

A GEOGRAPHICAL STUDY
OF WALPOLE TOWNSHIP

BY

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A thesis presented to the Department of Geography, McMaster University, in partial fulfillment of the requirements for the degree of Bachelor of Arts.

February, 1961.

ACKNOWLEDGEMENTS

The writer wishes to express his thanks to Dr. R. L. Gentilcore of the Department of Geography, McMaster University, for his advice in completing this study; to Mr. Charles Cox, Clerk-Treasurer of Walpole Township, for his helpful co-operation; to Mr. and Mrs. Russell Miller of Nanticoke, Mrs. R. A. Miller of Jarvis, Mr. and Mrs. Clarence Winger, Mr. and Mrs. Carroll Lindsay, Mr. and Mrs. Kenneth Parkinson, Mr. Watson Roulston, and the many other residents of Walpole for their help in the preparation of this thesis. Special thanks are also tendered to Miss Judy Stephens for her many hours of patient colouring and to my mother, Mrs. Edmund Ellis, for typing the manuscript.

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P R E F A C E

The purpose of this thesis is to present a geographical study of Walpole Township. The township boundary provides a convenient aerial delineation within which various aspects may be studied. Statistical information is often compiled by township division which greatly facilitates study.

The writer has attempted to illustrate the evolution of land utilization from primitive to modern times with maps and photographs as well as text. With this study physical conditions have first been considered and, on this base, the historical development has been traced.

Relationships between the physical conditions and historical development have been drawn to bring the reader to a consideration of present land use within the study area.

I N T R O D U C T I O N

The most noticeable factor in the study area is the level topography and lack of surface irregularities. The only elements which break the monotony are the streams which flow towards Lake Erie in the south and the Grand River in the north. These have cut their courses through stiff clay soils to expose bedrock in many instances.

Numerous herds of dairy cattle, chiefly holsteins, as well as herds of herefords on the less numerous beef farms feed on the extensive pastures in the township. Fields of corn, oats, wheat and hay are seen while scattered farm woodlots and fence rows of deciduous hardwoods limit the vision of the observer.

Along the Lake Erie shore an entirely different economy becomes apparent. Here summer cottages are clustered in groups or spread singly along the shore taking advantage of the waterfront for its recreational value. The cottages are situated on the bank which parallels the shoreline above the beach.

The overall appearance of Walpole is one of fairly prosperous dairy and beef farms situated on a level plain. Several urban agglomerations such as Hagersville and Jarvis and smaller places such as Selkirk, Nanticoke and Springvale serve the local inhabitants. The chief diversity from the agricultural economy is found along the lake shore where summer cottages predominate.

CHAPTER ONE

PHYSICAL GEOGRAPHY

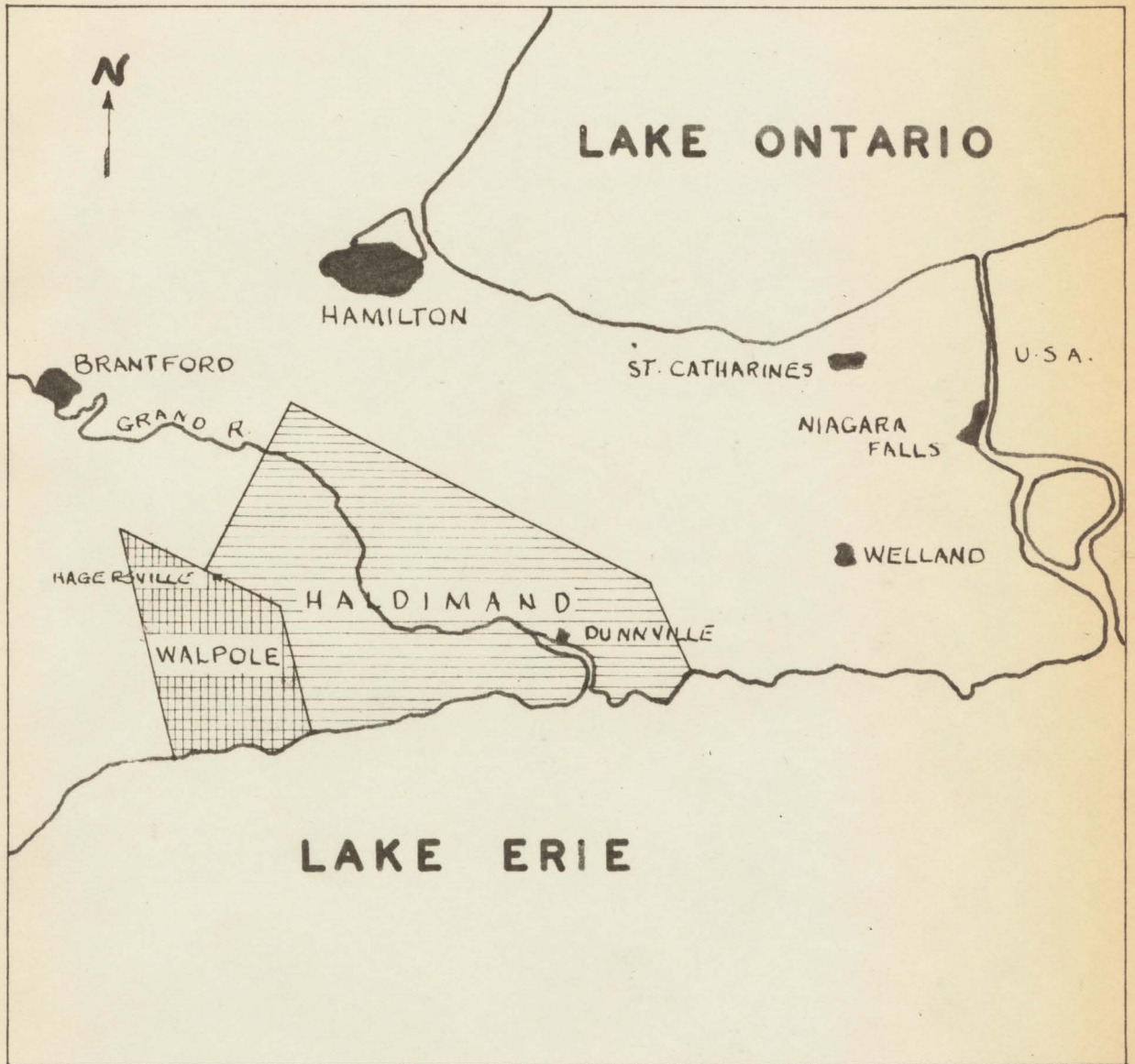
LOCATION

Walpole Township is centrally located in peninsular Southern Ontario midway between Windsor and Fort Erie on the Lake Erie shore, (See fig. 1). The Largest of the ten townships which make up Haldimand County, Walpole, with some 68,800 acres, roughly resembles a rectangle minus a slice taken from the north-west corner to the middle of the eastern side.

To the west, Walpole is bordered by Norfolk County and extends for sixteen miles along the eastern borders of Woodhouse and Townsend Townships. The angled northern edge is a twelve mile portion of the Old Indian Line which still constitutes the boundary of the Six Nation Indian Reservation of Tuscarora Township in Brant County and Oneida Township in Haldimand County as far as Hagersville. Beyond Hagersville, Walpole is bordered by another section of non-reservation Oneida and North Cayuga Township. Rainham Township bounds the study area to the east.

The nine mile stretch along the Lake front provided the first access to the township for white settlement and is still important in the economic life of Walpole.

Walpole Township is situated on the vaguely defined



LOCATION MAP

SCALE 1" = 12 MI.

Fig. 1

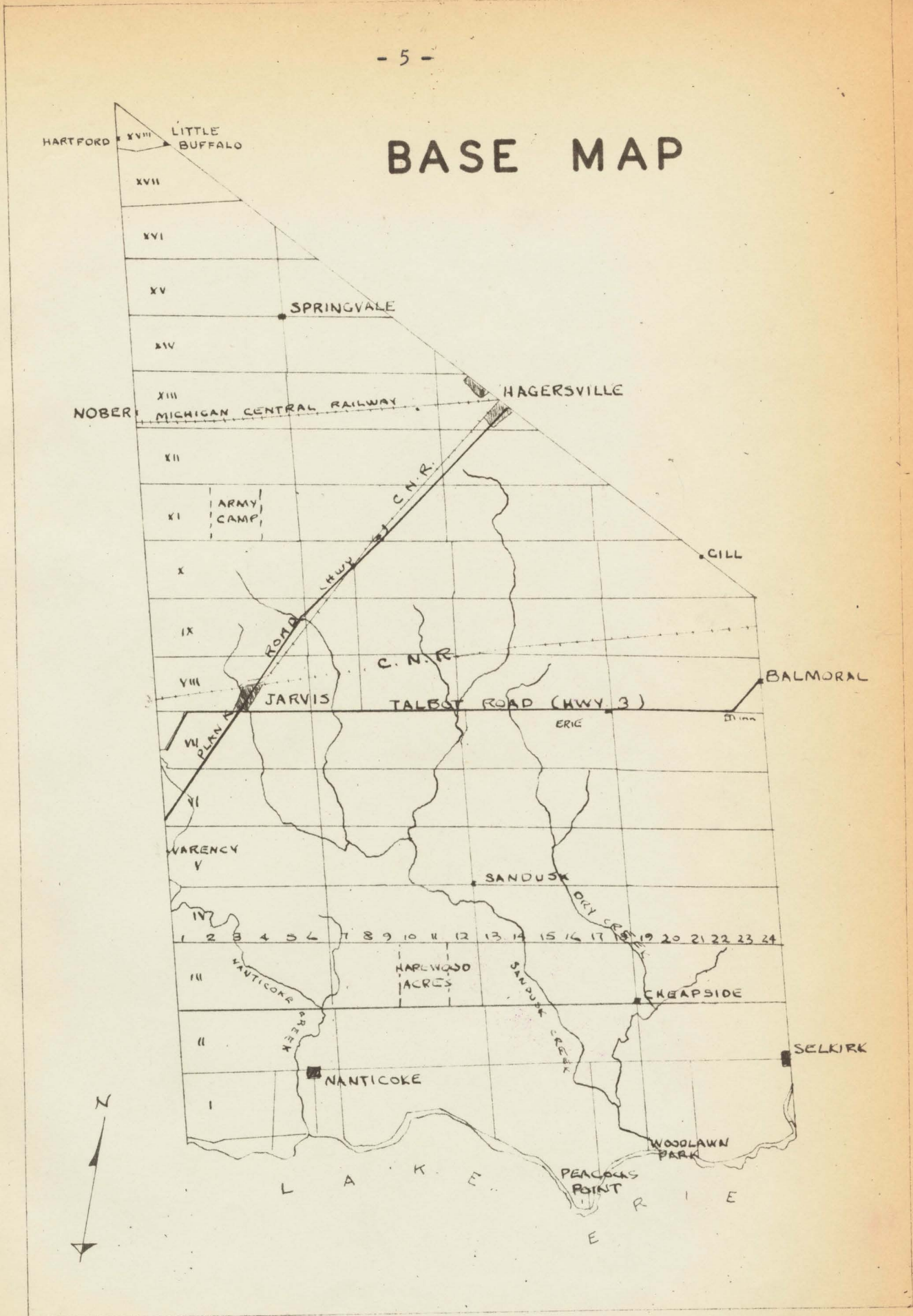


Fig. 2

WALPOLE TOWNSHIP

SCALE 1/2 inch to 1 mile

western edge of the Niagara Peninsula in a prosperous dairy farming region. Far enough removed from the large urban centres so that agricultural land is not jeopardized by urban sprawl, Walpole is near enough to these centres to benefit by the large markets for agricultural produce in general and dairy products in particular.

Road and rail facilities are important links with these markets, (See fig. 2). Number six Highway runs through Walpole providing a link with Hamilton, thirty miles distant, and points beyond such as Toronto. Number three Highway links Detroit and Buffalo while the surfaced county road between Port Dover and Dunnville gives access to points between these terminals.

Three rail lines also link Walpole with other points in Ontario and the United States. The Michigan Central Line joins Chicago and New York and two Canadian National lines traverse the township with depots at Jarvis and Hagersville.

GEOLOGY

Walpole Township lies within the Ontario Lowlands and is underlain by sedimentary strata of the Paleozoic era. Paleozoic seas covered all of this lowland area south of the Canadian Shield and their deposits measure 3,200 feet in the Lake Erie region over the eroded Precambrian surface. Because of this great depth the Precambrian rocks exert no effect on the surface configuration of the sedimentary rocks. Silurian and Devonian sediments in the study area are generally flat-lying, having suffered no strong deformation, but dip gently to

the south-west at an average of thirty feet to the mile.

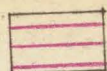
The oscillating seas of the Silurian period resulted in the deposition of the Clinton formation which does not outcrop in Walpole but is important as a reservoir of natural gas.

The Bertie-Akron Series was laid down in the last stages of the Silurian deposition and underlies the northern part of the township, (See fig. 3). This series consists of thin bedded to platy, brownish-grey, argillaceous dolomite underlain by dark, hard, compact, calcareous and carbonaceous shale.

With the retreat of the Silurian seas erosion took place and this was followed by the Devonian inundation. The youngest of the Devonian formations, the Onondaga Limestone, underlies the remainder of the township. The Onondaga strata consist of grey to bluish, finely crystalline to dense limestone in beds from six inches to eighteen inches thick. The bedding planes have been made irregular by the development of grey to bluish chert in fairly continuous lensy beds and nodular masses. A chemical composition of CaCO_3 (64%), SiO_2 (29%), and MgCO_3 (1%) denotes a high silica content which affords greater hardness and toughness than non-siliceous limestone and makes it ideal for road building.

The Onondaga formation terminates to the north in the inconspicuous and interrupted Onondaga Escarpment which runs south of Springvale and across to Hagersville. This escarpment is an important structural influence in Walpole. It forms the drainage divide between the Grand River drainage to the north and the stream drainage to Lake Erie to the south. In addition, the thin soil layer over the escarpment impedes agriculture and

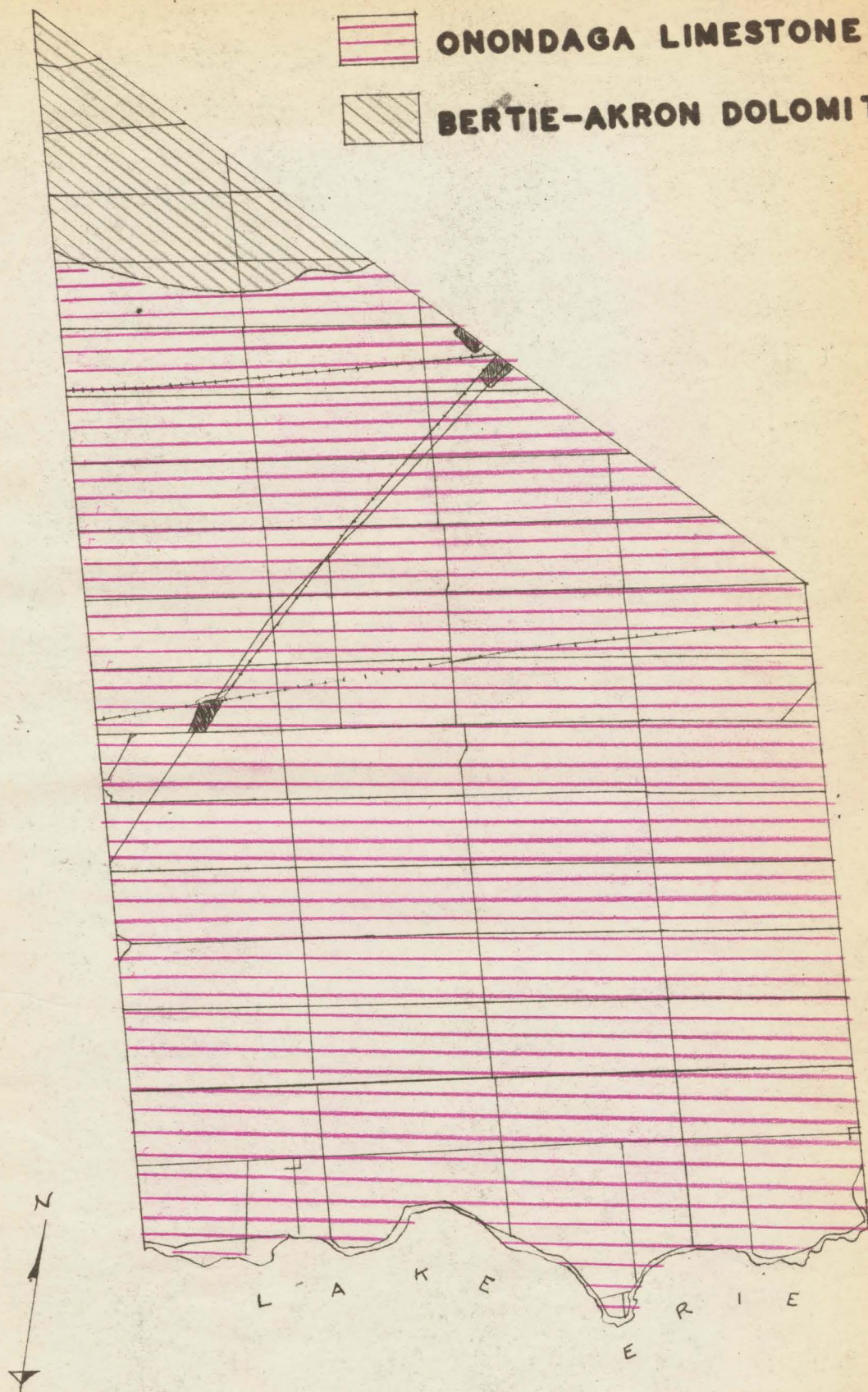
BEDROCK GEOLOGY



ONONDAGA LIMESTONE



BERTIE-AKRON DOLOMITE



AFTER GEOLOGICAL SURVEY

Fig. 3

WALPOLE TOWNSHIP

SCALE 1/2 inch to 1 mile



1. Outcrop of Onondaga Limestone along the Onondaga escarpment in Lot 6, Concession 14.



2. Outcrop of Onondaga Limestone along lake shore.

scrub and pasture dominate land use here. Also, the hard cap rock is the basis for the prosperous quarrying developments at Hagersville.

Outcrops of the Onondaga formation appear along the escarpment south of Springvale on the Winger farm and at the Hagersville quarries, (See photo 1). The limestone is also visible along the beds of the Nanticoke, Sandusk and Stoney Creeks and along the lake shore, (See photo 2). Fossilized corals are abundant along the shore and give rise to speculation that this was the site of an ancient coral reef.

GLACIAL HISTORY

Glacial activity has determined the nature of topography and soils to a large extent in the study area. Southern Ontario experienced four periods of continental glaciation during Pleistocene times but the most recent of these, the Wisconsin, is responsible for the present mantle of unconsolidated material.

The Wisconsin glaciation covered all of Southern Ontario. As the glacier moved across the province it gravitated to basins which served as local centres of activity. One lobe centred in the Lake Huron Basin while another centred in the Lake Erie Basin. This second lobe moved over the study area scouring the bedrock in a north-east south-west direction. This may be seen by glacial paving and grooves in the outcrops, (See photo 3).

With the retreat of the glacier and the melting of the ice a covering of till was deposited. Precambrian boulders referred

to as "hardheads" by farmers remain to remind us of this period, (See photo 4). This long period of recession continued until the ice front retreated behind the Niagara Escarpment. At this time Lake Warren came into existence and extended over the study area. Deep and quiet waters prevailed over Walpole and a layer of fine clay materials was laid down on the glacial till, creating the Haldimand Clay Plain.

PHYSIOGRAPHY AND DRAINAGE

Chapman and Putnam place Walpole within the Haldimand Clay Plain, (See fig. 4). This physiographic region extends over the entire area and terminates to the west in Norfolk County. Situated on flat-lying bedrock, the plain gives a very even appearance to the township. Heavy clay soils coupled with flat land have rendered the area wet and swampy in former times but with the clearing of the forests and the addition of nutrients to the soils, conditions have been made quite favourable to agriculture.

The presence of the Onondaga Escarpment is reflected in the physiography by shallow soils and outcrops of limestone. Soil depth varies from zero to five feet here. These areas have been designated as limestone plain by Chapman and Putnam and extended west and south of Springvale and south-east from Hagersville. The highest elevations in the township are found along the escarpment where heights of 750 feet are reached in the western portions of concessions fourteen and fifteen, (See fig. 5).

Elevations grade gradually north and south from the escarpment. To the north, elevations remain above 700 feet except where streams have cut below this level. To the south, however,





3. Glacial grooving on Onondaga Limestone.
Note the chert.



4. Granite "hardhead" deposited by
glacial action.

PHYSIOGRAPHY

-  HALDIMAND CLAY PLAIN
-  LIMESTONE PLAIN



AFTER CHAPMAN AND PUTNAM

Fig. 4

WALPOLE TOWNSHIP

SCALE 1/2 inch to 1 mile

CONTOUR MAP

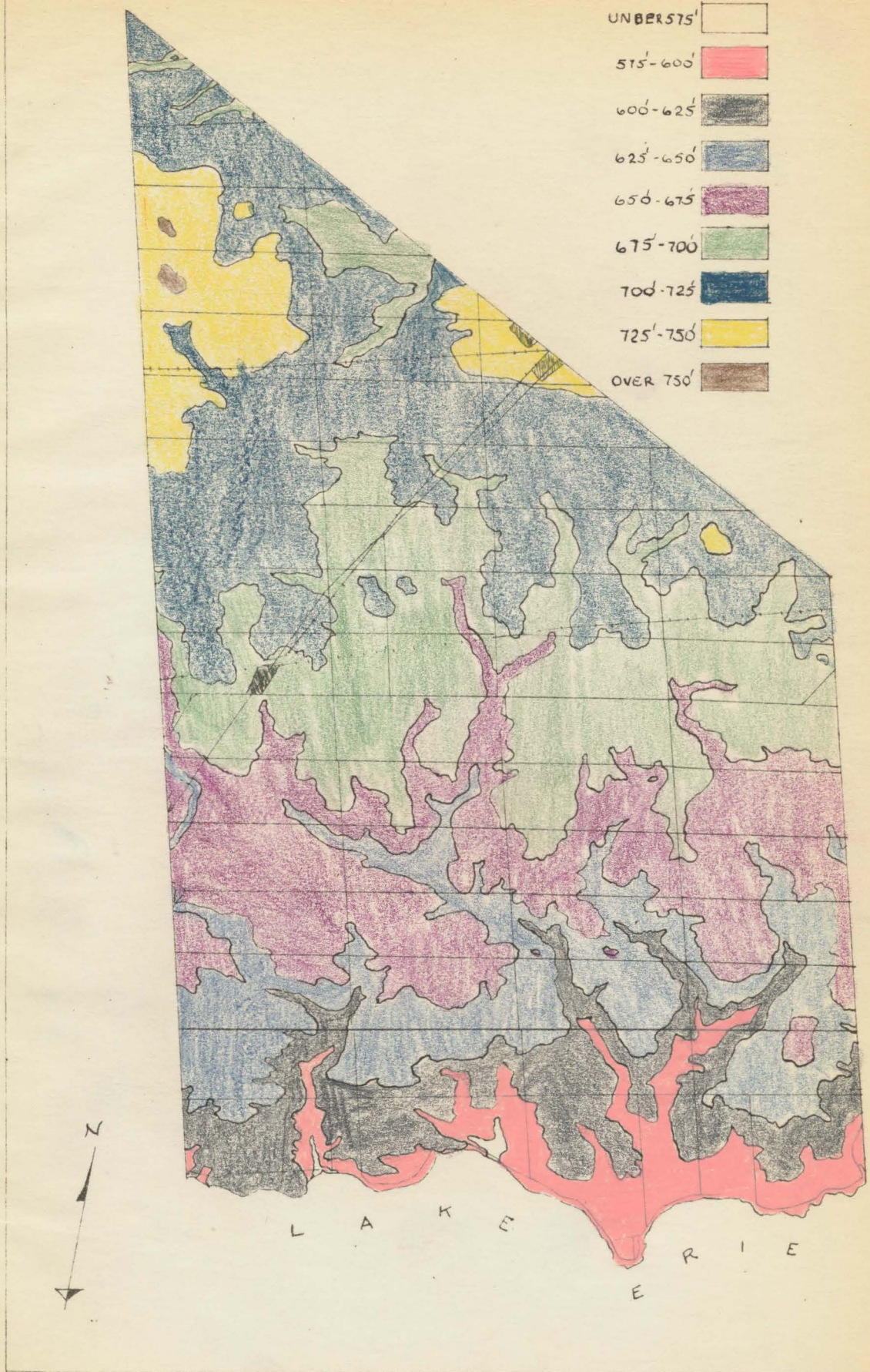


Fig. 5

WALPOLE TOWNSHIP

SCALE 1/2 inch to 1 mile

DRAINAGE MAP

WATERSHED BOUNDARIES

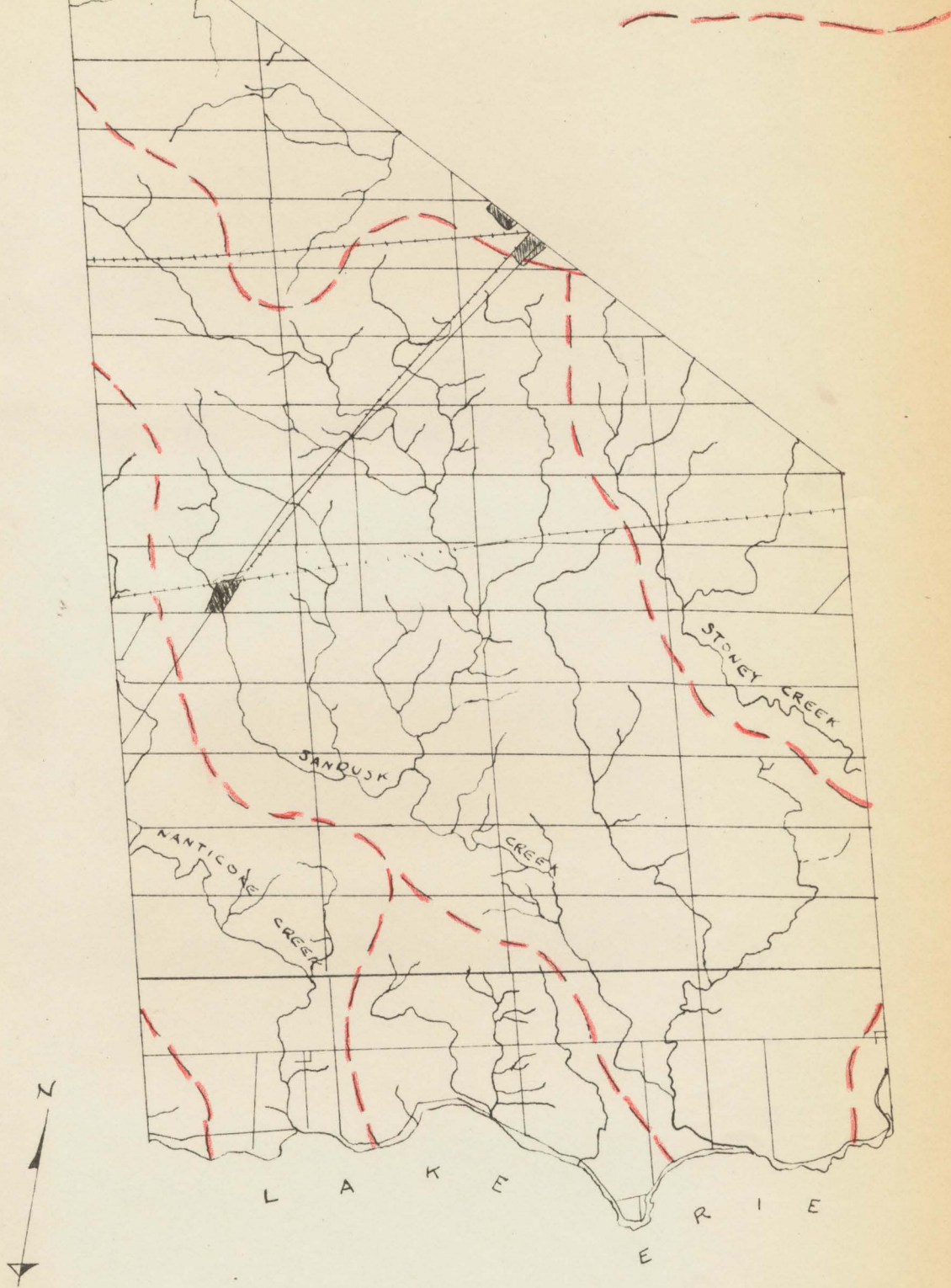


Fig. 6

WALPOLE TOWNSHIP

SCALE 1/2 inch to 1 mile

elevations decrease evenly towards the lake. Contours generally parallel the lake shore. Elevations exceed 700 feet north of the eighth concession and grade to below 600 feet in the first concession. The chief irregularities are caused by the streams which divert the contours to the north. Figures 5 and 6 may be studied together to see the effect of the streams on the contours.

The study area is drained by a number of streams which have cut dendritic patterns into the even-textured clay, (See fig. 6). The major drainage divide is provided by the Onondaga Escarpment. North of this formation tributaries of the Boston Creek flow towards the Grand River while to the south drainage issues directly into Lake Erie. The Sandusk Creek, with its main tributary, Dry Creek, drains three-fifths of the township and issues into the lake at Woodlawn Park, (See fig. 2), where it flows parallel to the shore behind a sand bar for a short distance.

To the west of the Sandusk, the Nanticoke Creek drains the study area from the tenth concession southward while Stoney Creek drains an area to the east and south-east of Hagersville. This stream leaves the township in the fifth concession but enters the area again south of Selkirk. Several short streams drain to the lake in the first few concessions.

These streams, although never important as transportation routes, were very important in the early days as sources of water power for saw and grist mills.

In most places downcutting has been replaced by lateral erosion and mass wasting and wide valley floors have been cut, (See photo 5). Not infrequently limestone bedrock is exposed along the stream beds. Lands bordering the streams have come



5. The Nanticoke Creek south of Nanticoke. Here a wide valley has been produced and the creek has cut to bedrock.



6. Wooded banks of a section of the Nanticoke Creek.



7. An example of mass wasting along the clay banks of the Sandusk Creek.

under varied uses but the majority are in scrub or rough pasture. Some sections, however, are in woodland or are left open for cultivation or for other uses, (See photos 6 & 7). Erosion is not a serious problem but does occur in places where the vegetative cover has been completely removed and where the meandering streams are cutting into the clay.

Along the lake front 15 - 20 foot banks prevail except where streams have cut valleys to the shore. These banks are the result of wave action along the lake front. Erosion is common only along the exposed portions of the shore while in the protected areas the banks are grass covered. A series of coves and headlands extends along the shore, the headlands being beds of more resistant limestone. Lake currents tend west-east along the shore and consequently erosion has taken place on the western exposures of the headland. The limestone is generally exposed here while to the east in the more protected areas sandy beaches are found.

CLIMATE

Walpole township lies within a humid microthermal climate or Dfb type according to Koeppen's classification. Here, cold winters and warm summers prevail with sufficient year round precipitation to support general farming.

Chapman and Putnam in "The Climate of Southern Ontario" include Walpole in the Lake Erie Counties climatic zone. Being a relatively small area with little relief, Walpole enjoys a uniform climate except for variations which occur with the proximity to the lake.

The township lies in the path of prevailing westerly winds and its position in the north-east of the continent places it in the route of cyclonic storms. These storms cross this area from west to east and follow well-developed paths shifting slightly from north to south depending on the season and leave the continent by way of the St. Lawrence. Clashes of polar air and tropical gulf air bring convectional thunderstorms in the summer months. Indeed, over one-half of the precipitation falls between April and September.

The moderating effects of Lake Erie cannot be ignored, however, and the result is a low daily temperature range and the lengthening of the frost free season.

Winds sweeping across the open expanses of the lake waters render the shore area much windier than the interior where the winds are checked by trees, buildings and other obstructions on the ground surface. Also, the cooling winds from the lake make lake front cottage life much more pleasant in the hot summer months than conditions even one concession back from the lake.

The following data compiled by Chapman and Putnam summarizes the climatic conditions in Walpole township, (See Fig. 7).

CLIMATIC DATA FOR LAKE ERIE COUNTIES

Altitude	600-800'
Mean Annual Temperature	46
Mean Winter Temperature	23
Mean Spring Temperature	43
Mean Summer Temperature	67
Mean Fall Temperature	49
Extreme Low Temperature	-34
Extreme High Temperature	106
Daily Range of Temperature	18
Average Date of Last Frost (Spring)	10 May
Average Date of First Frost (Fall)	10 October
Average Length of Frost Free Period (Days)	153
Beginning of Growing Season	14 April
End of Growing Season	3 November
Average Length of Growing Season (Days)	203
Average Annual Precipitation	33.8"
Average Annual Snowfall	61"
Average Rainfall (1 April to 30 September).....	17.1"
Average Summer Rainfall (J.J.A.)	8.8"
P.E. Index (J.J.A.)	20.5"
Frequency of Droughts	20
Percentage of Possible Sunshine in Growing Season.	54

After Chapman and Putnam
The Climate of Southern Ontario
Table 2

(Fig. 7)

VEGETATION

W. E. D. Halliday includes Walpole in the Niagara Section of the Deciduous forest region. Here, many deciduous trees such as the chestnut, magnolia, hickory, mulberry, rock elm, and silver maple reach their northern limits.

Black walnut, sycamore, white oak, beech, butternut, basswood, red maple, red oak and birr oak are also found in the region. Beech and sugar maple are found on the well-drained sites while basswood, red maple and red, white and birr oak are common to the more poorly drained portions of the township.

The Hamilton-Port Dover Plank Road was constructed of pine, oak, maple, beech and poplar which gives some indication of trees which were common in the area. Also, white pine was popular in the lumber boom of the 1870's and 1880's.

Walpole forests have been reduced considerably and now include only scattered farm woodlots. Trees help to retain soil moisture and so attempts have been made to encourage the extension of these woodlots. Acreages in woodlots are tax-free.

SOILS

Walpole Township lies within the Grey-Brown Podzolic zone of North America. According to the soil survey conducted by the Ontario Agricultural College in 1935 there are ten soil types in the township, (See fig. 8). The striking feature of this map is the great proportion of the area under one soil type. This is understandable, however, in the light of the uniform physiography. The Haldimand Clay Plain which covers the study area has largely determined soil development.

SOILS

FARMINGTON CLAY LOAM

HALDIMAND CLAY

PERTH CLAY LOAM

ONEIDA CLAY LOAM

ONTARIO LOAM

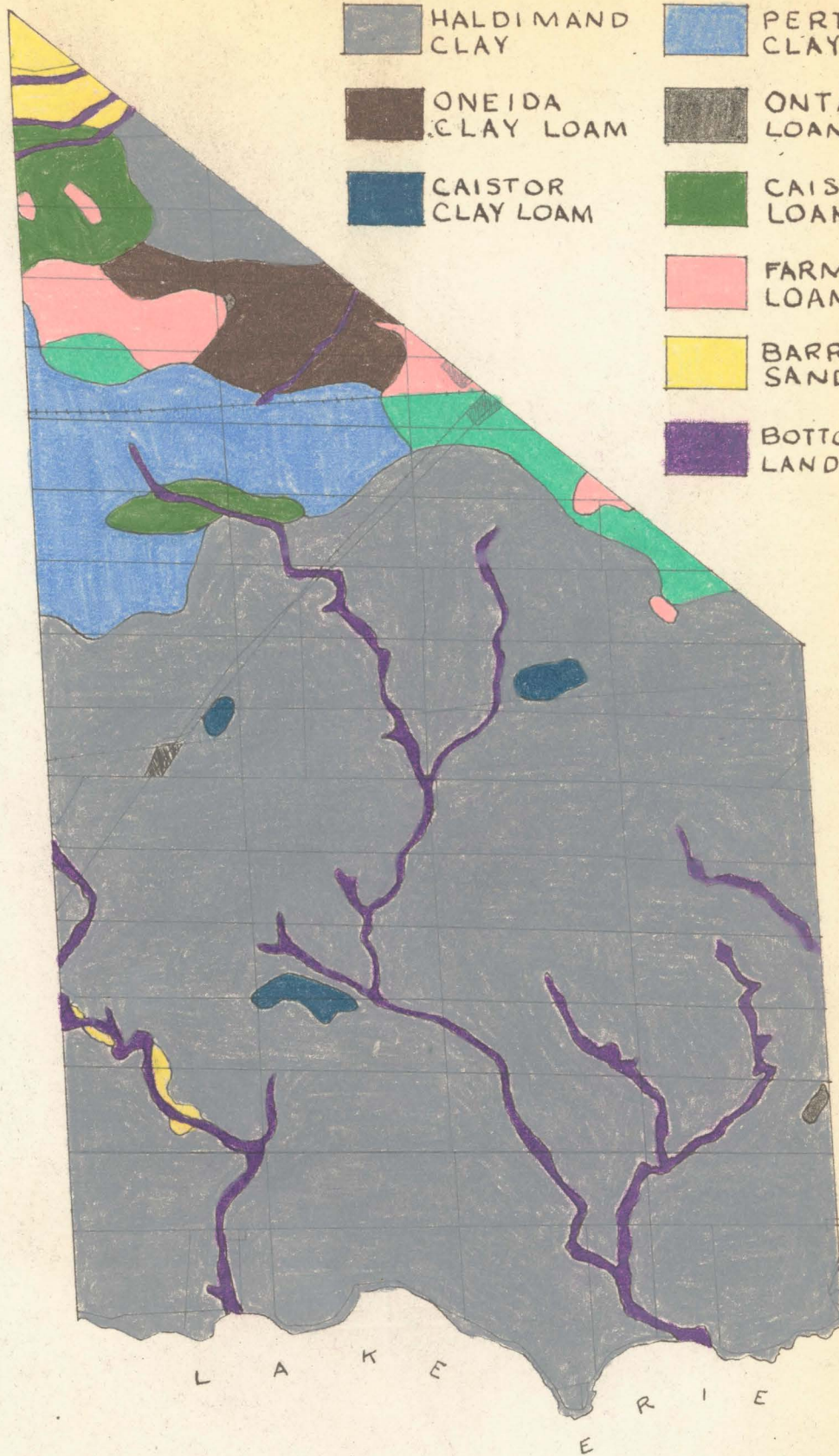
CAISTOR CLAY LOAM

CAISTOR LOAM

FARMINGTON LOAM

BARRIEN SANDY LOAM

BOTTOM LAND



L A K E E R I E

AFTER O.A.C. SURVEY.

Fig. 8

WALPOLE TOWNSHIP

SCALE 1/2 inch to 1 mile

Haldimand Clay

Haldimand Clay covers most of the township south of Highway number six and an appreciable portion north of this. It is a grey acid soil with a pH value of 5.0 - 6.0 and has fair natural drainage. A low content of organic matter has produced a surface soil of a light, greyish-brown clay five to six inches thick.

The A2 layer has two to four inches of yellowish-grey clay, often with a fairly high percentage of silt. In areas of poor drainage, a yellow-brown mottled layer may be present beneath the A2. The B layer, eight inches to ten inches thick, is composed of a heavy, compact, reddish-brown clay. The profile is almost entirely free of stones due to the nature of the deposition of the parent materials which were laid down by glacial Lake Warren.

Many streams have cut their courses through this soil and consequently considerable erosion has taken place. Good examples of this may be seen along the banks of the stream valleys. Hard red clay knolls which may sometimes be seen in the fields represent the eroded exposures of the heavy reddish-brown horizons in the normal profile.

Relief in areas of this soil type is undulating to flat except where stream dissection has produced steep-sided valley walls. While the surface drainage is generally fair, the heavy, impervious, sub-soil restricts the internal drainage appreciably.

Potential fertility of the Haldimand Clay is generally high but organic matter content is often low and nitrogen may be deficient. The available calcium and phosphorous content is low while potash and magnesium levels are high. Usually, free

carbonates do not occur within sixteen to twenty inches of the surface unless erosion has taken place. Here then is a rare instance where erosion may have beneficial effects.

Oneida Clay Loam

A small extension of this soil type is found in Walpole north-west of Hagersville. It is a fairly well-drained acid soil with a pH value of 5.3 to 6.3. The surface soil is composed of a grey to light brown clay loam layer about five to six inches thick. A greyish-brown clay loam five to seven inches thick constitutes the A2 horizon while the B layer is usually a reddish-brown-clay about six to eight inches deep. The unweathered parent material is a stony grey clay loam and silt loam. Stones are common throughout the profile but are not excessive.

The topography of the Oneida Clay Loam is more rolling than that of the Haldimand Clay but stream erosion is common to both types. Drainage is good as a result of the relatively pervious nature of the soil which allows for a free movement of water in the profile. Because of the better drainage conditions this soil may be worked from seven to ten days earlier in the spring than the clays to the south.

Potential fertility is also high here due to a greater availability of plant nutrients. The chief needs of the soil include the application of lime and phosphate fertilizers and the plowing down of legumes and manures to raise the nitrogen and organic matter content.

Caistor Clay Loam

Three relatively small pockets of this soil type occur in the study area. Lacustrine action is evidenced here by the

absence of stones and flat topography. Poor external and internal drainage has resulted from the low lying situation of the soil, however, and forestry is the only land use.

The A1 horizon of this soil is composed of a dark grey layer which has a pH value of 5.0 to 6.0. A lighter leached layer, A2, about seven inches thick, follows and overlies the greyish-brown B horizon. Due to the restricted drainage conditions which prevail, a mottled appearance is characteristic of the lower horizons. To make this suitable for agriculture, the areas would have to be drained and carefully managed in order to raise soil fertility.

Farmington Loam and Clay Loam

These soil types are peculiar to the Onondaga Escarpment area in Walpole. They are composed of materials similar to the proximity of the bedrock to the surface.

Farmington Loam has been mapped where the limestone bedrock is about one foot below the surface. The surface soil, which is stony, is usually a light brown, friable loam, alkaline in reaction with a pH value of 5.5 to 7.0 and quite low in organic matter. Because of its shallowness, there has been almost no differentiation of soil horizons.

The topography is flat to undulating following the bedrock. Surface drainage is fair but the internal drainage is impeded severely by the bedrock. The Farmington tends to be too wet in the spring and dries out quickly in the summer. Farmington Clay Loam is mapped where the soil deepens to about three or four

feet. Drainage is impeded here also but due to the greater depth it is more favorable to agriculture.

Perth Clay Loam

The Perth Clay Loam is second to the Haldimand Clay in area in Walpole and occurs west of Hagersville from the tenth to the thirteenth concessions. It is a heavy clay with poor natural drainage on the level topography of the Haldimand Clay Plain. Slow internal and external drainage form the chief limitations to land use. It is neutral in reaction and high in organic matter but phosphorous is needed to supplement the soil nutrients.

The A1 horizon consists of one-half to eight inches of dark brown clay and clay loam with a fine granular structure. This grades to the A2 horizon of mottled light grey-brown clay with some stones present.

Ontario Loam

Two small patches of this soil type are found in Walpole: one at Springvale and the other north of Selkirk. The Ontario Loam is similar to the Oneida clay loam and is acidic with a pH value of 6.0 to 7.0. It is light in texture with good internal and surface drainage. The soil is well aerated and exhibits rapid warming qualities. A high percentage of shale, limestone, sandstone and crystalline materials is found in the profile. When treated with lime, phosphates and organic matter the Ontario loam produces excellent crops.

Caistor Loam

This soil type is intermediate between the sandy loams to the north and the clay loams to the south. Here the upper horizons exhibit brown loam, fine sandy loam and some

clay loam over grey, gritty clay with a few stones. Fair to poor drainage on smooth to undulating terrain prevails while the pH value is moderately acidic. Organic matter, lime and potash are needed to supply the necessary soil nutrients.

Berrien Sandy Loam

This sandy loam occurs in the northern tip of the township on smooth to gently sloping topography. Here natural drainage is imperfect and runoff is low. The underlying fine-textured clays inhibit the downward movement of the soil moisture. The clay appears at depths varying from one to five feet.

The A1 horizon consists of three inches of very dark grey sandy loam with a fine crumb structure, stonefree, with a friable consistency and a pH of 6.7. The A2 is three to five inches of greyish brown sand, stonefree, with a single grain structure, a friable consistency and a pH of 6.0. The B2 has five to fifteen inches of dark brown sand, single grain structure, stonefree and friable with a pH of 6.9. The C horizon is twenty-three to twenty-five inches of greyish brown sand which is calcareous and has a pH of 7.8. The D horizon is heavy clay till with a coarse fragmental structure calcareous, friable and with a few stones. The pH is 8.1.

The organic matter content is low and as a result of this the amount of available plant nutrients is low. Sweet clover ploughed under would help increase this percentage and complete fertilizers are necessary for good yields.

Bottomland

The azonal soils known as bottomland border the stream courses. This submarginal land is subject to seasonal flooding and

complex soil types with the common occurrence of glei have developed. Land use is restricted to scrub and rough pasture due to excessive moisture.

Heavy textured soils prevail over most of the study area and present a problem in land management. The movement of air and water is retarded by the fineness of the soil particles and soil readily becomes water-logged in wet weather. Thus, cultivation is retarded in the spring. Upon drying, the clays become hard and tend to shrink and large cracks damage plant roots.

In the early days of settlement, the forested clays were extremely wet and swampy and discouraged settlers. Upon clearing the land, however, and adding soil nutrients, the area proved quite suitable to agriculture. To-day, an improvement of moisture relationships and the promotion of a more friable structure is essential. The addition of lime and the ploughing of manure, clovers and straw add to the fertility of the soils and aid in the free movement of water.

Loams appear on the higher land bordering the escarpment and are generally lighter in texture than the clays. On the escarpment the Farmington soils are submarginal because of the shallow depths and are best suited to pasture.

CHAPTER TWO

HISTORY OF SETTLEMENT

"On Erie's banks where tigers steal along
And the dread Indian chants his dismal song,
Where human fiends on murderous errands walk
And bathe in brains the murderous tomahawk,
There shall the flocks on thymy pasture stray
And shepherds dance at Summer's op'ning day.
Each wand'ring genius of the lonely glen
Shall start to view the glittering haunts of men,
And silent, watch on woodland heights around
The village curfew, as it tolls profound."

--- From Campbell's "Pleasures of Hope"

Although the poet looked upon the native population of "Erie's banks" as a truly fearsome lot and looked forward to a rather archaic type of progress with the coming of civilization, he was correct, nevertheless, in his predictions concerning the transfer of land from an Indian to a white culture.

INDIAN PERIOD

The original inhabitants of Walpole Township were the Neutral Indians. These aborigines occupied all of the western peninsula of Southern Ontario lying beyond a line drawn from the west end of Lake Ontario to the mouth of the Maitland River. A semi-nomadic people, the Indians had twenty-eight stockaded villages besides several small clusters of seven or eight cabins

which were used as hunting, fishing and farming stations. Maize was the chief food grown with beans, squash, pumpkins and sunflowers as supplementary crops. Although farming methods were primitive, the Indian did respect natural limitations and restricted his agriculture to the better drained soils. The poorly drained clay soils were left in forest and provided natural storehouses for wild game.

The Neutrals are referred to as such because of their position with respect to the Hurons and Iroquois. With the coming of the Europeans and their desire for control of America, the Hurons and Iroquois became allies of antagonistic groups -- the Hurons of Huronia south of Georgian Bay with the French and the Iroquois of the Finger Lakes Region of New York State with the British. The Neutrals did not merely passively resist the pressures of their warring neighbours but maintained their neutrality through force. They were feared by surrounding tribes and Champlain noted that the Hurons had great respect for the nation of four thousand warriors to the south.

The Iroquois finally defeated the Hurons shortly after 1650 and turned their attention to the Neutrals. This nation had indeed been more sympathetic to the Huron cause and also constituted a reasonably strong force within the region that the Iroquois wanted for themselves. The Neutrals were dispersed and absorbed into tribes west of the Detroit River after having suffered defeat at the fierce onslaught of the Iroquois. The vacated lands were not occupied by the conquerers but left to revert to woodland and scrub for the next hundred years.

Following the American Revolution in 1776 Joseph Brant

led the Mohawks, the first group of the Iroquois Confederacy to move north, into Canada in order to remain under British rule. He asked for, and was granted, a parcel of land extending six miles on each side of the Grand River from its mouth to its source. Due to the irregular course of the river, such a piece of land would have been an extremely cumbersome unit so it was decided "to survey the Indian lands with straight, fixed boundary lines". As a result of this the northern boundary of Walpole Township was formed. Although Walpole and Rainham Townships are the only two townships of Haldimand County not in the original Indian grant, the "Old Indian Line" forms the hypotenuse of the near right-angled triangle formed by the two townships. This line still divides the Reservation Lands from Walpole north of Hagersville.

Due to the heavy textured clay soils of Walpole it is doubtful that much native agriculture was carried on within the present limits of the township. Artifacts are not uncommon, however, which suggests that the Indian economy did touch the township. This area no doubt served as a game reservoir. Agriculture may have been of some importance on the better drained loams in the north. South of Springvale in lot seven of the fourteenth concession is reported to be a treasure chest of Indian artifacts and this writer found some materials in lot six of the second concession.

WHITE SETTLEMENT

The Township of Walpole was surveyed by Thomas Walsh of Vittoria in the latter part of the eighteenth century and land was offered for sale at one dollar per acre. Settlement was slow

at first, however, since the land was opened too late to accommodate the influx of United Empire Loyalists from America after the War of Independence. Also, there were no roads and the clay soils which are very heavy and wet before clearing were not too attractive to prospective settlers. Many who did clear land soon became discouraged and headed back to more civilized areas while others defected to the Americans during the War of 1812. Settlement was restricted entirely to the Lakeshore because of the lack of roads and the lake offered a very convenient transportation link with other settlements.

The first white man to live in Walpole is thought to have been a squatter named Peacock who lived by shooting and fishing. He made his headquarters on the promontory which now bears his name.

The first permanent settler, however, was a Swiss Mennonite from Pennsylvania named David Hoover. This man, with his five sons, settled on 2,500 acres near Selkirk between the Cheapside and Rainham Centre side roads in 1791. He built a large frame salt-box home, styled in the New England architecture with which he was familiar, in 1800. This home, known as Hoover's fort, still stands overlooking Lake Erie, (See photo 8). Hoover brought apple seeds from Pennsylvania and with these planted the first orchard in the township. A cider press provided the hardy family with liquid refreshment.

Some other homesteads were situated near the mouths of the Sandusk and Nanticoke Creeks. Matthew Gilmour settled on Peacock's Point and Abraham VanLoon from New York state settled in the extreme north of the township in 1826.



8. "Hoover's Fort", built in 1800, the first home in the district.



9. Log home typical of those erected by early pioneers.

The War of 1812 caused hardships that also hindered the development of the study area and there was little progress in the district for a number of years. Prices which were high due to the Napoleonic Wars in Europe were accentuated by the 1812 hostilities and salt which sold for ten dollars a barrel in 1800 cost fifty dollars a barrel by 1814. General Brock had prohibited all export of grain and other foodstuffs and did not allow any grain to be distilled which put an added crimp into the already precarious pioneer economy. The instability resulting from the war, however, was perhaps the most restrictive feature in settlement at this time. David Hoover, being a Mennonite and therefore a pacifist, was forced to billet American troops in his home and numerous raids occurred along the shore. One skirmish in which the Norfolk Militia were successful over the invaders is recorded on a plaque on the Nanticoke Public School.

Although settlement was primarily restricted to the lake shore, homesteads gradually crept northward from the lake. As this took place, trails were blazed to serve as the first roads which led to the grist mills and to the lake. Walpole was really not open for settlement, however, until the present-day provincial highways six and three were constructed. The government was aware of the sparse settlement of Upper Canada and also the threats to British prestige in North America as shown by the War of 1812 and the Rebellion of 1837. A road building programme was begun so that troops could be moved more easily to different points along the Niagara Peninsula, (See fig. 2).

The Talbot Road, now Highway three, was built under the supervision of Thomas Talbot, an Irishman. The road was chopped

out about 1834 or 1835 but was not fit for travel until 1840. It was designed as a military venture to extend from Niagara to Windsor after the MacKenzie Rebellion and in the light of Fenian Raids between Detroit and Niagara Falls. Coloured troops were used to clear the road and they established a settlement near Cheapside. There is a cemetery here marking the graves of the soldiers who died from an epidemic which wrought havoc among the Negroes.

The Hamilton-Port Dover Plank Road was built to link Hamilton and the Long Point Settlement, both rapidly growing centres. Before this a long detour through Brantford was necessary. Construction was begun in 1839 and completed in 1844 with planks laid out on well-packed logs. The road could accommodate three teams driving abreast and was far superior to the bumpy corduroy roads. The revenue collected by toll gates placed at six mile intervals along the road was to finance repairs but due to the excessive amount of maintenance required for its upkeep the road soon fell into disrepair. The planks were subsequently torn up and the road was taken over first by the county and then by the province. Within five years of its construction nearly every lot along the road was cleared and settled. The final surveying of the concessions was completed by 1840 and soon settlement pushed north and south from the Plank and Talbot Roads.

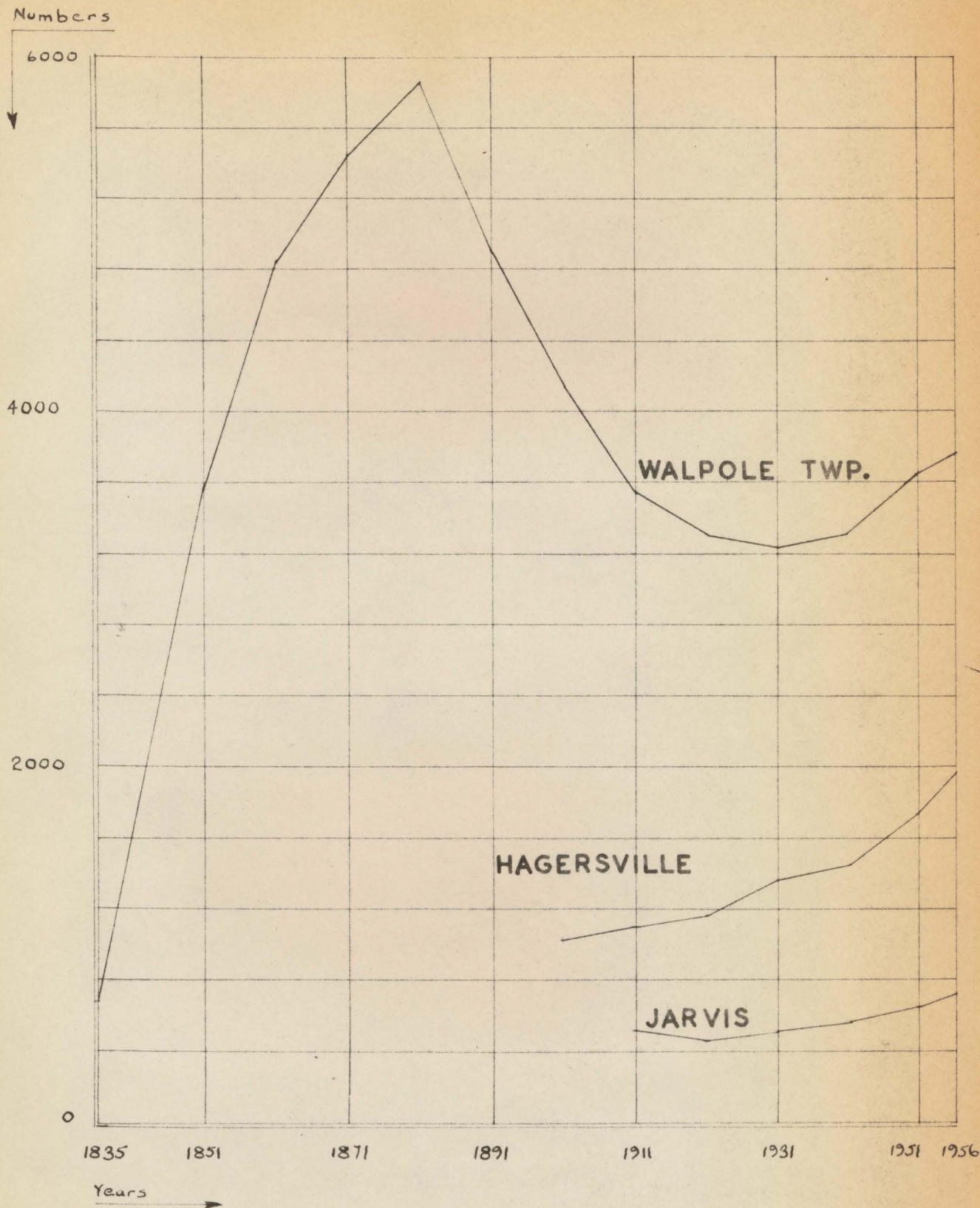
Hamlets soon sprang up along the roads to serve as stage coach stops and as centres for saw mills. Hagersville and Garnet on the Plank Road and Balmoral and Erie on the Talbot

Road were established within a decade of the construction of these routeways to serve travellers and settlers alike. Jarvis developed at the junction of the two roads with a toll house. These settlements usually provided an inn for the traveller and a saw mill, blacksmith shop and later a general store and grist mill for the farmer. Settlements will be dealt with more intensively in a later chapter.

As may be seen from the population graph, (See fig. 9), there was a steady increase in numbers from 683 in 1835 to 5,854 in 1881, the peak year for population.

In 1851, 611 families in Walpole lived in 518 houses. Of these, 356 were log, 182 were frame and ten were brick, (See photo 9). Forty shanties completed the total. Four churches, seven shops, eleven inns and taverns and eleven schools satisfied the social and economic needs of the residents. By 1861, however, 751 families occupied 750 houses and of these only 254 were log. These more primitive dwellings were gradually being replaced by frame homes which numbered 456. Twenty-six brick houses and five stone were in existence by this time, one of the latter being the home of Abraham Winger of concession fourteen, lot six, south of Springvale. This pioneer came from Bertie Township in 1842 and cleared land in Walpole. The stone home he built in 1850 still stands anchored firmly on the Onondaga Escarpment and occupied by the fourth and fifth generations of the Winger family.

The Irish immigrants formed the bulk of the population when the area was first settled but by 1861 the English had



POPULATION GRAPH

Fig. 9

POPULATION BY ORIGINS

<u>Year</u>	<u>Total</u>	<u>English</u>	<u>Scottish</u>	<u>Irish</u>	<u>French</u>	<u>German</u>	<u>Dutch</u>
1851	3,583	305	132	412	74	11	--
1861	4,842	577	99	429	9	77	--
1871	5,477	2,398	534	1,703	63	506	218
1881	5,854	2,572	571	1,779	104	780	--
1891	4,922	--	--	--	--	--	--
1901	4,819	2,035	425	1,063	27	633	5
1911	3,568	1,896	376	709	19	494	15
1921	3,311	1,656	373	633	60	263	205
1931	3,235	1,656	388	557	72	357	148
1941	3,316	1,788	421	489	55	321	131
1951	3,650	--	--	--	--	--	--
1956	3,790	--	--	--	--	--	--

Fig. 10

taken the lead which they retain to this day. English, Irish, Scottish, German and Dutch farmers constitute a sizeable portion of the population to-day, (See fig. 10). The Dutch reached their peak numbers in 1921 but there is still a large Dutch community in the township as evidenced by a Dutch school and church near Jarvis.

The first concern of the settlers was to clear the virgin forest and the lumber from this clearing became a valuable source of income. Pine, white oak and walnut were the most valuable woods and covered the whole county. Logs were converted to lumber, square timber, shingles and staves in local saw mills. Walnut from Walpole was sent to the first World's Fair in Paris, France. The hardwood was cut to lumber at the Nanticoke saw mill and transported on lighters out to the lake where it was put on board ship for seven dollars per thousand feet. This was a temporary activity, nevertheless, and as the township was cleared lumbering declined in importance.

AGRICULTURAL DEVELOPMENT

Agriculture in the early stages of settlement was very primitive and similar to that of the Indians. In the small clearings surrounding the log cabin the settler grew Indian corn as the chief grain. A few livestock were kept for the use of the family and included cows, sheep, pigs, poultry and perhaps a yoke of oxen. Forestry products provided a cash income for the farmer. As the forest was cleared and transportation facilities improved, agriculture was extended to include a greater variety of crops.

The forest yielded a ready supply of fence material which was utilized by the farmer in the form of stump fences. Few of these remain since most have been used for firewood burnt in the production of maple syrup. These hardwood stumps provided long, steady fires. Rail fences and, more recently, wire fences have replaced these early field boundaries, (See photos 10 & 11).

The milling of flour was an issue of note in the early times since great distances were involved in transporting the grain to the nearest mills. Unless settlers chose to grind the grain themselves, they were forced to go to Niagara Falls for this service. It was not long, however, before the Sugar Loaf mill at Port Colborne and then the Lyn Valley and Shands Mills at Port Dover replaced Niagara as more convenient centres. Many from the Jarvis area took theirs to Hamilton, a twelve hour, thirty mile journey, rather than attempt the poorer roads to Port Dover.

Christian Hoover built the first local saw mill on Stoney Creek south of Selkirk in 1802. Other mills were built at Nanticoke in 1830 by Col. G. B. Hall and at a location one mile west of Cheapside by one John Sherk in 1892. This latter mill was the first grist mill in Haldimand County.

Wheat soon became the dominant crop in Walpole in keeping with a trend common to most of Southern Ontario. Soils and climate within the thesis area favored the cultivation of this crop and in 1850 over four thousand acres were planted in wheat. This provided an important cash crop to replace the rapidly disappearing timber. Wheat production continued to



10. Stump fence in Lot 2, Concession 4.



11. Split rail fence
in Lot 17,
Concession 1, a
later development
from that shown
above.



12. Kettle used for making soap and for boiling maple syrup.



13. Hand-made bellows in blacksmith shop on Lindsay Farm near Nanticoke.

expand until the peak year of 1881 in which 10,862 acres were planted, (See fig. 13). Hardier Prairie wheat was taking the markets, however, and the demand for Ontario wheat dropped sharply.

General farming prevailed throughout the township until the twentieth century when specialization became more common. The farmer marketed beef, pork, wheat, wool, poultry, eggs and apples and was able to supply the needs of his family from the produce of his land. Throughout the early period, the farmer relied on his own resources to a great extent. Soap was made from discarded fats and ashes, bricks from local clay, maple syrup from the sugar maples on the farm woodlot, and honey and sealing wax from bees. Most farms had a garden for vegetables for home use or for local markets. A few acres of orchard on every farm provided additional income. The Lindsay farm north of Nanticoke at one time had ten acres in orchard and the apples grown were dried on the farm and shipped to England. This farm also has an old blacksmith shop that still retains the original hand-made implements, (See Phos. 12 & 13). This building was originally situated on the road and served local farmers as well as the Lindsay farm.

Since 1881 there has been a steady decline in population until 1941 and since then there has been a minor increase, (See fig. 9). This fall may be attributed to a number of things. Firstly, the mass immigrations of the 1840's had ceased and few newcomers were entering the township. Also those immigrants who were coming to Ontario were being attracted to the urban centres to a greater extent. Farmers were also turning to the cities for

employment. The periods between 1860 and 1875 were railway building years and with this construction much more trade and opportunities were made available to Ontario centres. Thus there was a demand for labour in the cities and the farms provided a natural supply.

After 1880 the Canadian west was opened for settlement and these lush new lands proved very attractive to the immigrant and to the Ontario farmer. With the decline of the wheat and timber booms farming became less lucrative and less able to support such a large population. An increasing mechanization and the amalgamation of farms has also reduced the need for such a large population as was needed previously.

CHAPTER THREE

AGRICULTURAL LAND USE

Walpole remains an agricultural township and a fairly prosperous one in spite of a decline in population from former heights. The main trend which has dominated the agricultural economy is the shift from general to dairy farming and, to a lesser extent, to Beef farming. With the growing urban centres of Hamilton and Toronto there is an increased demand for fluid milk as well as for other dairy products such as butter and cheese. A demand for poultry products such as eggs and various types of fowl is also reflected in the economy of the township.

Agricultural trends may best be studied by examining census statistics in conjunction with field observations. The census data has been translated into graphs, (See figs. 11, 13 & 15); years for which no information was available are designated by dotted lines on the graphs. Information for the land use map was ✓ collected in the summer of 1960 by a field party sponsored by the Geographical Branch, Ottawa, and was checked in the field and with aerial photographs by the writer.

It may be seen from the land utilization graph, fig. 11, that the number of total acres held increased rapidly in the early years of settlement as the land was being cleared. From

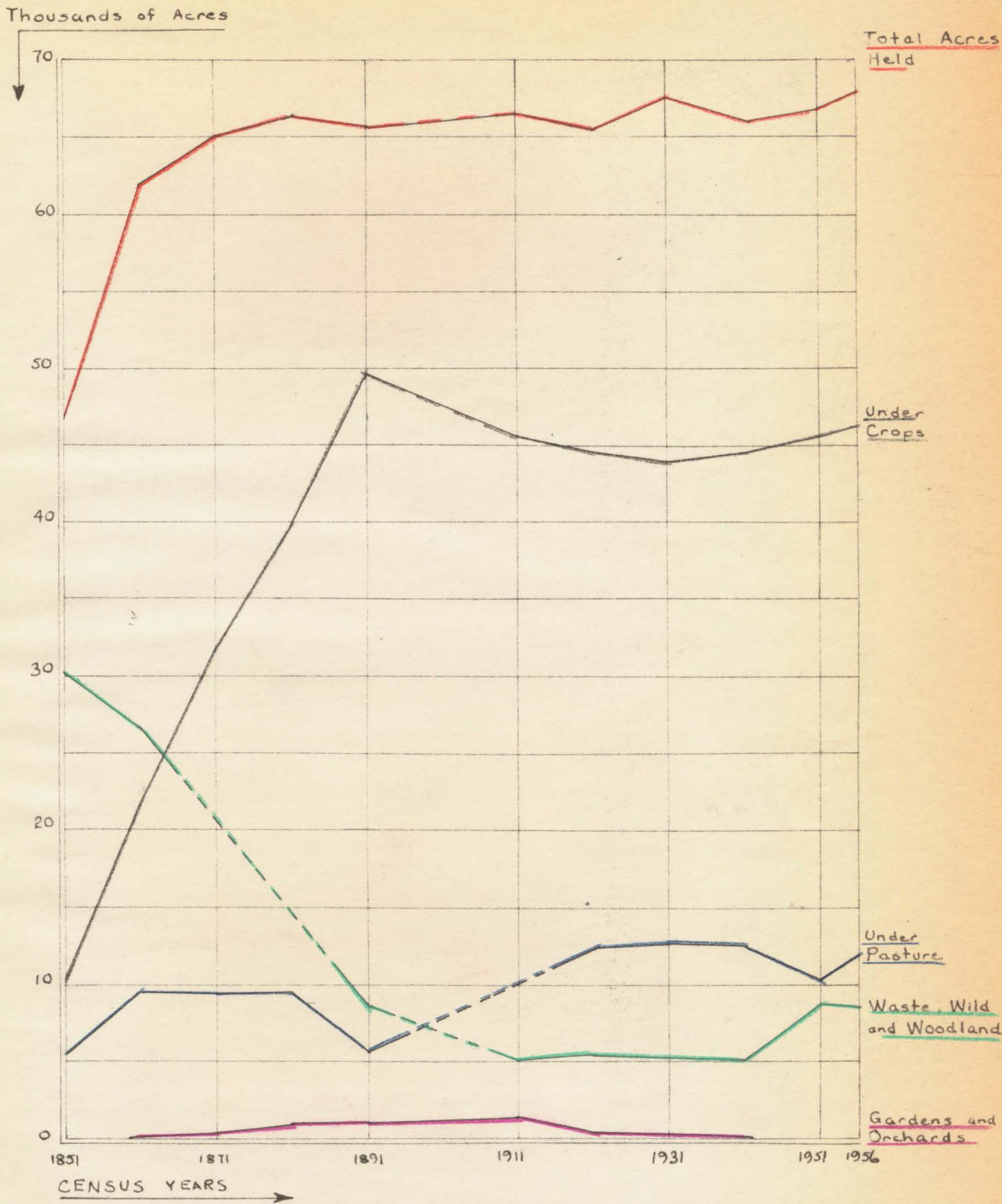


Fig. 11

LAND UTILIZATION GRAPH



14. An example of farm amalgamation. This house has been abandoned and the land amalgamated into another holding.



15. The remains of an orchard along the Nanticoke - Selkirk Road. Note the poor condition of the trees and grounds.

1870 on, however, the figures have remained fairly constant above 65,000 acres. Slight drops occurred in 1891, following the decline of the wheat boom when many left their farms, and in 1921 and 1941. This latter date reflects the depression years of the 1930's. Although there have been periods of farm abandonment, these lands have remained in agricultural production through farm amalgamation, (See photo 14).

Of the total acres held, the smallest amount has been in gardens and orchards. Almost every farm at one time had its own vegetable garden and orchard for family use and produce was also sold at local markets. Since the peak year of 1921 when over 1,400 acres were under cultivation this crop has declined considerably. This is a part of the all over decline in general farming. Competition from more climatically-favoured areas in the Niagara Peninsula and the development of transport facilities and the importation of United States garden and orchard products has reduced these crops in Walpole to a negligible proportion of the total acreage. Gardens for the most part are kept for family use although produce is raised for sale at the weekly Hagersville market. Orchards have suffered from frost, disease and neglect and remain as sad and twisted remnants of their former selves and few have been maintained, (See photo 15).

The McNeice farm, next to the Hagersville Army Camp, is one notable exception. Here, fifteen acres are in orchard and cherries, peaches, apples and plums are grown. They are sold from the farm and are also taken to the market at Hagersville. Thirty pickers are employed here. Mr. McNeice also has seven

acres in garden crops.

Waste and woodlands were reduced in conjunction with the land clearing in the first years of settlement and acreages continued to decline until 1911 when slightly over 5,000 acres were reported. Figures remained fairly constant until 1941 when 3,000 acres reverted to scrub and woodland in the decade between 1941 and 1951. This is a result of an increasing amalgamation of farms and a less intensive land use. Also, there is a tendency for farmers to hold part-time jobs and consequently fields are neglected and revert to weeds and scrub. Farm woodlots are neither large nor numerous in Walpole and there is a need for more woodlots on a planned basis to improve soil moisture relations. Growths of trees and scrub are common along stream valleys where bottomland soils are too wet for cultivation. One large area of scrub occurs in the western half of the fourteenth concession where the Onondaga Escarpment exceeds 750 feet and bedrock is close to the surface, (See Fig. 5 and the land use map).

Acreages in pasture have shown no great increases or decreases but have remained at two plateaux. Between 1861 and 1881 pasture remained in excess of 9,600 acres but dropped to under 600 acres in 1891 following the general trend after the wheat boom. Statistics are not available for the period between 1891 and 1921 but at this second date another plateau was reached where over 13,000 acres were devoted to pasture until 1941. Since this time there have been fluctuations but acreages have remained above 10,000 acres or about one-sixth of the total area.

Pasture plays a very important role in the economy of the township for it is these lands which provide forage for the

herds of dairy and beef cattle and sheep. The areas designated as pasture on the land use map do not present a complete picture of facilities available for grazing in the township, however. Supplementary pasture lands are also available. As previously mentioned, the areas of scrub frequently serve as rough pasture as do neglected fields formerly in crops. This is common on the shallow soils of the escarpment and near Hagersville where land is being held for speculation. Expanses of rough pasture within the confines of the two former airfields in Walpole are also rented for grazing: cattle are pastured on the Army Camp Lands and sheep on the Harewood lands. In the north of the study area farmers rent Reservation lands for pasture and in this way they are able to devote their holdings within Walpole entirely to hay and grains for winter feed, (See photos 16, 17 & 18).

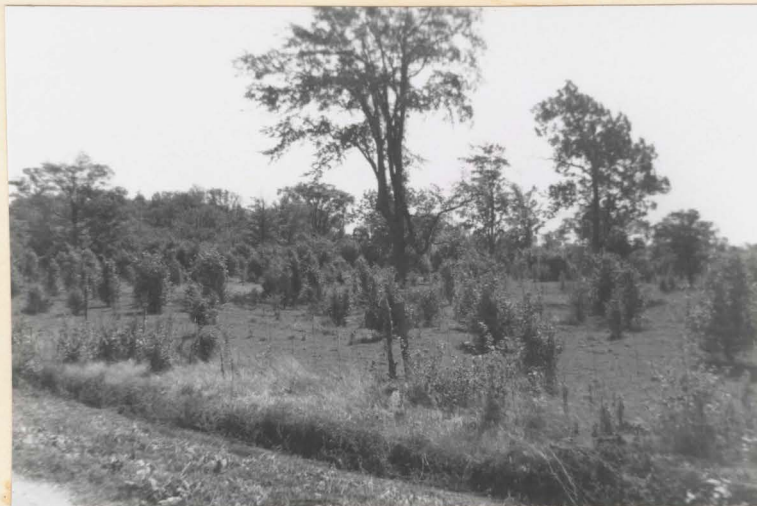
Pasture is distributed fairly evenly over the township and, indeed, there is not one full concession block that does not contain some pasture. Figure 12 shows areas of concentration of pasture. Here, percentages have been determined for each concession block and those areas are shown where over one-third of the total acreage is in pasture. This concentration is found running through the central part of the township where access to highways three and six affords convenient transportation to Hamilton and other points. The presence of Perth Clay Loam north-east of highway six, (See fig. 8), is also a factor here since this heavy soil is more favourable to pasture than to cultivation. It may be stressed, however, that livestock husbandry is important throughout the entire study area and is not restricted to the central portion. Beef farms are common



16. Herd of Holstein dairy cattle on improved permanent pasture on the flat Haldimand Clay Plain.




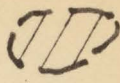
17. Dairy cattle feeding on rough pasture along the Nanticoke Creek.



18. Rough pasture grading into scrub near the Army Camp

AREAS OF PASTURE & HAY CONCENTRATION

OVER 30% PASTURE 

OVER 30% HAY 

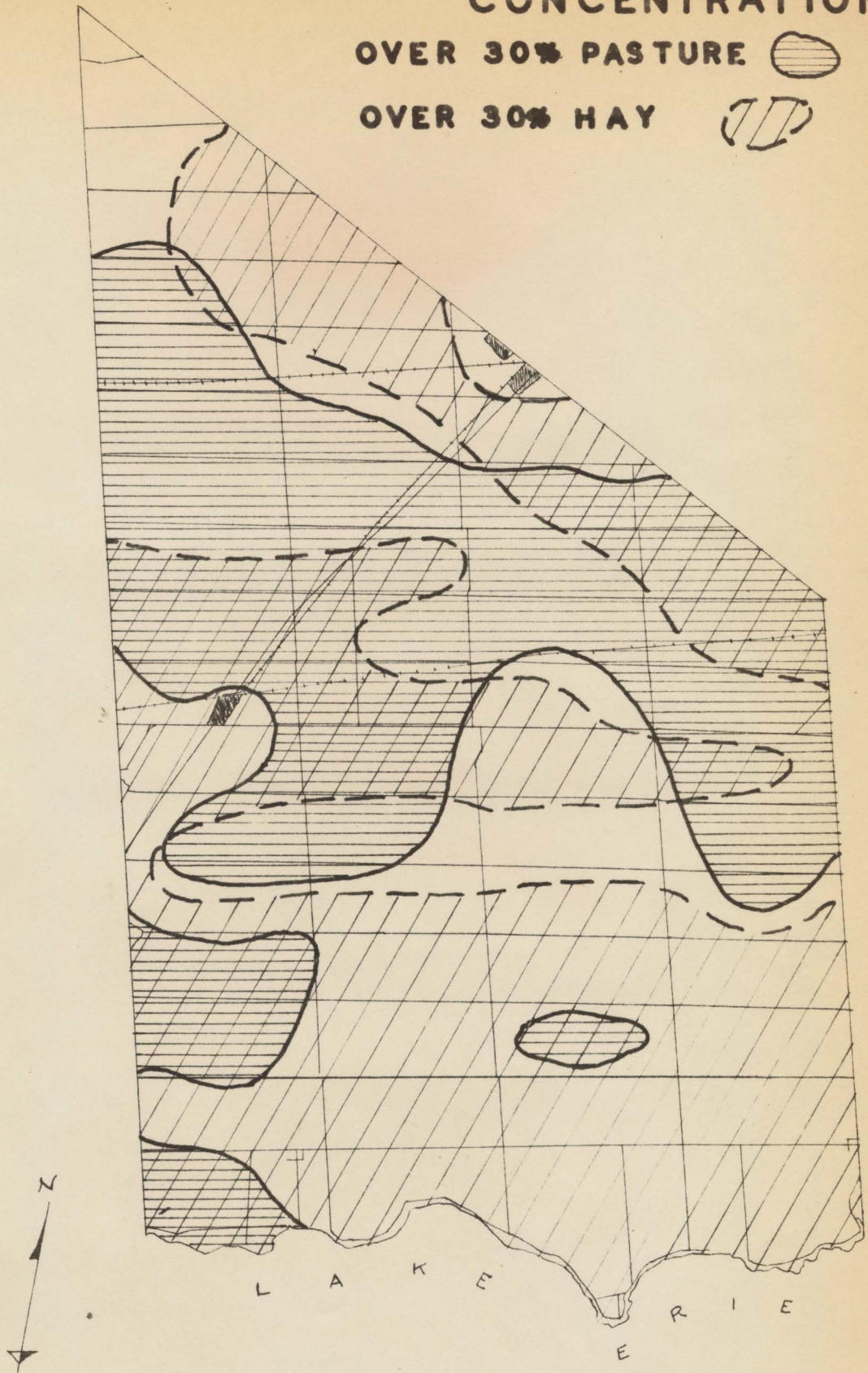


Fig. 12

WALPOLE TOWNSHIP

SCALE 1/2 inch to 1 mile

away from the main transportation arteries since there is not the necessity for rapid shipment of perishable fluid milk.

By far the largest percentage of the township is devoted to crops, (See fig. 11). A steady increase in crop acreages occurred until 1891 in response to the wheat boom and the general land clearing. Although a drop in crop acreages followed the decline in wheat production, the lowest figure recorded was in 1931 when over 43,000 acres were cultivated and there has been a slight but steady increase since that time. A breakdown of crop production may be seen from figures 13 & 14 and the distribution of the chief crops from the land use map.

Wheat was the dominant crop until 1880 with 10,862 acres but dropped to a low of 3,678 acres by 1941. Since then it has risen somewhat and over 6,000 acres are now devoted to the crop which is grown chiefly for winter feed. Wheat remained the chief crop in terms of acres until the turn of the century when hay and oats became more prominent. Oats rose in production as a feed for horses and reached a plateau of over 11,000 acres in 1911 where it has remained. To-day oats are grown as a feed for cattle, (See photo 19). Hay, on the other hand, has experienced a steady rise in production since 1881 until 1941 to meet the demands fostered by an increase in cattle raising. As wheat production declined, these fields were often turned to hay for winter feed for the cattle. Hay is the chief fodder crop with over 20,000 acres. Figure 12 shows the areas of hay concentration which includes a good portion of the township. This is due to the importance of hay as a fodder crop, but, like pasture, hay is distributed over the whole of the study area.

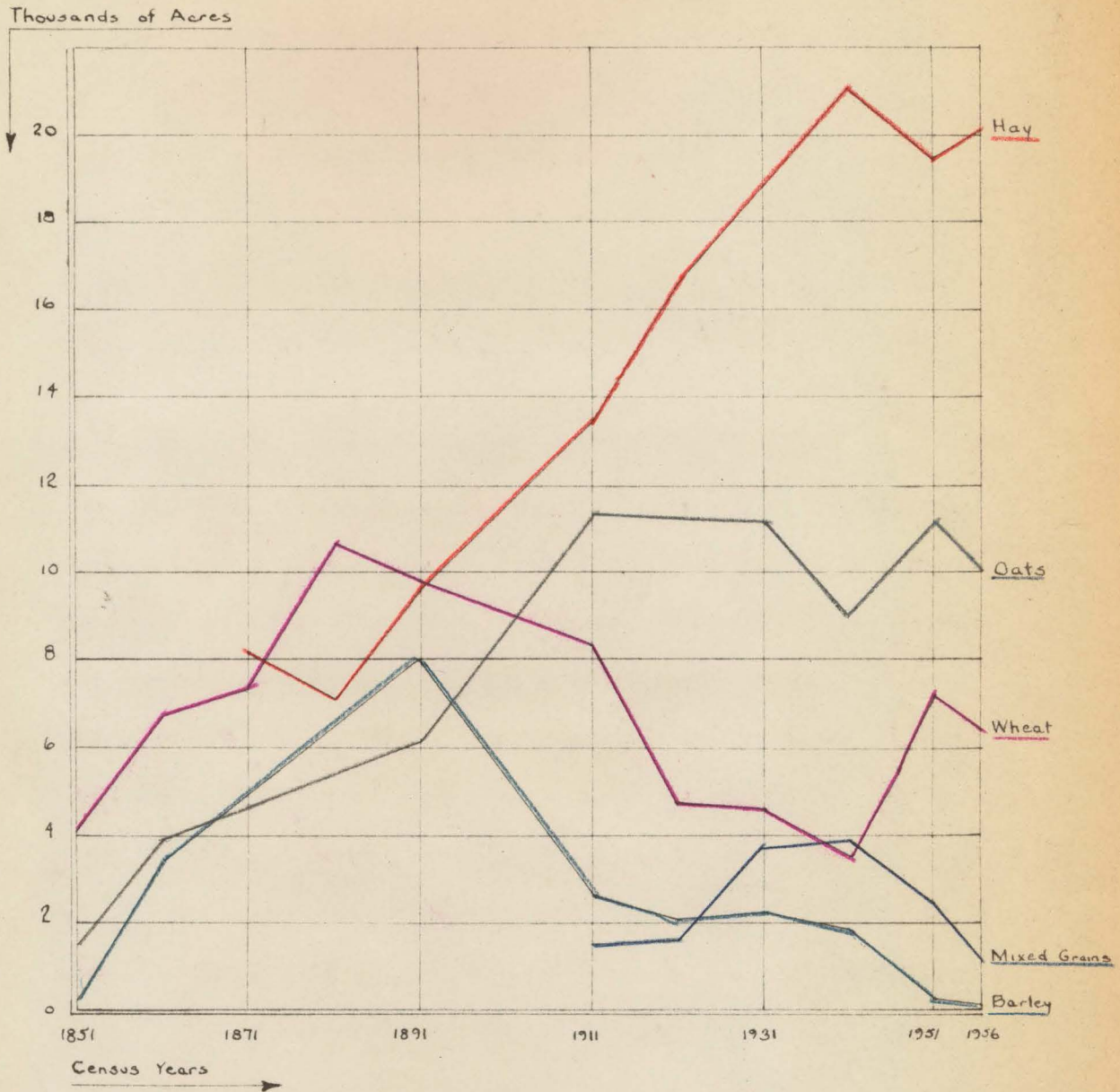


Fig. 13

CROPS IN ACRES WALPOLE TOWNSHIP

Other crops include barley, rye, buckwheat, corn, peas, potatoes and roots as well as mixed grains, (See figs. 13 & 14). Barley cultivation has been important in the past with a peak acreage of over 8,000 acres in 1891. To-day, however, barley production is almost nil. Corn, on the other hand, is gaining increasing importance as a fodder crop. In 1956, almost 1,500 acres were thus planted. The other crops mentioned are almost negligible in the economy of the township and peas, buckwheat and roots were not even reported in the last census; only thirty-one acres of rye and five acres of potatoes were reported. This is in response to the decline in general farming and the increasing specialization in many aspects of the agricultural development. The production of mixed grains is concentrated in the south east of the township and include barley, rye, oats and wheat, (See land use map).

CROPS IN ACRES

<u>Year</u>	<u>Rye</u>	<u>Buckwheat</u>	<u>Corn</u>	<u>Peas</u>	<u>Potatoes</u>	<u>Roots</u>
1851	9	126	271	308	118	24
1861	99	578	109	4,367	435	75
1871	---	---	---	---	153	---
1881	---	---	---	---	203	---
1891	657	---	---	---	97	30
1901	---	---	---	---	---	---
1911	29	82	855	739	182	56
1921	90	112	795	12	51	32
1931	81	---	---	---	63	18
1941	14	---	---	---	37	10
1951	13	---	---	---	14	6
1956	31	---	1,499	---	5	---

Fig. 14



19. Oats ready for storage on the Sloat farm, Little Buffalo.



20. Dairy barn on Benn farm near Springvale. The cement block shed houses a new milk cooler. Mr. Benn has a contract with Acme Dairy in Toronto.

Almost every farmer grows some combination of hay, wheat, oats and corn or mixed grains to feed his cattle over the winter. It is not uncommon, however, for one farmer to buy feed from another if one is deficient and the other has a surplus. Commercial feeds may be purchased from feed mills.

Livestock husbandry has shown considerable variation in the course of settlement in Walpole, (See fig. 15). Statistics for the years 1861 to 1891 and 1891 to 1931 are not available but general trends may still be gleaned from the data from the other years. It is interesting to note that cattle, sheep and swine were kept in equal numbers in 1851. At this time economic development was immature and these three were needed in equal quantities for wool, meat and milk, butter and cheese for the local residents. As commerce was developed in the province some differentiation took place and by 1861, besides a general increase in numbers, sheep were more numerous than either of the other two. By 1891 cattle were the dominant livestock group and have retained this position. This is a direct outcome of the growing trend towards dairy farming and beef farming in response to demands from growing urban centres in the Niagara Peninsula.

The numbers of dairy cattle have risen steadily along with other cattle until in 1956 Walpole reported 10,945 head. Most of the dairy cattle are holsteins with a few guernseys to increase the butter fat content of the herd. City dairy contracts are the most lucrative and therefore the most sought after but these place greater restrictions on the farmers. In order to retain the city contracts many farmers have had to install new milk cooling systems which involve a heavy

investment, (See photo 20). Most farmers feel that this is worth the expense, nonetheless, since the city dairies pay the highest prices. Also, the city contracts are the ultimate in dairy farming and are not easily attained. There is a certain amount of prestige involved which people are unwilling to forfeit. Toronto and Hamilton provide the city dairy contracts while Villanova in neighboring Townsend Township also buys from Walpole farmers. This smaller dairy does not demand the same quality of production and accepts the milk in the standard milk cans rather than the newer bulk coolers. The Marshall dairy in Jarvis is a similar concern and draws from a good portion of the township. A few farmers still practice the old method of separating the cream and the Hagersville Creamery buys this commodity. Usually these are older people who keep only a few cows.

Farmers that do not yet have electricity and therefore cannot milk large herds with the help of milking machines may also separate their milk. Although electricity has been available in Walpole since the 1930's, it has not yet touched every farm. According to the 1956 census, eighteen farms did not have this convenience. Electricity has been a deciding factor in the development of the dairy industry since electric milking machines have allowed farmers to keep considerably larger herds than previously. Besides the advantages of electric lighting and household appliances, other farm machinery run by electric power such as cooling systems help the farmer. During the second World War there was a ban on the installation of electricity and consequently many farmers did not have this installed until after 1945. A plentiful supply of natural gas in Walpole provided many

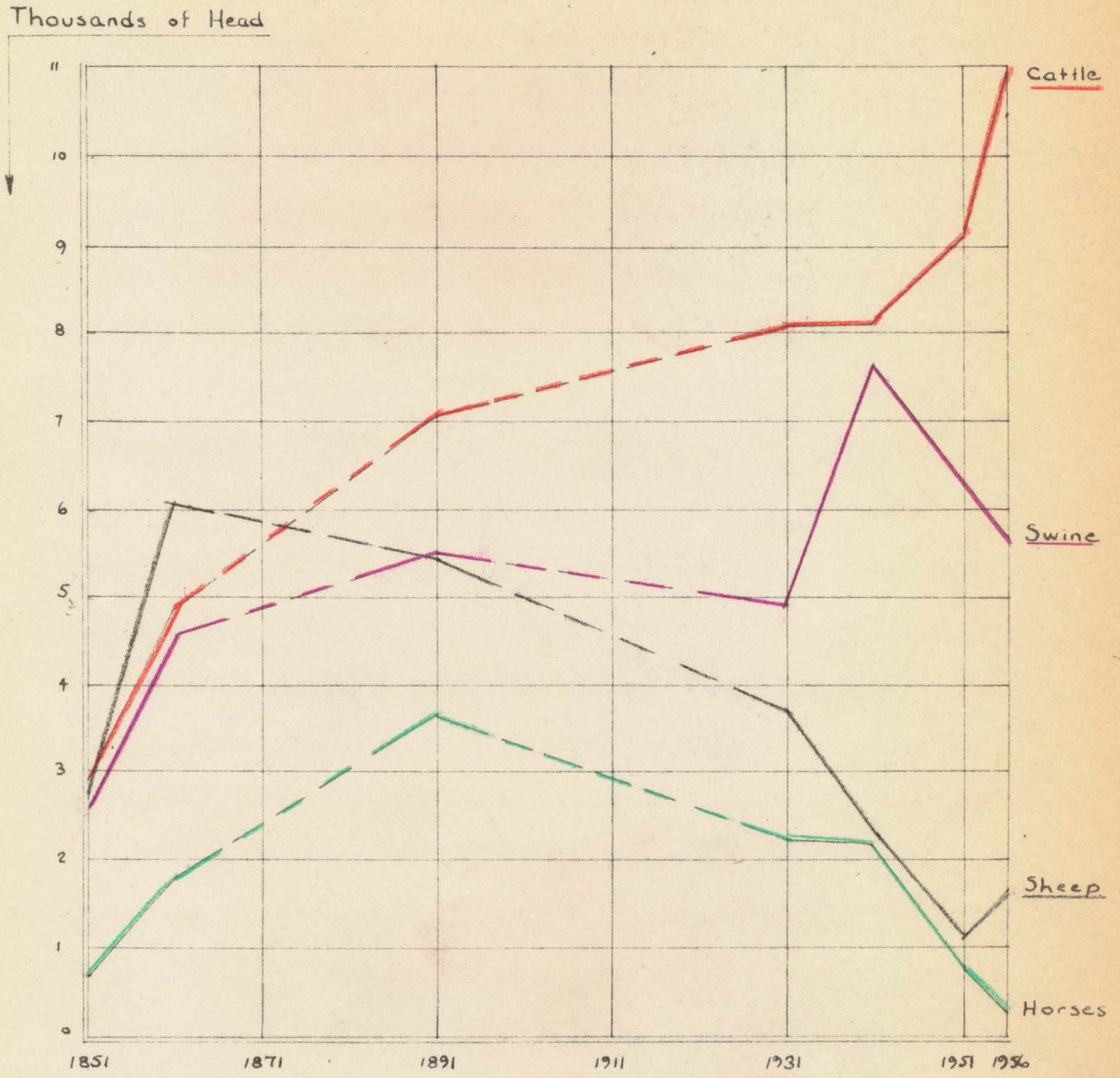
homes with heat and light and removed the immediate pressure for electricity in many cases.

Beef cattle are an important part of the economy but are second to dairy cattle. Many farmers, especially older men, have turned to beef raising because it requires less work than the dairying. Cattle can be turned out to pasture and left until marketed, as long as sufficient fodder is grown for winter feeding and a proper standard of breeding is maintained.

Although some farmers keep thoroughbred bulls most farmers in both beef and dairy circles prefer artificial breeding.

The largest agricultural holding in Walpole is known as the Jarvis Hereford Farms and is situated on the Nanticoke Road between Nanticoke and Jarvis. This farm is known in beef circles throughout Ontario and the United States for its fine Hereford cattle. Over two hundred head are kept on over one thousand acres, an excellent example of the amalgamation of farms into one large and efficient holding. Land has been taken over for the pasturing of large herds and the growing of grain and fodder crops to feed the cattle. The farm buildings are either retained as residences for hired help or rented as urban dwellings. Beef is marketed in Hagersville and the larger centres such as Hamilton and Toronto.

Sheep and swine have continued to take second place to cattle. Numbers of sheep have dropped steadily since 1891 as the demand for wool has decreased. This has complemented the raising of cattle since the two compete for pasture space. An increasing demand for dairy products and beef make it more lucrative for the farmer to raise cattle than to raise sheep for wool. The raising of pigs has remained relatively constant with a peak year of 7,716



Census Years →

Fig. 15

LIVESTOCK IN WALPOLE TOWNSHIP

in 1941. Pork is in appreciable demand in the urban markets and the intensity of the raising of swine varies with the fluctuating demand for this commodity. Many farms keep one or two pigs which are marketed as a small additional source of income.

Poultry raising is not uncommon and this is understandable due to the large markets for poultry products in the urban centres, (See fig. 16). Hens and chickens are most plentiful since this fowl is eaten all year round and the eggs are in constant demand, (See photo 21). New markets for cut-up chicken and barbecued chicken also bolster the business. More seasonal birds such as turkeys are not so common but there is one large turkey farm in lot twelve, concession five, (See photo 22). Grain is grown to feed the poultry. Hamilton and Port Dover are the chief market centres for the poultry products of Walpole. Small acreages may be utilized in poultry raising since no large expanses of pasture are needed and where this is the sole activity, it may serve as a source of extra income for the farmer who holds a city job.

<u>Year</u>	<u>Hens & Chickens</u>	<u>Other Poultry</u>
1891	28,460	4,161
1931	121,748	7,504
1941	141,547	10,083
1951	39,413	101,206
1956	124,768	114,748

Fig. 16

The land use map points up no striking trends in agricultural land use but emphasizes instead the uniformity of the township. Uniformity in bedrock, land type and soils are all



21. Poultry farm in Concession 17.



22. Turkey farm in Lot 12, Concession 5.




reflected here. Upon this uniform base covering a small area has been imposed a common interest in dairying and cattle raising to meet the demands of the urban centres. Pasture and crops are well-distributed over the study area although concentrations are evident as seen in figure 12. Farm values also reflect the homogeneity of the area, (See fig. 17). Assessed values per acre have been averaged for each lot in the township. Values range from eighteen to twenty-two dollars an acre for the most part but there are some areas where values are as low as eleven dollars an acre. This low-valued land is concentrated on the thin soils of the Onondaga Escarpment west of Springvale and north-east of Hagersville. In order to show areas of higher valued land, lots valued at 21.8 dollars per acre and over have been taken. These are concentrated in the vicinity of highways six and three where access to these arteries of transportation is most convenient. Generally, however, it is a case of individual land management on the part of the farmer which accounts for the slight variations in land values.

One quite noticeable cultural trend in the agricultural pattern of the township is the practice of part-time farming. Only forty-eight per cent of the farmers in the study area make their living from farming alone. Many work in the Hagersville Army Camp, in the Hagersville and Caledonia quarries, and in Hamilton. This is another reason why so much pasture and hay are shown on the land use map. These part-time farmers do not have time to cultivate their land so rent or pasture their own herds on former cultivated fields. Other fields have been

left to hay and the harvested crop is sold to other farmers. These farmers buy a good deal of feed from the mills also. This practice is a result of a desire on the part of many farmers for a higher standard of living coupled with near-by employment opportunities.

LAND VALUES

(Assessed Value of Land, 1960 Records)

\$11 - \$18.5 per acre	
\$18.5 - \$218 per acre	
\$218 - \$30 per acre	

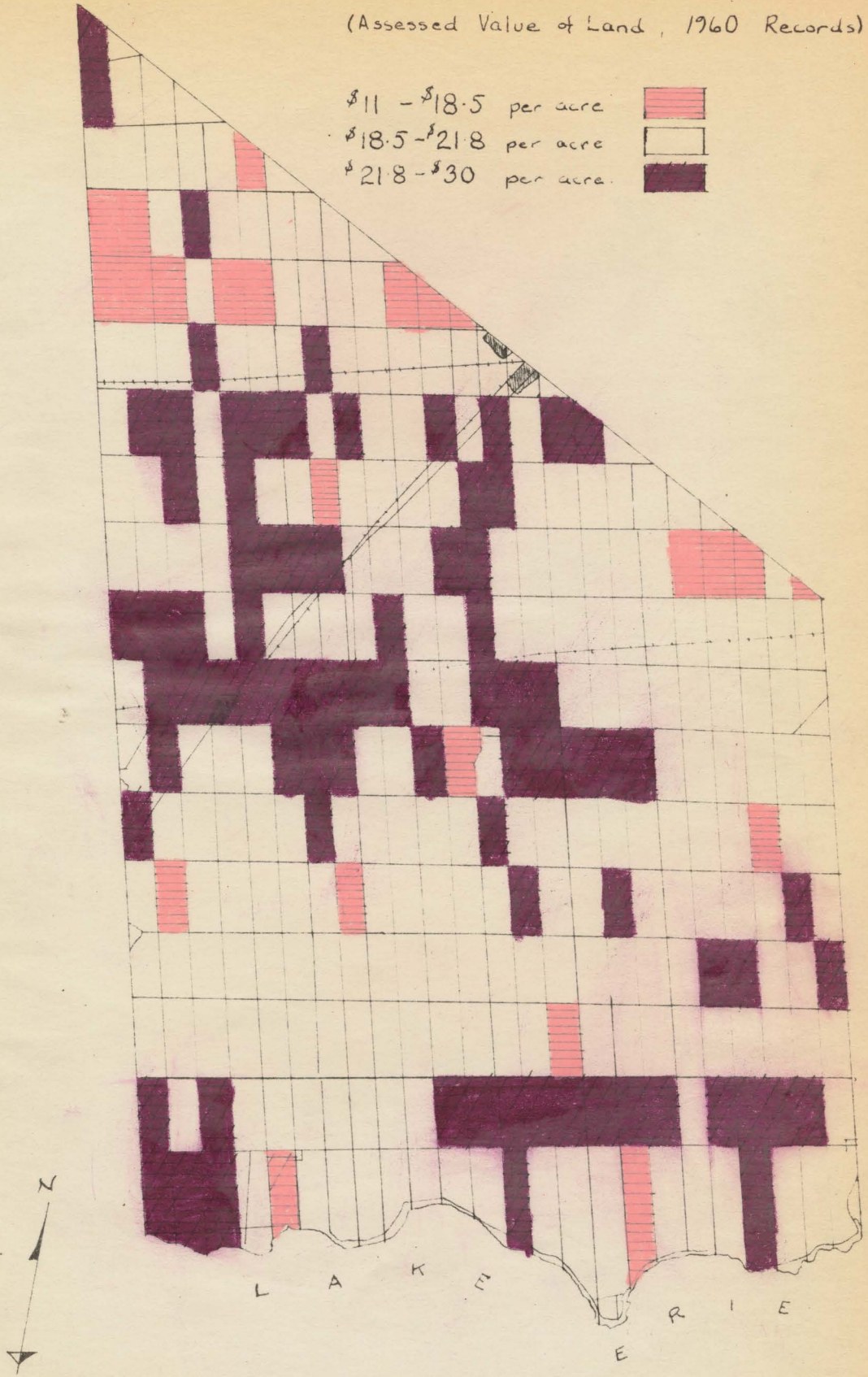


Fig. 17

WALPOLE TOWNSHIP

SCALE 1/2 inch to 1 mile

CHAPTER FOUR

RURAL NON-AGRICULTURAL LAND USE

TRANSPORTATION

There are 203 miles of roads and streets in Walpole, (See fig. 2). Two provincial highways run through the township, numbers six and three. Both are two-lane, macadam surfaced thoroughfares and are well-maintained. The history of these roads and their role in the settlement of the area has already been discussed but they are extremely important route-ways in the present economy of the township.

Number six highway provides a direct link with Hamilton which is the recipient of much of the agricultural produce of Walpole. Along this road the urban centres of Hagersville, Jarvis and Garnet are found and also ribbon development has taken place to some extent between the railway tracks and the highway. Here there is a tendency for homes built by the owners to be occupied during various stages of completion. For the most part the finished dwellings are small but fairly neat. Two older dwellings have been constructed from old trolley cars. In each case two cars have been set side by side and joined by a passageway. Later, a common roof was added and the entire space between the cars was blocked in.

These remain as poorer dwellings in spite of the labour expended in their renovation.

Other surfaced roads extend along the first concession between Port Dover and Dunnville and along the twelfth concession between Townsend Station and Hagersville. The north-south roads between Highway six and the Selkirk-Nanticoke Road are surfaced and include the Nanticoke, Sandusk, Cheapside and Selkirk Side Roads.

The concession roads of the township were clay until the first part of the present century and travel was greatly impeded in wet weather. With the development of the motor car, however, a need arose for better roads and gravelling took place. It was planned that every farmer would have access to a gravel road and, indeed, to-day only one clay road remains in the township. This runs between the Springvale Road and the Reserve boundary on Concession five. It may be noted that there are no farms on this road.

The automobile and subsequent road development has transformed rural life. There is no longer such a distinction between city and farm life since the farm home enjoys, or can enjoy, all the modern conveniences. No urban centre is more than a short trip away in the family car and the farmer and his family are not isolated on the farm as in former times. The dairy industry has depended on the development of transportation facilities also and fluid milk can only be marketed at any distance if fast and efficient means of transportation are available.

Three rail lines run through the township. These in-

clude the Michigan Central line and two C.N.R. lines. Jarvis and Hagersville are the only depots. The line between Jarvis and Port Dover which used to take holidayers to this popular resort town has been abandoned due to the increased number of private automobiles.

NATURAL GAS

One hundred and twenty-seven natural gas wells in the township have supplied heat and light for a great many farmsteads, (See photo 23). Because of the absence of H₂S, the gas produced in the Niagara Peninsula is the sweet variety and does not have to be purified before utilization. Wells are fairly abundant and are evenly distributed over the southern two-thirds of the thesis area. The Clinton and Grimsby are the chief producing formations.

QUARRIES

Quarrying is important in Walpole especially on the Onondaga Escarpment. Several small quarries have been in operation in the past but only the Hagersville concerns are working now. The smaller concerns were utilized for the building of the several stone homes in the area and, later, for the construction of the Hagersville airfield.

The most important of the quarrying operations in the township are located to the west of Hagersville and utilize the limestone of the Onondaga formation. There are two concerns here.

The Canada Crushed Stone Company was opened in 1888 and was the first quarry in the area. Originally it was opened to supply rubble for the streets of St. Thomas. The quarry pit

measures 800 by 300 yards and is thirty feet deep. Present capacity is over 2,000 tons of crushed stone per day. Employment is provided for about twenty-five men.

The Hagersville Quarries were opened in 1906 by the Michigan Central Railway to provide balast for its trains. Modernization and expansion of the plant facilities took place in 1944 when new stone crushing and screening plants were built. By raising its crushing capacity to 2,500 tons daily, it has become the largest producer in the area. Pits occupy an area one thousand by five hundred yards thirty-three feet deep. Fifty-five men may be employed in the operating season.

Other quarries are also found in the township but few of these are in operation. One is located at Sandusk and another north of Nanticoke, (See photo 24). In both cases streams bared the rock before the human activities took place. The Nanticoke excavations were in operation during the construction of the Jarvis airfield.

SCHOOLS, CHURCHES AND CEMETERIES

Walpole retains the "little red schoolhouse" system of elementary education. While only eight per cent of Ontario has retained this system, one hundred per cent of the study area still carries out this programme. Small one and two-roomed schools are scattered throughout the township. Most are brick but there are also some frame and cement block structures. One new school was observed which has replaced an older building but this new school is still only two rooms. High school students go to Hagersville for their education.

The churches are not unlike the schools in construction, being for the most part of square, red brick structure with a gable roof and simple bell tower. There is a stone church at Erie and a frame church at Cheapside. United, Baptist, Anglican, Presbyterian, and Roman Catholic faiths are represented as well as other sects such as Church of God and Brethern in Christ.

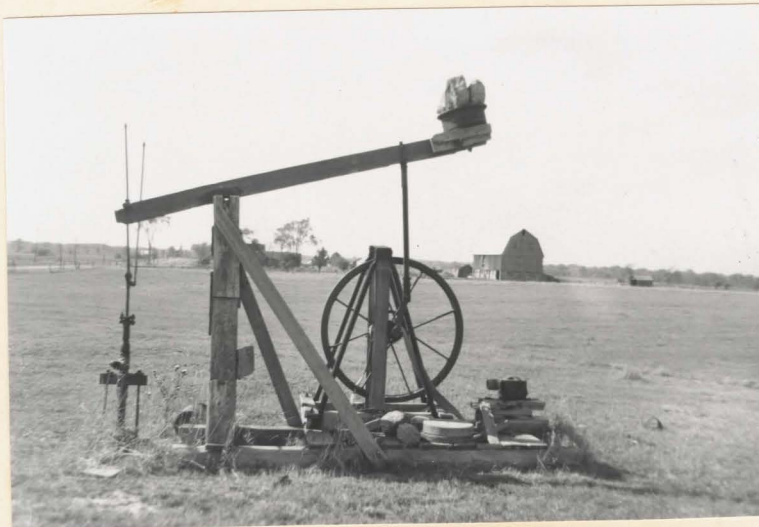
Associated with most of the churches are burying grounds most of which date back quite early into the middle of the last century. These graveyards are on the whole well-kept although one in the sixteenth concession has fallen into disrepair, (See photo 25).

AIRFIELDS

The two airfields in the township were constructed as training centres for servicemen during the Second World War. Land for the Hagersville Airport was purchased in 1939 and construction was begun in 1940. 410.74 acres were purchased from five farmers for a total of \$42,800. At the end of the war the property became an army truck depot. The camp is a source of employment for many Walpole residents and up to six hundred civilians have been employed here, (See photos 26 & 27).

Homes for service personell have been built on the property and give the appearance of a modern subdivision in the middle of a farm. The homes are well-kept and residents have their own chapel, school and fire brigade. Buses take shoppers to Hagersville, Simcoe and Hamilton on regular runs.

Vacant land on the property is rented as rough pasture for dairy cattle.



23. Gas drilling rig
in Concession 2.
Note the level
nature of the
clay plain.



24. Abandoned quarry,
near Nanticoke.
Stone was used in
the construction
of the Jarvis
Airfield.



25. A well-kept
cemetery near
Springvale.



26. The Hagersville Army Camp. Note hangars in background.



27. Housing for servicemen on Army Camp property.

The Jarvis airfield was begun in 1936 as a private airfield but with the advent of the war was taken over by the government. Here, 5,975 acres were purchased for \$54,100. from six families. After the war the property was purchased by Mr. Hare, a neighboring farmer, and is now widely known as Harewood Acres. Sports car enthusiasts come from all over Southern Ontario and New York State for the sports car racing. An income is provided for hotel owners and farmers who billet these people. This track is to be replaced by a more suitably banked track near Toronto and the future of Harewood Acres seems uncertain. Mr. Hare pastures sheep on the land between the actual race tracks.

RECREATION

In addition to Harewood Acres, other recreational development in Walpole has taken place along the Lake Erie Shore. Summer cottages now form an appreciable portion of the township's revenue. While most of the cottages have been built since the Second World War, summer settlements did exist previous to 1939. Early developments, however, stressed not so much the privately owned cottage but communities of cottages owned by one man and rented for the season or for periods of weeks during the summer months.

Keaden Park south and west of the Nanticoke Creek is an example of this. Here a Fort Erie businessman built cottages and landscaped the grounds to provide tennis courts, a baseball diamond, an incinerator, parking facilities and garages for the leasees. People rent these cottages year after year and they are still rented to the same people in many cases. Lately a sewage disposal

unit and a water system have been added.

Sandy Cove, next to Keaden Park, was begun by a Brantford businessman shortly before the war on a similar basis to the older settlement. Here, however, the cottages have been sold to individuals although a strong community spirit has remained. Funds are pooled for the upkeep of the grounds, tennis court, incinerator, water system and dock.

Peacock Point is another interesting area which was begun prior to 1939. This promontory forms a natural setting for cottage development with its peninsular situation. No cottage is far from the shore although lakefront lots are limited. The Point is a small town in itself with named streets gradually replacing the farmland. A store and community park fulfill the social needs of the gregarious inhabitants of the settlement.

Woodlawn Park also has an ideal setting for cottage development. Sandusk Creek has been diverted by the development of a sandspit and on this spit cottages have been built. This building has not taken away from agricultural land since the spit would be submarginal for agriculture. There is a store here to serve the cottages which are privately owned.

Other developments include the Oneida Baptist Camp and the Haldimand County Park. This latter provides picnic tables and swings for families interested in a day's outing. Some farmers have turned their lakefront property into parks for picnics and camping. Fletcher's Beach is one example of this. Here, vacationers may set up tents or trailers and picnic or swim for a small fee. A refreshment booth is also provided.

For the most part the lakefront is faced with privately owned cottages situated in groups or alone, depending on how the land was sold. Distribution is determined chiefly on the proximity of the lakefront road to the water's edge. Where there is a promontory or space left between the road and the shore better quality cottages are generally erected. Usually they are well-spaced, attractive and well-maintained.

Where the road is close to the shore, cottagers have been forced to build precariously on the sloping bank with one side of the building anchored to the slope and the other on stilts. The other solution has been to forfeit the lake-front situation and build behind the road. Usually these cottages are of poorer quality and approximate various stages of shack development. Small lots, small cottages and poorly kept grounds prevail.

Another controlling factor is erosion. Sandy beaches generally prevail on the eastern sides of the headlands and in the adjacent coves, (See photo 28). Erosion is active on the exposed western sides due to the west-east trend of coastal currents. Erosion has not been too serious in Walpole but it is eating back the shoreline in some places. Breakfronts have been constructed and retaining walls built to protect the land, (See photo 29) Poorer cottages have been built on the less expensive land where values have been cut as a result of erosion and steep slopes, (See photos 30 & 31).

A shore cliff is present along the whole of the water-front of the township except where streams have cut through the clay to form a more gentle access to the lake. These banks are advantageous for cottage development since the buildings are

above the beach level and enjoy lawns rather than being built right on the sand. Also there is less danger of damage by wave action during storms.

Figure 18 shows the distribution of recreational development along the lake front. Commercial sites include, from west to east: Fletcher's Beach, a picnic and camping area, the Oneida Baptist Church Camp and Haldimand County Park, another picnic area. Undeveloped land for the most part is the result of too little space between the road and the shore to permit cottage building. As the demand for lots increases, however, cottages are being built on the other side of the road.

The developed portions of the shore where privately owned cottages prevail have been classified according to the condition of the buildings and the desirability of the location. Class "A" denotes well-kept cottages, most of which have been professionally constructed, and are fairly large, (20 by 30 feet or more in size). Here the property is well-cared for and there is a minimum of debris around. Here also sandy beaches and little or no erosion is apparent, (See photo 28).

Class "B" cottages are older and /or smaller than the "A" type. These may also be well-kept with fairly attractive grounds but do not present the same over-all pleasing appearance.

Class "C" cottages are generally small and situated on poor sites. These cottages have been built during the past ten years, usually by the owners, and frequently have a shack-like appearance. They are found either along poor sections of the shore where erosion and narrow beaches prevail, or away from the shore behind the lake road, (See photo 30).

Another form of recreational land use may include services to travellers. The chief development in Walpole is on Highway three. An old stage coach stop is the oldest form of highway stopping-place and may be contrasted to the modern motel being constructed nearby. Tourist cabins at Erie typify an intermediate stage which took place soon after automobiles became popular in the 1920's and 1930's. These remained predominant until the development of motels in the late 1940's and early 1950's.



28. The wide, sandy beach in protected "Sandy Cove" in Lot 5 of Concession 1. Note the grass and tree-covered bank to the left.



29. A make-shift breakfront at Woodlawn Park. There is no bank here and the breakfront has been built to protect the buildings from wave action.



30. A Class "C" cottage along shore.



31. Erosion of clay banks east of Peacock's Point in front of cottage pictured above.

LAKE FRONT RECREATION AREA WALPOLE TOWNSHIP

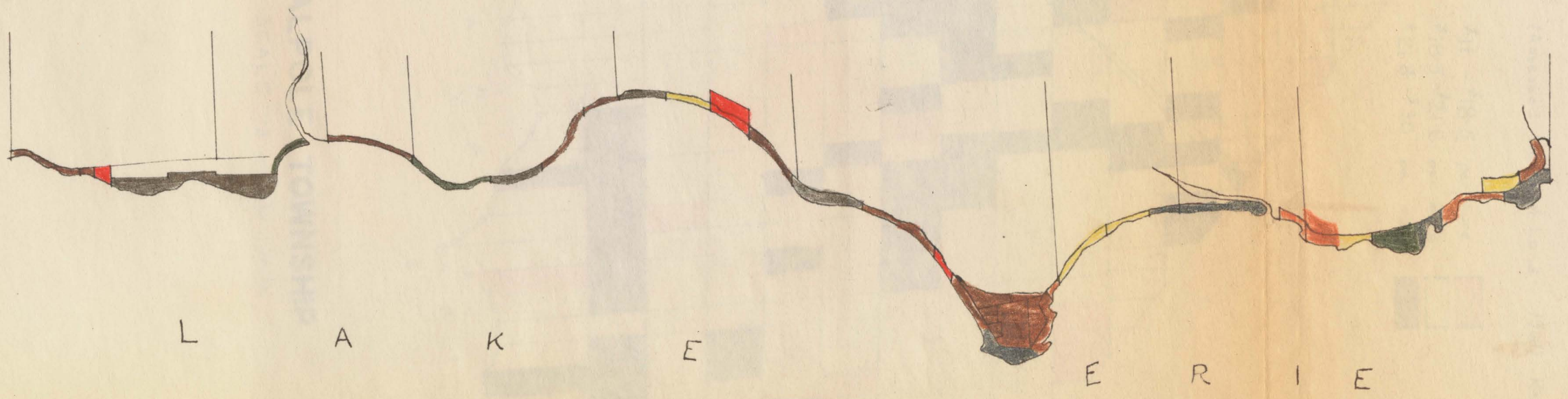
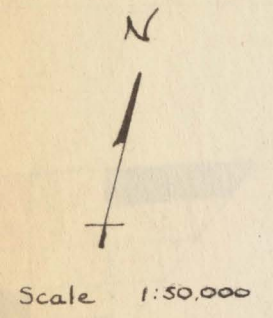
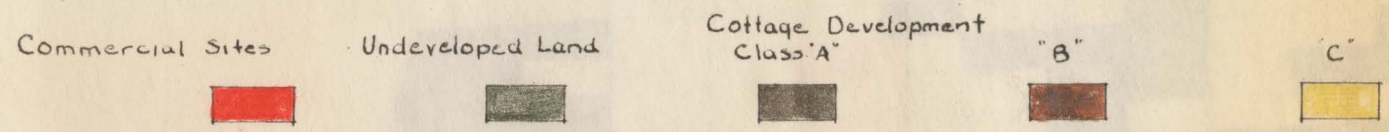


Fig. 18

CHAPTER FIVE

URBAN LAND USE

Urban development began with the appearance of roads and the subsequent opening of the township for settlement. Inns and taverns sprang up along stage routes such as the Plank and Talbot Roads and also on other thoroughfares such as the Lake Road between Dover and Dunnville. In many cases blacksmith shops and other establishments were built near the inns and so a hamlet was begun. In other instances a saw or grist mill was the nucleus of settlement. Here settlers would come to have timber cut or grain ground and general stores, carriage shops etc. were built to serve the farmers. It was not uncommon to have both a mill and hotel in one centre and here the hamlet would serve a double function, catering to both farmer and traveller. With the establishment of services, homes of shopkeepers were built and then those of people who wished to live near the service centre.

Following the decline of the lumber and wheat booms and the general depopulation of the area, these centres soon declined in importance. With the development of better roads and the automobile they suffered further decline since the small centres could be easily bypassed for larger centres.

North of Highway Six four small centres serve the

farming community, (See fig. 2). Nober and Hartford are situated in Townsend Township on the township line but their trade areas extend into Walpole. In both cases only a general store and gas pumps constitute the commercial activities of these hamlets.

Little Buffalo has been reduced to a one store settlement. This hamlet on the Reservation boundary was originally an Indian trading centre run by the Mallone family which made up the bulk of the population. Prosperous at one time it boasted fifteen houses, a ladies shop and cobbler. Social life was provided by the Hartford Baptist Church and a boardwalk extended the one and one-half mile distance to the church. Now, however, the general store has a small clientele. There is no definite trading area since regular customers pass other stores to come here while nearby residents may patronize Hagersville shops entirely. The store caters to the Indian population.

Springvale is centrally located in the northern section of the township and is growing slowly as a residential community due to its proximity to Hagersville. One of two blacksmith shops remains and a well-stocked general store serves local residents. A lime kiln was active at one time which burnt lime from the Onondaga limestone quarried from the nearby escarpment. Many plaster houses testify to the presence of such activity, (See photo 32). Now the general store, blacksmith shop, gas station, community hall, school and two churches fill local needs. The labour force is employed at the Army Camp, Hagersville, Caledonia and Hamilton. Two new homes have been built by commuters.

Garnet on Highway six has been in a state of decline since a fire nearly destroyed it in 1878. This centre was of importance in the early days as a stage stop and milling centre but could not compete with Hagersville and Jarvis. Now two gas stations, a church, the township shed and one or two houses remain.

South of Highway six, seven hamlets are counted. These are Nanticoke, Selkirk, Cheapside, Sandusk, Erie, Balmoral and Gill. Gill and Balmoral are outside the township, situated on the township boundary to the east. Balmoral has a general store which extends its limited trade area into Walpole but neither Gill or Sandusk, farther south, has a store. This latter was once the scene of an active quarry.

Erie stretches along an entire concession block from the Sandusk to Cheapside Side Roads on Highway three. Erie was at one time the township seat and the scene of the Walpole fair. Erie was also the home of the Great Dan Patch, the famous race horse. Now only a lodge, tourist centre and two churches, Presbyterian and Roman Catholic, are present. Old homes including the former Dochstader Hotel stretch along the highway.

Cheapside was initiated in 1854 when a small shoe shop was built. Later, a hotel, steam cabinet shop, carriage shop and blacksmith shop were built. There is now only a general store, gas station, and feed store there, (See photos 33 & 34).

Selkirk is the oldest of the Walpole hamlets. The first store between Port Dover and Dunnville was built here in 1834. To-day, although it is primarily a cross-roads type of

settlement, there is some functional differentiation.

Commerce is concentrated along the main street which is the Dover to Dunnville Road, (See photo 33). Here a gas station, drug store, post office, bank, general store, hotel, hardware store, bakery, locker storage, snack bar and legion hall are found. A feed store, egg grading station, law office and gas office are situated on the Selkirk Road which runs perpendicular to the main street. Selkirk offers a fairly complete line of services and draws from a wide trade area which includes a good deal of cottage business in the summer.

Most of the homes were built before and around the turn of the century and are medium to large frame buildings for the most part. Most are in fair to good condition, (See photo 36). There are some small homes in poor condition and these are situated in the north-west corner of the village on back streets.

Nanticoke on the first concession road back from the lake at the Nanticoke Creek was founded by the erection of a saw mill by Col. Hall in 1830. This centre was very important as a stage stop in the Dover Road in former times and three hotels once served the weary travellers. Several general stores, saw mills, a tannery, grist mill, harness maker, shoe maker and distillery were in operation around 1880, at the time of the greatest development of the settlement. Nanticoke was an important lumbering centre as well as a service centre and logs were floated down the creek to the saw mill and then to the lake. There was at one time a dam near the present bridge and a mill race to take water to the mill. To-day Millers' general store,



32. Plaster house
in Springvale.



• The general store
at Cheapside.
This is typical
of such stores
throughout the
study area.



34. An abandoned shop
at Cheapside.



35. The main street of Selkirk. From left to right are pictured a bank, hotel and hardware store.



36. Typical homes in Selkirk.

a hardware store and gas station are the only commercial establishments. Residents seek employment in the army camp.

The Nanticoke fisheries on the lake shore by the creek have been important economically. The creek offers harbour facilities for the boats but dredging must be kept up to prevent silting in along the creek mouth by sand washed along by shore currents. This industry was begun in the 1870's and now two firms operate, Hoover's and Jackson Brothers. Fishing has been poor lately, however, and the boats have been spending summers on Lake Huron. It is likely that conditions will improve on Lake Erie as a result of this break in fishing for a period.

The two most important centres in Walpole are Jarvis and Hagersville on the Plank Road. Jarvis has a complete line of services as well as a weekly newspaper, the Record, with a distribution of 350 copies.

The centre of town is the junction of Highways six and three and the commercial section stretches north along Number six and east along Number three, (See fig. 19). Grocery, clothing, drug, hardware, jewellery and appliance stores are represented as well as a bank, several gas stations, restaurant, used car lots and hotel. One notable exception is a furniture store which suggests that there is little demand in this stable community for items such as this which are more likely kept for many years.

Residential sections are found on each side of Highway six and along Highway three. Like Selkirk, most of the homes were built before the turn of the century and are in good condition, (See photo 37). Most are of brick or frame construction and are

medium to large in size. One street of newer homes (post World War two) is found between highways six and three and these are medium to small asbestos shingle houses in fair condition, (See photo 38). The poor housing is found on the outskirts of the village north-west of highway six. Small shacks are concentrated here, (See photo 39).

A feed mill employs about six men and the Marshall Dairy employs about twenty-five. This latter establishment was begun in 1917 and now draws milk from an area with a forty mile radius. Butter and powdered milk are produced here as well as the fluid milk. The remainder of the labour force finds its livelihood outside of Jarvis at the army camp or in Hagersville.

Jarvis reached its acme of development after the railway came through in 1873. A fire destroyed most of the village and new and more substantial buildings were erected. Several establishments created employment such as a steam grist and flouring mill, a steam planing mill, a sash and door factory and a steam plough factory. Population is reported to have been near eight hundred while now it is only 733, the highest since first recorded in the census tables in 1911, (See fig. 9).

To-day Jarvis is a very pleasant village with shaded streets and well kept old homes. It is an ideal retirement centre and indeed, a good proportion of its residents are retired folk.



37. Number six Highway which runs through Jarvis. Note the well-kept old home and shade trees.

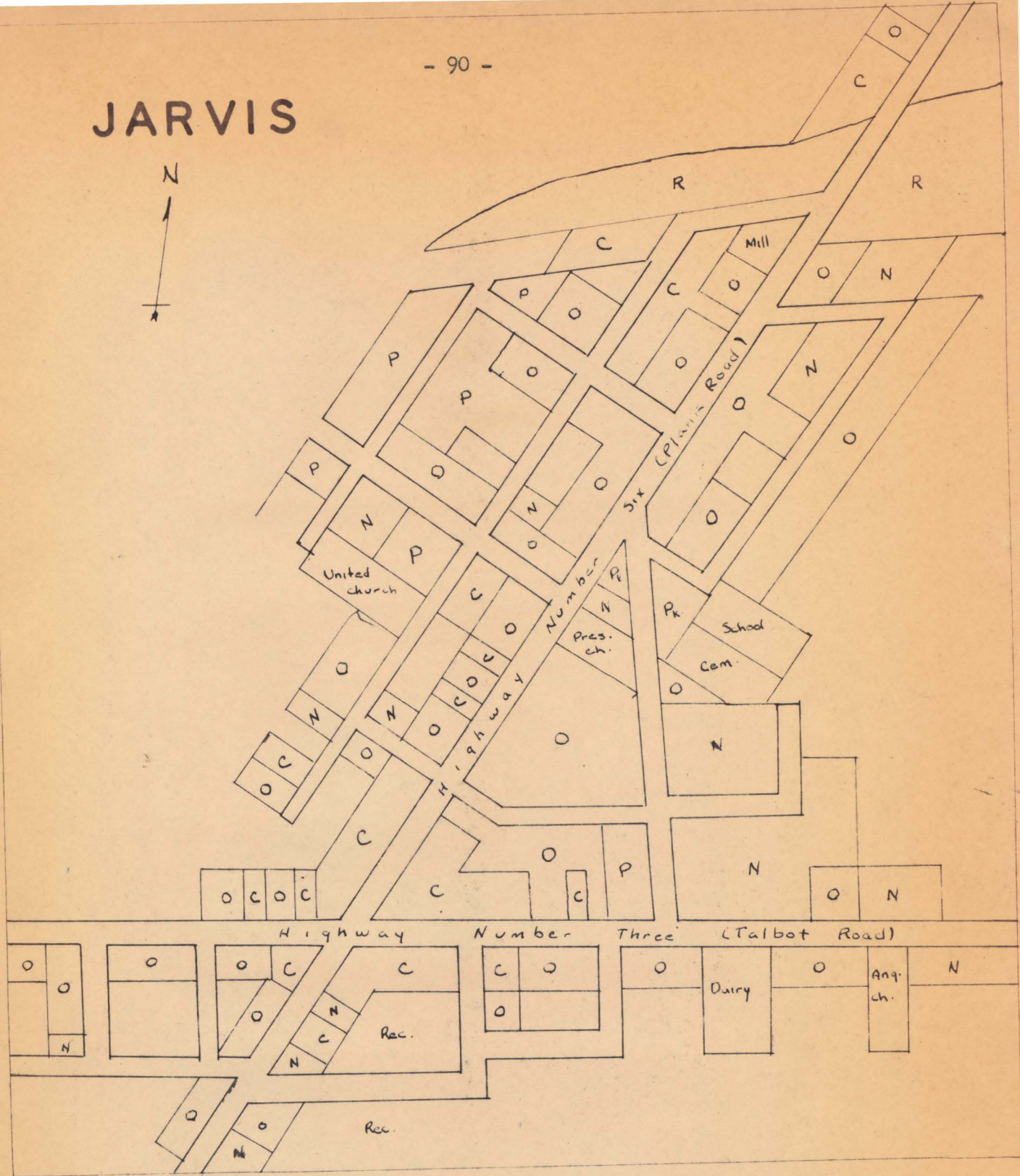


38. Newer homes in Jarvis.



39. Poor quality homes in Jarvis.

JARVIS



LEGEND

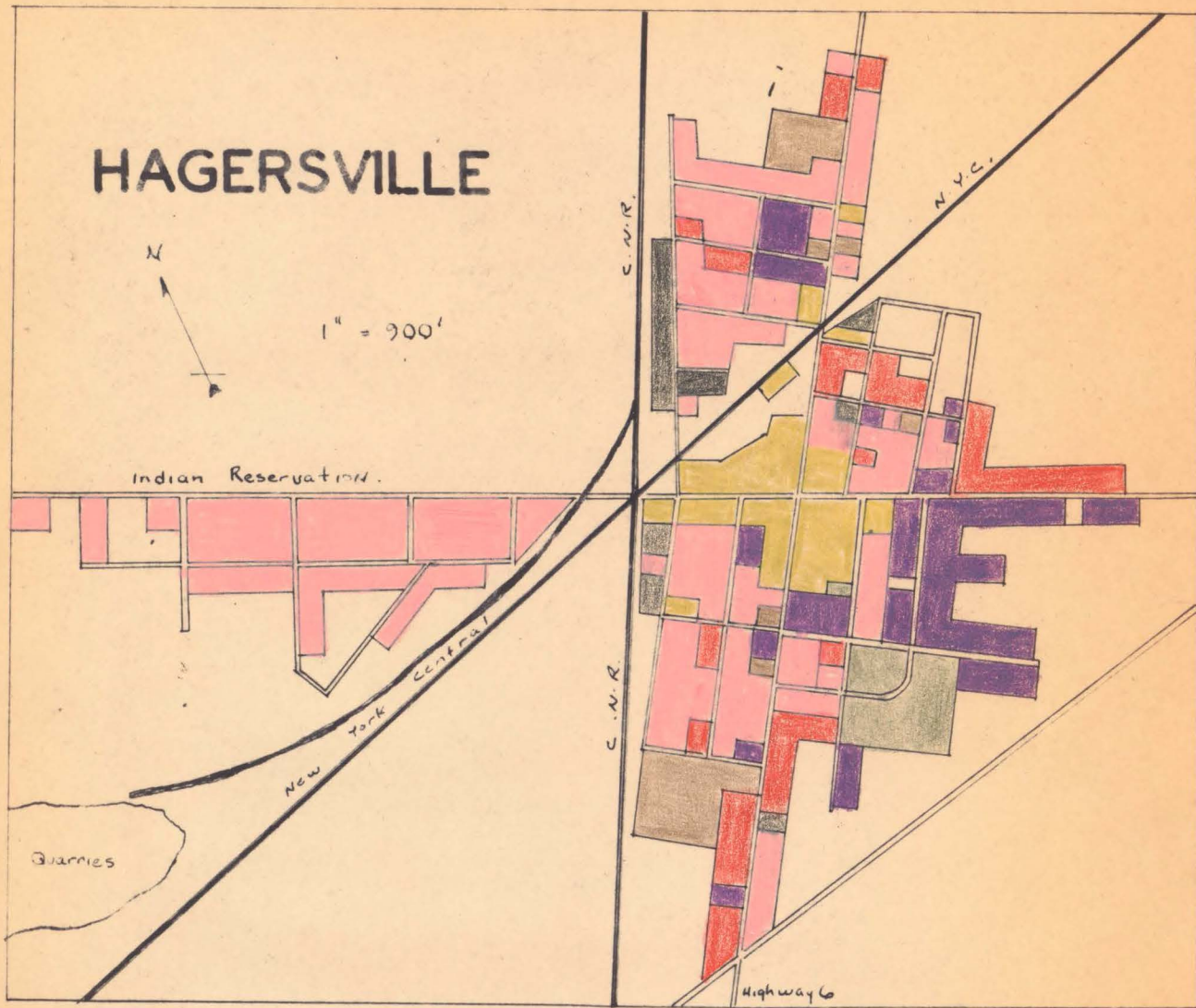
Industrial Lands	Mill	Residential - Old	O
Rail Way Lands	R	New	N
Commercial	C	Poor	P
Institutional	Ang. church		
Recreational	Rec.		

Fig. 19

The village of Hagersville is the most important urban centre in the study area. Centred in the midst of a rich agricultural hinterland the village straddles the township line between Walpole and Oneida Townships and is the chief marketing and service centre for the area. Hagersville has been discussed in detail in Ralph Vicero's bachelors thesis on Oneida Township written in 1953. Figure 19 gives a functional breakdown of the village. First class housing refers to large stone and brick homes, most of which are fairly new, situated on spacious, well-kept grounds. Second class homes are generally smaller and older than the first group. Frame construction predominated here. Third class homes are of frame construction and poor appearance. They may lack such conveniences as water and sewage facilities.

One important development since 1953 has been the establishment of the Hagersville Suburban Planning Area Board in 1957. This is to provide for urban expansion. Development is limited in Hagersville to the south-east since Reservation lands prohibit growth to the north-west and quarries limit expansion to the south-west and north-east.

Hagersville is a market town serving 150 square miles in Haldimand County and its marketing function will serve as a basis for its future growth. Indeed, Hagersville dominates the commercial life of the whole of Walpole Township. Every resident turns to Hagersville for some needs even though local centres may provide for day to day needs. The weekly market is a deciding factor here as well as a complete range of services offered by the shops.



After R. Vicens

LEGEND

Industrial



Commercial



Institutional



Park



Residential

1st Class



2nd "



3rd "



Fig. 20

Residents are employed by Canadian Gypsum and the Army Camp which are outside the planning area and also by the local quarries, three truck transport terminals, two seed plants, a glove factory, two railroad transport depots and two paving and road maintenance yards. A substantial part of the labour force works in other urban centres such as Caledonia and Hamilton. Hagersville thus serves as a dormitory function to some extent. The influence of Hamilton as an employment centre should also increase as that centre grows.

The municipality hopes to attract light industry to provide for future industrial growth to augment industry associated with transportation and distribution and the quarries. It is hoped that agricultural processing industries will be attracted as well as other types which planners feel will benefit by low land costs, excellent road and rail facilities with overnight connections to Toronto, Montreal and New York, fair assessment and proximity to Hamilton, Toronto and Lake Erie.

Urban growth will take place in the direction of increasing soil depth to the south for easier servicing. Much of the planning area is situated on the Onondaga Escarpment where soil depth averages five feet. Residential areas are arranged in neighbourhoods, each centred on an elementary school and park.

Of the 3,100 acres in the planning area which extends into both Oneida and Walpole Townships, eighty per cent or 2,500 acres are potential urban lands and the remainder are set aside for quarry expansion. Residential lands are set out to accommodate a population of six thousand but it is unlikely that

this figure will be reached in the near future.

Other urban development in Walpole involves the building of single homes or small groups of homes on agricultural land. Residents of these dwellings work in nearby centres. Little of this type of development has taken place, however.

Figure 21 gives the trade areas of the commercial centres in the township. The immediate trade area of Hagersville is outlined in red and extends over a good portion of the study area. This is a result of the well-developed commerce of the village which attracts customers from a wide area. The Hagersville market attracts farmers from many parts of the Niagara Peninsula who come to sell their produce and who also shop in Hagersville. The influence of Hagersville covers the whole of the study area, however, although immediate needs away from the primary trade area are served by local centres.

The trade area of Jarvis is second in size but this centre serves a local clientele due to the proximity and attractiveness of Hagersville which offers a greater variety of goods. Selkirk offers services similar to Jarvis and is fairly prosperous. The trade area is restricted by nearby Cheapside and the resort stores at Peacock Point and Woodlawn Park. Balmoral, Cheapside and Nanticoke have trade areas about equal in size although Nanticoke benefits from its relative distance from Hagersville, Jarvis and Selkirk. Erie is chiefly a tourist stop although it draws from a small area as an emergency supply depot.

In the north, Nober, Hartford and Little Buffalo have small trade areas while Springvale draws from a larger clientele.

This latter hamlet has a well-stocked and prosperous general store but suffers from its proximity to Hagersville.

Centres outside the study area also exert their influences in the township. In the north, the influence of Brantford is felt while Simcoe and, to the lesser extent, Port Dover attract Walpole residents in the east. Hamilton extends its influence over the whole of the study area.

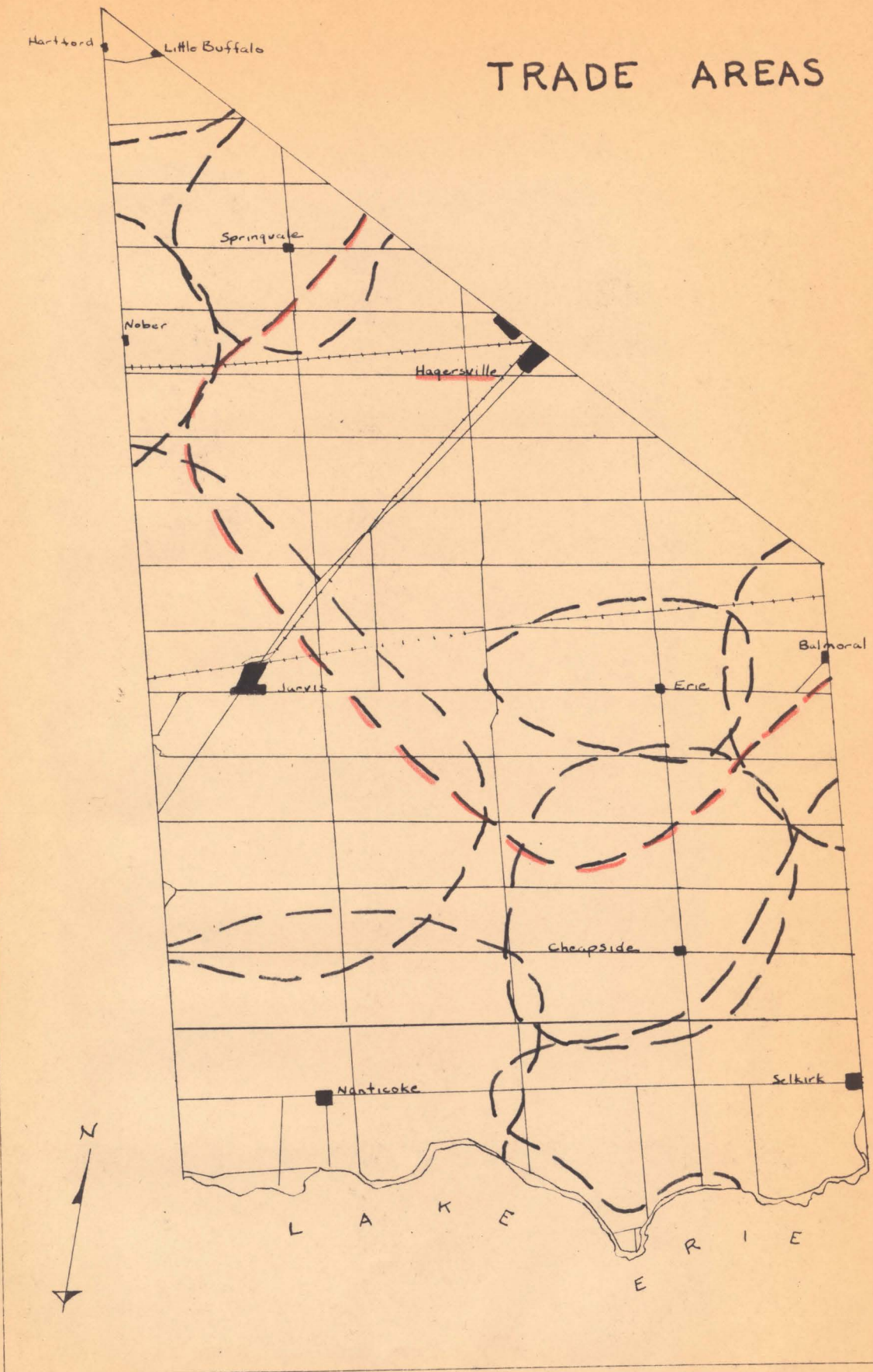


Fig. 21

WALPOLE TOWNSHIP

SCALE 1/2 inch to 1 mile

CHAPTER SIX

SUMMARY AND CONCLUSION

SUMMARY

Walpole Township lies on the north shore of Lake Erie on the border of the Niagara Peninsula. It has a well developed transport net with road and rail service to the large urban centres of Hamilton, Toronto and points in the U.S.A. Topography reflects the flat lying bedrock while the Onondaga Escarpment in the north of the township has been of importance. This inconspicuous ridge has formed the drainage divide between Grand River drainage and stream drainage direct to Lake Erie and has also resulted in shallow soils and quarrying development over its surface.

The area was glaciated in Pleistocene times and then inundated by glacial Lake Warren. Deposits which were laid down during this time resulted in the formation of the Haldimand Clay Plain which covers the township and forms the basis of the clay and clay loam soils which extend over the area. These soils are potentially fertile but require careful management with the addition of soil nutrients.

Climate is humid microthermal with cold winters and warm summers and adequate precipitation throughout the year. Vegetation is deciduous forest although only scattered farm woodlots remain.

The original inhabitants of the land were the Neutral Indians who were defeated by the Iroquois and dispersed after 1650. Further occupation of the land did not take place until the end of the eighteenth century. Settlement was sparse and restricted to the lake shore and was further impeded by the 1812 hostilities. With the construction of the Hamilton-Port Dover Plank Road in the 1840's the township was finally opened for more effective settlement. This continued at a rapid rate until a peak was reached with 5,854 residents in 1887.

Lumber and wheat were the chief concern of the settlers who enjoyed a fair degree of prosperity because of the boom in these commodities. With their decline in the 1880's population declined also and a period of general farming ensued. In recent times dairying has become the major agricultural activity.

The chief non-agricultural land use is the Hagersville Army Camp and Harewood Acres race track, both former airfields. Lake front cottage development is also important.

Hagersville, Jarvis and Selkirk are the chief urban centres with the first mentioned being the main service centre for the area.

CONCLUSIONS

The level terrain of the township has left the area free of any major physiographic obstacles which would bar agricultural development. Except for the Onondaga Escarpment over which thin soils impede cultivation and render the land better suited to pasture, the whole of the study area has been cultivated and used successfully for agriculture.

The proximity of large urban centres has provided markets for dairy products as well as for beef and poultry. A good deal of the land area is in pasture and fodder crops with hay being the chief crop; this is to provide for the large numbers of livestock.

The homogeneity of bedrock, physiography and soils has allowed for a homogeneous agricultural development. With the demand for dairy products, dairy farming has become dominant over the township.

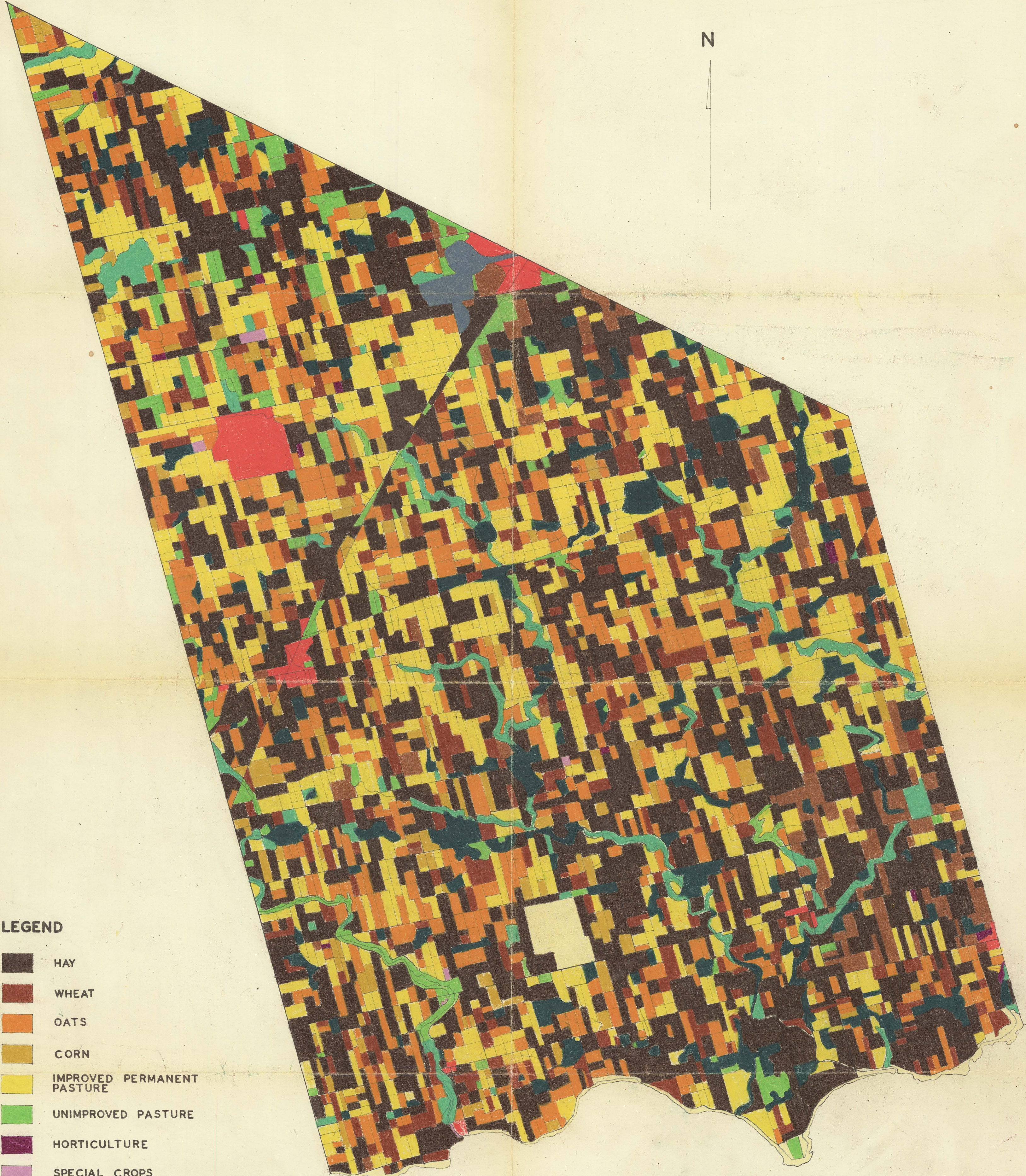
An increasing trend towards part-time farming threatens the agricultural economy as farms are often neglected. This development seems inevitable due to the convenience and attractiveness of jobs at the Army Camp, Hagersville, Caledonia, Hamilton and Brantford but many prosperous dairy and beef farms are run by full-time farmers. It is likely that the more prosperous farms will continue to be run by full-time farmers while the less prosperous holdings will be maintained on a part-time basis.

The trend towards more extensive land use and farm amalgamation will continue as more efficient methods enable fewer men to run larger holdings. More areas will be devoted to pasture and fodder crops as herds of beef and dairy cattle are increased.

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LEGEND

- HAY
- WHEAT
- OATS
- CORN
- IMPROVED PERMANENT PASTURE
- UNIMPROVED PASTURE
- HORTICULTURE
- SPECIAL CROPS
- SCRUB
- WOODLAND
- URBAN
- RECREATION
- QUARRIES
- MIXED GRAINS

**WALPOLE TOWNSHIP
LAND USE**