from 1951 to 1961, there was an increase from 2.1 to 10.1 in the percentage of farms whose value of products sold in a year was greater than $15,000, and that there was an increase from 3.7% to 9.9% in the $10,000 to $14,999 range.

farmer. Yet the number of farms under 70 acres increased from 23 to 32 in the period from 1951 to 1961. This increase is accounted for by farmers who have decided they cannot make an adequate income from full-time farming and have sold part of their land and become part-time farmers.

Some of this land that is sold by persons going out of full-time farming is bought by more prosperous neighbours who want to increase their own farming base. Thus, in the period from 1951 to 1961, the number of farms which are larger than 240 acres in size, increased from 21 to 30. This is all part of a trend towards larger sized farms which has been necessitated by the desire to remain economically competative with the use of more and more labour saving techniques which enables a farmer to effectively operate a larger farm.

(c) Areas of Dairy and Beef Farming

As dairy and beef farming are of prime importance in the economy of the township, I have plotted on a map (see Map 11 on page 73) the areas where dairy farms and where beef farms tend to be located. This has been done ignoring all other types of livestock farms and other combinations of livestock with the cattle. The reason for doing this was to see if there was any pattern in the concentration of farms of one type in an area and, if positive, to see if there were any apparent reasons for these concentrations. As can be seen on the map, dairy farms seem to be chiefly located in a section running N.W.-S.E. through the centre of the township with areas of beef farms on either side. The



ERAMOSA TOWNSHIP

MILES

1 ½ 0 1 2 3

AREAS OF CONCENTRATION OF DAIRY AND BEEF FARMS

MAP II

dairy belt also shows a widening out in the area around Rockwood. It must not be assumed that all farms in the dairy belt are dairy farms, or that in the beef areas all farms are beef farms. This map just shows the dominance of types.

It was found that in the majority of cases it is up to a farmer's personal taste whether he is a beef farmer or a dairy farmer. However, there does seem to be a slight tendency for dairy farms to be located on the better classes of land, while beef farms tend to have a slightly greater occurrence on rougher land. It is also possible that the longitudenal area of dairy farms corresponds to the fact that the Fifth Line is a good paved county road and thus enables dairy products to have good access to markets.

At the present time there seems to be about an equal number of beef farms in the township as there are dairy farms, but it appears that beef farming is increasing in popularity year by year. In the ten year period from 1951 to 1961 dairy cattle showed a 29% increase in numbers to 2,410, while there was a 41% increase to 9,117 in the total number of cattle. It must be assumed that beef cattle recorded a greater increase than dairy cattle in order to make up the 41% overall increase of cattle.

(d) Examples of Farming Types

It is difficult to generalize the farm economy of Eramosa other than saying it is a mixed livestock farming area, for each farmer tends to have a different livestock

raising operation than his neighbour. Although the majority of farmers are either in dairy or the beef business, they do not all have the same number of cattle, nor do they have the same kind and number of what is often a secondary line of livestock such as hogs, poultry and sheep. Also there are separations of farm types on whether it is a full-time operation or just a part-time operation. In order to give an insight into what some of the various farm operations are like, I shall give a few examples as gathered from interviews with the farm operators concerned. This might also help to point out some of the problems in the farm economy.

(i) Dairy Farming

An example of a prosperous dairy farm is found just north of Rockwood on the Fifth Line. This farm is located on an area of Guelph loam and is 200 acres in size. Another 100 acres, located a few farms away, is rented from a retired farmer. The practice of renting land from other farmers, in order to increase the size of an effective farm unit, seems to be quite common in the township. On the 200 acre farm there are 60 acres of mixed grains (oats and barley), 10 acres of corn, 60 acres of hay, 30 acres of pasture and 40 acres of woodland. The 100 acres of rented land is used principally to grow grains. On the farm there are 40 milking cows (all Holsteins) out of a total of 70 head of cattle.

This farm has a fluid milk contract with Acme Farmers

Dairy Ltd. in Toronto, who come every two days to pick up the milk from his bulk cooler. It should be noted that the entire township is in the Toronto milkshed (a milkshed is a region furnishing milk to a particular community) besides being in the Guelph milkshed. This particular farmer would like to ship his milk to Guelph, but he has not been able to get a fluid milk contract there. The reason he would prefer to ship his milk to Guelph is the fact that the dairy farmers themselves pay for the cost of shipping milk to a dairy, and as Guelph is much closer than Toronto he would save 20¢ per hundred weight in shipping fees. But the fluid milk market of Guelph is only limited and cannot possibly serve all the dairy farms in the district, and therefore, milk is shipped to Ontario's largest urban market where there is a demand for it.

Although he is primarily a dairy farmer, this farmer does have another minor specialty. This is the raising of turkeys of which he has approximately 150 to 175.

Another example of a dairy farm is found in the First Concession just north of Highway 24. This farm is 100 acres in size of which 25 acres is in mixed grains, 25 acres in hay, 10 acres in corn, 6 acres in wheat, 4 acres in peas, and 30 acres in pasture. In this case there are 34 milking cows, (like most dairy cattle in the township they are Holsteins), out of a total of 60 head of cattle. The milk is marketed, in cans, to the Homewood Sanitarium in Guelph. On this farm there are also about 50 hogs, and

these are marketed in Toronto.

(ii) Beef Farming

An example of a part-time beef farm operation is found in the First Concession, south of Highway 7. This farm, located on Guelph loam, is 150 acres in size with 35 acres in mixed grains, 95 acres in hay and the remaining acreage in pasture. On this farm there are 66 head of beef cattle, the majority of which are Herefords. In this particular instance the cattle are bought young and then fattened for about a year before being marketed in Toronto. A few chickens are kept for egg production.

Another beef farm is located on the Sixth Line, north of Highway 24. This farm is different from the one mentioned above because hogs are an important secondary source of income. This particular farm is 200 acres in size of which 30 acres are in mixed grains, 50 acres in corn, 40 acres in hay, and the rest in pasture. The farmer raises Hereford steers which he fattens before marketing them in Toronto. On the farm are about 150 hogs, which are also marketed in Toronto.

A unique type of beef farm in the township is that located in the Second Concession south of Highway 24. Here, the vast majority of a 150 acre farm is given over to the growing of corn, which is used to fatten steers in a modern farm complex. This farm is owned by a meat packing company executive in Toronto, and was just established a year ago.

(iii) Hogs, Sheep, Poultry and Horses

On dairy and beef farms, hogs, sheep, poultry and horses sometimes play an important part as a source of income on many of the farms in Eramosa. There are even a few farms which depend entirely on hogs or poultry or horses, and so these forms of livestock must not be overlooked.

There are very few farms which specialize in hogs. Hogs, however, are a common combination with beef cattle in Eramosa. There are very few dairy farmers who raise hogs. One reason for this, advanced by a farmer in the township is that dairies are quite fussy about the cleanliness of the milk they receive and they do not encourage a farmer to raise hogs if he is in the fluid milk business. Another reason is that a dairy herd requires more work than a beef herd (i.e., dairy cows have to be milked twice a day), and, therefore a beef farmer is able to take on extra work, such as raising hogs, easier than a dairy farmer. The raising of hogs as a supplement to farm income is more popular at present than it ever has been in the past due in part to the increasing demand for pork in the urban markets. In 1961 there were 8,158 hogs in the township, nearly double the 1931 total of 4,332.

Sheep are raised by only a few farmers in the township and in all cases it is in conjunction with beef farming. The same reasons why hogs are more common with beef cattle, seems to hold true also for sheep. But sheep raising seems to be a dying industry in the township. In the 30 year

period from 1931 to 1961 the number of sheep have dropped from 5,156 to 1,719. Basically the raising of sheep in the township seems to be largely a traditional holdover by the descendants of some of the original Scottish settlers. Today sheep are grown primarily for meat production, not for their wool.

Poultry is a common occurrence on many Eramosa farms, and some farmers specialize in it. Mainly hens and chickens are raised. In the 10 year period from 1951 to 1961 there was a 41% increase in their number (58,259 to 72,287). Poultry in Eramosa is raised both for egg production and for their meat. There is only one case in Eramosa where a farmer depends entirely on poultry for a living. This is a modern "egg producing plant" located at the intersection of the Sixth Line and Highway 24.

Horses have decreased tremendously in number in the last 20 years. In 1941 there were 1,325 horses on Eramosa farms, while in 1961 there were only 290. This is the result of mechanization of farm work. At present about six farms in the township are raising horses and ponies. These are mainly for riding and for show purposes.

(iv) Part-time Farm Operations

A word or two should be said about part-time farm operations in the township as they make up a fairly important minority of the total number of farmers. The majority of these operations are small, usually being under 70 acres, but there are a few instances where fair sized farms are

31. A typical group of farm buildings in Eramosa. There is the old, well-built limestone farmhouse, with a sturdy barn. Rail fences remain fairly common in the township.

32. Fences made of stones removed from fields are common on the bouldery Dumfries loam. This one is located at Lot 1E½, Concession 4.

33. A typical farm scene on Guelph loam in Eramosa. Note the old apple orchard which is now being used to pasture beef cattle.

34. This woodland at Lot 28W½, Concession 2, contradictory to good conservation practice, is being used as pasture, allowing cattle to kill off the young underbrush.

35. A grain crop has just been harvested off this field located on a kame deposit at Lot 3E½, Concession 3.

36. Rough kame topography in the north-east of the township which was taken out of farm use and has been reforested.

37. One use for poor quality land is a Christmas Tree farm like this one found at Lot 31W½, Concession 7.

38. Along Highway 7 in the Second Concession, this Demonstration Plantation was planted in 1925.

39. Holstein dairy cows found at Lot 21W½, Concession 4.

40. Beef cattle found at Lot 23W½, Concession 2.

41. A flock of sheep found at Lot 26W½, Concession 6.

42. A bouldery, poor quality pasture field located on outwash gravel at Lot 24E½, Concession 7.

V

PRESENT URBAN LAND USE

Eramosa is primarily a rural township. There are no incorporated villages or towns in the township, yet 54.7% of the total 1961 population did not live on farms. The majority of the non-farm population live in the only settlements that could be called urban. These are the police villages of Rockwood and Eden Mills, and the hamlet of Everton, all located on mill sites on the Eramosa River. The remainder of the non-farm population live in scattered suburban developments that have been established in the township in recent years.

1. Rockwood

Rockwood is a police village of 800 acres, comprising the east halves of Lots 3, 4, 5 and 6 in the Fourth Concession, and the west halves of Lots 3, 4, 5 and 6 in the Fifth Concession. In 1962 the village had a population of 823 which is a drop from 863 in 1961.

The Eramosa River divides Rockwood into two sections, with the northern section having the majority of people and nearly all the commercial and industrial functions. The village has not grown greatly for the past 80 years. In the past decade there have been only about 25 new houses constructed, and most of these were built in the northern section.

ROCKWOOD

SCALE : 1 IN. TO 190 YDS.

- ■ HOUSE
- ▫ COMMERCIAL
- B BANK
- C CHURCH
- F FIRE HALL
- H TOWN HALL
- M FLOUR MILL
- P POST OFFICE
- S C.N.R. STATION
- Sc SCHOOL
- W WOOLLEN MILL

The commercial district of Rockwood is typical for a small southern Ontario village. Spread out along the northern side of Main St. are a bank, hardware store, farm machinery store, bakery, butcher, grocery store, and barber shop. There are also a number of stores which are empty. Four service stations are located on Highway 7, which makes a 90° turn in the centre of the village.

Rockwood has 4 churches (Anglican, Presbyterian, Roman Catholic, and United) and an eight room public school. As there is no high school in the township, pupils are transported by bus to a high school in Guelph. The Eramosa Township office is also located in Rockwood.

There are no large industrial plants in Rockwood, in fact there are only 4 small operations which could be termed industrial. These are the Rockwood Lime Company, Stag Lubricant Company, Schneider's Sweets, and Hortop's Feed Mill.

The largest industry is the Rockwood Lime Company, located on the northern outskirts of the village. The company at the present time employs from 12 to 19 men and produces a high quality lime that is sold to building contractors in the Guelph area. The lime is made from limestone which is quarried on the premises and processed in a modern lime kiln.

Located beside the C.N.R. track, and employing six people, is the Stag Lubricant Company. This company came

to Rockwood in 1958 and set up shop in an old C.N.R. freight shed. The company makes gun cleaning equipment and aluminum fish nets, which it markets all across Canada.

Employing about 10 people, and located across from the park on Main St. is Schneider's Sweets. This is a candy factory which markets its product in about a 50 mile radius around Rockwood. The building in which it is located has had a varied life. It was originally a one-storey skating rink, and then two more stories were added to turn it into a battery factory. This enterprise was short-lived. It then became a tire boot and patch factory, and a dance hall before Schneider's took it over after World War II.

The oldest industry in Rockwood is Hortop's Feed Mill, located beside the Eramosa River. This was formerly an important industry in the town, but now it employs only 2 men, who chop up grain into feed and sell it to local farmers. This mill is still operated on the original water power, and is now in fact the only industrial user of the Eramosa River, which was such an important locational factor in the early days. All the other early mills, such as the saw and woollen mills, went out of business years ago.

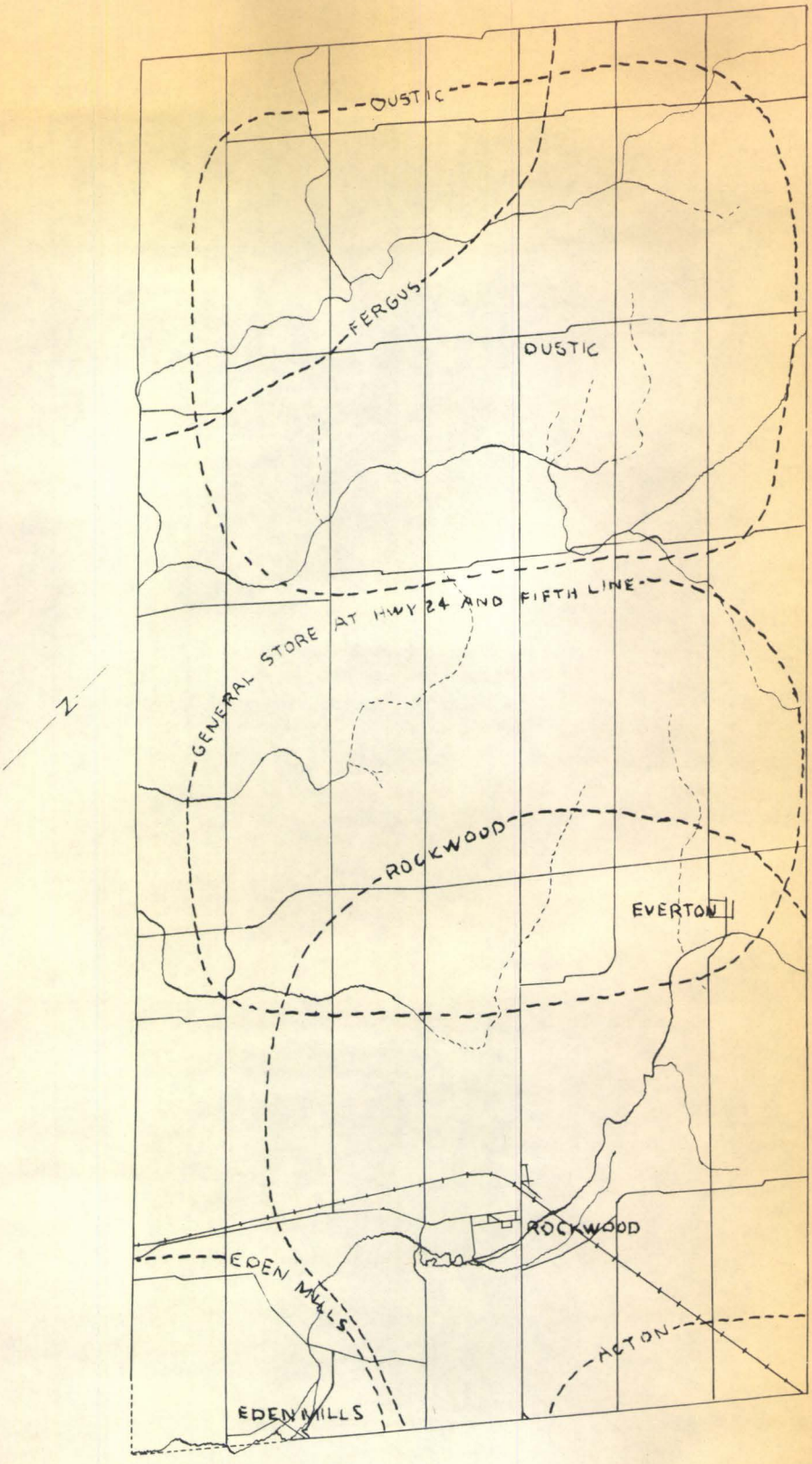
A recent development in Rockwood has been the purchase of a section of land to the south-west of the village by the Grand Valley Conservation Authority. The Authority has begun to develop this land as a park, and there are even plans to restore the old woollen mill which has been

deserted for about 40 or 50 years, as a tourist attraction. This is a natural site for a park with its many fine stands of trees and massive limestone outcrops. A millpond created by damming the river many years ago now provides an excellent site for swimming.

There are two other smaller parks in Rockwood; one located along the Eramosa River on Main St. and the other, a ball park, located back of Balaclava St.

As can be gathered from the above descriptions, Rockwood does not offer a great deal of employment opportunities for its citizens. What then do the majority of its people do? Some of them are retired farmers who have sold their farms and have moved to Rockwood, but the vast majority are commuters who work in Guelph, Acton, and even as far away as Oakville. Thus, Rockwood serves as a dormitory suburb for these centres.

The village has little influence upon its surronding hinterland. The trading area of its stores and of its bank is limited to about a radius of a few miles around Rockwood. It is because of the closeness to Guelph that Rockwood did not develop into a very influential commercial centre. The surrounding farm population, and even the majority of the residents of Rockwood, find it convenient to do a great deal of their shopping in Guelph where the number and variety of goods is much greater. Contributing to this tendency is the great number of people who work in Guelph. Thus, the



ERAMOSA TOWNSHIP

MILES

1 ½ 0 1 2 3

TRADE AREAS

NOTE: TRADE AREA OF GUELPH COVERS ALL OF ERAMOSA TOWNSHIP

MAP 13

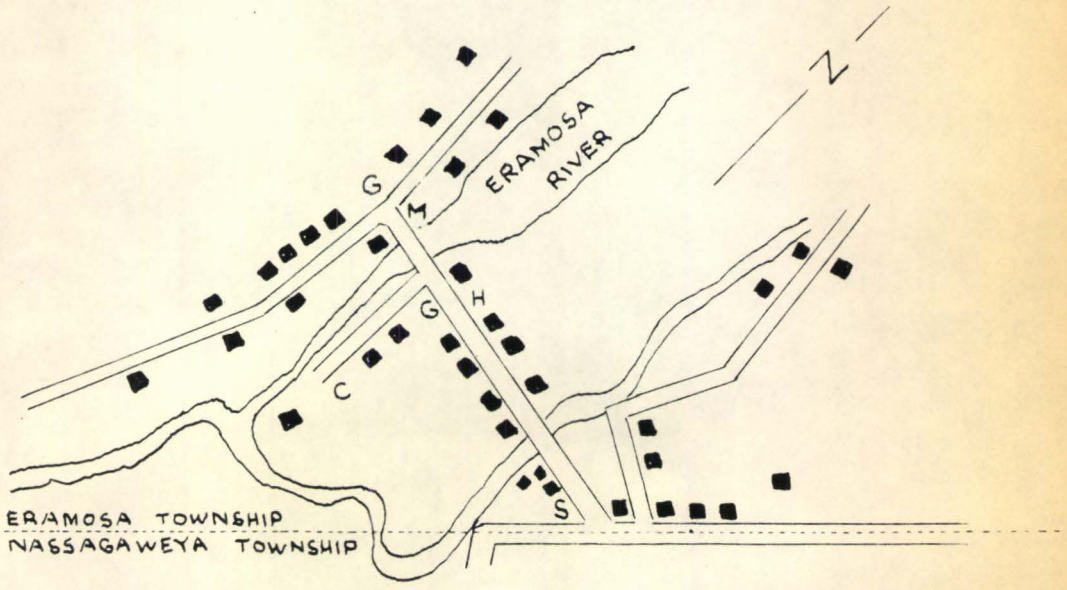
commercial function of Rockwood is principally to serve the every day needs of the local inhabitants. The result is that residents of the northern half of the township seldom visit Rockwood, except perhaps to pay their taxes, as they find it much more convenient to satisfy their needs in Guelph or even in Fergus.

2. Eden Mills

Eden Mills is a police village which is located on the boundary of two townships (Eramosa and Nassagaweya) and two counties (Wellington and Halton). Situated on the Eramosa River, the village is 500 acres in size with 300 acres in Eramosa. The total population of Eden Mills in 1961 was 288, with 171 people living in the Eramosa section of the village. The Eramosa part of the village contains the entire commercial and industrial function of Eden Mills.

The village has 2 general stores, a combination service station and coffee shop, a saw mill, a United Church and a village hall (formerly the old public school). Located to the east on the Second Line is a modern public school which serves the surrounding area in Eramosa Township.

The only industry in the village is a saw mill, which was converted from a grist mill around 1934. The mill employs 3 men, making baskets and boxes which are sold in market gardening areas such as Burlington and the Holland Marsh. This mill is still operated by water power, but



EDEN MILLS

SCALE : 1 INCH TO 200 YARDS (APPROX.)

■	HOUSE
C	CHURCH
G	GENERAL STORE
H	HALL
S	SERVICE STATION
M	MILL

when the water level becomes too low the saw is operated from the power take-off on a tractor.

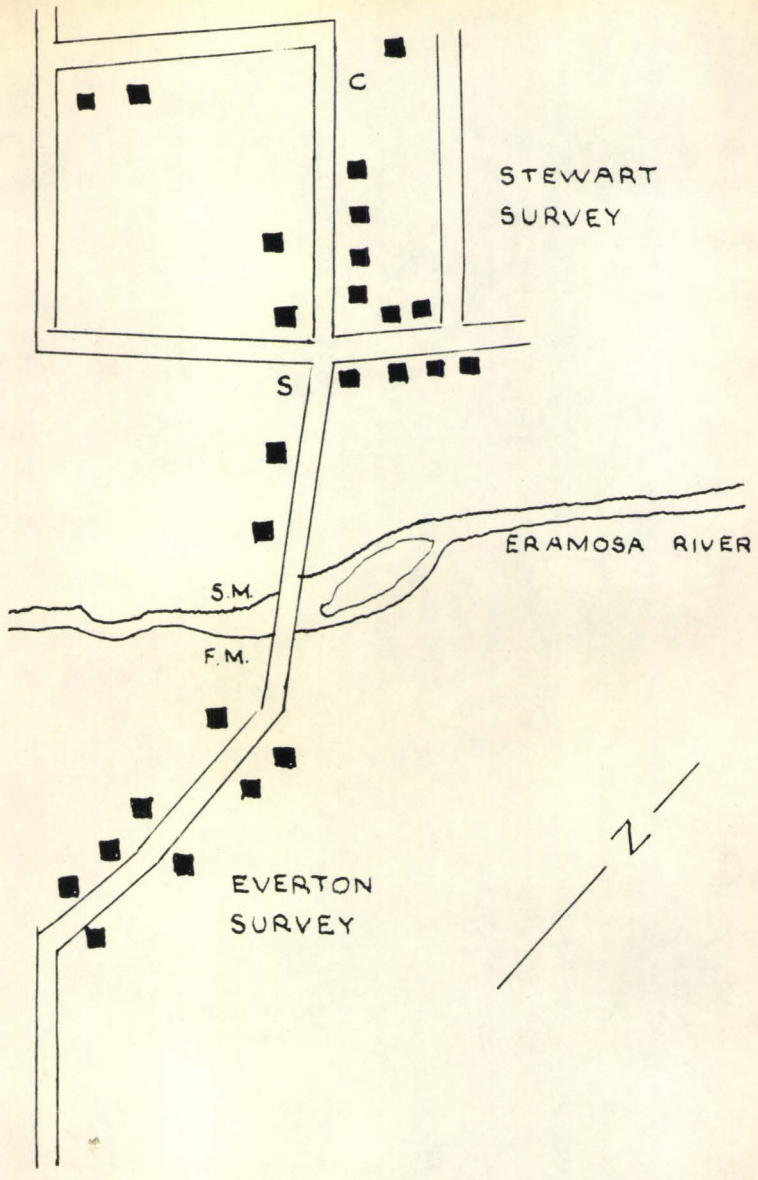
There has not been a great deal of new building in Eden Mills in the last few years, as it is rather out of the way, although it does have good road connections to Guelph. The majority of buildings are over 50 years old and there are many stone buildings in Eden Mills considered to be fine examples of Scottish masonry.

The majority of the home owners in Eden Mills commute to work in Guelph and the majority of people do their shopping and banking there as well. Although Rockwood is only $2\frac{1}{2}$ miles away, Eden Mills is out of the effective influence of that centre.

3. Everton

Everton is a small hamlet of about 80 people located on the Seventh Line where it crosses the Eramosa River. The river divides the hamlet in two parts. The larger northern section is often called Stewart Survey and the smaller southern section, Everton Survey.

Everton is at present only a shadow of its former self. Today there are no stores in the hamlet and the only industry is Hortop's Flour Mill which employs one man. This mill still operates on the original water power all year around, turning out flour which is sold to bread companies in Toronto. The saw mill was abandoned in the late 1950's because of the lack of business.



EVERTON

SCALE : 1 INCH TO 230 YARDS (APPROX)

■	HOUSE
S	SHED
S.M.	SAW MILL
F.M.	FLOUR MILL
C	CHURCH

There is one church in Everton at the present time, and just on the southern outskirts of the hamlet there is a Boy Scout Camp which operates in the summer.

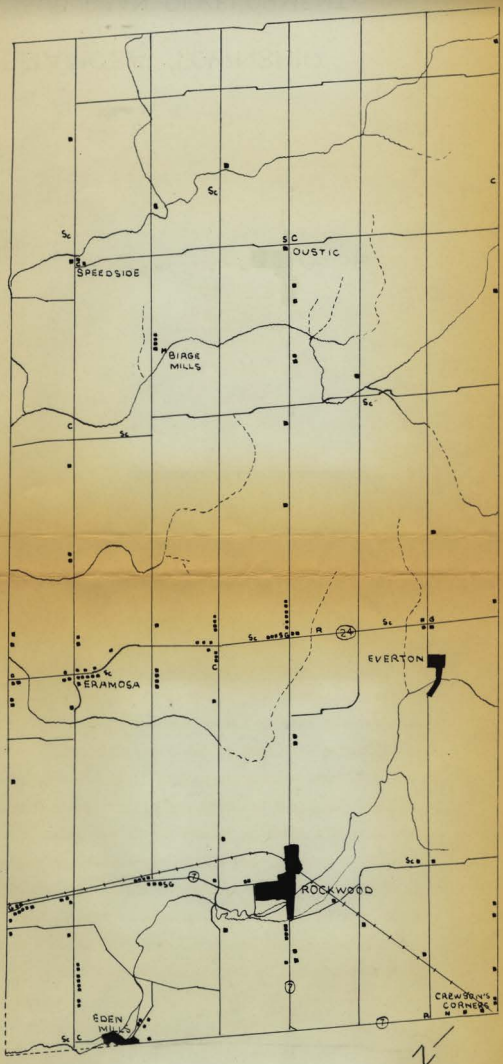
The primary function of Everton at the present time is to serve as a dormitory suburb for people who work in centres such as Guelph and Acton. The majority of the people shop and bank where they work. Everton does not have any new housing and is at present pretty well stagnant.

4. Suburban Development

In 1961 there were 579 people or 18.7% of the total population of Eramosa who did not live on farms, yet lived outside of Rockwood, Eden Mills and Everton. This is largely the result of suburban development which has taken place on the main roads of the township in the period since the end of World War II.

Highway 24 seems to be the road most affected by this recent settlement trend, especially the area around the small hamlet of Eramosa, where the Second Line intersects Highway 24. In the Census of 1956 this hamlet had a population of 47 while in 1961 it had risen to 72. This increase is the result of new houses having been built along the highway.

Similar suburban development has taken place along Highway 7, the Second Line and the Fifth Line. For the most part the home owners are people who work in Guelph but prefer to live out in the country. The trend towards more



ERAMOSA TOWNSHIP

SCALE 1 INCH TO 1 MILE

SUBURBAN DEVELOPMENT 1963

- • HOUSE (NON-FARM)
- C CHURCH
- Sc SCHOOL
- G SERVICE STATION
- M FEED MILL
- N NURSERY
- S STORE
- R ROADS DEPT. YARD

and more suburban development is increasing in the township as farmers are deciding to sell the front lots of their farms to housing developers. The increased population from 1951 to 1961 is largely caused by this development.

Along Highways 7 and 24 there are a few service stations and small stores which have been built to attract the passing traffic and to serve the local population.

There are also a number of small one room schools and churches located throughout the township to serve the local population. There are two high school districts in the township, but no high school. Pupils in the southern three-quarters of the township attend high school in Guelph, while pupils in the northern quarter of Eramosa attend high school in Fergus.

The only industrial activity in the township other than that already discussed in the urban centres of Rockwood, Eden Mills and Everton, is a feed mill located at Birge Mills in the north of the township. A number of small gravel pits throughout the township are used as a local source of road metal.

5. Summary

There are presently only 3 centres in Eramosa which could be called urban. These are Rockwood (population 823), Eden Mills (171), and Everton (80). All were important mill sites in the past, but at present they have no real industrial or commercial prominence, being dominated too much

by the closeness to Guelph. They all have the principal function of serving as dormitory suburbs for commuters who work primarily in Guelph or Acton. The same function also holds for the suburban development which has taken place, since the end of World War II, along the main roads in the township.

43. Commercial area of Rockwood along Main Street.

44. Older commercial section of Rockwood along Main Street.

45. Residential area of Rockwood along Guelph Street.

46. Residential area of Rockwood along north Main Street.

47. Quarry and crushing machinery of the Rockwood Lime Company.

48. The modern lime kiln of the Rockwood Lime Company.

49. Rockwood's newest industry, Stag Lubricant Company.

50. This building now housing Schneider's Sweets, has had a varied past. (See page 91).

51. The grounds of the newly opened Grand Valley Conservation Authority Park at Rockwood.

52. The Eramosa River at Riverside Park along Main St. at Rockwood.

53. This limestone building, containing a general store in Eden Mills, is a fine example of Scottish masonry.

54. Looking north along the main street of Eden Mills from the Eramosa-Nassagaweya Township Line.

55. An example of a fine limestone house at Eden Mills.

56. Residential area of Eden Mills along the Township Line.

57. The only industry at Everton is Hortop's Flour Mill.

58. Everton Survey at Everton.

59. Disciples of Christ Church at Everton, built in 1861.

60. Feed mill at Birge Mills.

61. The hamlet of Oustic, looking towards the south-west.

62. Modern strip suburban development on the Second Line, south of Highway 7.

VI

CONCLUSION

In the previous chapters of this thesis a description of the physical and historical setting of Eramosa Township has been given, along with an account of the present rural and urban land use. But how important are these physical and historical factors on the present land use of the township?

It can be said that in the broad general use of the land these factors are not very important. The principal type of agriculture presently carried out in the township is largely the result of external factors. The most important is the proximity of a large urban market and its demands for fresh milk, eggs, and meat products which have induced livestock raising. This does not mean that the physical features of the township prohibit the production of cash crops such as wheat or potatoes, but under the present economic conditions the income realized from the selling of these products would not be as much as from selling livestock products. Therefore, the presence of a large urban market in conjunction with the present economic conditions largely determine the type of agriculture that the majority of farmers will be engaged in.

However, the importance of the physical features can not be overlooked. The physiography and soils found on an

individual farm may play an important part in deciding what crops will be grown, as some crops grow better on one type of soil than on another. The importance of physical features is seen in Eramosa where on gently rolling Guelph loam there is more cultivated cropland than on bouldery Dumfries loam where pasture and woodland are greater. The cultural-historical factors must also not be overlooked, as quite often a farmer may grow the same type of crops and have the same type of livestock that his father had before him. In Eramosa, I have found that the physical landscape features of a farm do not play too important a role in deciding whether a farmer will concentrate his efforts on raising dairy or beef cattle. The important factor is what the market conditions are like for beef or dairy production when his decision is made, also by how much work he wishes to do. There is more work looking after a dairy herd than a beef herd (the cows have to be milked twice every day), and in order to be a successful dairy farmer it is practically necessary for him to obtain a fluid milk contract so that he will be guaranteed a buyer for his milk.

Influences from outside the township have also affected the urban activity of Eramosa. The decline of the small local industries and workshops of the 19th century was caused by faster means of transportation and the rise of large scale industries outside the township which

produced better goods at cheaper prices. The recent population increase in the township is caused by external factors, that is, the desire of people working in an urban area, like Guelph, to live in the country. Thus, along the main highways of the township, strips of suburban development are making headway.

In summing up, the physical and historical factors are important in individual cases, but factors from outside the township are also important in deciding the land use of Eramosa.

APPENDIX I

Crop Ratings for Eramosa Township Soils[1]

SOIL TYPE	WHEAT	OATS	MIXED GRAINS	ALFALFA	RED CLOVER	SILAGE CORN	POTATOES	PASTURE
Good Cropland								
Harriston loam	G	G	G	G	G	G-F	F	G
Guelph loam	G	G	G	G	G	G-F	F	G
Good to Fair Cropland								
London loam	F	G-F	G-F	F	G-F	G-F	F-P	G
Perth loam	F	G-F	G-F	F	G-F	F	P	G
Caledon fine sandy loam	F	G-F	G-F	F	F	G-F	G-F	G-F
Burford loam	F	G-F	G-F	F	F	G-F	F	G-F
Fair Cropland								
Fox sandy loam	F	F	F	F-P	F	F-P	G-F	F
Hillsburgh fine sandy loam	F	F	F	F-P	F	F-P	G-F	F
Dumfries loam	F-P	F	F	F	F	F-P	F-P	F
Fair to Poor Cropland								
Parkhill loam	P	F-P	F-P	P	F-P	P	P	F
Donnybrook sandy loam	P	P	P	F	F	P	P	F
Brisbane loam	P	F-P	F-P	P	P	P	P	F
Brady sandy loam	P	F-P	F-P	P	P	P	P	F
Killean loam	P	F-P	F-P	P	P	P	P	F
Poor Cropland								
Gilford loam	P	P	P	P	P	P	P	F-P
Lily loam	P	P	P	P	P	P	P	F-P
Granby sandy loam	P	P	P	P	P	P	P	P
Unsuitable for Crops								
Muck								
Bottom Land								
Farmington loam								

G - Good, G-F - Good to Fair, F - Fair, F-P - Fair to Poor, P - Poor.

[1]Soil Survey of Wellington County, p. 49.

APPENDIX II

Climatic Data: Guelph, Ontario[1]

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year
Average Minimum Temperature (°F)	14	11	21	33	43	52	57	55	49	38	29	18	35
Average Maximum Temperature (°F)	27	26	37	51	64	74	79	77	70	57	42	31	53
Average Mean Temperature (°F)	20	18	29	42	54	63	68	66	59	48	36	24	44
Precipitation (Inches)	2.39	1.74	1.79	2.38	2.72	2.84	3.07	2.86	2.50	2.39	2.44	2.14	29.3
Snowfall (Inches)	13.3	11.8	8.0	2.1	0.2	-	-	-	-	0.6	4.3	10.8	51.3

[1]Climatic Summaries for Selected Meteorological Stations in the Dominion of Canada, Vol. I, Meteorological Division, Dept. of Transport.

APPENDIX III

Forest Cover Types in Eramosa Township[1]

Forest Cover Type	Acreage	Percentage
Aspen	2,264	26.3
White Pine	13	
Hemlock	17	
Sugar Maple - Beech - Yellow Birch	1	
Sugar Maple - Basswood	6	
Sugar Maple	790	9.2
Balsam Fir	22	
White Cedar	2,850	33.0
Black Ash - White Elm - Red Maple	694	8.0
Beech - Sugar Maple	256	3.0
Beech	18	
Silver Maple - White Elm	164	1.9
White Elm	752	8.7
Willow	2	
Wet Scrub Land	748	8.7
Dry Scrub Land	31	
Plantation	51	

[1] Speed Conservation Report

APPENDIX IV

Census Statistics for Eramosa Township

Population

Year	Total Pop.	Farm Pop.	Non-Farm Pop.
1840	862	--	--
1842	1,269	--	--
1848	1,970	--	--
1851	2,350	--	--
1861	3,604	--	--
1871	3,758	--	--
1881	3,611	--	--
1891	3,116	--	--
1901	2,705	--	--
1911	2,487	--	--
1921	2,333	--	--
1931	2,298	1,493	805
1941	2,287	1,358	929
1951	2,495	1,384	1,111
1956	2,847	--	--
1961	3,093	1,400	1,693

Agriculture

	Occupiers of Land (in acres)					
Year	Total	10 & Less	10-50	50-100	100-200	200 & Up
1851	364	45	46	194	72	7
1861	351	14	56	198	68	15
1871	416	42	51	203	102	18
1881	418	65	78	182	83	10
1891	539[x]	186[x]	38	168	128	19
1901	-	-	-	-	-	-
1911	406	48	27	185	125	21
1921	347	12	14	161	131	29
1931	339	-	-	-	-	-
1941	349	8	39	132	141	29

		Under 3	3-9	10-69	70-129	130-179	180-239	240-399	400-559	560 & Up
1951	299	0	1	22	142	60	53	19	2	0
1956	299	-	-	-	-	-	-	-	-	-
1961	295	2	2	28	135	54	44	28	1	1

[x]Note: The large number of holdings under 10 acres is because non-farm holdings were also counted.

	Oats		Corn		Mixed Grains		Hay	
Year	Acres	Bushels	Acres	Bushels	Acres	Bushels	Acres	Tons
1842	--	22,973	--	100	--	--	--	--
1848	--	35,971	--	55	--	--	--	--
1851	1,839	82,596	15	372	--	--	--	2,235
1861	2,638	92,628	1	35	--	--	--	2,094
1871	--	87,340	--	113	--	--	5,022	7,641
1881	--	138,057	--	294	--	--	4,723	7,318
1891	6,863	195,350	--	753	--	--	5,865	10,161
1901	--	--	--	--	--	--	--	--
1911	8,079	301,090	6	493	3,358	143,238	7,331	10,715
1920	6,533	248,490	844	--	5,304	206,675	7,550	8,626
1921	6,764	--	770	--	5,360	--	7,879	--
1931	4,774	--	--	--	6,921	--	8,642	--
1941	3,068	--	--	--	8,887	--	7,398	--
1951	2,433	--	--	--	7,504	--	7,902	--
1956	2,501	--	968	--	5,954	--	7,686	--
1961	4,768	--	1,007	--	4,092	--	8,259	--

	Buckwheat		Potatoes		Turnips		Other Roots	
Year	Acres	Bushels	Acres	Bushels	Acres	Bushels	Acres	Bushels
1842	--	--	--	17,708	--	--	--	--
1848	--	277	--	12,644	--	--	--	--
1851	41	651	235	18,968	183	32,121	--	--
1861	21	608	344	46,990	302	251,713	--	--
1871	--	478	389	62,728	--	680,681	--	8,760
1881	--	130	449	46,792	--	692,616	--	10,352
1891	--	308	457	52,375	1,572	618,450	--	--
1901	--	--	--	--	--	--	--	--
1911	603	16,235	336	43,259	1,060	482,350	478	6,647
1920	274	5,807	372	31,836	924	431,380	244	2,708
1921	275	--	393	--	785	--	239#	--
1931	--	--	537	--	--	--	1,094#	--
1941	--	--	423	--	--	--	800#	--
1951	--	--	130	--	--	--	205#	--
1956	--	--	84	--	--	--	--	--
1961	--	--	70	--	--	--	--	--

#Includes turnips

Year	Acres Land Held	Acres Improved Land	Acres Crops	Acres Pasture	Acres Unimproved Land	Acres Forest	Acres Field Crops
1842	24,445	--	5,898	--	--	--	--
1848	32.146	--	8,645	1,995	--	21,506	--
1851	36,605	16,241	10,935	5,180	--	20,364	--
1861	33,174	19,653	11,874	7,536	--	13,521	--
1871	43,386	28,862	21,469	6,825	--	--	--
1881	43,007	31,874	24,683	6,474	--	--	--
1891	44,867	37,150	30,278	6,263	--	7,717	--
1901	--	--	--	--	--	--	--
1911	43,983	33,667	--	--	10,316	4,733	26,788
1920	--	--	--	7,095	--	--	24,270
1921	44,137	32,787	--	7,393	11,350	4,617	23,910
1931	43,259	32,464	25,679	5,601	10,795	5,658	25,494
1941	44,050	32,799	--	6,872	11,251	5,464	23,514
1951	41,556	29,990	21,429	6,218	11,556	5,753	21,403
1956	41,423	--	--	---	--	--	--
1961	40,423	30,437	19,712	8,927	10,210	4,200	--

	Wheat		Barley		Rye		Peas	
Year	Acres	Bushels	Acres	Bushels	Acres	Bushels	Acres	Bushels
1842	--	9,297	--	8,847	--	--		49,241
1848	--	59,701	--	3,792	--	--		--
1851	3,289	65,374	302	7,207	0	0	1,032	21,341
1861	4,867	104,516	249	6,387	0	0	1,680	38,814
1871	4,538	54,342	--	21,718	--	22	--	52,348
1881	5,451	81,885		41,390	--	3,713	--	61,334
1891	2,624	41,454	2,055	52,120	--	611	--	56,426
1901	--	--	--	--	--	--	--	--
1911	949	23,589	859	27,188	5	125	1,504	29,858
1920	1,128	17,858	520	15,516	34	950	442	9,450
1921	369	--	484	--	44	--	471	--
1931	699	--	962	--	83	--	--	--
1941	898	--	565	--	30	--	--	--
1951	2,081	--	208	--	60	--	--	--
1956	1,381	--	135	--	--	--	--	--
1961	954	--	186	--	34	--	--	--

Livestock

Year	Total Cattle	Milk Cows	Beef Cows	Horses	Sheep	Hogs
1842	1,520	--	--	436	2,370	1,424
1848	2,496	--	--	413	2,461	1,993
1851	3,072	1,066	--	659	3,379	2,014
1861	3,123	1,159	--	886	3,194	1,819
1871	--	--	--	--	--	--
1881	--	--	--	--	--	--
1891	5,331	1,609	--	1,873	4,117	4,745
1901	--	--	--	--	--	--
1911	--	--	--	--	--	--
1921	--	--	--	--	--	--
1931	5,048	1,727	--	1,418	5,156	4,332
1941	6,086	2,155	908	1,325	3,839	6,485
1951	6,420	1,873	1,656	669	2,119	7,154
1961	9,117	2,410	--	290	1,719	8,158

Total Commercial Farms by Economic Class - Wellington County

Value of Products Sold	1951	%	1961	%
$15,000 & Over	95	2.1%	404	10.1%
$10,000-14,999	171	3.7%	397	9.9%
$ 5,000- 9,999	1,077	24.2%	1,044	26.1%
$ 3,750- 4,999	652	14.7%	438	10.9%
$ 2,500- 3,749	847	19.0%	488	12.2%
$ 1,200- 2,499	789	17.7%	540	13.5%
Total Commercial Farms	3,631	81.4%	3,311	82.7%
Other Farms	832	18.6%	694	17.3%
Total All Farms	4,463	100.0%	4,005	100.0%

Farm Mechanization in Eramosa - 1961

Farm Machinery:	Automobiles	305
	Motor Trucks	143
	Tractors	397
	Grain Combines	58
	Threshing Machines	86
	Hay Balers	86
All Farms Reporting Electric Power		287

FOOTNOTES

Chapter II

[1]Jon N. Weber. "Ontario Underground", Canadian Geographic Journal, August 1960, pp. 43-51.

[2]P. F. Karrow. Pleistocene Geology of the Guelph Area, Preliminary Geological Map No. P189, Ontario Dept. of Mines, 1963.

[3]P. F. Karrow. Pleistocene Geology of the Hamilton-Galt Area, Geological Report No. 16, Ontario Dept. of Mines, 1963, pp. 17-19.

[4]L. J. Chapman and D. F. Putnam. The Physiography of Southern Ontario. Toronto: University of Toronto Press, 1951, pp. 160-163.

[5]D. W. Hoffman, B. C. Matthews, and R. E. Wickland. Soil Survey of Wellington County. Report No. 35 of the Ontario Soil Survey, 1963, p. 20.

[6]Ibid. p. 49.

[7]D. F. Putnam and L. J. Chapman. "The Climate of Southern Ontario", Scientific Agriculture, 1938, pp. 401-446.

Chapter III

[1]Hazel Mack. "History of Eden Mills and Vicinity", Eden Mills Women's Institute, 1954, p. 27.

[2]County of Wellington Historical Atlas, Toronto: Historical Atlas Publishing Co., 1906, p. 51.

[3]Ibid. p. 51.

[4]Ibid. p. 51.

[5]Ibid. p. 51.

[6]Ibid. p. 51.

[7]Frank Day. Here and There in Eramosa, Guelph: Leamon Printing Co., 1953, p. 39.

[8]Speed Conservation Report. Ontario Dept. of Planning and Development, 1953, Part II, p. 4.

[9]R. L. Jones. History of Agriculture in Ontario 1613-1880. Toronto: University of Toronto Press, 1946, pp. 135-137.

[10]Day. p. 99.

[11]Day. p. 130.

[12]Day. p. 121.

[13]Day. p. 138.

[14]Jones. p. 241.

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