A GEOGRAPHIC STUDY

OF

EAST GWILLIMBURY TOWNSHIP

A THESIS

PRESENTED TO

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HAMILTON, ONTARIO

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> bý Henry Richard McCutcheon February, 1964

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INTRODUCTION

INTRODUCTION

The purpose of this thesis is to examine the physical historical, economic and cultural characteristics of East Gwillimbury township and to explore the relationship of these factors to the present activities of man.

The initial stage in this study is an investigation of the formative forces of the physical landscape, a description of the character of this landscape and an evaluation of its qualities for use by man. Following this, the evolution of the pattern of land use in East Gwillimbury is studied succeeded by a notation of the economic forces operative in the area. The next step is to examine the non-urban land use of the township to ascertain the importance of the preceding conditions in determining the use of the land by man. The urban geography is then studied and its relation to the physical and agricultural landscape discussed.

By such a study the author hopes to establish the influences of the individual geographic conditions mentioned above and their cumulative effects in determining the current activities of man in East Gwillimbury.

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LOCATION

East Gwillimbury township is located in a very central position in Southern Ontario - specifically with northern York county between Ontario and Simcoe counties. Its borders are within thirty miles of Metropolitian Toronto to the south, and within one-half mile of Cook's Bay, the southern extremity of Lake Somcoe. The adjacent townships are North Gwillimbury, West Gwillimbury, whose relative positions are obvious, King township on the south-west, Whitchurch on the south and Scott on the east.

East Gwillimbury is therefore, by modern means of transportation, close to the wealthy and heavily populated industrial area known as "the Golden Horseshoe". (see location map, page 2) Such a location is beneficial not only because the Horseshoe is a large market for farm products, but, because it provides a place of employment for the non-farm population of the township. Between the Golden Horseshoe proper and East Gwillimbury there are several medium-sized towns which also offer urban employment. These towns are Newmarket (on the southern townline), Aurora (three miles to the south) and Richmond Hill (twelve miles to the south).

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From East Gwillimbury all parts of Southern Ontario, outside the Golden Horseshoe can also be reached easily. Traversing the township are four paved roads which provide direct connections with main axial highways of the province. The most important of these in volume of traffic is Highway 11 or

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(Yonge Street which cuts across the south-west corner of the township. This road, furnishes access to Highway 400 (an important north-south axis of Ontario) to the north and Highway 401 (the east+west artery of industrial southern Ontario) to the south. Leslie Street and Don Mills Road (concession roads three and four respectively) join to the south of the township before continuing south to connect with Highway 401. Highway 48 (concession road eight) through the east of the township is itself an important north-south route as well as providing access to Highway 401. In addition, two railroads cross the township but they are of little importance since there are no scheduled stops within East Gwillimbury. The Orientation Map, (page 5) shows the location of these and other roads in the township as well as the villages and other salient features.



PHYSICAL GEOGRAPHY

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CHAPTER 1

PHYSICAL GEOGRAPHY

General Geology

East Gwillimbury lies in an area of Paleozoic rocks of Ordovician age overlying the Precambrian base. The Ordovician rocks consist of great thicknesses of shale and thin limestone bands with a low dip of twenty-five feet per mile to the southwest.¹ The two formations represented in the underlying rocks of the township are the Billings formation (the older) and the Dundas formation (the younger).² The boundary between these two has not yet been established because of the complete lack of rock exposure and the great depth of overburden in the township (the shallowest being 250 feet and the deepest exceeding 500 feet). This overburden is the deposits of the Pleistocene Glaciation.

Glacial History

In East Gwillimbury the Pleistocene deposits are, as noted, extremely deep. This great depth suggests that not all of the material is of Wisconsin origin but rather that some of the drift at the greatest depths was deposited during an earlier stage in the Pleistocene era. Black muck and oily slime, reported in a test hole log, at a depth of 250 feet could

- 1. R. E. Deane, <u>Pleistocene Geology of the Lake Simcoe District</u>, Ontario Geological Survey of Canada, Memoir 250.
- 2. J. F. Coley, <u>Palezoil Geology of the Toronto-Hamilton area</u>, Geological Survey of Canada, Memoir 224, P.G.

possibly be an interglacial deposit but further investigation of this problem here is impractical. The surface deposits, which are still in a rather immature state of weathering indicating their recent Wisonsin origin, allow for more concrete conclusions to be drawn regarding their genesis and it is with these that the author is most concerned since they most directly affect the activities of man.

The Wisconsin glacier consisted of a number of lobes, two of which are responsible for most of the landforms of the area under examination.¹ These two lobes are the Ontario lobe which occupied the basins of the present Lakes Erie and Ontario and the Northern lobe of the basin of the present Lake Huron. It was the latter lobe which, in its advance, actually covered this township. Drumlins within the township not only provide evidence of this advance but, by their alignment show the direction of movement of the glacier responsible for their deposition.² In this area the axes of the drumlins point about 600 west of north indicating that the glacier moved from north-east to south-west.

1. L. J. Chapman, D. F. Putman, <u>"The Recession of the Wisconsin</u> <u>Glacier"</u> <u>Transaction of the Royal Society of Canada</u>, Vol. 43 Sec. 4, p. 47.

2. L. J. Chapman, D. F. Putman, "Drumlins of Southern Ontario" Transaction of the Royal Society of Canada, Vol. 37, Sec. 4, p. 77.

The interlobate moraine of the Ontario and Northern Lobes,¹ extends in an east-west direction across south-central Ontario immediately to the south of East Gwillimbury with a small portion of it projecting into the township. As the glaciers commenced their recession, a split developed between the lobes and became increasingly wider as the recession continued providing an outlet for the meltwater. This water carried a heavy load of debris; mostly sand and gravel, and this was deposited on the interlobate moraine greatly increasing its elevation. In some localities within the moraine the sand deposits are over 100 feet deep. This landform itself was of great importance in the subsequent evolution of the other landforms of the township. (see Figure A, page 12)

The northern ice lobe did not recede in smooth fashion or at a dteady rate but rather had several local re-advances to interupt its retreat.² This recession pattern produced a sequence of processes - glacial deposition, lacustrine desposition, minor re-glaciation, glacial deposition, and lacustrine deposition - over a small area of the township (discussed further below). The result was a layering of deposits and a variety of landforms in that area. As the ice backed away from the interlobate moraine, it uncovered an area of till plain with a drumlinized surface. However this plain was immediately inumdated

1. L. J. Chapman, D. F. Putman, "Moraine of Southern Ontario" Transaction of Royal Society of Canada, Vol. 37, Sec. 4, p 37

^{2.} Department of Planning and Development. Upper Holland Valley Conservation Report, Chpt. 4

as the drainage of the meltwater was blocked by the moraine to the south and east, the ice to the north and a range of hills (the Blue Mountains) to the west. A lake thus formed in this area and was named the Schomberg Ponding by Chapman and Putman. Since this ponding had two stages the first stage will be referred to as Early Lake Schomberg.

As mentioned this lake was fed by meltwater which was heavily laden with debris and as a result it was extremely muddy. During its existence it deposited a thich mantle of varved clay over the drumlinized till plain. The varves of this clay are immense averaging eight inches in depth. The summer band averages six inches, contains a fair amount of silt and is grey in colour while the winter band is more compact and brown in colour. (see photograph, page 11) The average total depth of these silt and clay deposits is fifteen feet but in extreme areas (eg. onehalf mile south of Holland Landing) it exceeds fifty feet. Towards the periphery of the lake the deposits contain a high percentage of sand. These deposits are found at elevations from 875 feet to 9000 feet thus indicating that the lake level was at approximately the 900 foot contour. The lake did not exist for a sufficient length of time to construct prominent shorelines.

The existence of Early Lake Schomberg was ended by a re-advance of the Northern ice lobe. The surface layer of the

^{1/} L. J. Chapman, D. F. Putman, "The Recession of the Wisconsin Glacier". Transactions of the Royal Society of Canada, Vol. 43, Sec. 4, p 47.

varved deposits was picked up by the advancing ice and redeposited a short distance to the south as a till which strongly resembles the lacustrine deposits but has a blocky and jointed structure rather than the varved structure. The ice covering responsible for this re-working of the deposits was relatively thin and the layer of till it deposited is correspondingly thin, measuring only from one to two feet in many places. Subsequent erosion has removed this till layer over most of the area, reexposing the lacustrine clays.

As the ice again retreated the second stage of the Schomberg Ponding - Late Lake Schomberg - occured. The deposits of this stage are coarser than those of the previous lake consisting largely of sand. This sand is now found in the eastern half of the township. There was no sand layer formed in the west, presumably because remnants of stagnant ice still occupied the central Holland River depression preventing the inundation of this area. The outlet of the Schomberg Ponding is unknown although the spillway marked on figure B, pagel2, did carry some of the outflowing water over the moraine. The draining of the ponding is believed by Deane² to have been accomplished by a channel along the Niagara Escarpment to the west but as yet this is an unsubstantiated hypothesis.

L. Department of Planning and Development, <u>Upper Holland Valley</u> <u>Conservation Report</u>. Chapter 4.

2. R.E. Deane, <u>Pleistocene Geology of the Lake Simcoe District</u>, <u>Ontario</u>, Geological Survey of Canada, Memoir 250, Page 66



No.1. The varved clays of Early Lake Schomberg. Note immense size of varves.



No.2. A section of beach gravel constructed by Lake Algonquin showing the waved-washed stones and pebbles.

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No.3. Asection of the Lake Algonquin shoreline showing the abrupt rise in elevation from the Algonquin Basin to the till plain.



FIG.B

As the glacier continued to retreat northward it uncovered another area of till plain, spotted with drumlins, in the central part of the township. This till plain formed a mound of land standing above the lower surfaces to the east and west. At this time the lower surface to the east, the valley now occupied by the Black River, was still occupied by ice and between the ice and the central mound of till a broad strip of outwash sands was deposited by the meltwater. In the valley to the west, now occupied by the Holland Marsh, the ice had already receded and the valley contemporaneously flooded with meltwater.

The lake which was formed by the flooding of these lowland areas, both the western and the eastern valleys, with meltwater was Lake Algonquin. This lake was fed not only by meltwater from the glacier to the north but also by run-off rivers from the south, the interlobate moraine being the water divide between Lake Ontario and the Lake Sincoe basins. One of the run-off rivers, flowing into the area now occupied by the Holland Marsh, creates a delta at its mouth. The deposits in this delta were medium to fine grained sands. Further to the north (further into Lake Algonquin) the deltaic materials are absent and the surficial deposits are silt and clay. A river although of lesser size than to the west also flowed into Lake Algonquin in the eastern valley of the township. The lake bottom near the mouth of this river was also covered by coarser deposits (i.e. sand) than that further removed from the mouth.

Lake Algonquin was one of the longest-lived pre-glacial







lakes in southern Ontario and as a result its outline can be traced rather completely. (see figure B page 12). Along much of its shorelines an abrupt drop in elevation from 825-975 feet down to 740-760 feet can be seen. (see photograph Page 11). Along the base of these slopes, beaches of wave-washed boulders, sand and gravel are found (see pictures page 11). These features are especially prominent at present along the borders of Holland Valley. After Lake Algonquin was drained through its outlet to the north-east of Kirkfield, the Wisconsin glacier had exerted its last direct influence on East Gwillimbury township.

In post-glacial time the factors affecting the landscape have been sheet and stream erosion and the formation of peat deposits. Stream erosion has been most severe in the clay areas which are traversed by the Holland River. The disection of this area has produced a topography resembling, in its roughness, that of a terminal moraine. The largest area of peat deposits in the township is the Holland Marsh at the confluence of the Holland and Schomberg Rivers where peat covers the sand and clay plains of the Lake Algonquin basin. Another area of peat deposition is in the valleys of the Black and Mount Albert Creeks. The processes of erosion and peat accumulation are still in operation continually altering the landscape although man is making efforts to reduce their effect, particularly that of erosion.

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PHYSIOGRAPHIC REGIONS

As a result of the actions of the landforming processes, the township contains sand plains (lacustrine), clay plains, till plains, outwash sands, kame moraine (interlobate in origin) and muck, (see map of Physiographic Regions, page 17).

The largest of these in areal extent are the sand plains of which there are four areas, two adjoining but here distinguished because of their different origins. The first of these is the sand deposits of the Late Lake Schomberg found from the third concession eastwards in a strip of variable width between the kame moraine to the south (see map on page 17) and the Queensville Sideroad to the north (see Orientation Map, page 4) The material in this area varies from fine sand in the west to coarse in the east indicating the east to west flow of the glacial meltwater. The sand is well sorted and mostly calcareous, having been derived from limestone. The topography is moderately sloping, rather than flat as would be expected in a lacustrine area, mainly because the sands are underlain by a drumlinized till plain whose slope characteristics were not obliterated by the lacustrine deposits. There is good drainage in this area and moderate erosion.

The sand deposits of Lake Algonquin in the northeastern part of the township from the seventh concession eastward form a second area of sand plain. There is here well sorted medium to coarse textured calcareous sands similar to those of the first region but the topography and the drainage are quite different. As these sands are not underlain by a rolling till



plain, the topography is flat and since the elevations here are the lowest in the township (760 feet and less) the drainage is poor. Within this area there are several local muck deposits too small to map. They are rather shallow and if ploughed the underlying sand is quickly mixed with the muck. A similar sand plain area, with the same genesis, is found on the northern townline.around the forth concession road.

The final area of sand plain is the deltaic deposits in Lake Algonquin of the post-glacial river which occupied the Schomberg River valley. Their location is in the Holland Marsh north of Holland Landing and west of the second concession. This area consists of well-sorted sands grading from medium in the south-west to fine in the north-east where they grade into the silt and clay of the lower part of the plain. Since this area was also under Lake Algonquin its topography is smooth and its elevation relatively low (760 feet and less), conditions which again unite to produce poor drainage. Sand of this type underlie the muck area to the north.

There are two areas of clay plain in East Gwillimbury. Centred on the second concession and extending from the southern townline north to Holland Landing with an arm to the north-east, in the area which was protected by stagnant ice from the sandy deposits of Lat Lake Schomberg. Exposed on the surface, therefore, are the varved deposits of Early Lake Schomberg. As mentioned above, there was a shallow covering of till here, but, barring small patches of isolated hill tops, this has been

removed by erosion. Since the bed of Lake Schomberg was a drumlinized till plain the clay plain here is much rougher than most till plains. The roughness has been increased by the erosion of the Holland River and its tributaries until now the topography has a superficial resemblance to a terminal moraine. (see picture, page 20) Erosion is still somewhat of a problem but its worst results, such as gullying, have now been controlled.

The second area of clay plain is in the Lake Algonquin basin in a diagonal strip from south south-west to north northeast across the north-west corner of the township. It extends from the deltaic sand plains to the townline. This is the area of finer deposits, clay and silt, further from the mouth of the river which entered Lake Algonquin to the south-west. Here gentle slopes, heavy texture and low elevations create poor drainage.

The main expanse of till plain is in a mound-shaped area in the centre of the township, east of the clay plain of the Algonquin Basin in the second, third, forth and fifth concessions. Other smaller areas are in the south-west corner of the township and along the eastern boundary. This is a loam textured limestone, and therefore calcareous, till. The local relief is from 760 feet above sea level at the Algonquin shoreline to 950 feet. The general topography is moderately sloping and the drainage good. Spotted throughout the till plain are drumlins, discussed more fully below.

Between the mound of till and the sand plains of Lake Algonquin in the east is an area of outwash sands. These sands



No.4. The effects of erosion on the varved clay of Early Lake Schomberg. This a common topographic type in the vicinity of the Holland River.



No.5. A section of the kame moraine. Note roughness of topography.

are well sorted, coarse, calcareous and have wide variations in topography and drainage. The elevation of these deposits varies from 760 feet at the Algonquin shoreline to over 850 feet at the till plain. In the lower elevations there are some local pockets of muck. There has been some erosion in this area by the Black River and its tributaries as well as some wind erosion, resulting im poor or nil soil development, where the vegetation has been rendered sparse, either by man or nature.

Occupying the areas of lowest elevations in the township are muck deposits. The largest of these is around the confluence of the Holland and Schomberg Rivers. Those deposits, overlying the sand plain consist of peat, averaging around eight feet deep but becoming shallower towards the periphery and deeper towards the centre. Along the north townline between the seventh and eighth concessions is another area of muck overlying and Algonquin sand plain. The muck here is not as deep as the previous area, averaging around three feet but reaching depths of six feet in places. A third large area of peat deposits is along the valley of the Mount Albert Creek. This is the shallowest of the areas, the peat rarely exceeding four feet deep. All of these areas have smooth topography and poor drainage.

A portion of the Oak Ridges Interlobate Moraine projects into East Gwillimburk between the fifth and sixth concessions. It consists of deep deposits of calcareous sand laid down by the meltwater stream which flowed between the ice lobes during the early stages of recession. The topography here is the

roughest in the township and the surface is very susceptible to erosion by water and wind, (see picture, page 20). This is also the highest land in the township, up to 1000 feet above sea level.

Throughout the township there are drumlins found. In some of the poorly drained areas the drumlins provide the only better drained land. (see picture, page 23). The occasional drumlin stood as an island in Lake Algonquin and so have fragments of shore cliffs on their sides. The drumlins are of medium size, approximately three-quarters of a mile long, onequarter mile wide and seventy-five to one hundred feet high although many are smaller. As mentioned above the main trend of their alignment is 60° west of north.

An interesting landform observed by the author is that of a semi-circular or amphi-theatre-shaped formation found where several short valleys meet the Holland River Valley. (see picture page 23). The origin of these formations poses an interesting question. It is possible that they are the result of buried pieces of ice which later melted but the complete absence of kettles in the remainder of the township suggests that an alternative explanation should be sought. This alternative presents itself when it is noticed that several of these valleys contain springs. Perhaps when the ground water table was higher the springs were stronger and saturated the upper layers of the overburden. This saturation would then cause slumping and give rise to such an amphitheatre-shaped feature. It appears to the



No.6. A drumlin rising above the surrounding imperfectly drained land. The soils on the drumlin are cultivated; those around it are not.



No.7. Amphitheatre formation. A spring is located in the area of coniferous trees.

author that this is the more likely solution to the problem of the origin of these forms.

These then are the physiographic regions of East Gwillimbury township. All except for the muck deposits are the result of the Wisconsin glacier and follow a pattern laid out by its retreat. The materials described here are those which have been available to the soil forming processes. In succeeding sections the effects which these materials have had, and are having, on the landscape and the activities of man will be examined.

Climate

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East Gwillimbury township is in the Humid Microthermol (a climate zone in Koppen's classification of climate. The main climatic controls in the area are those common to the rest of southern Ontario (latitude, land-water distribution, cyclonic storm belts) but there are also local influences.

The township is in a minor rain shadow. To the west is an area of uplands, containing the highest elevations in Southern Ontario, which absorbs considerable amounts of the moisture carried by the predominant westerly winds. There is therefore less precipitation here than in the surrounding territory. The height of land to the south, although slight, also affects the climate of the township. It hinders the flow of air from the Lake Ontario region and thus limits the ameliorating effect of the lake (the lake is not as effective in keeping temperatures higher in winter and lower in summer). Lake Simcoe, being a relatively small body of water moderates only a very local area

around its shores, the effect being negligible at a distance of over one mile. It therefore does not affect the climate of East Gwillimbury.

There are no weather recording stations within the township which have been operating a sufficient length of time to yield reliable climatic data and therefore the records of Oak Ridges, the closest station available, have been used. Listed below are the salient features of the climate.

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F Mean spring temperature.....40.5° F F Extreme low temperature..... -42° F Extreme high temperature..... 104° F Daily range of temperature..... 19° F Average date of last frost in spring... May 19 Average date of first frost in fall....Sept.26 Average length of frost free period.... 130days Beginning of growing season..... April 18 End of growing season..... Oct. 25 Average annual precipitation..... 29.41" Average spring precipitation..... 6.91" Average summer precipitation..... 9.01"

Precipitation is reliable from year to year and fairly evenly distributed throughout the year although with a slight maximum in early summer. The winter snowfall is not excessive but is adequate to recharge the soil with moisture upon melting in the spring. A Thornthwaite graph from the Oak Ridges data is included (page 24) to show the soil moisture supply as it affects plant growth. There is a moisture deficiency for only two months, August and September. This is not especially critical to the agriculture of the township, however, since the



staple crops are small grains, hay and corn which have completed their period of optimum growth before the deficiency occurs. Natural Vegetation

According to Halliday, East Gwillimbury is within the Huron - Ontario section of the Great Lakes - St. Lawrence vegetation region. There are both deciduous and coniferous trees in the township with the former predominating. Associations of certain species of trees can be identified and their distribution seen to coincide with soil and drainage regions (see map, page 30).

The sugar maple, beech and spruce association is located on the well drained soils formed on the till and sand plain areas of the township. Local concentrations of other tree species also occur, such as pines, white ash and oak on the light textured soils. Second to this association in areal extent is the elm, ash and cedar association found in the poorly drained areas. Hemlock and silver maple also grow in these districts but in lesser numbers. On the well drained clay soils soft maple and elm are the predominant species while an association of soft maple, birch and aspen are found in the imperfectly drained areas.

The largest areas with their natural vegetation still intact are the poorly drained areas in the north-west and northeast corners of the township where the elm, ash, and cedar association is found. These areas are expensive to develop for agriculture and the trees found there are of little economic value. There has therefore been little incentive to clear this

land. Over the remainder of the township only relatively small patches of forested land remains, frequently in bottomland or in dissected areas too rough for cultivation. Only 11.5% of the occupied farmland is in woodland and it is from these small samples that the original natural vegetations associations have been pieced together.¹

<u>Soils</u>

The soil is a complex body which is the product of the action of weathering and other development forces on the geologic materials available. The texture of these materials therefore is a critical factor in determining the particular type of soil which will develop in a given area. There are, however, other important factors affecting the evolution of the soils such as the local relief and drainage. Third in importance is the vegetation which is itself controlled by topography and drainage to a considerable extent. Climate and the length of time the parent material has been subjected to the soil forming processes are also important factors in soil development but do not differ within the township and so are not responsible for the areal variations in the soils. A final factor of significance in soil development is the effect of man, usually by rendering the land more susceptible to erosion than it was in its natural state.

The parent materials of the township's soils vary in relation to the physiographic regions. On the drumlinized till plain the parent material is loam textured limestone till. In

^{1.} D. W. Hoffman, N. R. Richards, Soil Survey of York County, Experimental Farms Service, Canada Department of Agriculture and the Ontario Agriculture College. Page 17
the clay plains of Early Lake Schomberg and the Algonquim Basin stonefree clay is the parent material. Well sorted sands and poorly sorted sands were made available todthetsoil forming processes also, the former on the sand plains and outwash sands and the latter on the kame moraine. In the muck area organic deposits are the parent material. (see map, page 30) The topography and drainage account for the local variations in the soil types of the township within areas of similar parent materials. (see map, page 30).

The majority of the soils in East Gwillimbury fall into three Great Soil Groups namely Grey-Brown Podsolic, Dark-Grey Gleisolic and Bog.

The well drained soils which developed on the till have been differentiated into three series designated the Bondhead (loam and sandy loam), Dundonald (sandy loam), and Bookton (sandy loam), all of which are members of the Grey-Brown Podsolic great soil group. (see Soil Map in back pocket) The largest of these in areal extent is the Bondhead series. A profile of its sandy loam type is cited here.

Ao - Thin layer of partially decomposed leaves, twigs, etc.
Ai - 0-4^m sandy loam; dark greyish brown; fine crumb structure; friable consistency; few stones; ph-6.8

^{1.} D. W. Hoffman, N. R. Richards, <u>Soil Survey of York County</u>, Experimental Farms Service, Canada Department of Agriculture and the Ontario Agricultural College. Page 36.



NATURAL VEGETATION HARD MAPLE-BEECH-SPRUCE SOFT MAPLE-ELM SOFT MAPLE-BIRCH-ASPEN ELM-ASH-CEDAR



SOIL MATERIALS LOAMY LIMESTONE TILL POORLY SORTED SAND WELL SORTED SAND STONEFREE CLAY ORGANIC DEPOSITS



(AFTER SOIL SURVEY OF YORK COUNTY)

DRAINAGE	CLASSES		
GOOD			
IMPERFECT			
POOR			
VERY POOR			

- A21 4-14" sandy loam; yellowish brown; weak platy structure; friable consistency; few stones; pH - 6.6.
- A22 14-17" sandy loam; light yellowish brown; weak platy structure; friable consistency; few stones; pH - 6.6.
- B2 17-24" clay loam; dark brown; medium nuciform structure; firm consistency; stoney; pH - 7.0.
- C Loam; grey; calcareous; stoney and bouldery; pH-8.0.

The Dundonald and Bookton series are formed on the small patches of greater sand content and their profiles vary in depth with the depth of the sandy layer. However the horizon characteristics of the profile are similar to those of the Bondhead series.

Only small parcels of imperfectly or poorly drained till soils are found in the township and they are occupied by the Guerin series (imperfectly drained) and the Lyons series (poorly drained). The Guerin loam is a Grey-Brown Podzolic differing from the well drained series in that it is darker in colour, shallower, and has mottled A_2 and B_2 horizons. The Lyons loam belongs to the Dark-Grey Gleisolic soil group, having a much darker colour, shallower profile and mottling in the Gleisolic horizon to distinguish it from the better drained soils. The Guerin and Lyons series are found in the Northern extremities of the township on the margins of the till plain where it borders the low-lying Algonquin Basin.

On the outwash sands and sand plains the soil parent materials are well sorted sands. There is, however, a great diversity of series developed on these areas because of the variations in the texture of the sand and drainage conditions with the sand of the sand plains generally being of finer texture and less well drained than that of the outwash sands.

The well drained sandy soils are known as Brighton sandy loam, Percy fine sandy loam and Pontypool sandy loam. Large areas of the Brighton and the total area of the Percy series are found on the sand plains of the Schomberg Ponding but are nevertheless well-drained because, as mentioned in the Physiography section, the sand was deposited over a hummocky till plain. A typical profile of Brighton sandy loam is as follows:

Ao - thin layer of partially decomposed leaves, twigs, etc.

- A1 0-4[#] sandy loam; dark-greyish brown; fine crumb structure; very friable consistency; stonefree; pH - 7.0.
- A₂ 4-16" sand; brownish yellow; single grain structures; loose consistency; stonefree; pH - 6.6.
- B₂ 16-20" sand; yellowish brown; single grain structure; loose consistency; stonefree; pH - 7.0.
- C sand; very pale brown; single grain structure; loose consistency; calcareous; pH 8.0.

Although this is the profile norm for the Brighton sandy loam type, the author found a wide range of profiles designated as Brighton sandy loam, from soils with a relatively low concentration of sand to soils with a very high concentration of sand, approximating almost the texture of a sand soil.

The Percy fine sandy loam has a deeper profile than the Brighton series, with the sandy loam extending to a depth of eighteen inches, and a darker brown colour. The Bontypool sandy loam in East Gwillimbury was developed on the coarser sands and as a result its drainage tends to be excessive. Its profile, however, is similar to that of the Brighton but lighter in colour and texture.

An exception to the type of solks developed on this well drained and sorted sand is the Bridgman sand. It is found in areas where the protective vegetation has been removed by man and the land subjected to wind erosion which has removed the dark surface soil leaving no profile development.¹

The kame deposits, which consist of poorly sorted sands, have given rise to the Pontypool sand soil type. This is a Grey-Brown Podzolic soil which is well drained and very susceptible to erosion. Where it has not been kept under a cover of sod and trees the erosion is quite serious.

Tecumseth sand loam is the soil type formed on the imperfectly drained sands, the largest area being in the deltaic sands of the Algonquin Basin. There are also patches in the sand plain of the eastern valley of the township and in the outwash sand. The profile of the Tecumseth series is shallow and darker than that of the better drained series but is still a Grey-Brown Podzol.

The Dark-Grey Gleisolic soils found in poorly drained areas are Granby sandy loam and Wauseon sandy loam. The profile of Granby sandy loam is as follows:

Ao - thin layer of partially decomposed leaves, twigs, etc.

^{1.} D. W. Hoffman, N. R. Richards, <u>Soil Survey of York County</u>, Experimental Farms Service, Canada Department of Agriculture and the Ontario Agricultural College. Page 17.

- A₁ 0-7 inches sandy loam; very dark brown; fine crumb structure; very friable consistency; stonefree; p H -7.4
- B -7-21 inches sand; light brownish grey; very mottled; mottles brown in colour; single grain structure; loose consistency; stonefree; p H -7.4
- C Sand; light grey; mottled; single grain structure; loose consistency; stonefree; p H - 8.0

The Wauseon series has a shallower profile and below its C Horizon there is clay which further restricts the drainage.

The clay and silt deposits of Early Lake Schomberg have given rise to well drained, Grey-Brown Podzolic soils. The soil types are known as Schomberg clay loam and Schomberg silt loam which differ only in the texture of the surface horizon. These types are also found in patches throughout the southern half of the township where concentrations of clay have occured in the till. These areas do not have the varving in the C horizon which characterizes the lacustrine deposits.

A typical Schomberg silt loam profile is described here.

- Ao thin layer of partially decomposed leaves, twigs, etc.
- A1 0-4 inches silt loam, very dark grey; medium granular structure; friable concistency; stonefree; p H -6.8.
- A₂₁ 4-ll inches silt loam; bright yellowish brown; weak platy structure; friable consistency; stonefree; p H -6.
- A22 11-15 inches silt loam; light brownish grey; weak platy structure; friable consistency; stonefree; p H -6.
- B2 15-23 inches clay; dark yellowish brown; coarse blocky structure; very plastic consistency when wet; very hard when dry; stonefree; p H - 7.4.
- C Silt and clay layers; silt light grey; clay grey brown in colour; medium platy structure; plastic consistency when wet; hard when dry; stonefree; calcareous; p H - 8.

Smithfield clay loam is an imperfectly drained clay soil

found in pockets in three locations in the township. These locations have local concentrations of clay in the till which are not lacustrine deposits and so have no varves.

On the clay plain of the Lake Algonquin Basin the poorly drained Dark Grey Gleisolic soils of the Simcoe series have been formed. In these soils, Simcoe clay loam and Simcoe silt loam, the horizon differentiation is not well defined. A typical profile would be as follows:

Ao - think layer of partially decomposed leaves, twigs, etc.

- A₁ 0-6 inches clay loam; very dark brown; medium granular structure; friable consistency when dry; plastic when wet; stonefree; pH - 7.4.
- B₁ 6-12 inches clay; greyish brown; very mottled; medium blocky structure; very hard consistency when dry; very plastic when wet; Stonefree; pH - 7.4.
- B₂ 12-20 inches clay; light brownish grey; very mottled coarse blocky structure; very hard consistency when dry; very plastic when wet; stonefree; pH - 7.4.
- C Clay and silt; sometimes in layers; grey to greyish brown; medium platy structure; hard consistency when dry; plastic when wet; calcareous; stonefree; pH-8.0.

On the depressional areas with accumulations of organic deposits, muck soils have developed. They are very dark in the colour and do not show the same type of horizon development as the mineral soils. Upon close examination however, the following layers can be discerned.

- 2, less well decompesed wood material.
- 3, Sticky, dark in colour; well decomposed.

4, Clay, sand or marl.

The remaining land in the township is bottom land along

stream courses subject to flooding. It has an immature soil consisting of a deep dark coloured surface underlain by greyish material.

In East Gwillimbury the critical factor in determining the type of soil which will develop is the texture of the parent material. This parent material distribution coincides with the physiographic regions of the township. The drainage, which is responsible for the soil variations within areas of similar parent material is also a result of physiographic conditions. Physiography therefore is the principal control of soil series and type formation in this township.

This description of the soils of East Gwillimbury (omitting a discussion of their agricultural capabilities which is included in following sections) concludes the account of the physical geography of the township. These are the conditions under which man had to work, limited by some, aided by others, in his development of the area. In the remainder of this work his efforts and achievements will be described.

HISTORICAL GEOGRAPHY

CHAPTER 2

HISTORICAL GEOGRAPHY

EARLY PERIOD -- to 1812

Before the arrival of Europeans in the vicinity, there had been various Indian tribes in control of the area now occupied by East Gwillimbury township. One of the tribes to become prominent was the Huron. They were agricultural to a certain extent, growing such crops as corn and beans to supplement the food supply acquired from hunting and gathering. At this time the Holland River flowing through the western side of the township served as a route from Lake Simcoe and the lands to the north. From this stream the Indians could take one of three routes south following other streams, the Rouge, the Don, and the Humber. Using one of these routes greatly shortened the trip from Lake Huron to Lake Ontario and they were therefore frequented by Indians making seasonal journeys from Huronia to trade in fur with the European traders who could be found along the shores of Lake Ontario. The existence of the route through East Gwillimbury was to be of considerable importance in the latter settlement of the township.

The Hurons, however, were driven out of the area by their bitterest enemies, the Iroquois, who desired to monopolize the fur trade. The lands to the south of Lake Simcoe had become part of the realm of the Iroquois in 1615 when Champlain arrived at the lake and although they could not occupy it themselves they were able to prevent other tribes from doing so. Their presence greatly hindered traffic on the Holland River route, diverting

the Hurons and French around by the Ottawa River route with their trading goods. By 1651 the Iroquois were in supreme command of all of Ontario south of Lake Huron and European intercourse was reduced to the occasional Dutch trader. This situation persisted for only two decades, however, before an uneasy peace was established between the French and the Iroquois. This peace resulted in an increase in the amount of traffic through the western part of the township. For more than a century the through traffic of the fur trade was the extent of European activity in East Gwillimbury; the only settlement being a semi-permanent camping grounds in the neighbourhood of Holland Landing.

The process of change began in the 1790's, initiated by Governor John Graves Simcoe. Under Simcoe the town of York was built in 1793, partly for the purpose of opening a communications route to Georgian Bay via Lake Simcoe, the primary stage of which was to be a road to the Holland River. This road was Yonge Street. By February 1796 a sleigh track had been cut to the landing and settlers had begun to move up the road, but as yet not as far as East Gwillimbury.

The township was surveyed in 1800 at which time only one lot, at the Landing, had been granted. After the survey several Quaker families were granted lots on Yonge Street near the southern townline but there were few residents before 1805. This year, however, saw the establishment of a religious community on the second and third concession in the neighbourhood of the present town of Sharon. At this site they were on fertile,

well drained farmland and also were relatively isolated from outside interference in their lives. The sect which settled here were the "Children of Peace" or "Davidites", followers of a certain David Willson who had been disowned by the Quaker community to the south on Yonge Street. By 1809 the total population of East Gwillimbury was 425, practically all of whom were farmers.¹

THE FORMATIVE YEARS 1812-1850

An impetus was given to development here by the War of The troops involved in this war required great amounts of 1812 provisions and there was, therefore, a ready market for all kinds Since the armies paid in cash there was of farm products. considerable gold and silver in circulation at this time. For a short period also the activities of the British were curtailed on Lake Erie and they had to use alternative routes to Lake Huron, two of which passed through East Gwillimbury township. The more important was Yonges Street and a large quantity of supplies were teamed up this road to the Landing to be shipped via Lake Simcoe. At this time a storehouse and some log huts were built at Soldiers Bay. The other route, of lesser importance, was from Newmarket, along the road known as Queen Street, to Sharon and north to Lake Simcoe at Roche's Point. Queen Street followed the west bank of the Holland River until it turned to the west. At this point the road crossed the river and followed a winding route, to avoid as many hills as possible, to the third concession road near the site of the above mentioned Davidite community.

^{1.} Department of Planning and Development, <u>Upper Holland Valley</u> <u>Conservation Report</u>. Chapter 4.



EAST GWILLIMBURY

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1861

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ROAD	DS	
	(a)Highroads	
	(b)Ordinary	
SAW	MILLS	
	(a)Water	0
	(b)Steam	٠
GRIST	TMILLS	
	(a)Water	0
	(b)Steam	

(AFTER HOLLAND VALLEY CONSERVATION REPORT)

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From here it followed, generally, the route of the present third concession road but avoided the less well drained land to the east and steered clear of any adverse topographic features. (see map, page 40) Both these routes passed through good agricultural land.

After 1815 immigration resumed although not at the prewar rates. During the next decade, as there was a possibility of renewed hostilities with the United States, settlement was steered toward the interior lines of communication, especially the water routes, such as the Holland River route to Lake Simcoe. Access roads were built to the settlements designed to protect these routes and thus served to open more areas of the township for settlement.

Settlement till the middle of the century remained focused on Yonge Street, which had been Macadamized to Holland Landing by 1850, and on the Holland River although there was an increasing number of pioneers going to the back concessions. This concentration of settlement is illustrated by the fact that in 1846 there were only two grist mills in the township, one at Holland Landing and one on Queen Street between Newmarket and Sharon.¹ As settlement later spread throughout the township mills developed in other areas to serve the local populations.

As a staple crop wheat was universal in East Gwillimbury. The first crop was sown even before the land had been entirely cleared, the seeds being scattered among the tree stumps left in the ground. The wheat not only provided flour for the farmer and

^{1.} Department of Planning and Development, Upper Holland Valley Conservation Report. Chapter 4

his family but also was the principal source of cash income. Peas, oats and barley were also grown but these crops were consumed on the farm. Livestock, cattle and pigs with lesser numbers of sheep, were of only minor commercial importance, being kept mainly for domestic use. Although no systematic crop rotations were in practice at this time the farmers, who were among the most progressive in the province, had adopted a policy of avoiding successive crops of the same grain on any one field.

By this time villages were starting in the township to serve the needs of the increasing agricultural population, Holland Landing and Hope (now Sharon) were the largest. Holland Landing is located at the old landing place on the Holland River where this river leaves the flat plain of the Algonquin Basin and enters the hummocky clay plain to the south. Also at this point Monge. Street turned to the west to avoid the muck and wet sand areas to the north. There had been a water powered saw mill at Holland Landing since 1811 but there was no village development until 1820 when a number of houses, probably five or six, were built around inns which had been opened there. In 1821 a water powered grist mill (using the water of the Holland River) was built and shortly after came a tavern and more houses until by 1836 there were twenty-seven houses and a population of 135-150. A church was constructed in 1843. Bv 1846 the population had grown to 250 and there were three hotels, a store, a bank agent and even industries- grist and saw mills,

brewerys, a distillery, a tannery and a foundry.¹ The village was still heavily dependent on road and water traffic. By 1850 Holland Landing was the busiest place in the township and boasted a population of 500.

In the late 1820's a village, not connected with the Davidites, had begun to grow at Sharon to serve the considerable passing traffic and the local farming population. The site, as well as being in an area of good agricultural land, was at the crossing of Queen Street and the road from Holland Landing and so provided a good location for an inn, blacksmith, wheelwright and saddler to meet the needs of the travellers. The population in 1846 was approximately 180 and 1851 there were 200 people residing there.

To the north of Sharon, about two and one-half miles, another small centre developed on Queen Street, also located in an area of good farmland, Queensville served the needs of the inhabitants of the north-central part of the township. By contemporary means of travel, Sharon and Holland Landing were too distant for convenience and therefore a new centre was needed. Queen Street Was the main road of the township and location on it was important to a settlement, as was a crossroad location. At any of the Queen Street crossroads farther north than the one selected, the site would be restricted by the proximity of the poorly drained land to the east and/@w

^{1.} Department of Planning and Development, <u>Upper Holland</u> <u>Valley Conservation Report</u>. Chpt. 4

the abrupt rise in elevation from the Algonquin Plain to the till plain. In the 1840's Queensville was a small centre containing a few stores, an ashery, a small tannery and some craftsmen.

The locality of Mount Albert was entirely bush in 1844 but by 1850 the first store had been built. Located in an area of good farmland, as are the other villages, Mount Albert developed as a service centre for the surrounding population, especially for the inhabitants of the areas to the east of the township, but there is another important characteristic of its site. This spot is the first place for over ten miles where easy access to the west is available. North of this point there are muck deposits and poorly drained lands which impeded travel, a factor which made the sideroad from Sharon a relatively important route in the township. The eighth concession road north to this sideroad, east on the sideroad to the townline and north on the townline to the muck deposits, at which point it left East Gwillimbury. A the main north-south route in the There was therefore a crossroad as well as a service area. function at Mount Albert. The village did not grow for several years after 1850; not until there was a sufficiently large local population, especially in adjacent Scott township to the east, to support the shops.

THE RAILWAY AGE, 1850-1880

The coming of the railway in 1853 inaugurated many changes in the economy of East Gwillimbury. With the completion of the railway through the township and north to Barrie, the area ceased to be the gateway to the newer country to the north

and the traffic upon which the western half of the township had depended for much of its income ceased to sojourn there. With this source of revenue gone the inhabitants turned to full-time farming and lumbering.

Lumbering had always been an important part of the pioneer economy but this tendency had been inhibited here by the interlobate moraine to the south which is the water divide of the area, causing the streams in East Gwillimbury to flow northwards away from the markets which lay to the south. Before the coming of the railway only the best masting logs could bear the overland haul to Lake Ontario, the rest being used for potash or simply burned by the settler. The homesteader, in fact, regarded the trees as somewhat of an enemy to his farm and so destroyed them as best he could (setting fire and then allowing cattle to graze over the area destroying any new growth was the most common method used). The railway, however, changed their thinking and gave the forests a new value for not only did it supply a means of getting a squared timber and other products to market but also, because of the unavailability of coal, the trains were important consumers of wood, themselves.

In 1850 there were five sawmills in the township, two at Holland Landing, two between there and Sharon and one at Queensville with one at Holland Landing and the one at Queensville being steam operated. They were sufficient to handle the bulk of the lumber which was locally processed, especially in the western half of the township. In 1883 a planing mill was established at Mount Albert, serving the

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eastern part of the township.For the last half of the nineteenth century, therefore, lumbering was an important part of the economy, By 1900, however, the supplies had been virtually exhausted, the only remmants of the industry being firwood shipped to Toronto.

In 1851 there were 327 farms in East Gwillimbury¹ of which 44% were under fifty acres and only 16% over one hundred acres. The total cultivated area was 16,119 acres of which half was pasture or wheat. There was a large market for wheat from Southern Ontario at this time and the farmers were able to get at least one dollar per bushel for all the wheat they It therefore remained the staple crop and main could grow. source of cash income for the farmers of the township. The next crop in areal extent was oats used as feed for the farm livestock and also sold to town dwellers as feed for their horses. Other crops, in order of acreage, were hay, peas and barley. The farmers in East Gwillimbury had by this time adopted a crop rotation system in which the first meadow would be ploughed and a crop of spring grain, or more commonly peas, planted followed by a crop of wheat in the second year. In the third year a spring grain crop, oats or barley, was taken and in the fourth year another crop of fall wheat was planted and the field seeded down for use as hay the next year.

Although the farmers here generally practised the contemporary wheat economy they tended to have a wider base for their farms than most of southern Ontario. Because of the proximity of Toronto and its urban market the farmers here kept more than the usual number of cows and grew more vegetalbes and oats than the average. This made the later transition to a mixed farming and livestock economy easier for the farmer.

From 1860 to 1870 the population rose by twenty-five percent until in 1871 there was 3,934 residents in the township. (see population graph, page 48). Most of the immigrants settled in the northern parts of the township on the poorly drained areas which were now useable because of the introduction of tiles in 1860 to greatly improve artificial drainage which before this time had been very crude using hemlock scoops and cedar rails. Large numbers of settlers, overwhelmingly of British origin, were also filling up the back concessions in the east. By 1871 there 27,179 acres of cultivated land divided among 499 landholders, (see graph, page 48). Of these holdings 35% were less than fifty acres and 26% were over one hundred acres, an increase of 38% in the latter during the twenty year span from 1051 to 1871. (see graph, page 48) Wheat and pasture were still the dominant crops followed by oats, barley and peas.

H olland Landing which in 1850 was the busiest village in the district, had suffered a setback with the passing through of the railroad as it lost its position as a transhipment point for goods from land transport to lake transport. It now became merely the market town for the surrounding area. There were still numbrous industries in the village however, two tanneries, saw and grist mills, a brewery, a woolen mill, a brickyard and wagon shops. As well, the hotels were still in operation. This time,



POPULATION TRENDS SINCE 1851



Total Improved Land

Total Cropland

Pasture

Wheat



however, was the peak of Holland Landing, after which it declined rapidly due to the competition of centres such as Newmarket which had become much larger than Holland Landing. By 1880 many of the businesses of Holland Landing had closed down and the population had dropped to 443.

During this period Mount Albert, having acquired a larger and more populous hinterland, expanded considerably from its modest beginning in 1850, attracting several more stores, a woolen mill, and the usual services such as wagon shops and a farm machinery repair shop. Even now it could be seen that Mount Albert was developing as the main market centre for the eastern half of the township.

There was little occuring in Queensville and Sharon during this period largely because of their nearness to each other (two and one-half miles). This nearness prevented either one from growing appreciably as the commercial activity was divided between the two. A farm equipment repair shop was established in Queensville, however, Many of the services located in these hamlets at this time must have been part-time enterprizes conducted by the craftsman in his home. These towns gained somewhat in population as the precedent was now being established of elderly people moving to the villages and leaving their sons to work the farms.

A CHANGING ECONOMY

A transition in farming occured in the 1880's with the appearance of prairie wheat as a strong competitor of Southern Ontario wheat, soon to eclipse it on the world market. Since wheat had been the basic source of income on the farm many farmers

found themselves in difficulty during this period. There was, therefore, in East Gwillimbury, which was overwhelmingly rural, a decline in population of 7%. However, there were also new opportunities presenting themselves in agriculture.

These opportunities derived from the growing industrial towns to the south which furnished a market for the products of the farm and those who were able to make the necessary adjustments in their practices found themselves equally or more prosperous than previously. The urban areas were now providing substantial markets for dairy products, meat and other food supplies, horses for their carriages and street railways, and feed for their horses. Therefore, dairying, grain growing (for fodder), and livestock breeding developed on an increased scale in the township.

The farmers here were not restricted in their markets to local centres such as Toronto but participated also in the export trade. During the Reciprocity Treaty with the United States, a beef trade had grown up with that country and it did not end with the abrogation of the treaty. A market for beef had also been found in Great Britain, in the late 1870's. However as Toronto increased in population, East Gwillimbury became more oriented towards it as a market and less dependent on foreign trade. This availability of alternative activities reduced the effect on the township of the agricultural depression in the late 1880's. As the demand for beef, pork, milk and vegetables in Toronto increased, agriculture tended to be more specialized on the individual farms. Cheese-making, which had never been of great importance in the township, died out at this time.

THE MODERN AGE

After the turn of the century, East Gwillimbury began to feel the effect of the city more directly. An electric railway had been built from Toronto to Jackson's Point on Lake Simcoe passing through the township. Since this train made stops at short intervals it was easy for the inhabitants to reach Toronto but this trip was not yet made on a daily commuter type basis because of the slowness of the train.

A quaint project which was underway at this time pertained to the Trent Canal System. It was proposed that a branch of this system be built along the Holland River from Lake Simcoe to Newmarket and work was started on it in 1908 but it was never finished. Such a canal may have been of benefit in the prerailway age as a means of transporting logs and other bulk goods but there was little demand at this time for water transportation to Lake Simcoe. (see pictures, page 54)

Agriculture at this time remained fairly prosperous with production aimed primarily at the Toronto market which still required a considerable number of horses and quantities of grain and hay to feed them although the demand had dropped since the electrification of the street railway. Dairy cattle had now superceded beef cattle, as the demand for milk products in the cities increased, and became the main specialty of the area.

The peak amount of cultivated land was reached in 1911 when 42,006 acres were cultivated. There were five hundred and twenty farms in the township, 23% being under fifty acres and 35% over one hundred acres which, when compared to the



No.8. A lock constructed in 1908 as part of the Newmarket Canal.



No.9. A typical house of pioneer days in East Gwillimbury.

figures for 1871 illustrates the trend towards larger farm units. (see graph) Much of this land, however, was unsuitable for cultivation and was later abandoned so that in the next decade the cultivated acreage had dropped to 34,450. The shortage of farm labour during World War One may have contributed to this drop though it seems unlikely as there had been no significant increase in the cultivated area in recent times.

It was Holland Landing which suffered most from the changing patterns of life in the early 1900's although Sharon and to a lesser extent, Queensville also felt the pains of progress. With the rapid improvements in transportation these villages, especially Holland Landing lost their significance as market centres and mill towns since the larger centres, particularly Newmarket, were within easy reach of many people and offered better shopping facilities. Holland Landing had lost its industries by this time and many of its residents. It gradually degenerated until in 1933 it ceased to be an organized village and became part of East Gwillimbury.

Mount Albert, on the contrary, was more remote from any large centres and therefore maintained itself, indeed even experiencing a slight increase in population. It was the only village in the eastern half of the township and so had a monopoly on the retail trade. It developed a more diversified business district than the other hamlets as it pocessed a grocery store, a drug store, clothing stores and a bank. The planing mill was still in operation as were the machinery repair shops as well as a new creamery.

During World War One, Yonge Street again became an artery of transportation and with the appearance of automobiles as a popular means of transportation and the spread of paved roads the population became more mobile. This brought more business to the larger towns at the expense of the country stores. The spread of Toronto into the surrounding rural areas began in the 1930's but was yet quite distant from East Gwillimbury. This trend continued during World War Two as the increased industrial production concentrated an enlarged labour force in the Toronto The shortage of housing within the city became more area. acute and with the returning forces at the termination of the war, a great impetus was given to the spread of the city into the country. Penetration of the urban sprawl into East Gwillimbury, however, did not begin until 1950.

Holland Landing experienced a slight revival during the late 1930's in conjunction with the development of the Holland marsh vegetable area to the north-west of the township. Large storage facilities were built along the railway on the morthern outskirts of the village and provided some employment for the local population. Established in the late 1940's was a branch plant of a Newmarket Furniture factory. This is the largest industry in the township and it was located here because of the availability of low-priced land beside the railway. Although much of the labour employed in this factory was transplanted skilled labour from the parent plant there were also many openings for the local population. Because of the proximity of the plant to Newmarket from where the labour was

transferred, very few of the men deemed it necessayyyto move their families to Holland Landing in order to reside close to their place of employment.

The other hamlets in the township saw little change during the period. Mount Albert maintained its position as the market centre for the eastern areas but grew very little. In Sharon there was some residential expansion but on a small scale, mostly elderly people moving in from their farms. Queensville was almos t stagnant during this period. These villages existed to serve the rural population and without an expansion in it, they could not expand.

By the mid 1940's there had been a considerable cottage community developed at Riverdrive Park near Soldier's Bay. The landd here was cheaper than that on the shores of Lake Simcoe and closer to Toronto yet there was easy access to the Lake along the Holland River. The cottages built here were small and occupied small lots. In the late 1940's and early 1950's, however, the Holland River became so badly polluted by the dumping of sewage and industrial waste in it by the communities upstream that it lost its value as a recreation facility. There is still a fairly large marina located there, patronized by Toronto residents, but the cottages have been converted into permanent homes.

After 1950 the population of the township more than doubled as the fringe of the Toronto commuter zone entered the area. Since this development is discussed more fully in a later

section, it will not be elaborated further here. The modern trends in agriculture are also discussed more fully in a later section.

This then was East Gwillimbury's pattern of progress from an unsettled forest land in 1800 to a prosperous agricultural area in the twentieth century. Its progress was influenced by the same factors as most of Southern Ontario - War of 1812, the coming of the railroad, settlement of the prairies - but it was also greatly affected by the proximity of Toronto. Since the nineteenth century the economy of the township grew more and more oriented to the service of this large urban market until to-day almost all of the agricultural produces of the township is distributed in this city.

Sources of information?

RURAL LAND USE

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CHAPTER 3

LAND USE

RURAL LAND USE

The use of the land by man in any given area is determined by physical, economic and social factors. It will be seen that the physical and economic factors coalesce in East Gwillimbury in that the soils are good for, or can be used for, and the climate is suitable for grains, hay and pasture, the crops required in dairying, beef ranching and mixed farming while near-by (within thirty-five miles) there is a large market in Metropolitan Toronto for the fluid milk, meat and vegetables produced under these types of agriculture. A social factor, which also has strong economic undertones, is, due to recent developments, showing indications of possible conflict with physical conditions in the form of a growing urbanization usurping the land from agricultural employment but this, as yet, is far from critical.

A land classification of East Gwillimbury has been devised on the basis of a comparative rating of the soils according to their capability to grow grains (wheat, oats), hay, pasture and corn.¹ Five divisions were made, ranging from good to submarginal land. Although the crop capability of the soils was the only factor considered in this classification, the diversions follow the

¹ D.W.H. Hoffman, N. R. Richards, <u>Soil Survey of York County</u> Guelph, Experimental Farms Service, Canada Department of Agriculture and the Ontario Agricultural College, 1955, Pg. 95-104.

physiographic regions of the township. In the previous section on soils, it was shown that the controlling factors of soild development are the texture of the surface material, the drainage, and the topography, factors which are ultimately dependent upon the morphology of the area. The ability of the soils to produce crops is directly related to these factors also, some crops preferring sandy to clay soils, others being intolerant of imperfect drainage, etc. There is therefore a direct relationship in East Gwillimbury between the crop capability of the land and the physicography.

Land of Class I is the best agricultural land in the township. (see map, page 61) The areas of this type are found on loam textured till and the clays and fine sands of the Schomberg Ponding; the topography is moderately sloping. (see map, page 64.) They comprise, therefore, the Bondhead loam, Schomberg silt loam, Schomberg clay loam and Percy fine sandy loam soils. These soils are suitable for a wide range of field crops necessary for livestock farming, being especially good for grains (oats, wheat and barley), hay and pasture; for fodder corn they are good to fair. The only outstanding limitation of the use of these soils is their sucestibility to erosion because of the moderately sloping topography on which they have formed. This erosion, however, can be reduced to almost nil by proper soil conservation practices such as grassed water ways and cover crops. These areas of Class I are capable of supporting a prosperous farm economy, particularly if they are managed wisely, as is the case generally in East Gwillimbury

The soils of Class II represent rather good croplands but



are lighter in texture or less well drained than the soils of Class I. Class II is found on those till areas which are not of Class I. The soils grouped here are Smithfield clay loam, Guerin loam, Bondhead sandy loam, and Dundonald sandy loam. All of these soils are good for grain except the Smithfield clay loam which, being imperfectly drained, is only fair for grain. The opposite is the case with hay and pasture for which the Smithfield series is good and the others fair. All are fair for fodder corn. The main limitations to the use of these soils are, in the Bondhead and Dundonald series, suceptibility to erosion or, in the Smithfield and Guerin series imperfect drainage. The former problem can be reduced by soil conservation practices and the latter by artificial drainage. Land of Class II is also capable of supporting a prosperous farm economy but requires a greater investment is soil addatives and drainage tiles.

The land of Class III is fair cropland found in the Algonquin clay plain, the outwash sands and the sand plains. The topography varies considerably (see map, page 64). The soils involved here are the Bookton sandy loam, Schomberg clay loam steep phase, Brighton sandy loam, Guerin sandy loam, Simcoe clay loam and Simcoe s ilt loam. Fair yields of grains, hay and pasture and fodder corn can be obtained from these lands. The productivity of these soils is limited by the low fertility and suceptibility to erosion of those which are sandy soils and the imperfect or poor drainage of the heavier soils in this group. Also, the a coarse textured soils, especially the Brighton sandy loam, have a low moisture retaining capacity and therefore have a tendency to
be droughty in the summer. The low moisture retaining capacity is of benefit in the spring, however, as it allows for early cultivation. The farms located on land of this class are less prosperous than those on the above classes but, with careful management, their owners are still able to extract a reasonable living from the land.

Class IV involves land which is marginal for profitable agriculture. The soils included, found on the deltaic sands of the Algonquin Plain and in small areas of the sand plain and outwash sands, are Pontypool sandy loam, Tecumseth sandy loam and Lyons loam. In this class also the topography varies considerably (see map, page 64). For grain these soils vary from fair in the well drained areas to poor in the less well drained areas, are fair for hay and pasture and fair to poor for fodder corn. The principal limitations of these soils are suceptibility to erosion, in the Pontypool series, or imperfect or poor drainage in the Tecumseth and Lyons series. This land is not used for dairying or mixed farming but is employed in other ways discussed below.

The lands of Class V are very poor or submarginal lands. They are located in the areas of muck deposits, kame moraine, and sand plain. Pontypool sand, Wauseon sandy loam, Granby sandy loam, Bridgman sand, Bottomland and muck are the soils in this class. These areas are very poor for all crops and great expense is required to bring them into production of any sort. The muck areas are potential vegetable gardens but large investments are required to prepare them for use. The limitations of these soils are one or more of poor drainage, low fertibity, suceptibility to erosion and



TOPOGRAPHY

MODERATE SLOPES GENTLE SLOPES VERY GENTLE SLOPES DEPRESSIONAL STEEP SLOPES

and the second

Children of

(and the second

Contractory of



PROBLEM AREAS

EROSION AND FERTILITY DRAINAGE AND FERTILITY WIND EROSION AND LOW FERTILITY

MUCK AREAS



EROSION

LITTLE OR NONE

MODERATE TO SEVERE (SHEET)

MODERATE TO SEVERE (WIND)

(AFTER SOIL SURVEY OF YORK COUNTY)

and periodic flooding.

From this survey of the land classes of the township it can be seen that there is a wide range in the utility of the soils, some being very good and others very poor. For all the classes some problems or limitations in the utility of the land have been cited. The conditions vary in kind and severity throughout the township and can be closely related to the physiography of the area (see map, page 64).

Water erosion and the maintenance of fertility are the main problems on the till and hummocky clay plains occupied by land Classes I and II. Erosion is controlled by the topography of the land and the texture of the soil in these areas, the topography is moderately sloping to steeply sloping and the texture of the soil is clay or loam. These factors combine to cause considerable surface run-off causing in turn sheet erosion. If left unchecked this sheet erosion may develop into gulleying as has occured in the clay areas bordering the Holland River. Erosion control practices have now been introduced in these localities, the gulleys having been sodded and reforested, and throughout most of the township. The practice of growing fall grains, which necessitates preparation of soil in the fall, tends to increase the problem as the soils are left more suceptible to erosion during the critical fall and early spring periods when run-off is at its peak. In this district sheet erosion is generally moderate but is severe in some localities. (see map, page 64)

Maintenance of soil fertility is a problem everywhere if the agricultural productivity is to be maintained. Soil fertility is

reduced due to the exhaustion of plant nutrients by the crops and by the removal of plant nutrients and organic matter by erosion. To replace these ingredients in the soil fertilizers are applied, both commercial mineral fertilizers and barnyard manure. The seriousness of the removal of nutrients by plants can be reduced by a planned crop-rotation. Farmers in East Gwillimbury are generally quite aware of soil conservation methods and practice them to the best advantage of the soil

In other areas, particularly those occupied by land Class IV, drainage, as well as fertility, is a problem, erosion being slight because of the gentle topography. The drainage of these areas can be improved artificially by a network of tiles although the gentle or flat topography still allows only slow drainage, especially in the spring. Because of this slow drainage, seeding time is frequently delayed. Heavy rains in spring may cause crop failures by retarding germination or, in extreme cases, by drowning the young plants. This dampness of the soil also makes it rather slow to warm up in the spring, further retarding germination.

Because of the low natural fertility of the sandy soils found in these areas, the incentive to improve drainage is reduced; indeed improving drainage tends to reduce the fertility because of the leaching process initiated. Mineral fertilizers and manure would have to be added to increase and maintain the fertility of the soil and render it useful for general farming. This has not been done in East Gwillimbury.

In the clay plain of the Algonquin Basin drainage is the major problem. In this area the clay texture of the soil impedes

water percolation and the flat topography reduces the surface run-off and as a result drainage is poor. However, despite the problems caused by poor drainage it is more profitable here than in the sandy soils to pursue corrective measures because of the higher fertility of the soil. Nevertheless because of the fine texture of this soil it must be worked at optimum moisture conditions if a satisfactory soil structure is to be preserved.

In the sandy areas of kame moraine and well drained sand plain, the main problems are wind erosion and low fertility. These two conditions interact forming a vicious circle leading towards land ruination. Because of the low fertility, due to the relative lack of plant nutrients and organic matter, there is only scanty vegetative cover to protect the soil from the wind. If this cover is removed the topsoil is easily blown away which further reduces the capacity of the land to support a vegetative cover and so the soil is made more susceptible to erosion. In areas where the most extreme wind erosion has occured there are blow-outs mapped as Bridgman sand.

The muck deposits have several problems peculiar to them. They are located in depressional areas and therefore have poor drainage which must be improved before the muck can be used. As well as being drained, however, the muck must also be irrigated and supplemented by mineral fertilizers. Because of the depressional locations of the muck deposits the danger of flooding is quite accute in times of high water. Underground fires are also a menace as they can burn in the partially decomposed organic matter beneath the surface and are therefore difficult to extinguish.

These then are the principal problems presented to

agriculture by the soils of East Gwillimbury. These limitations, however, are far from being crippling to agriculture in most of the township and, as noted above, a considerable portion of the land is good for, or can be used for grains, hay, pasture and fodder corn. These are the crops which support a farm economy of dairying, beef ranching or mixed farming.

ECONOMIC FACTORS

It was stated above that in East Gwillimbury, both the physical and economic factors combine to favour the kind of farm economy already mentioned. Having discussed the physical factors it now remains to investigate the economic elements. Two such elements are the proximity of markets and the transportation facilities which put these markets within easy reach.

For dairy products, especially fluid milk, meat and vegetables the great urban area of Metropolitan Toronto forms a market capable of consuming all that can be produced in East Gwillimbury. The town of Newmarket is important as a market for milk and vegetables mainly, since its meat supplies are obtained from wholesalers in Toronto who probably received some of their supplies from East Gwillimbury. The prices paid for these products are among the highest in the province and are quite stable.

The transportation facilities - roads - in the township serve to increase the accessibility of the markets. The township is criss-crossed by an almost complete network of concession roads and sideroads at intervals of one and one-quarter miles but of particular impor tance is the location of the paved roads. Through the large areas of Class I and II land in the western half of the township three well maintained paved roads run from north to south. (see

Orientation Map, page 4) All of these roads lead directly to Toronto, only an hour away by truck or automobile. The paved roads which run east - west are also important as they inter-connect the northsouth roads and serve the intervening areas. It should be noted that these roads also are located mainly in the areas of Class I, II or III land. These lands, therefore have excellent road connections with the markets to which their agricultural produce is headed.

The two railroads which traverse the township are of little importance in the transportation of agricultural produce. Some of the vegetables produced in the muck areas in the north-west corner of the township are shipped by rail and occasionally livestock are transported by rail but they must first be carried by truck to Newmarket were they are loaded on the trains.

There is, therefore, in East Gwillimbury an almost guaranteed market for the products of dairying, beef ranching and mixed farming and transportation facilities which render that market easily accessible. The responses of the inhabitants of the township to the physical and economic inducements must now be examined.

LAND USE

A general impression of the use of the land by man can be gained by examining the census statistics (1961 census) which list the total acreages devoted to each particular use. The total area of farmland in East Gwillimbury is 42,979 acres of which 31,665 acres is improved land. There 21,050 acres of cropland, 7959 acres of pasture, 1,003 acres of summer fallow and 1653 acres of miscellaneous uses.

The largest crop in areal extent is hay occupying 8,364

acres of land followed by oats which occupies 6,227 acres. Wheat is the third largest occupier of cropland with 2,423 acres; while in forth position is mixed grains on 1,435 acres. Other crops are corn 788 acres (686 acres of ensilage corn), potatoes - 620 acres, rye - 234 acres and barley -210 acres. These acreages indicate an overwhelming dominance of crops used as livestock feed - May, pasture and oats - in the land use pattern of the township.

In making the survey of land use in the township two methods were used. For approximately 75% of the area the land use was mapped in the field while for the remaining 25% air photographs on the scale of 1:1000 were employed. In making the survey eight categories were utilized, non-agricultural, uncleared, reforested, pasture, hay, grain, corn and row crops. In discussing the land use pattern here references will be made to the land classes of the prededing section but since their physical characteristics have already been outlined they will not again be referred to in detail. However, where individual instances warrant it, the salient physical factors will be noted.

The non-agricultural category includes villages, residential areas (but not farm residences), commercial sites (such as service stations) and isolated suburban non-farm dwellings. Since the urbam geography on the township will be discussed in a following section it will not be further mentioned here.

The uncleared land consists of land which has not been cleared for cultivation or has reverted to forest after being cleared. (see land use map in back pocket) Several types of uncleared land can be distinguished. The land of Class V stands out as predominantly

uncleared land. This is particularly true of the muck areas which of have a vegetative cover, mainly elm, ash, and cedar trees with less frequent silver maples and hemlocks. There is a dense underbrush and in the very poorly drained areas rushes are found (in the northwest corner of the township near the confluence of the Holland and Schomberg Rivers).

Many areas of Class IV land are also covered with forest but this is frequently a second growth forest of soft maple, birch and aspen. The aspen is especially representative of second growth forests because of its very light seed, similar to that of the dandelion, which is carried long distances by the wind and so spreads quite easily. When it becomes established it grows rather quickly and protects the other more slowly growing species, When mature it has a rather light shading effect and so allows the sun to penetrate to the smaller trees. Since it is a short-lived tree, by the time the other trees are nearing maturity it dies and allows them to become dominant. Soft maple and birch are characteristic of mature second growth forests although there will still be aspens in large numbers. Such forests are found along the west townline on the imperfectly drained sands and steeply-sloping clay areas of land Class III. A particularly large area covered with this type of vegetation is the kame moraine area where the land, once cultivated was allowed to revert to forest without any planned reforestation programme.

Throughout the better classes of land, any uncleared areas tend to consist of farmer's woodlots on the particularly steeply sloping land or across the back acreages of the farms, (i.e. through the middle of the concessions). A good example of a wood

lot on a steep slope is the curved strip of forest north-west of Queensville in the third concession, (see Land Use Map). This strip is located on the abrupt drop in elevation from the till plain to the Lake Algonquin Basin. Forested areas are also prominent in the environs of the Holland River where erosion of the clay plain has created a rough topography. These areas have been left in forest to arrest erosion and because they would be difficult to farm. The predominant trees are hard maple, beech and spruce with lesser numbers of oak and white ash. Since most of the woodlots are grazed, there is little undergrowth and serious reproduction problems have arisen. Only rarely are the trees of these woodlots exploited for timber now and their use for firewood has diminished greatly in recent decades. There is only one cases in the township where the sugar maple forests are tapped for the commercial production of maple syrup and sugar and this only on a small scale. The area concerned is the square-shaped wood south-west of Ravenshoe.

The remaining areas of uncleared land are located in bottomlands. These areas, being wet, have a coverisonsisting mainly of cedar trees, but including also some elms; the undergrowth consists of sedges and marsh grasses. Grazing on these lands is a general practice in the township although the forage is poor. This allows some gain to be obtained from the bottomlands as the tree species located there are of little economic value.

The land classified as reforested represents areas where a planned programme of forest-cover renewal has been carried on. The most obvious aspect of the reforested areas on the map is that they are all in areas of sandy soids. Increasing the tree cover arrests

the erosive power of the wind both by providing a wind break and by anchoring the soil particles more firmly. The three re-forested sections in the north-east of the township (that along the northern townline in the seventh concession, the one immediately south of it and the area in the ninth concession) are county forests. Approximately ten years old, these trees were planted by the county for cons ervation purposes and as an example to the inhabitants of what can and should be done with this land. The area in the ninth concession was once a serious problem because of erosion so severe as to lead to sand being frequently blown over Highway 48. The planting of the coniferous trees have solved this problem.

The other reforestation projects in the township are private endeavours. Near the south townline in the s eventh concession is a large reforested area. (see photo, page 744)This is in the kame moraine area where wind erosion of the sandy soil is a problem. The trees to the west of the Mount Albert Creek have been planted purely for conservation purposes. The advantages of such a reforestation programme are becoming better known and several new forests have been planted in the last three years. They are localized in the sandy areas of the s eventh concession.

To the east of the Mount Albert Creek the area mapped as reforested is used for the growing of Christmas trees. Following a carefully planned programme of cutting and planting the owner is able to maintain a continuous annual income from this land which would otherwise be of little economic value. At the same time the trees perform the conservation functions described above. The cutting here is done in mid-December and the trees



No. 10. An area of reforestation on Pontypool sand.



No. 11. A typical section of the scrub pastured found in the northern areas of well drained sandy soils.

are marketed in nearby centres such as Newmarket and Aurora.

The pasture category on the land use map includes both permanent and rotational pasture. One of the most striking features is the way in which the lands of Classess I, II and III are surrounded by an almost complete fringe of pasture. This is a transition zone between the lands unsuitable for cultivation and those suitable for cultivation. The most prominent section of the fringe is along the sixth concession road north from the Queensville ssideroad. This land was cleared for cultivation during the first decade of the present century but was soon discovered to be inadequate for cultivation. It was therefore abandoned, allowed to run down and begin to revert to forest. (see photo, page 74a) At present it is used as rough pasture by farmers from all sections of the township who rent this land to summer their young cattle on. This grazing has retarded the reversion to forest and now there is a scrub vegetation throughout the area.

Surrounding the peninsula-shaped area of Class III land centred on the seventh concession road east of Mount Albert and the better class land to the north of that village, the pasture fringe is also particularly evident. Since these sections of the township are predominantly beef farming areas, the pasture is used by the owners.

On the western side of the township the pasture fringe is not as well pronounced but it still is evident. Here it marks the transition from imperfectly to poorly drained lands. It is pasture of a light carrying capacity and is used less frequently in the vicinity of Riverdrive Park than in the former areas.

Throughout the rest of the township permanent pasture is

found in the bottomland areas or on steeply sloping land. Along the stream course of Class V bottomland pasture can be seen. This pasture is also of a rather light carrying capacity, being in rather wet areas and floodedd during periods of high water. Pasture, however, is the only use to which these lands can be put. In the steeply or moderately Sloping areas suceptible to sheet erosion a cover of permanent pasture is maintained. This pasture is of a better quality than the pasture discussed so far as much of the land was once used for crops and was then planted in a pasture mixture or was improved specifically for pasture. The largest area of this type is in the clay plain bordering the Holland River.

Rotational pasture is found in haphazardly scattered fields among the field crops of lands of Classes I, II and III. This is the pasture which provides the best forage for livestock as it is located on the best lands, planted in a grass-legume mixture and renewed regularly. Frequently it is hay fields after their third year which are used for pasture. Also pastured are second year hay fields after the June cutting and grain fields after the harvest. These practices reduce the number of fields used specifically for rotational pasture.

All fields from which a hay crop was taken were classified as hay. Thus many fields intended for pasture but which developed a particularly luxuriant growth which was cut for hay have been included in this category. The use of land for hay can be seen to follow almost exactly the areas of Classes I, II and III land. In these areas at least 60%, and as much as 70% of the land is in hay and rotational pasture. The yields and types of hay grown vary throughout the township with Class I and II giving the best crop.

Within the areas of Class III land where drainage is a problem (clay plain of Algonquin Basin), the yields vary with the effectiveness of the artificial drainage, higher yields being obtained where drainage is most efficient. However, even where the drainage is less efficient a higher porportion of the land is in hay as the yields, though relatively low, are still higher than the potential yields of grains.

Alfalfa, having the highest yield per acre and the highest feed value per unit weight, is the most common hay crop and, because of its soil building properties, is an important part of the crop totation. A well drained soil is necessary for successful alfalfa growth, however, as poor drainage hinders its root development. This is the important factor in the distribution of this crop in the township. It is less common in the imperfectly drained areas, even where artificial drainage is in use. In these later areas alfalfa is replaced by alsike clover which will grow in wet areas and provide an adequate fodder crop. Timothy is also an important hay crop grown mainly on the well drained lands.

The grain category includes oats, wheat, mixed grains, rye and barley, in order of areal extent. Oats is produced exclusively as a feed for livestock, usually by the producer on his own farm. It is a desirable feed because of its high food value and bulk (crude fibre). Oats enjoys the most widespread distribution of the grains in East Gwillimbury because of the wide range of soil conditions under which it will grow as any soil with fair drainage and an adequate moisture supply will support a crop of oats. This means that the lands of Class III can produce an oat crop, although some areas require drainage improvements, whereas other grains do not do

as well. Oats therefore is important in the sandy loam areas east and south of Mount Albert, in the sandy pasture-dominated areas in the north and in the north-west on the clay plains where tile drainage is required. Although less dominant oats is the most important grain crop in the lands of Classes I and II also.

Wheat is less tolerant of sandy soils than oats but it will produce a crop on the Class III land. The results, however, are not impressive enough to justify its use as any more than a supplemental crop to oats. The better class lands are suitable for wheat, being fairly fertile, having good drainage and a good moisture holding capacity. Wheat, therefore, is more common in these areas. Since it is a more valuable cash crop then the other grains, as much land as can possibly be spared from livestock feed production is devoted to wheat but it very rarely exceeds the oat acreage on a farm.

Mixed grains are less specific in their soil demands than wheat and, since they are used exclusively as livestock feed, are more evenly distributed throughout the township on the lands of Classes I, II and III. Rye and barley are of minor importance in East Gwillimbury.

In the corn category both ensilage corn and husking corn are included but ensilage corn is overwhelmingly dominant. Each farm grows only enough corn to fill its silo and therefore corn does not occupy nearly as much acreage as the other field crops. Another factor limiting the spread of corn is the sparce protection from erosion it gives the soil. This is of crucial importance in the hummocky clay plain of the Schomberg Ponding where only a few fields of corn are located.

The soil requirements for corn also limit its extent. Areas of poor or imperfect drainage are not suitable for corn, because the soil is too cool for germination in the spring. This restricts the planting in the clay plain area of the north-west except in the locations where attificial drainage is particularly efficient. However, soils which are too well drained, such as the sandy soils (Brighton sandy loam), tend to become droughty in the summer and are also unsuitable for corn as it requires large amounts of moisture during fits peak growing period. Sandy soils also are not generally fertile enough to support corn which taxes heavily the plant nutrient supply of the soil. An example of an area planted in corn which was not suitable for it is the huge field on the seventh concession road north of the Queensville sideroad. The corn failed even to approach maturity and was a total loss. Corn is grown mainly on the lands of Class I and II with lesser amounts in Class III areas .

As was stated above, ensilage corn is the dominant type in the township. However in certain sections grain corn is starting to make inroads. One is in the vicinity of Mount Albert where there is a predominance of beef farms and the farmers are starting to realize the advantages of grain corn as a feed for cattle. The other area is at the junction of the forth concession road and the southern townline. Here, operated by two brothers, are the two most prosperous beef farms in the township. These men with their progressive methods are setting examples which other famers are slowly starting to follow, not the least of which is the cultivation of grain corn with which they are having very good success.

Row crops in East Gwillimbury consist of celery, onions, lettuce, carrots, cabbage, potatoes, turnips and raspberries. The first four vegetables mentioned are grown in the muck areas which, when properly prepared for cultivation, are excellent for the be production of these crops. As marsh gardening willAdiscussed at length in a following section it will not be examined any further here.

Cabbages are grown in two areas in the township, both in Class IV lands. Along the western townline and Highway 11 there are several small scale operators producing cabbages as their main crop although also growing other vegetables. The area of row crops on the seventh concession north of the Queensville sideroad is also mainly a cabbage producer. This is a recently established operation (1959) and so far has been fairly successful.

Potatoes were once much more important in East Gwillimbury than they are at present. Up until five years ago considerable acreages of potatoes were grown on the Brighton sandy loam south of Mount Albert and in Percy fine & andy loam to the west. Now only two fields of potatoes are left in these areas. For three decades the price farmers received for potatoes remained relatively constant while production costs rose until it was more profitable to use the land for grain or hay. The land was therefore devoted to these crops and potato production dropped. There are also two fields of potatoes in the north-west on the Simcoe clay but these soils are not well adapted to potatoes and the yields are low.

There is only one turnip grower in the township and his farm is along the third concession road one and a half miles north of Queensville. This farmer has been growing turnips for

many years and has become the largest turnip producer in York County. The soil of this area is Bondhead sandy loam from which good yields are obtained but his growing of turnips is mainly derived from a personal desire. There is also only one raspberry producer in the township. This is the row crop area in the extreme north of the third concession and is located on land of Class 3.

The land of East Gwillimbury is devoted primarily to the production of feed for livestock - hay, grains, pasture - with cash crops being of minor importance in area extent. Although economic factors have some effect in determining what crops will be grown in the township, it is the physical factors which determine where they will be grown. This can be seen by correlating the Land Use Map with the Land Capabilities Map and the latter with the maps of Soils and Physiography Regions.

The clay plain and sand plain of the Schomberg Ponding and the till areas stand out as the best agricultural land. They contain the highest proportion of improved land, of cropland and of grains. The outwash sands, the kame moraines, and the sand plains of Lake Algonquin are used for pasture, are reforested, or uncleared although some hay and grain are grown. The muck areas are largely uncleared but have some vegetable gardening on them.

The physical environment of East Gwillimbury, therefore, has great influence in determining the use of the land. It restricts the profitable expansion of crops to definite areas but also provides a sufficient variety of landscape conditions to allow cultivation of many crops, indeed for almost any crop adaptable to the climatic conditions. Within the range of crops which can be grown, the economic forces determine which will be exploited.

FARMING TYPES AND REGIONS

There are three types of farming in East Gwillimbury, dairying, beef ranching, and mixed farming. The crops required by dairy and beef farms are similar and the proportion of the land devoted to each use varies only slightly. At least 60% and as much as 70% of the land will be in hay and pasture, less than 10% in woodland (in the better class lands), 5% to 10% in corn and the rest in grains. Beef farmers may have a slightly larger acreage of corn, especially if they have adopted the practice of growing husking corn. Mixed farmers, having less cattle to feed, will grow less hay, replacing it with a cash crop or a crop to suitable for swine feed. A four, and sometimes five year crop rotation is employed. The first year corn (a heavy feeder), fall wheat, or mixed grains is planted followed in the second year by oats seeded down with a grass legume mixture. For the next two years the hay crop will be harvested and if a five year rotation is practiced, the field will be used as pasture the fifth year. The similarities in the crop requirements by these types of farming results in there being no pattern to the distribution of the individual types although some areas of concentration can be discerned. (see map, page 82)

The choice between dairying and beef farming is not based on the physical aspects of the land but on the desires and abilities of the individual farmer. Dairy farming produces a larger and steadier income but also requires greater imputs of capital and labour. Large investments in milking machinery and cooling apparatus are required in dairy farming but not in beef farming. There are also great defferences in the labour imput between the



two types as the dairy farmer must work seven days a week in milking and caring for his cattle whereas the beef farmer's presence is not required every day.

Specialized dairy farming in East Gwillimbury is a large scale operation. An average farmer keeps eighty-five to ninetyfive cattle and milks thirty to thirty-five. Holsteins are the most common breed as they yield a greater quantity of milk than the other breeds and, being bigger animals, can command a higher price when sold at the stockyards. Jersey herds are also common and an influential dairy is currently encouraging the development of Guernsey herds. Dairy farms are scattered throughout the area of Class 1, IIand IIIIand but a local concentration occurs approximately on the clay plain of the Schomberg Ponding and extends northward in a strip up the third concession. (see map, page 82)

Dairy farmers grow most of their own feed but must buy special mixtures such as high protein concentrates. Hay, oats and mixed grains are the main feed crops with corn of minor importance (one farm of 200 acres had only five acres of corn). The corn is ensilage corn used as a filler for the cattle, not for its food value. The only cash crop marketed by the dairy farmers is wheat which they sell to the local Farmers' Co-operative in Newmarket.

Since 1956 milk collection in East Gwillimbury has been every other day by bulk trucks which have replaced the milk can method. Toronto and Newmarket are the main outlets for the milk. Most farmers prefer to deal with the Newmarket dairies feeling they will be dealt with more fairly by the smaller dairies than the large organizations in Toronto. Also a factor in this

preference is the lower transportation costs in shipping the milk to Newmarket. The farmers do not operate under contract to the dairies and therefore receive only 70% to 85% of the top price for their milk but feel this sacrifice is worth the marketing freedom they enjoy.

Beef farmers grow basically the same crops as the dairy farmers. The common beef breeds are Shorthorns and Aberdeen Angus with lesser numbers of merefords. The animals are marketed in Toronto and because of the proximity to this large market, the farmers are able to react quickly to price changes in shipping their livestock. There is a concentration of beef farms in the vicinity of Mount Albert and in the north-central part of the township.

On the mixed farms also, livestock provide the greater proportion of the income but there are, however, crops grown especially for sale. Dairy cattle are losing popularity as an aspect of mixed farming because of the large investments in equipment required from which it is difficult for the mixed farmer to obtain an adequate return with his relatively small herd. There is a tendency, therefore, to convert to beef cattle and hogs which are becoming of increasing importance and a hog farming specialty is emerging. Because of the competition from the modern type of large poultry farm and the low price at which farmers can buy poultry and eggs in the towns, few farmers keep their own flocks now.

There are several cash crops produced by the mixed farmers potatoes, turnips, respberries and wheat. As explained above,

however, potato production has dropped considerably in the last decade and there is only one turnip grower and one raspberry producer in the township. Wheat, however, is the universal cash crop, some farmers having up to 25% of their land in wheat. Other grains are also sold if there is a surplus left over the farm needs. The concentration of mixed farmers is in the centre of the township. The mixed farmer is slowly becoming a thing of the past in East Gwillimbury as he is unable to compete with the specialized farms.

Vegetable gardening is the exception to these generalizations and warrants a closer examination. Utilizing the organic soils of the muck deposits requires considerable preparation of the land, mainly artificial drainage but also irrigation and fertilization. The first muck area developed in the vicinity of East Gwillimbury was the Holland Marsh to the north-west of the township. Preparation of the land here began in 1925, preceding similar developments in East Gwillimbury by over twenty-five years.

There are two types of vegetable gardening on the muck deposits, large scale and small scale. In the north-west corner of the township, around the confluence of the Holland and Schomberg Rivers is the large scale developments. Here the gardening is carried on by companies which control the industry from planting to wholesaling. The technique employed in improving the drainage of the organic deposits consists of excavating a canal around the area to be drained and using the material removed to construct a dyke on the inward side of the canal. This canal catches the natural drainage from the headwaters of the Holland River and the neighbouring higher land and diverts it around the area to be drained. Dykes are also constructed along the banks of the

two rivers to hold back their water. Traversing the drained area are smaller ditches to carry irrigation water in the dry seasons. (see photo, page 87)

Once these operations have been completed and the required mineral elements (phosphorous, potassium, copper, baron and manganese) added, the muck is ready for cultivation. The vegetables grown are onions, celery, carrots and lettuce. In this particular area machinery is used to supplement the human labour as much as possible but large numbers of workers are still required for such operations as weeding and pulling.

Once the vegetables have been harvested they are transported to the storehouses and packaging plant at the junction of the west townline and Highway 11. From here, after suitable processing (cleaning and packaging), they are shipped out. The markets for these vegetables are many as they are not sold only in Southern Ontario but also in the United States. Toronto, however is the principal market.

The second type of marsh gardening consists of small scale operations located along Highway 48. This is a pioneer type of activity with the land-holders clearing their own land. The produce is sold from roadside stands until the operation becomes developed sufficienty to allow the operator to compete for the business of the local stores and the small, private grocery stores in the larger urban centres. Only rarely can one of these producers break into the supermarket trade. (see photos page 88)

The products of the soil in East Gwillimbury township are used primarily as livestock feed and the products of the livestock



No.13. In the area of small scale marsh gardening, A lot in the process of being cleared.



No.14. A more advanced establishment in the area of small scale vegetable gardening.



No.12. An example of a drainage canal and dyke in the area of large scale marsh gardening. The field is planted in onions which are ready for harvest. are sold to support the farm population. Sale of cash crops is of minor importance. The specialized activity of marsh gardening; relatively new to the township, is of growing importance but is dominated by large organizations controlled by non-residents. It is not of great importance in supporting the population of East Gwillimbury.

URBAN GEOGRAPHY

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CHAPTER 4

URBAN GEOGRAPHY

During the decade from 1951 to 1961 the non-farm population in East Gwillimbury rose from 2,475 to 8,884. Within the township there are eight villages, none of which is incorporated. Commercially and indus trially these villages are overshadowed by the neighbouring much larger communities of Newmarket and Sutton, neither of which is within the boundaries of East Gwillimbury.

Since the larger towns have bigger and more diversified business districts containing shopping plazas with supermarkets, clothing stores, chain variety stores and hardware stores, the inhabitants of East Gwillimbury are drawn to them to purchasee most of their goods, including their weekly grocery supplies and clothing. From the Map of Trade Areas (see page 91) it can be seen that the majority of the population patronize Newmarket stores with the people from only a small portion of the north-east travelling to Sutton. The stores in East Gwillimbury provide only the immediate needs of the local population. The main advantage of these stores is the long hours they are open, especially at night, to cater to the immediate needs of the people.

HOLLAND LANDING

The largest of the villages is Holland Landing. Located at the old landing place on the Holland River where the river leaves the hummocky clay plain and enters the flat sand plain, it was made the terminus of the origional Yonge Street. (see Historical Geography) For many decades Holland Landing was a stagnant and depressed area notorious locally as a moonshining and bootlegging centre. In the last ten years, however, it has experienced a rapid



expansion (from 1956-1961 the population rose from 508 to 792), a change of character, and has lost its depressed appearance.

Holland Landing is a rather rambling community (see map, page 93) to which limits are difficult to draw especially since the recent expansion has disrupted the previously strong social organization of the old village. There has been a radical change in the type of housing in the last decade also, resulting in a diversity of housing.

The commercial development of this village is very small. It has grocery stores, a dry goods store and a service station. The grocery stores are small establishments carrying only a limited stock to supply the day to day needs of the community, as the residents do most of their shopping in Newmarket. The dry goods store is also very small and is a distributor mainly of work area clothes and boots rather than dress clothes. The tradefor Holland Landing (see map, page 91) extends to the township boundary in the west and north-west but on the south is cut off by that of Newmarket, on the east and north-east by Sharon and in the north by that of Riverdrive Park.

Although not within the old village proper, there are two industries which may be considered as part of Holland Landing. To the north on the Old Toll Road (see map, page 93) is a large office furniture factory, a branch plant of a Newmarket firm, established at this site because of the low-cost of the land and the frontage on the railroad tracks. (see photo, Page 95) Most of the workers in this plant do not live in Holland Landing, however, but in Newmarket. The other industry is a packaging plant at the junction of old Highway 11 and the town line. (see photo, page 95) First



established as a wholesaling centre for vegetables produced in the marsh gardens, it has now diversified its activities into packaging other food stuffs.(such as potato chips) Local workers are employed in this plant.

Up until 1958 there was also a tannery in Holland Landing. This was a very old industry in the village and was located along the railroad tracks near the centre of the village. Fire destroyed this industry but the building has since been renovated for use as a warehouse by a Newmarket trucking firm.

A rudimentary zonation in house types in the village can be discerned. On Main Street in the heart of the old village there are large brick houses of the late nineteenth century style, most in good repair. (see map, page 93) The newer good housing is located immediately around the old brick houses to the east and west and on the west side of Yonge Street. The reconstruction of Highway 11, which resulted in Holland Landing being by-passed, has cut off this stretch of the road making it now a prime area for housing. Here one finds modern bungalows and split-level, ranch-style homes. (see photo, page 96) The poor housing is found mainly to the north of the village on the imperfectly drained land but there are also some very poor housed scattered amongst the better housing areas. These shacks are remnants of the earlier depressed age. (see photo page 96) Most of the inhabitants of the new houses earn their living outside of the township, mainly in Toronto but also in Newmarket, Aurora and other large centres to the south.

At present Holland Landing is a quaint little village which has developed into a residential community. This development has eliminated the worst housing of the old village but has also



No.15. The only factory in East Gwillimbury. Located to the north of Holland Landing, it manufactures office furniture.



No.16. The vegetable warehouse and packaging plant, to the north-west of Holland Landing.



No.17. Poor housing in Holland Landing typical of depression years.



No.18. Modern type of house now being constructed in Holland Landing.
damaged the social cohesion of the old village. MOUNT ALBERT

The second largest village in East Gwillimbury is Mount Albert. Located near the eastern border of the township at the junction of Highway 48 and the Sharon Sideroad, this is the market place for the eastern portion of the township. Its location on Highway 48 gives it direct access to Toronto and, via the Sharon Sideroad, Newmarket can easily be reached. The hamlet origionated as a market centre and route junction at the southern end of the muck area. (see Historical Geography) Flanked on three sides by land of Classes I and II it has a large and prosperous hinterland.

Mount Albert has a growing population, expanding from 490 in 1956 to 561 in 1961 and is a much more compact community than Holland Landing. (see map, page 98) Most of the community's population finds employment in Newmarket, not Toronto although the number employed in Toronto is growing.

Mount Albert is the only centre in the township with a distinguishable business district and the only centre with a bank, a drug store and a chain grocery store, although it is a small establishment, (see photo, page 98a) Other commercial institutions in the business district are owner-operated grocery stores, a furniture store, clothing store, meat market, barber shop and a resturant. Outside of the central area there is a feed store. This is a much more diversified and specialized commercial development than in Holland Landing. Mount Albert is more remote(12 miles) from Newmarket and therefore was not subject to the same degree of competition from the larger centre until recent advances in population mobility put it within reach. It is still able,



No.19. The business district of Mount Albert.



No.20. The old Davidite church in Sharon. The building is now used as a museum.



Ravenshoe



Holt



however, to withstand the increased competition better than the other hamlets which are closer to Newmarket. The inhabitants of Mount Albert now patronize the Newmarket stores for much of their weekly grocery supplies, as well as for furniture and clothing. The result has been a relative stagnation in business activity despite an increase in population.

Mount Albert has by far the largest trade area of the East Gwillimbury centres. This is a result of two factors, the first being its monopoly of commerce in the eastern parts of the township. The main attractions in the village are the bank and the drug store. The second factor is the feed store and other activities (see below) serving farmers and drawing them to the village.

There are a few small industries in Mount Albert. The two largest firms are the lumber yards, one being a complete saw and planning mill as well. The raw materials for this mill are not obtained within the township, however, but rather are imported by rail. Two machine shops and a farm equipment repair shop serving the farmers of the southern and eastern parts of the township are also located in Mount Albert. Although it is of little direct importance to the local population there is also a small creamery in this village but it both obtains its milk and markets its butter through the Milk Producers Co-operative in Toronto. There is also an office of the Bell Telephone in the village.

Old two-storey brick houses, mapped as "fair housing" form the core of the old village while newer houses are being constructed in the fringe. (see map, page 98) Some areas of poor housing are found on the north side of the community. Within the village is a

very large park containing a baseball diamond and an outdoor rink.

Mount Albert is in the process of changing from a market centre to a residential community. It still maintains its commercial importance in farm supplies but in consumer goods its importance is declining.

SHARON

The village of Sharon, site of the township offices, is located at the crossroads of Leslie Street and the Sharon Sideroad. Sharon has a very rapidly growing population having increased from 299 in 1956 to 655 in 1961. For about fifty years Sharon had been a rresidential community mainly for retired couples, often farmers, but in the last decade there has been an influx of young families. None of the breadwinners of these families find employment in Sharon, however, and few in the township. Most travel to Toronto or Newmarket for employment.

The commercial development of Sharon is meager. It contains one store, an open-air fruit market, the warehouse of a large bread company and several service stations. The proximity to Newmarket and the mobility of the population have eliminated the need for any further development.

Along Leslie Street are the older houses, large brick dwellings which have been well preserved. (see map, page 102) The largest area of new housing is along the south side of the Sharon Sideroad. Here has been established a Catholic subdivision. Although the religious exclusiveness of the development was not planned, these people are better able to provide a separate school for their children. The residential area to the north has no such religious unity and is also a more haphazardly developed area in

which the inhabitants constructed their own homes in contrastto to the Sharon Sideroad subdivision where the developer arranged for construction.

As Sharon grew on the site of the old Davidite community it once contained a church of this sect. This building has been converted into a museum by the York Pioneer Society and the surrounding grounds are used as a park. (see photo, page 98)

Sharon is an old residential village which has experienced an expansion and change of age structure in its population but no functional change.

RIVERDRIVE PARK

At Soldier's Bay where the Queensville Sideroad crossed the Holland River is Riverdrive Park. Once a cottage area, its recreational advantages were destroyed by the pollution of the river and the cottages were converted to permanent homes. A large marina with considerable boathouse space still persists, however, serving people from the larger centres to the south. To attract them, however, it is necessary to offer lower rental rates than those charged by the prestige marinas located on the shores of Lake Simcoe. (see photo, page 105)

Two small grocery stores and a service station represent the commercial development of the community.

As mentioned the residences of Riverdrive Fark are converted cottages. They are small, without basements and were therefore mapped as poor. (see map, page 103) There has been no new construction within the village and, in fact, the population increased by only one from 1956 to 1961. This is because of the unattractiveness of the site to suburb dwellers - the river is







Brownhill



filthy and frequently gives out a sour odour, the land is wet, and there is no core of old houses around which to build as in the other villages. Some new houses have been built just outside the village away from the river.

QUEENSVILLE

Queensville, at the junction of the third concession and the Queensville sideroad, is a village very similar to Sharon but it has not experienced as much recent expansion as the community to the south. Queensville remains a residential centre for elderly people. A factor in this stagnation is the fact that for a considerable distance along the sideroad the land was already occupied by older houses, the park, arena, firehall, etc., and any new development would have to be established too far from the nucleus of the village to be attractive. (see map page 102) Also, a significant factor is the adamant refused of the farmers in the vicinity to part with their land or any portion of it.

In part, because of this lack of change but also because of its location, Queensville has a larger and more diversified commercial base than Sharon. Established in Queensville are two grocery stores, a butcher shop, a barber shop and several service stations but more important are the feed store and farm equipment repair shop. These two firms make this village the farm supply centre for the northern and western parts of the township.

The residences of Queensville are the classic large brick dwellings, one of which has been converted into a nursing home, The recreational facilities consist of a ball park and an arena.



No.21. The marina on the Holland River in Riverdrive Park.



No.22. A cottage which has been converted into a permanent residence in Riverdrive Park.

BROWN HILL

In the north-east corner of the township is Brownhill which had a population of 133 in 1961. This is a dismal-looking settlement with only one store and some very poor housing. Many of the dwellings here are one-roomed shacks and most of the rest are in ill repair, there being only four fair homes and one good one. There is little reason for the existence of this village. (see map, page 103)

HOLT

On the Sharon Sideroad only one and a half miles from Mount Albert is Holt, total population 55. It consists of a small general store, a post office, a service station and some houses, two of which are new. (see map, page 98)

RAVENSHOE

Also with a population of 55, Ravenshoe is a similar settlement to Holt but lost population from 1956 (67) to 1961 (55). Besides the residential buildings there are two stores, a church and a service station. (see map, page 98)

Six of the eight villages in East Gwillimbury are located in areas of Class 1,IP or III hand. Of the remaining two, Riverdrive Park and Brownhill, the former is a unique case, being a converted cottage area. A positive correlation can be seen, therefore, between the villages, especially the expanding villages, and the better classes of land. Since the hamlets originated as service centres for the agricultural population, it is understandable that they should be located in the areas of good agricultural land. It is these lands, also, which provide the most attractive residential sites and so it is the villages on there lands which are expanding. Riverdrive Park and Brownhill, in wet, unattractive areas, are stagnant hamlets with predominantly poor housing.

The villages of East Gwillimbury are residential centres which are losing the local commercial importance they once had. Mount Albert and Queensville have maintained a greater portion of their business because of their locations and their functions as farm suppliers for large areas of the township. Holland Landing, Mount Albert and Sharon are developing into commuter suburbs and experiencing large population increases.

URBAN DISPERSAL

In the discussions of agriculture and urban centres, only one-half of the population has been accounted for (5,777 of 10,357). The obvious fact is, therefore, that one-half of the population live neither on farms nor in the established villages. These people are the participants in the urban dispersal. This term "urban dispersal" refers to the migration of urban land uses, particularly residential land use, to rural areas. This is the social factor, mentioned earlier, which may cause conflict with the physical and economic factors in governing the use of the land.

For the last three decades the expansion of urban areas has been an increasingly important characteristic of our society. The expansion began with the rapid improvements in transportation, especially the automobile, which allowed workers to travel greater distances to reach their place of employment. As the standard of living rose, making rather long daily journeys economically

feasible, the desire to live outside of the cities became stronger and the movements to the country larger. Many people wish to live in the country yet work in the cities thus obtaining the benefits of back areas.

The advantage of working in a city is the higher income which can be earned there because of greater unionization of industry, greater opportunity for a skilled or professional man and other such factors. The attractions of country living are the fresh air and sunshine, peaceful surroundings, scenic beauty, reduced threat to children and adults from traffic and lower taxes. East Gwillimbury possesses these rural attractions.

As yet East Gwillimbury is still outside of the suburban development proper of Toronto but the fringe of the commuter zone is starting to penetrate the township. The first effects of the penetration were seen in the early 1950's. Growth reached a peak in the mid 1950's and then slowed down but did not stop. In 1951 the population of the township was 4,400 and by 1961 it had grown to 10,357. Since there have been no large industrial developments in the township during those ten years, the new arrivals must be commuting outside of the township for their employment.

There have been three types of location exploited by this residential spread. As previously mentioned the villages of Sharon, Holland Landing and Mount Albert have experienced rapid growth in their population. These centres serve as nuclei around which the commuters can establish themselves and thus become part of a community with the security of a neighbourhood social cohesion.

The first example of this type was the northern subdivision of Sharon established in 1951. Then in 1953 lots were sold for housing on Yonge Street at Holland Landing. There were several developments of this type in 1955, the largest of which was the Catholic subdivision at Sharon. (see photo, page 110) There was also, a small development at Holland Landing on the Sharon Sideroad.

Strip residential development, in two forms, is prominent in East Gwillimbury. Along Leslie Street south of Sharon there have been several small clusters of houses built on short side streets to allow them to stretch back from the main street. These are small developments in which each individual householder bought his own lot and arranged for construction of his home rather than buying a ready-made house. The result has been a wide variety of quality in the house types and a haphazard appearance to the area. The developments here were started in 1951 and expanded in 1953, 1954 and 1955. Other areas where this type of construction has occured are along the southern townline in the third concession (1952) and along the Sand Road between Holland Landing and Riverdrive Park (1952, 1953, 1955).

The second type of strip development occurs when an individual independently purchases a lot from a farmer and builds his house on it. (see photo, page 110) This arrangement is common on the southern half of the third concession but is found as well on the Don Mills Road, Yonge Street and Highway 48.

The third type of commuter residences is located on the southern townline bordering on the town of Newmarket. This is a



No.23. Residential development in Sharon on the Sharon Sideroad.



No.24. Isolated type of residence in which the individual has purchased a single lot from a farmer and built his home.

large housing development typical of the suburbs to the south. (see photo, page 112) Consisting of 800 duplex homes, the subdivision, established in 1957, houses the greater proportion of the newcomers responsible for the recent population increase. None of these people find their employment within East Gwillimbury. Rather they travel to the urban centres to the south, mainly Toronto, to earn their living. Despite its large population this development contains no commercial establishments since immediately across the townline from it is the Newmarket Shopping Plaza. For most purposes this area can be considered part of the town of Newmarket but it has maintained its political independence from that town.

At the present time (since 1961) the urban dispersal is on a small scale. The construction of houses which is continuing is on an individual basis or, at the most, in blocks of three or four buildings put up by a small contractor. There are no large endeavours underway since such developments are frowned upon by the township officials who were displeased with the activities of the previous large scale developer.

There are definite locational factors in the pattern of dispersal. (see map, page 114) All of the developments are on, or have ready access to,paved roads, leading to Toronto and all are in the south-west of the township which is closest is downtown Toronto. There is less development in the east around Highway 48 and Mount Albert because this road does not lead directly to the centre of the city but necessitates a drive across the city or the township.



No.25. The large suburban development in the south of the township adjacent to Newmarket. Houses are duplex buildings.

These residential areas are also on the areas of best agricultural land in the township and this is where possible conflict might arise between the social factor and the physical and economic factors. The basic problem is that the lands which are most adaptable for agricultural production are the most attractive for residential development also. The dilemma for the land-owning farmer is whether to yield to the constant badgering by prospective buyers for parcels of his land or to hang onto it, keeping his farm intact. Few farmers have been able to resist the high prices offered for building lots with good road frontage but as yet there has been no large scale land purchases or land speculation characteristic of the areas to the south. How long this situation will persist is not known.

That East Gwillimbury is experiencing a creeping urban dispersal is obvious but the future trends of this urbanization or the relative advantage or disadvantage of it is not within the realm of this thesis.

CONCLUSION

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CHAPTER 5

CONCLUSION

East Gwillimbury township has a landscape with a wide variety of physical characteristics. The ultimate source of this variety is the Wisconsin Glaciation whose deposits control the topography as well as the texture and drainage of the surface materials of the landscape. These factors in turn influence the development of the natural vegetation and, most important of all, the soils. It has been shown that the areas of good soil for agriculture correlate positively with certain physiographic regions, namely the till plain and the clay plain of the Schomberg Ponding. Soils of lesser quality also follow the physiographic pattern, coiciding with the sand plains of the Algonquin Basin, with the exception of the muck areas, and the kame moraine. Between these two extremes are the soils on the outwash sands, the clay plain of the Algonquin Basin and the sand plain of the Schomberg Ponding. The agricultural potential of the land can, therefore, be traced through the soils to the physiographic foundation of the township. However, there are instances, such as the development of the muck areas for vegetable gardening, where man has been able to improve upon the natural physical environment.

Despite its physical diversity, however, the township does not have a wide variety of land uses. The farm economy is centred around livestock because of the great demand in the near-by urban areas for the products of livestock farming. The land, therefore, is devoted to crops suitable for livestock feed, namely hay, grain and pasture, with the land which is incapable of supporting these

crops being allowed to remain forested. It has been demonstrated that the physical conditions, especially soils and drainage,govern the areal distribution of these crops throughout the township. The greatest concentration of hay, grain and rotational pasture are found on the lands of Classo I and II on the till plain and the wlay and sand plains of the Schomberg Ponding. On the lands of Class III on the outwash sands, and clay plain of the Algonquin Basin there is a greater proportion of hay and permanent pasture is more common. On the lands of Classes IV and V on the sand plain of the Algonquin Basin and the kame moraine, rough pasture is the dominant agricultural land use with large areas remaining forested.

The exception to the dominant pattern is vegetable gardening on the muck areas but this also is in direct response to the physiographic base of the land. The land use pattern in East Gwillimbury has thus been adapted almost completely to its physical background. This adjustment was not always so close in the past, however, as large areas of sandy soils unsuitable for cultivation were cleared and attempts made to farm them. These lands now need reforestation and this process is gaining momentum in the township at present.

Although East Gwillimbury presents an outward appearance of a rural farming area it has been found that farm residents represent less than one-sixth of the total population. By population criteria, therefore, the township is dominantly urban. The villages in the township are all small residential settlements which developed as service centres for the surrounding farm population. Because of this function they are located in areas of Class I and II land which support the densest farm population.

The majority of the non-farm population do not live in these villages, however, but in amorphous residential developments which are also found on the lands of Classes I and II. It is these better lands which provide the most attractive residential sites in the township since they are all well drained and have a rolling type of topography which is aesthetically pleasant in the neighbouring agricultural context. The urban development of the township also reflects, therefore, the physical environment.

There is in East Gwillimbury a creeping urbanization which has more than doubled the population of the area since 1950. There has been only one large subdivision, however, but it houses the majority of the newcomers. The rest are scattered in either small developments or individual lots and tend to blend into the farm scene so that the true extent of the urbanization remains unnoticed by the casual observer. This creeping urbanism is the result of the migration of the rural-urban fringe of Metropolitan Toronto into the township.

The dominant forces in the geography of East Gwillimbury are the physical diversity, especially the soils, and the proximity of great urbanized areas of the "Golden Horseshoe", especially Toronto.

BIBLIOGRAPHY

- Caley, J. F. <u>Paleozoic Geology of the Toronto-Hamilton Area</u>, <u>Ontario</u>. Geological Survey of Canada, Memoir 224.
- Canada. Census of Canada 1851 1961
- Chapman, L. J. and D. F. Putman. <u>The Physiography of Southern</u> Ontario. Toronto, University of Toronto Press, 1951.
- "The Drumlins of Southern Ontario", <u>Trans. of the</u> <u>Royal Society of Canada</u>, 37, 1943, Section IV.
- ----- "Moraines of Southern Ontario", <u>Trans. of the</u> <u>Royal Society of Canada</u>, 37, 1943, Section IV.
- ----- "The Recession of the Wisconsin Glacier", Trans. of the Royal Society of Canada, 43, 1949, Section IV.
- Deane, R. E. <u>Pleistocene Geology of the Lake Simcoe District</u>, Ont. Geological Survey of Canada, Memoir 256.
- Halliday, W. E. D. <u>A Forest Classification of Canada</u>, Bulletin 89. Ottawa, Department of Mines and Resources; Lands, Parks and Forest Branch; Forest Service, 1937.
- Hoffman, D. N. and N. R. Richards. <u>Soil Survey of York County</u>. Experimental Farm Service, Department of Agriculture and Ontario Agriculture College, 1955.
- Ontario. Upper Holland Valley Conservation Report. Toronto, Department of Planning and Development, 1953.



Township of East Gwillimbury

Legend Paved Roads Unpoved Roads SOILS Soil Series Symbol B Bondhead Gu Guerin 6 Lyons P Pontypaol Granby Brighton G Br T **Te cumseth** P Percy a Dundonald Bo Bookton Wa Wauseon Sh Schomberg 5 Smithfied Si Simcoe Bi Bridgmon M Muck Bottom Land

5 Miles

Scale



Map 30

Township of East Gwillimbury

Legend Paved Roads Unpaved Roads

LAND USE

Hay	A STREET
Grain	
Pasture	
Corn	STREET.
Row Crops	
Uncleared Land	Mart
Reforested	
Non-agricultural	部制

5 Miles