MEDONTE TOWNSHIP

A STUDY IN SETTLEMENT AND LAND UTILIZATION

Ву

JOHN A. DARKER

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PREFACE

In the following geographical study of Medonte Township an explanation of the pattern of land utilization in the township has been attempted. An attempt has also been made to explain how the physical environment has forced man to adopt his form of living and agricultural activities to conform to it.

Medonte Township is a good illustration of how physical environment can limit the activities of man and how often in his early attempts to alleviate these condition, he creates conditions that curtail economic development in later years.

CHAPTER ONE

LOCATION

Medonte Township is one of eight townships that comprise Simcoe County. Its central position places it approximately 80 miles north of Toronto and 12 miles north-west of Orillia. This location places Medonte Township on the extreme edge of the Canadian Shield in the area referred to by Putnam and Chapman as the Lake Simcoe Upland.

Medonte Township has a rectangular shape, being approximately nine miles in width and twelve miles in length, giving it an area of approximately 108 square miles. It is bounded on the north by Tay Township; on the east by Orillia Township; on the south by Oro Township; and on the west by the Township of Flos.

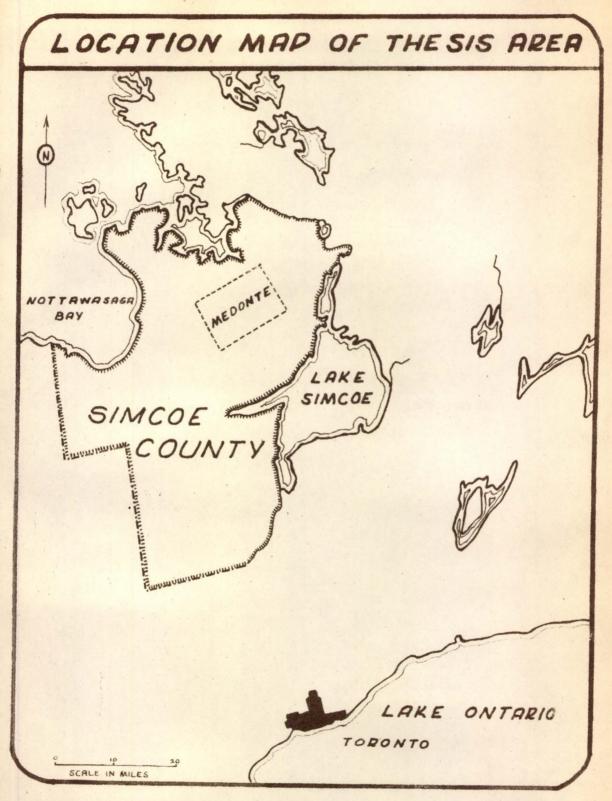


Figure 1

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4.

CHAPTER TWO

PHYSICAL GEOGRAPHY

Geology

(A) Pre Glacial

During Palaeozic times, Medonte Township was underlain
by Palaeozic limestones of the Trenton and Black River formations. The
Black River limestones occupy a narrow strip along the northern edge
of the main limestone belt, where they are in contact with the
Precambrian granitic rocks which occupy the northern part of the country.
The Black River limestones commonly form a low escarpment and thus are
in a favourable position for quarrying.

(B) Glacial

It is now generally accepted that during the Pleistocene Epoch, four great ice sheets advanced and retreated over Southern Ontario; the most recent being known as the Wisconsin. Glaciation greatly modified the ancient surface features of Medonte Township either through erosion or deposition and completely altered the original drainage pattern. In general, except for the north-east section of the township, the glacial drift is fairly deep.

In time, water from the melting ice formed a great Lake,
Lake Algonquin, in the basins of the upper Great Lakes. (see figure 4).

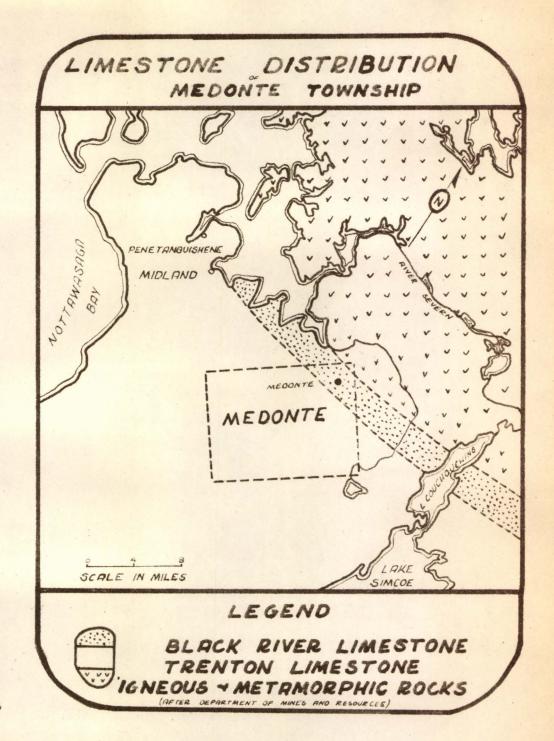




Figure 1 A Pre-cambrian outcrop in the extreme north-east corner of the township - the only evidence of the Canadian Shield in the study area.



Figure 2 Boulder strewn ground makes cultivation difficult and in most cases impossible. Pasture is the best land use.

With the continued retreat of the ice, and with the decrease in volume of water in the lakes due to drainage, through the Trent Valley and St. Clair River outlets, the vast Lake Algonquin became a much smaller body whose general shape was similar to the present configuration of the Great Lakes. During this decrease in size of Lake Algonquin, many beaches and terraces were abandoned. Several of them appear in Medonte Township.

Pleistocene Deposits

The surficial deposits that cover Medonte Township differ from the bedrock that underlies them in that they are unconsolidated, are glacial, glacial-fluvial, or glacial-lacustrane in origin, and are vastly younger. They belong to the latest of the geological periods, the Quaternary, which is subdivided into Pleistocene and Recent Epochs. The glaciers of Pleistocene time removed the surface covering that existed prior to their advance, so that the soils of the area have almost all formed on these young unconsolidated deposits, except for much recent deposits which are insignificant.

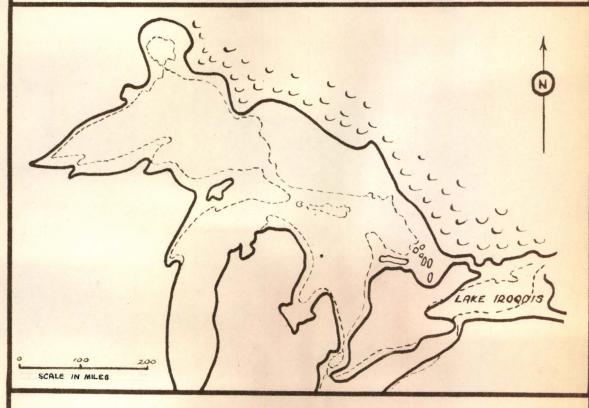
The Pleistocene deposits are interesting and complex.

Almost all glacial types are present in the township, representing mainly the last stages of Wisconsin glaciation in minor readvances and temporary halts. These deposits occupy the greater part of the area.

They can be divided into three groups:

- (1) deposits of glacial origin, composed mainly of till in the form of ground moraine, drumlins, and ice-block ridges
- (2) glacial-fluvial deposits of stratified sands and gravels in the

GLACIAL LAKE ALGONQUIN AT THE TIME OF THE TRENT VALLEY SYSTEM



LEGEND

PRESENT OUTLINE OF THE GREAT LAKES SYSTEM

form of kames (ice contact); and

(3) glacio-lacustrine deposits of stratified sand, silt and clay that were laid down on the bottom and along the shores of the glacial lakes.

Deposits of Glacial Origin

Ground Moraine

Under "ground moraine" is classified drift, that is not definitely terminal moraine nor drumlins, and has not been reworked by water. Large areas of the township are mapped as ground moraine being associated with the underlating and rolling areas of the township.

Large igneous boulders once littered the surface of the ground moraine, but at present, most of these boulders have been removed from the surface and used to make stone fences. The ground as a rule consists of a loose brown sandy till.

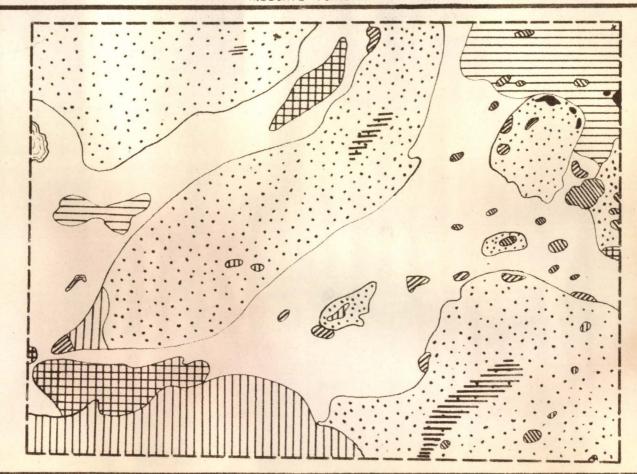
Drumlins are not widely scattered throughout the township and are only found in a small area between Fox Mead and Fair Valley.

Ice Block Ridges

Closely associated with the ground moraine and indicative of stagnant ice-fields are the ice-block ridges. As a topographical feature, they are not conspicuous and may escape notice on the ground. The ridges are long and sinuous and are found on upland masses of the township. They differ from annual terminal moraines in that the trend of the long ridges is in the direction of the former ice movement and, therefore, at right angles to the trend of terminal moraine ridges.

PLEISTOCENE AND RECENT DEPOSITS AND BEDROCK OUTCROPS

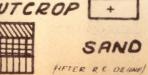
MEDONTE TOWNSHIP



LEGEND

ICE BLOCK RIDGES PRECAMBRIAN OUTCROP DRUMLIN SWAMP

KAME WITT





LIMESTONE OUTCROP BEACH SAND AND GRAVEL GROUND MORAINE

SAND





Deposits of Glacial-Fluviab Origin

Kame Moraine

The Kame moraine deposits in the township are called the Bass Lake Kame moraine and are found in the south-west corner of the thesis area. The material of the Kame moraine is mainly sand and gravel, with only minor amounts of clay or boulders.

The moraine marks a fairly long halt during the retreat of the glacier giving the area rolling sand hills. Rolling topography and uneven skyline are characteristic of the Bass Lake Moraine.

Deposits of Glacio-Lacustrine Origin

Beach Sands and Gravels

The beach deposits of sand and gravel are associated with the abandoned shorelines of Lake Algonquin. There are thirteen small patches of beach deposits on the township, the most noticeable deposits are north-east of Creighton. The material of these beach sands and gravels is well sorted and stratified; pebbles are well rounded and are lacking on the wave-cut terraces as the thin covering was removed to deeper water by Lake Algonquin at its lower stages. This left the surface covered with boulders and produced what is known as boulder pavement which is in evidence in a few plates in the township.

Lacustrine Sands and Clays

These materials carried in by streams or eroded from the shore bluffs by wave action piled up along the beaches of Lake Algonquin. The sands are found along the river valley floors. Generally the sands are horizontally bedded, but vary both horizontally and vertically,



Figure 3 Boulder Pavement, which is found in a few localities in the township.



Figure 4 An exposed area of glacial fluvio deposits of sand and gravel.

from coarse to very fine. In some places cross bedding is evident. The weathered sands are brown and weathering is deep, particularly where the sands are well drained.

The only large clay deposit in the township is found in the north-east corner of the study area.

The only evidence of varved clays is a small exposure on the banks of the Coldwater River, seven miles west of Eass Lake.

The Lacustine sand and clay deposits are by no means uniform as one often grades into another.

Recent Deposits

The only Recent deposit of consequence in the area, consists mainly of a blackish muck, which together with swampy vegetation occupies depressions in the lowland areas. A swamp is found on the northern section of the Sturgeon River in the township and the southern sections of the Coldwater River. They are due mainly to seepage from flanking higher areas and to the high water table.

Physiography

Medonte Township is included in what is referred to by

R. E. Deane as the Lake Simcoe Basin, to be more precise, the Lake Simcoe

Till Plains.

Lake Simcoe Till Plains

The Lake Simcoe till plains are situated in the hilly tract between Georgian Bay and Lake Simcoe and are made up of several

islands and headlands of ancient Lake Algonquin. The plain is mainly an undulating ground moraine, but contains the Bass Lake kame moraine, a few dumlins, and ice contact deposits.

Relief

A plain occupies nearly all of the township's western side. Proceeding from this plain, three sharply cut valleys (whose bottoms have a level similar to that of the plain) traverse diagonally from the southwest to northeast, the remaining parts of the township, dividing its surface into four well-defined portions. These may be referred to as the township's four ridges, though each might be more fittingly called a group of ridges than a single one. Through each of the three valleys, flows a river, thus more effectually dividing the township into four natural divisions. The names of the rivers are, the Hogg, Sturgeon and Coldwater. Besides these, the North River crosses the southeasterly corner of the Township, but has only a slight effect on the physical features. The four ridges thus formed may be named, (1) The Waverley Ridge, west of the Hogg River, (2) The Vasey Ridge between the Hogg River and the Sturgeon River (3) The Coldwater Ridge between the Sturgeon River and the Coldwater River and (4) the Coulson Ridge, lying along the whole southerly side of the township, and which really consists of the ends of various high ridges in the northern part of the adjoining Township of Oro.



Figure 5 "Coldwater flats", which once formed part of the floor of post-glacial Lake Algonquin.



Figure 6 The ridge and valley topography of Medonte Township is exemplified by the Coldwater River Valley.

Post-glacial boulder beach in foreground.

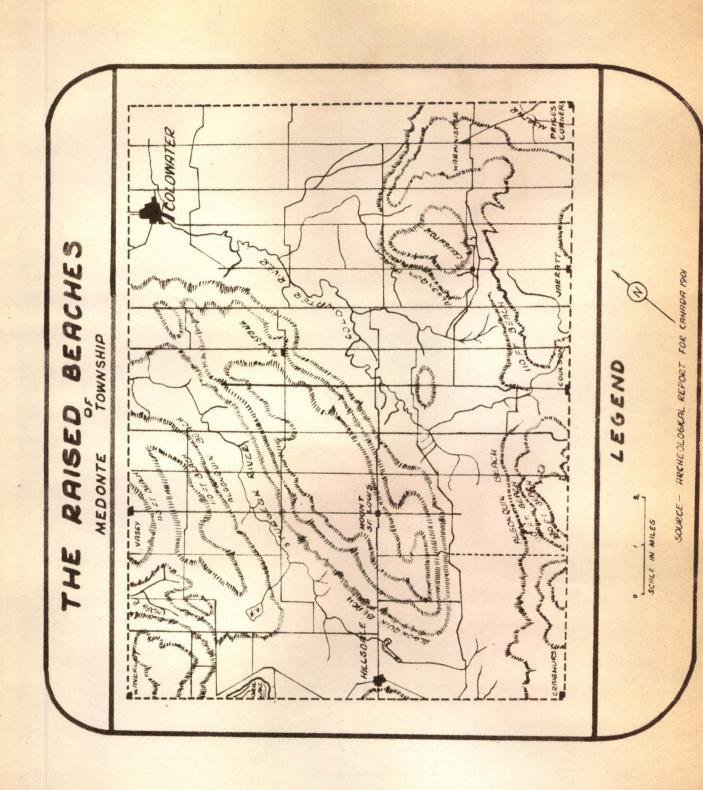
rise to a considerable height in some places. At one place on part of the old Glouchester Road near the Township Hall, the top of the ridge is about 530 feet higher than the Coldwater River.

The Raised Beaches

Along the flanks of the ridges, there are many raised lake beaches. Everywhere one can see proof that what is now land, except for the upper ridges, has been lake bottom, and that this change from water to land has taken place in very recent geological time.

Along these old beaches, there are in many places, swampy patches, often quite narrow, but made very wet by springs issuing forth at these lines. It seems that when the old lake surface stood for a time at each of these marks, underground courses of the water were established, so as to let the drainage out of the ground at the level of the existing shore line. The process of forming other similar underground courses was repeated as often as the water surface fell and made a new beach. Now, after thousands of years (the lake level having sunk some hundreds of feet lower), these old underground water courses continue to be channels in which the ground water reaches the surface.

In this township, the strong beach known as the "Algonquin" is about 250 feet above the present level of Georgian Bay. The extinct lake which formed it, as well as its higher-level predecessors, filled each of the channels between the four ridges, the latter having been islands in these old lakes. With the fall of the surface of Lake Algonquin to a lower level, the channels between the "islands"



became dry and it is only in the Coldwater Valley that the beaches of the succeeding Great Nipissing series make their appearance. These do not run much farther up the valley than Hobart.

In a limited area like a township, where the effect of differential uplift on the beaches is insignificant they become in short, natural altitude lines, the marks of which are permanently on the ground itself.

Accordingly, for the purpose of showing the raised beaches a map accompanies this chapter. The Algonquin beach, is shown as the most prominent beach in the township. In the order of ascent, the next strong beach (probably a tidal one), is about 110 feet higher, and likewise the strong beach about 230 feet above the "Algonquin". The latter occurs only on the Mount St. Louis Ridge, and along the southwest part of the township.

Drainage

Rivers in the township are small and unimportant commercially or economically. Three rivers flow into Georgian Bay from Medonte Township; the Coldwater River, the Sturgeon River, and the Hogg River, while the North River drains the till plains in the south east corner of the study area. These rivers occupy the flat-floored glacial valleys which separate the upland masses of the township. These valleys are floored with thick deposits of lacustrine material into which the rivers are only slightly entrenched. The gradient of the rivers is fairly uniform at about eight feet a mile. They appear to be fed largely by springs along the valley sides, the uplands being practically devoid of streams because of the vertical drainage in the sandy till.

The rivers are still in a youthful stage, as evidenced by rapids and falls between slow sluggish stretches.

The land in the Coldwater Valley is quite low for a long way up, only a few feet higher than the present bay level. It is therefore, not easy to escape from the conclusion that 300 years ago, when the level of Georgian Bay was twelve feet higher, the head of Coldwater Bay was about three miles up the valley. (ie: about two miles within Medonte).

All these rivers with the exception of the North, follow preglacial drainage systems of which the deep glacial valleys are the present expression.

Climate

Medonte Township falls into the climatic division known as the Simcoe and Kawartha Lakes Region. This area lies east of the Niagara escarpment between the interlobate moraine and the boundry of the Pre-Cambrian Shield. The bulk of the area has an elevation of about 800 feet above sea level, but reaches 1200 feet in some places. The mean annual temperature is 42° to 43°, mean winter temperatures range from 17° to 19°, spring 39° to 41°, summer 64° to 65°, fall 46° to 47°. The lowest temperature ever recorded in this region is 42°, the highest is 104°, giving an extreme range of 146°.

The frost free period ranges from 120 to 140 days on the average, while the growing season is from 188 to 195 days. The precipitation of this region is somewhat lighter than that of those around it, chiefly because a large part of the area lies in the

on the "rain shadow" created by the western uplands. Mean annual precipitation is from 30" to 33.9". The growing season receives slightly more than half the total with from 7.0 to 9.0 inches falling in the months of June, July and August. The frequency of draughts, ranges from 15 to 25 which is similar to that of the adjoining areas to the north and east. The average date of the beginning of the growing season is April 19, the average end of the growing season being October 25. Mean annual snowfall is between 100 and 120 inches.

Vegetation

Medonte Township is included as a part of the Huron-Ontario section of the Great Lakes - St. Lawrence Forest Region.

The distribution of the various types of trees show a distinct relationship to the topography. The river valleys have balsam, black spruce, white spruce and cedar, while the higher lands have hardwoods with hard maple, birch and poplar predominating.

The original forest cover has been reduced since the first white man settled in the township in 1818, to make way for agricultural developments, but not to the same extent that the forests in the more productive townships of Tiny and Tay have suffered.

In 1861, there were 16,368 acres of Wood Lands in the township. The 1941 census figures show 7,248 acres. Besides the natural forest cover, there has been considerable reforestration in the Orr Lake District.

In the thesis area, most of the woodland occurs on the ridges and the poorly drained areas which are not suitable for cultivation. The main stands are found in poorly drained south-west corner



Figure 7 The former "Pine Plains" of Medonte
Township, are now marked only by
rotting stumps, a few relic trees and
a sparte grass.

of the township. A glance at the Land Use map accompanying this report will show the distribution of forest cover in the township.

Soils

The soil types of Medonte Township have been mapped by the Soils Department of the Ontario Agricultural College and their findings form the basis for the soil types discussed in this thesis.

Figure 7 is a copy of their soil map.

Of the twenty-one soil types present in the township, seven are classified as sandy loams, three as sands, two as loams, two as gravels, two as clay loams, one sandy loam (bouldery phase), one loam (bouldery phase) and azonal soils, Muck and Bottom Land. Where-ever possible the soils are discussed in their catenas.

The factor most important in the real differentiation of the soils in Medonte Township has been the Pleistocene Geology, vegetation and climate playing only secondary roles. Weathering and relief, including drainage were other significant factors in their formation. The soils in general are the Grey Brown Podsolic type. As a result of glaciation, the soils are young, variable and on the whole, very fertile.

Vasey Series

Vasey Sandy Loam

Vasey Sandy Loam - bouldery phase

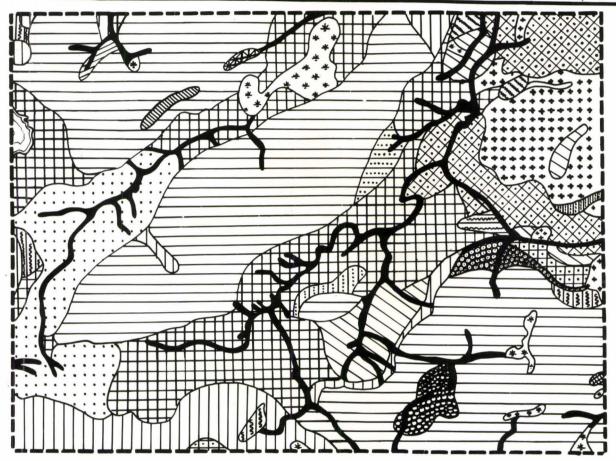
The Vasey soils are developed on loamy materials with a fairly large proportion of igneous materials intermixed. They also have a moderate lime content. The Vasey exhibits profile characteristics

SOIL MAP

MEDONTE

TOWNSHIP

(AFTER O.A.C. SOIL MAP)



GUERIN SANDY LOAM
VASEY SANDY LOAM
ORO SANDY LOAM
TECUMSETH SANDY LOAM
TIOGA SANDY LOAM
CARLEY SANDY LOAM
LYONS SANDY LOAM



LEGEND
ORO SAND
TIOGA SAND
ROMA SAND
ORO GRAVEL
TIOGA GRAVEL
MUCK

BOTTOM LAND



LOVERING CLAY LOAM SIMCOE CLAY LOAM DUMMER LOAM LYON'S LOAM BOULDERY PHASE VASEY SANDY LOAM GUERIN LOAM



SCALE I MILE : I INCH

somewhat transitional between the brown podzolic and the grey brown podzolic. In the Barrie area of Simcoe County, the Grey Brown Podzolic characteristics are fairly well developed, but farther north in Medonte Township, the B. horizon becomes less well defined and occasionally occurs as a degraded or incipient horizon. Under the latter circumstances, the profile characteristics are more closely related to the Brown Podzolic Great Soil Group.

Profile (Virgin)

- Ao partially decomposed leaf matter, twigs, etc.
- Al 3" dark greyish brown sandy loam, fine granular structure; very friable consistency; stoney;
 P.H. 6.0
- A21 15 18" light yellow brown sandy loam; weak platy structure; very friable consistency; stoney; P.H. 5.8
- A22 3 5" light yellowish brown sandy loam; occasionally contains darker brown aggregates similar to B. horizon; stoney; P.H. 5.8
- B2 3 5" dark brown loam; medium nuciform structure; friable consistency; stoney; P.H. 6.2
- C grey calcareous loamy till, dominantly of limestone origin, with a fair proportion of igneous material.

These soil types are associated with the ridges and higher areas of the township. Both the internal and external drainage is good. Natural vegetation includes a mixture of deciduous and coniferous tree growth.

The Vasey is used largely for general farming purposes. Liming is necessary for the successful production of some crops and usually the phosphate and potash content is low. Due to the type of topography sheet erosion is a hazard. The soil is well suited to the production of small grains, hay and pasture.

Tioga Series

Tioga Gravel

Tioga Sand

Tioga Sandy Loam

The Tioga soils are developed on sandy outwash materials with a low lime content. They occur as well developed podzols in well drained positions. In the township they are for the most part found on the valley floors.

Profile (Virgin)

- Al two inches, grey sand, single grain structure stonefree. P.H. 6.0
- A2P two inches, light grey sand, single grain structure, stonefree. P.H. 5.8
- Bp seven inches, brown sand, single grain structure, slightly compacted, stonefree. P.H. 6.0
- A2GR.P twenty-four inches yellow brown sand, color becoming less brown with increase in depth; single grain structure, stonefree. P.H. 6.0
- C grey sand, single grain structure, stonefree with occasional faint mottle. P.H. 6.8 - 7.0

Internal drainage is good to excessive. Because of the topographic characteristics and the porous nature of the materials, there is little external drainage. The dominant tree growth is the white pine and poplar. Because of the low fertility and susceptibility to erosion, large acreages have been reforested. Fairly extensive areas are used also for pasture purposes.

Dummer Loam

The Dummer soils have developed on ground and weak terminal moraines containing a large proportion of materials of calcitic limestone origin. The parent material contains large quantities of coarse fragments and is very porous and open. Further examination is necessary before the Dummer is definitely correlated with any great soil group. From the information available at the present time however, it appears to resemble closely, the Brown Forest Soils.

Profile (Cultivated)

- Al 4" 6" brown sandy loam, granular structure and stoney. P.H. 7.2
- A2 0" 8" brown and yellow sandy loam, stoney. P.H. 7.2
- B 2" 5" dark brown loam; stoney structure, poorly defined; P.H. 7.2
- C grey loamy till, very stoney, calcareous.

Texture ranges from a sandy loam to a loam. The depth of the weathered portion of the profile is variable. This soil is associated with gently rolling topography and is found on the ridges and depressions in the north-east section of the township. Both the

external and internal drainage are good to excessive, on the ridges. In some cases the ridges have suffered from water erosion. In the troughs between the ridges, the drainage is often poor. In the Dummer Loam forests and permanent pastures occupy a large proportion of the land. Where it is cultivated, fine crops of spring grain, alfalfa and other types of hay are grown. Cultivation is impeded but not prevented by the numerous stones.

Oro Series

Oro Sand

Oro Gravel

Oro Sandy Loam

The Orr Series are developed on poorly sorted outwash materials. For the most part, the materials are sandy and occur on association with pockets of coarse till and gravel. The largest section of the Oro Series are found on the Kame ridges in the south-east section of the township. The profile exhibits the characteristics of the Brown Podsolic Great Soil Group.

Profile (Virgin)

- Ao Partially decomposed needles, leaves, twigs, etc.
- Al 1-1/2" 3" dark brown sand and sandy loam, single grain structure; usually stone free. P.H. 5.6
- A2 Often the A2 horizon is indefinite and poorly defined, when present it usually ranges in depth from 1/2" to 1-1/2" in depth. Light grey in color it has a single grain structure. It is usually stone free.



Figure 8 Oro Sandy Loam - notice the well developed B. horizon resting on 7 the C. Horizon of poorly sorted sand and gravel.



Figure 9 Beach Deposits of Sand and Gravel associated with the abandoned shorelines of Lake Algonquin.

- B 24" brown sand or sandy loam, color contains more of a reddish cast immediately below the A. horizon and fades into a yellow brown in the lower depths.

 A single grain structure is dominant. P.H. 5.2 5.4
- C the C. horizon usually consists of grey poorly sorted sand, gravel or coarse till, a small amount of carbonates occur in the C. horizon.

The most commonly occurring depth of the weathered profile is 30" - 36" but occasionally the B. horizon may reach depths as great as 4 - 4-1/2 feet. The internal drainage is excessive or good the former usually occurring most frequently. Due to the type of topography, the external drainage is good but there is little runoff because of the porous and open nature of the materials. The natural vegetation is dominantly coniferous trees with a minor proportion of beech and maple. Where cleared, the Oro is used for general farming and pasture land. The greatest limitations to satisfactory crop yields are low fertility and susceptibility to erosion particularly wind erosion. A fair proportion is under tree cover and the steep slopes and severely eroded areas would serve a useful purpose if planted to trees.

Lovering Clay Loam

This soil is found in the north eastern section of the township. The topography in this soil type ranges from level to very gently sloping, and both the internal and external drainage are very slow. In some areas, hard granites are scattered over the surface and the limestone bedrock in some localities is only a few feet from the surface. The Organic matter is usually quite low.

Profile

- Ao 0" 5", brown clay loam, crumb structure, very friable. P.H. 5.0
- A2 5" 6" light grey, clay loam, very friable consistency. P.H. 4.8
- B2 6" 13" yellowed brown clay, mottled, medium to large nuciform structure, friable. P.H. 6.0
- C brownish yellow clay P.H. 6.2

Lovering Clay Loam is generally used for pasture land and growing of hay and grain for beef cattle raising. Most of the area requires drainage, either by open ditches or tile drains.

Tecumseth Sandy Loam

This soil is an imperfectly drained outwash soil and is located in areas with very smooth or level topography. The profile developed is fairly typical for soil materials with a moderate high water-table. Occasionally the sandy materials are underlain by heavy clay and silt materials which increases the problem of artificial drainage. Tamarack and white cedar trees are commonly found on the Tecumseth sandy loam.

Lyons Series

Lyons Loam

Lyons Sandy Loam

The Lyons Series is the poorly drained associate of the limestone till soils. The type represents poorer drainage conditions than the imperfectly drained querin. The stoney and bouldery surface

and poor drainage restricts the use of Lyons loam as a type for general farming. As a rule, Lyons loam is best utilized as pasture land.

Querin Series

Querin Sandy Loam

Querin Loam - Bouldery Phase

Members of the Querin Series are formed on high limematerials, the series represents the imperfectly drained associate of the limestone till soils.

The profile horizons are less distinct than in the well drained soils, due in large part to the imperfect drainage.

Ac - 5.7 inches of dark loam or sandy loam, somewhat above average in organic matter, relatively stoney.
P.H. 7.4

A2 - 5" - 10" greyish brown mottled loam. P.H. 7.4

B - Relatively indistinct and not always present P.H. 7.8

C - Greyish calcareous stoney till, moderately compact
P.H. 8.0

The Querin series occupies the small depressions in the limestone till plains. The topography is nearly level to undulating. The smooth relief depressional location, compact parent material and the difficulty of obtaining adequate outlets are the chief causes of the imperfect drainage conditions. Under present farming conditions, the Querin series is used mainly as a semi-permanent pasture to provide grass during the summer months.

Simcoe Clay Loam

This soil is developed on highly calcareous lacustrine deposits. The textural and color horizons are very weakly developed and both the external and internal drainage are poor. Simcoe Clay Loam is used largely for general farming purposes.

Roma Sand

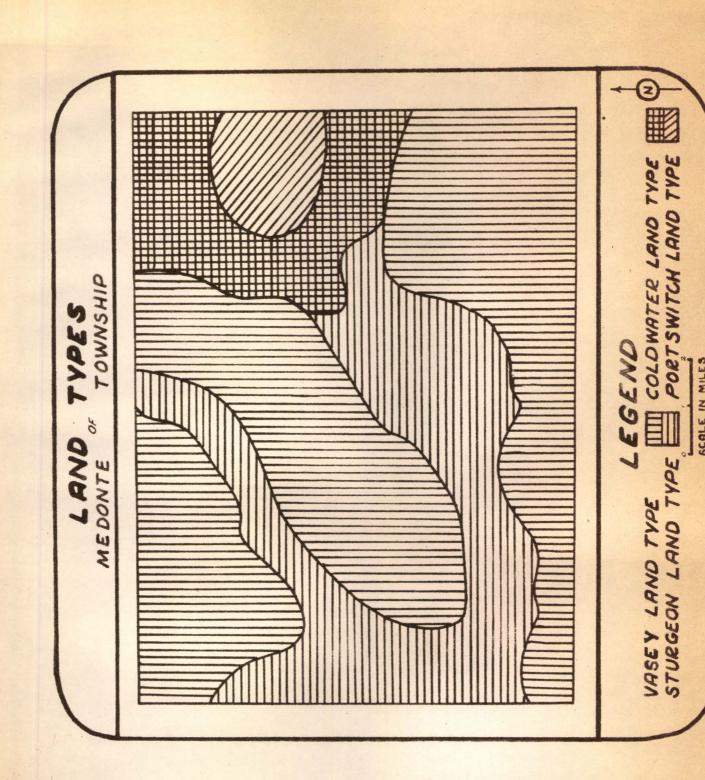
This soil is associated with the level valley floor of the south western section of the township. The lime content of the soil is low and the soil is generally stonefree. Both the external and internal drainage is fair.

Muck

Muck soils generally occur in depressions or along the slow streams flowing in a northerly direction. The A horizon is a blackish layer ranging in depth from one foot to several feet and is composed of organic material fairly well decomposed. It is frequently underlain by clay, till or greyish marl. The water table is high.

Bottomland

Bottom land is considered as a complex soil condition adjoining stream coarses. These areas are subject to flooding and surfac deposition of materials carried by the streams. Under these conditions, a variety of soil materials is found. The underlying material at greater depths is usually a compact heavy till.



Land Types

Certain areas of Medonte Township may be differentiated from each other because of certain physical factors, such as soils, drainage, and physiography. These areas are referred to by geographers as land types. In Medonte Township, there are four such distinct land types.

Vasey Land Type

This is the most extensive land type. It is a till plain where a considerable amount of ground moraine was deposited during glacial times. This land type occupies the higher ridges of the township, the elevation ranging from 800 - 1150 feet. A few drumlins and ice-block ridges are in evidence. The dominant soil in this type is Vasey Sandy Loam, which is well drained externally and internally. This land type is well suited to the production of small grain although subject to sheet erosion.

Sturgeon Land Type

This is the second largest land type in the township and occupies the lowland areas between the ridges, except in the northeast section of the township. It is a sand plain with elevations ranging from 625 feet to 800 feet. Large sections are not well drained and a few swampy depressions are in evidence. The dominant soils are Roma Sand and Tioga Sand. As this type has poor drainage and is subject to erasion, and because of the fact that the soils are of low fertility, the area is best utilized under forest cover.

Coldwater Land Type

This land type occupies the north-east section of the township. The topography is level to very gently sloping, the elevation ranging from 600 to 675 feet. The chief soil in this land type is Lovering clay loam. Both the internal and external drainage of the soil is slow. Limestone bedrock in a few localities is only a few feet from the surface and in some cases hard granites are scattered over the surface.

Portswitch Land Type

The smallest land type in the area, it is one of shallow overburden. The elevations range from 650 to 800 feet. The dominant soil in this type is Dummer loam, a stony soil containing a large proportion of materials of calcitic limestone origin. Cattle grazing is the main activity on this land type.

CHAPTER THREE

HUMAN GEOGRAPHY

THE GEOGRAPHY OF SETTLEMENT AND AGRICULTURAL DEVELOPMENT

The Geography of Settlement and Agricultural Development of Medonte Township can be broken down into four distinct periods; prior to 1815, 1815-1847, 1848-1890 and 1891 to the present.

Medonte Township Before 1815

The history of Medonte Township before 1815 is a history of Indian settlement and early exploration by explorers, fur traders and missionaries.

At the time of the contact between the white man and the Indian, two main linquistic groups occupied Southern Ontario.

They were the Algonquin and the Iroquoisan. The principal Iroquoisan bands were the Hurons in the area roughly enclosed by Lake Simcoe,

Lake Couchiching, the Severn River and Georgian Bay. This area includes present day Medonte Township. Following the white contact European demand for furs, particularly beaver, and the native demand for white goods produced trading relations, and trade routes expanded enormously in the area.

In 1626, the Jesuits came on the scene and achieved notable achievements in their missionary work amongst the Indians. One of their missions St. Joseph II at Teanaostaiae was centered on a strategic site overlooking the Coldwater River in the township and

OF THE COUNTY OF SIMCOE

SHOWING THE MAIN COLONIZATION ROADS
1849-50

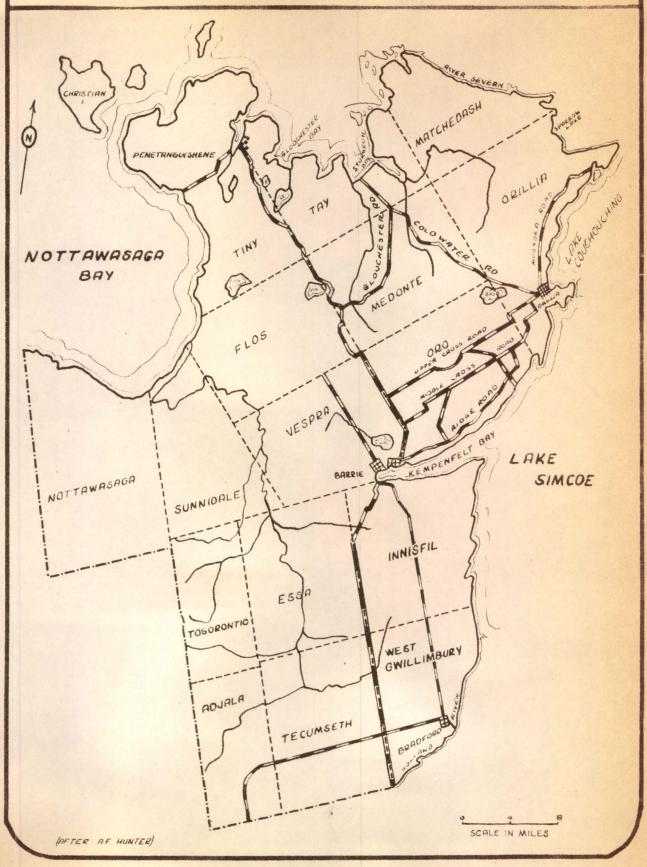


Figure 9

eventually became the central mission for the local Indian tribe.

Because of the hostility of the Iroquois, Huron and French fell before their vicious attacks and in 1648 and 1649 the first white settlements were destroyed. In the next one hundred years, nothing is known about the area.

After the fall of New France, the British government in the proclamation of 1763 recognized the title of the Indians to the lands which they occupied and opened negotiations with them to purchase land along the present day western boundary of Medonte Township.

1815 - 1847

After 1815 primarily as a result of the recent war and for the purpose of promoting defence inland communications were improved in these regions. The construction of roads leading through the wilderness was a matter of common concern to the settlers, and they naturally looked to the government to aid them in these necessary public works. The following is an account of the history and growth of a few of the colonization roads through Simcoe County in as much as they affected Medonte Township.

The Penetanguishene Road

Governor Simcoe who visited in the vicinty in 1793 was greatly impressed with Penetanguishene Bay which lay north-west of the township on Georgian Bay, and often described it as a natural harbour. In 1814-15, blockhouses and other fortifications were built on the Bay. Because of the difficulty of access overland from the south, to the fortifications, particularly in the winter, the Penetanguishene road

through the forest, on land previously obtained from the Indians.

From descriptions of the road at the time the inference is unavoidable that it was then in a primitive condition and it appears to have remained for a few years in the same condition. In 1819, the account of settlers using it is recorded although it was still in poor shape. This great colonization road was finally completed in the fall of 1825. Thus was opened one of the earliest and most important colonization roads in Upper Canada. In 1846, improvements on the road were made. The old road was straightened and widened and was turnpiked for a few miles in 1847. This gave employment to a considerable number of men in Medonte Township as the work was all done by hand, there being no improved road machinery in those days.

The Glouchester Road

This ran from the Penetanguishene Road (at Hillsdale) to Glouchester Bay, the former name of Matchedash Bay, which is situated just north of Coldwater. It was opened as a Government Road in the winter of 1832-3, and became the leading highway through Medonte in the early years of its settlement. It is now closed except for about two miles between Mount St. Louis and the Township Hall. Along this part of it, many signs of Indians, both early and modern, were to be found until recent times. The road was constructed near the southern side of the Coldwater Ridge, because the land was found higher and drier in most places.

When the inhabitants of Medonte petitioned in 1845 to have this road improved, they complained loudly of the original

Indian tract that had been the basis of the road. It was, they said, "an illegal serpentine and indirect route, and abounded in hills, swamps and rocks, tottering bridges and rotten crossways". As a result of the petition, a line was found generally level and on dry ground where a road might be made at light expense; and thereupon the new road was made.

The Coldwater Road

This was originally a long Indian Portage from the narrows, or rather from Lake Couchiching at the point where Orillia town now stands, to Coldwater on Matchedash Bay, its length being fourteen miles. In 1830, when Sir John Colborne, the governor of Upper Canada, collected the Ojibway tribes in the district into a reserve, extending along the portage, the original trail was converted into a road for vehicles, and it has remained an important highway to this day.

About 1843, the Coldwater Portage was extended as a wagon road from Coldwater to Sturgeon Bay. This portion was known as the Sturgeon Bay Road.

In Medonte Township, the pioneers settled in groups or clusters according to the lands from which they came. A study of settlement reveals groups of French, English, Irish, Scotch and German settlers giving the township distinctive features which are still to be seen in their descendents. On the whole, however, the predominant groups of settlers that came to Medonte Township were from Ireland or the Scottish Highlands. These people had a hardiness and endurance which stood them in good stead during the time when they were overcoming the vast wilderness.

Settlement began on an economic basis in 1818 when free grants were given to English, Irish and Scotch settlers. Large grants of land to colonization companies and other settlement organizations was not a feature of the settlement of Medonte Township.

Coldwater began its life as a stop-over on the portage through the Huron country. In 1830 Captain Thomas Anderson, and Indian agent, was granted 680 acres along the Coldwater River for services rendered to the Crown. This land was situated just south of where the village now stands on the flat lands along the west side of the river. From the nature of the soil, he called it "Clayfields". The present name was taken from the Indian name of the river which flows through the village "gis-si-man-si-bing" meaning "Cold River" or "Coldwater" and so overshadowed the earlier name. In 1830, the settlement was intended to be only an Indian agency, but in less than ten years the white man had taken over, and a little later the Lovering, the Sheppards, the Grays and the Epletts came to stay. To this day, many of the descendents of these early pioneers are to be found in and around the village of Coldwater.

On his newly acquired property, Captain Anderson built a log cabin and then proceeded to have erected other houses along the river for the Indians.

A mill was built in 1834, where the present day highway crosses the river. About the same time, the mill was constructed, a road was cut through the bush from Coldwater to Orillia, and the first Post Office in the township was opened in Coldwater.

About this time at the junction of Willow Creek and the Penetanguishene Road in the south-west corner of the township, a James

Morrison erected a mill. The stream, however was too small to supply sufficient water power and the mill was not a success. Morris then erected a tavern on the road and in the year 1847 developed the first line of stages from Lake Simcoe to Georgian Bay. From this small settlement, the village of Craighurst arose.

In 1847, there were only three schools in the township of Flos and Medonte combined, and these were kept open for only part of the year and only then with great difficulty, since most of the settlers were too poor to afford education for their children.

As Medonte Township in its early days was a very heavily wooded area, it is only natural that lumbering was its first main activity. Saw mills were to be found throughout the township. After the great timber reserves were used up, much of the land suitable for agriculture was planted in wheat, for there was a great demand for wheat in Europe at the time. Following the decline in the demand for the wheat, the cultivation of hay and oats became important.

1848- 1890

After 1848 as a result of upheavals in Europe, the immigration of Europeans began to assume notable proportions. In the British Isles, the Irish famine and the Repeal of the Corn Laws induced a fresh wave of immigration to Canada. This period marked the beginning of a new era in land settlement in the area. The opening of the railway instituted a new period in Historical Geography of the area, no longer were mill sites, river banks and lake shores the determining factors in the location of the settler.

In 1855, a sailing vessel called "The Reindeer" was



Figure 10 Boulder walls in Medonte Township give evidence of the glacial origin of the Soils.



Figure 11 Stump fences in Medonte Township give evidence of former great stands of timber.

built and launched at Coldwater by a Toronto firm. It was, according to various reports about 138 feet long and 13 feet, 9 inches deep upon construction. "The Reindeer" was loaded with white oak and walnut logs, floated down the river to the bay, sent through Georgian Bay, around through the Welland Canal, down the St. Lawrence and then across the Atlantic to Liverpool. Here it was classified Al at Lloyds and sold in 1856, thus ending inland Coldwater's seaport days.

In 1869, the Great North Western Telegraph installed its service in the community and in the same year, the first school was built in the village. It was a frame structure and was the only educational centre for a number of years.

The first shingle mill was erected in 1873 south of the village. A year and a half later, two more mills were built north of the village shipping their output by water on scows. These were drawn by tub down the Coldwater River, through the Channel to Georgian Bay and then on to some lake port where the stock was sold. One must remember that this was made possible by the greater depth of the Coldwater River at the time.

In 1875 or 1876, the Old Midland Railway was built from

Port Hope through to Midland and provided a big boom to the village

and country around. In the 1880's Coldwater had a fair sized steamer

which carried passengers and cargo to Georgian Bay ports. This provided

employment and business opportunities for Medonte citizens for more

than twenty-five years.

A prominent feature of the days of stage travel was the multitude of taverns along the leading roads. In 1880, Hillsdale and Coldwater each had three. One of the reasons so many hotels existed

46.

is that before the railway existed and while it was still in its infancy many travellers went by stage and consequently, distances covered during the days travel was considerably shorter than today. Hence, the need for hotels in most villages in the area.

By the early 1880's the carriage works were two lively interests operating at Coldwater. The products of these two carriage works are still in use in the vicinity, and carriages built there, found markets as far west as Vancouver.

The census reports give a good picture of population growth for this period. The township grew slowly at first, as settlement was confined to those parts that had power streams, roads, and good timber stands, Medonte Township climbed from a population of 1,116 in 1851 to a peak of 4,514 inhabitants in 1891.

1891 - 1951

After 1891 a decline in the population set in until the end of World War II since when there has been a slight increase. This decline can be attributed to the closing of the lumber mills and to the exodus of many residents into regions farther south which offered greater economic opportunities. 1891 was also a depression year, and its affects were felt all over Southern Ontario.

At the turn of the century a limestone quarry near

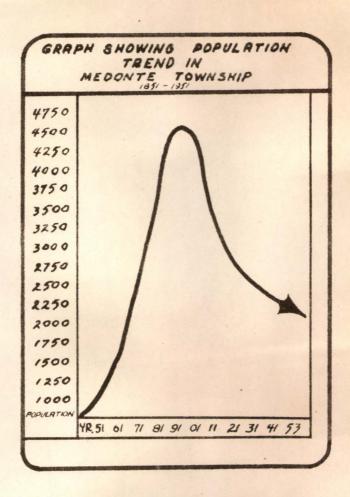
Medonte Station employed 300 men. South of Medonte Station, limestones

of the Black River group compose an escarpment 35 - 50 feet in height,

tending east and west and resting on Precambrian rock which is exposed

a short distance to the north. The quarry at Medonte which once produced

flux and crushed stone was opened in the upper beds of this escarpment



by the Coldwater Crushed Stone Limited. The quarry extended 1200 feet along the escarpment and was worked southerly into it for 700 feet. At present, the quarry is closed down.

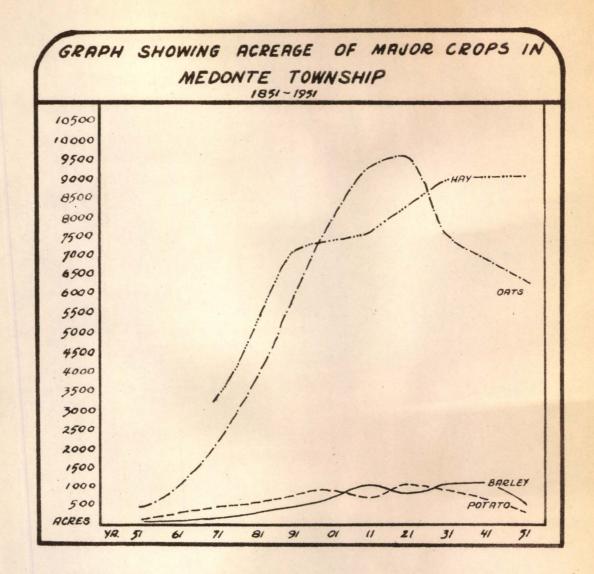
Agriculture 1851 - 1951

In discussing the agricultural development of the township between 1851 and 1951, it has been found advisable to keep the discussion as one unit instead of subdividing it at 1891 into two periods. Certain agricultural crops and the livestock associated with them reached their maximum production at different dates and in order to relate the trend of events and the correlation between the type of crops grown and the livestock raised, it was found necessary to omit the break at 1891 since it tended to cloud the discussion.

After the decline of the great lumber industry of the pioneer days, the township turned to general farming with the emphasis on oats and hay, and to the raising of beef and dairy cattle, swine and sheep.

A correlation can be drawn between hay and oat acreage and the number of beef and dairy cattle and horses on the township, throughout its history. In 1851, there were only 494 acres of oats under cultivation and 404 beef cattle, 407 welch cows and 154 horses in the township, but by 1931, the acreage of oats had risen to 7,530 in order to support the 5,1 14 beef cattle, 2,682 dairy cattle and 1,500 horses raised at the time. Closely linked with the raising of dairy cattle, has been the growing of corn for forage. In 1911, 252 acres were under corn, but by 1921, the acreage had been increased to 1,030 to keep in step with the growth of the dairy and beef herds.

Once turned loose in the summer on natural or improved



pasture beef cattle, when supplied with salt and adequate supplies of water, need little attention, while the farmer is busy about his work. Of the 56,259 acres of occupied farm land in the township in 1941, 21,825 acres or about 39% were under pasture. The animals eat lower grade feeds which might otherwise be wasted and they consume grass on rough land which it would be difficult to "Harvest" by other means.

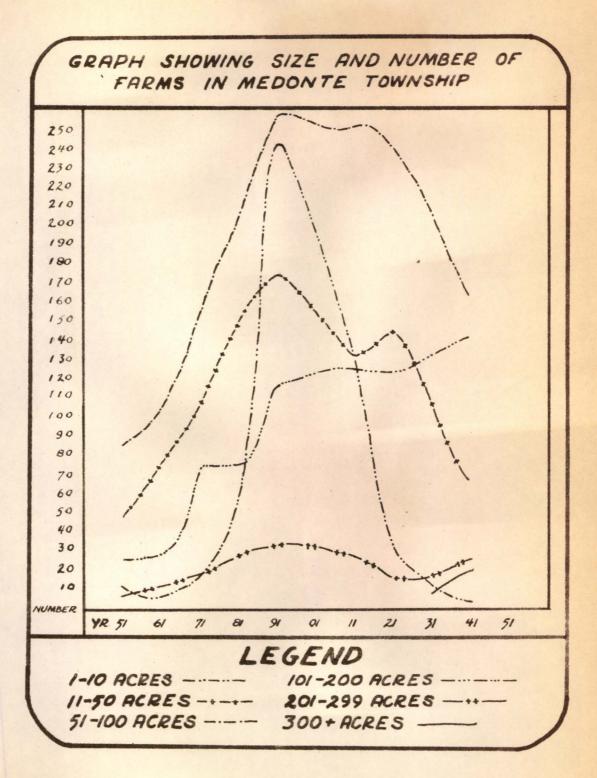
The census figures show that in 1851, there were 1,347 sheep in the township and 1,838 in 1951, which was somewhat below the top figure of 4,566 for 1931. The sheep provided a supplementary source of income without involving much additional work or expense for stabling and feed. They served a dual purpose in that they supplied wool for the market or food in the form of mutton for the table.

Medonte Township has always had a considerable number of swine. In 1851, there were 1,035 pigs. In 1951, there were 4,014. Besides the home market, a ready market was found in Midland, Penetanguishene, Barrie and Orillia.

The cultivation of potatoes has remained small throughout the township's history. In 1851, there were 162 acres of potatoes under cultivation, a peak was reached in 1921 with 1,149 acres, but since then the cultivation of this crop has declined to 229 acres as of the year 1951.

In 1891, there were 808 acres under orchards, but severe winter conditions and competition from the Niagara Escarpment Fruit Belt has almost eliminated them in the township today.

Closely linked with the population trends and years of greatest prosperity in the township has been the size and number of the farmsteads. From 1851 to 1891, there was a phenominal increase in the



number of farm holdings between 1 - 10 acres in size. Following 1891, there was just as rapid a decline in their number. This was partially due to the depression of 1891, the decrease in township population and to the decline in the number of orchard holdings. In 1851, there were 12 such farms in the area. By 1891, their number had risen to 240, but since then, however, such farms have almost dispppeared. 1941 Census statistics list only four 1 - 10 acres farm holdings in the township.

Summary

The early history of the township was one of clearing the land, selling the timber to the mill operators in the area and of growing subsistence crops. Controlled to a degree by the physical environment agriculture passed from the cultivation of wheat with the decline of the wheat market to a more general type of farming. Livestock raising has necessitated the growing of hay, oats and corn to a greater degree. The present population trend away from the farm is likely to continue into the future.

POPULATION AND ACREAGE OF FARMLAND HELD

Year	Population Total	No. of Farmsteads	Area (Acres)
1851	1116	178	17,811
1861	1638	225	23,599
1871	254 1 3632	369 507	38,511
1891	4514	829	49,535 63,688
1901	4451		0),000
1911	3361	664	57,025
1921	2723	575	32,922
1931	2533	516	59,835
1941	2274	419	56,259
1951	2574		

CHAPTER FOUR

TRANSPORTATION FACILITIES

In general, the roadnetwork throughout the township is poor. With regards to the volume of traffic, the most important highway in the township is Highway #12. Aside from servicing Coldwater, and providing a transportation route for farmers taking produce to market, it affects only slightly, the economic development of the township since it only services the eastern section of the township.

Highway #93 is the second main highway but, like

Highway #12 does not service the study area well, since it is located

on the western boundary of the township in poor agricultural country.

These two main highways are linked by several county gravel roads, and

by macadomized county roads along the township lines. The central road

connecting Highway #93 and Hillsdale to Highway #12 about three miles

south of Coldwater is the most important road in the township for

servicing the area.

The poorly developed road network throughout the township is a reflection of the fact that much of the land is relatively unproductive, unoccupied and hilly.

The hills of Medonte have been the cause of many deviations in the public roads which have had to twist and turn in order to avoid steep gradients. Further deviations are due to "jogs" or irregularities in the survey, which probably also arose from the hilliness of the township. In a number of places, some of the roads are



Figure 12 One of the better roads in the northeast section of Medonte Township. Note the huge erratic on the right.



Figure 13 Typical road in the south-eastern section of the township. Hills are the cause of many deviations in their course.

still unopened owing to the practical difficulties of road making across swamps and over hills.

The Canadian National Railway and the Canadian Pacific Railway are the remaining communication links in the township. These two single line railways have junctions at Coldwater Junction and Medonte.

The Canadian Pacific Railway traverses the township diagonally from the south-west corner to the north-east corner branch - ing off at Medonte in three directions. One branch proceeds north to Bala, another turns south-east to Orillia and the third swings north-west to Midland.

The Canadian National Railway has one line, which cuts across the north-east corner of the township in passing through Coldwater before proceeding on to Orillia.



Figure 14



Figure 15

Fig. 14 and Fig. 15 One of the few remaining saw mills operating in the township.



CHAPTER FIVE

PRESENT AGRICULTURAL LAND USE

Medonte Township is an area of general farming and livestock raising which has been controlled to a large degree by the physical environment.

The moderating influence of Georgian Bay and the protecttion afforded by the ridges in the north-east section of the township give that area the most suitable climatic and agricultural area in the township. The fine rich clay soils, and the proximity of the area to markets in Coldwater, Waubaushine and Orillia have been other contributing factors in the development of the area.

The south-western section of the township on the other hand is a poorly developed, thinly populated area. The south-eastern section is mainly in woodlot. This is due to the rugged relief and the tendency for active soil erosion. Kame Moraine is evident here and the rolling topography and sand and gravel nature of the soil makes it best suited for woodlot or pasture. The Vasey Land Type is predominant in this area.

The Ridges of Medonte are another distinct agricultural area and in turn are associated with the Vasey Land Type. Since land in the area is steep, external drainage is bad and the base of many of these ridges is too wet for cultivation, thus much is left uncultivated and in woodlot. Farmers who have a woodlot use it as a source of fuel.



Figure 16



Figure 17

Fig. 16 and Fig. 17 Two separate sections of the rich Coldwater Valley. Note the Coldwater Ridge in the background in the top photograph, glacial boulder drift in the foreground of bottom picture.

Where the stands of timber are not so dense as to prevent the growth of grass these woodlots are also used as pasture.

Cattle raising and hay and oat crops require larger holdings than is usually associated with vegetable and other grain production. Oats and hay are very important fodder crops and winter and spring wheat are important as cash crops. The Hay crops of 1941 occupied 43% of all the acreage under cultivation in the township.

Oats was second with 31% of the total acreage and barley third with 5%.

Oats, hay and barley acreages therefore, constituted 79% of the total acreage under cultivation, or 16,730 of the 21,457 acres under cultivation. This was in harmony, however, with the large livestock holdings.

In 1941, 56,254 acres of occupied farm land were used in the following way: (approximately)

Crops	21,529	acres
Unimproved pasture	14,577	acres
Woodland	7,596	acres
Pasture	7,248	acres
Waste Land	1,471	acres

Idle or Fallow

There are areas in the township where climate and soils of sandy to sandy loam type are well adapted to producing cash crops of small fruits and vegetables. The problem would be to fit them into the existing farm program. With better farm practices being employed, some of the land now needed for pasture and grain crops could be used

1,141 acres

for a cash crop. The shoreline of Georgian Bay, dotted with summer cottages and resorts would provide a ready market for small fruits and vegetables to be sold on a major scale. At present, a few enterprising farmers grown strawberries, raspberries, asparagus and corn on suitable land and find a ready market.

The North Simcoe Soil and Crop Improvement Organization and the various branches of the Ontario and Canada Departments of Agriculture are active in the area in promoting a considerable number of worthwhile projects dealing primarily with soil and crop improvement. Considerable progress has been made in arriving at a better understanding of agricultural problems and in working out practical ways of dealing with them .

Of all the projects on at present, the forage crop located at Vasey has caught the eye of the greatest number of farmers and probably more than anything else has encouraged many to try out new mixtures of grasses and clovers.

At Vasey, various species or varieties of grasses and clovers were sown in rows so as to provide an opportunity to study their suitability as mixtures for hay or pasture. The importance of "grass" as a crop was emphasized.

Another experimental project is being carried on, on a fifty acre pasture farm mostly of Vasey Sandy Loam Type near Hillsdale. An attempt is being made to bring it back to good grazing conditions. The natural pasture is practically run out and the nitrogen and phosphorous elements are extremely low. Several different treatments in renovating this old pasture are being undertaken at present on a five acre block.



Figure 180ne of the many dairy cattle herds in the township. Note the raised beach in the background.



Figure 19 Sign showing the location of the Vasey Forage Crop Plots, one of the experimental farms in the township.

Summary

The nature of the soil and topography have played a large part in the Land Use of the township. Forage crops are the dominant crop grown in order to support the large livestock population in the area. The development of strawberries, raspberries, etc., and vegetables on the sandy loam areas as a money crop, has great possibilities for the future, especially if the new proposed link in the Trans Canada Highway passes through the township.



Figure 20 Severe winter conditions require a large quantity of firewood. Wood is still the main fuel in many sections of the township.



Figure 21 Some farm abandonment has taken place in the southern part of the Vasey land type section of the township.

CHAPTER SIX

NON AGRICULTURAL LAND USE

Medonte Township is primarily a general farming and livestock raising area. The Village of Coldwater and the other small centres of population plus the reforestation areas offer the only non-agricultural land use in the area.

COLDWATER

Site

Coldwater is situated 94 miles north of Toronto on #12 highway where it intersects the Coldwater River. #12 highway is the main connecting link between Midland and Orillia. The location of Coldwater is shown on the Key Map accompanying this report.

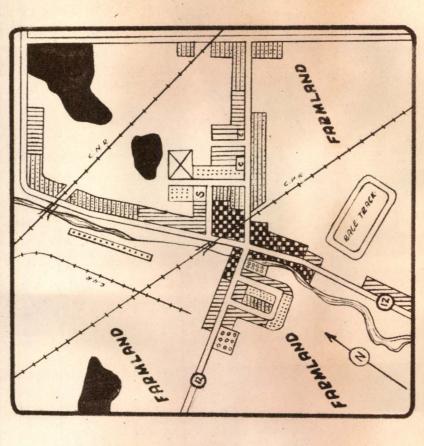
Functional Pattern

The village has developed from the intersection of #12 highway and the main road that follows the river course northward.

Coldwater is a small but compact village whose centres of business are concentrated at the heart of the village.

With respect to public works, the village has a fire department composed of seventeen volunteers and the fire chief. The village has also a debt free water works, and a debt free lighting system. As the principle centre in the township, it is unfortunate that its position allows it to serve primarily only the north-east

FUNCTIONAL MAP



LEGEND

COMMERCIAL RETAIL INDUSTRIAL

SECOND CLASS FIRST CLASS

THIRD CLASS = OHOS

NO TRUE SCALE WOODLAND BAIL WAY

SCHOOL

CEMETARY CHURCH

RIVER





FIGURE 13

section of the township. Its predominance arises from the fact that it is on the #12 highway and because it is situated in the richest section of the township (the lower Coldwater Valley).

Residential

Coldwater is composed of three types of homes; first class, second class and third class. On the whole, the class of houses in the village is good. The first class home is generally the newer home of brick or stone construction or the older brick homes with well kept terraces.

Second class homes are generally smaller of frame construction and not as well terraced.

Third class homes are associated with the poorer inhabitants and in general are found on the periphery of the village. The first and second class homes are evenly distributed throughout the village.

In general from the figures below, it can be seen that the village's population has remained relatively stationary over the last fifty years.

Coldwater	1901	1911	1921	1931	1941	1951
	634	649	658	628	549	622

Future growth is a good possibility, however, should the proposed new link in the Trans Canada Highway pass through the area as is scheduled.

HILLSDALE

Hillsdale is the second largest centre of population in the township. It lies on #93 highway and services the western section



Figure 22 Grain Mill east of Hillsdale utilizing the dammed up waters of the Sturgeon River.



Figure 23 Moonstone - typical small centre of population in Medonte Township.



Figure 2. Looking north-west down the main street of Hillsdale, which next to Coldwater is the largest village in the township.

of the township. It possesses besides other facilities, 2 general stores, 2 gas stations, 2 churches and a cemetery on the outskirts of the centre.

The other remaining centres of settlement are small generally consisting of one or two stores, a service station and several homes. As a result, their functional and commercial areas are limited.

Of the small centres, it is interesting to note that a good many of them such as Mount St. Louis, Hobart and Moonstone are situated on the raised beaches of the township.

Such centres as Waverley, Vasey, Craighurst, Jarratt and Prices Corner contribute only a limited degree to the functional and commercial life of the township since in most cases, they are bordering on two or three townships.

The Key Map (figure 2) will give a clearer picture of the exact location of the above mentioned places.

Reforestation

Reforestation has been a major operation in the township since the turn of the century and has been centered chiefly about the Orr Lake District. At present, the County Reforesting Committee of Lands and Forest in Simcoe County has been carrying out the work. A variety of trees have been planted including European Larch, Norway Spruce and Jack Pine.

The feeling is rising in the township that those in possession of woodlots must learn to crop their forests just as they do their fields. Considerable ammunition to support a tree cutting by



Figure 25



Figure 26

Figure 25 and Figure 26 Removal of forest cover followed by improper land use has given rise to sections of severe soil erosion and blow sand in the south-west section of the township.



Figure 27



Figure 28



Figure 29.

Fig. 27, Fig. 28 and Fig. 29 As a check against soil erosion, large areas in the south and southwestern sections of the township are under reforestation.

by-law appears likely to emerge from the extensive land-use mapping survey currently being undertaken by the Department of Lands and Forest in the township.

CONCLUSION

The primary factor in determining the Land Utilization in the township has been the physical environment. Aside from limiting the areas of agricultural development, road development has been impeded and easy and quick access to urban markets, has therefore not always been possible. The raising of dairy cattle and the cultivation of corn and hay forage crops has remained the dominant agriculture activity of the township because of their adaptability to the variedly climatic and soil conditions that prevail.

A poor agricultural area, Medonte Township in all probability will remain so. Technological advances are and will continue to improve the lot of the farmer in his struggle against the physical environment but richer agricultural areas and areas of greater economic possibilities will continue to attract Medonte citizens away.

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