BRONTE CREEK WATERSHED STUDY

Appendix 2

Ecological and Cultural Heritage



Progreston Dam, Bronte Creek

Conservation Halton



December 2000

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By: David Gale Watershed Planner



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Conservation Halton



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David Gale Watershed Planner Conservation Halton

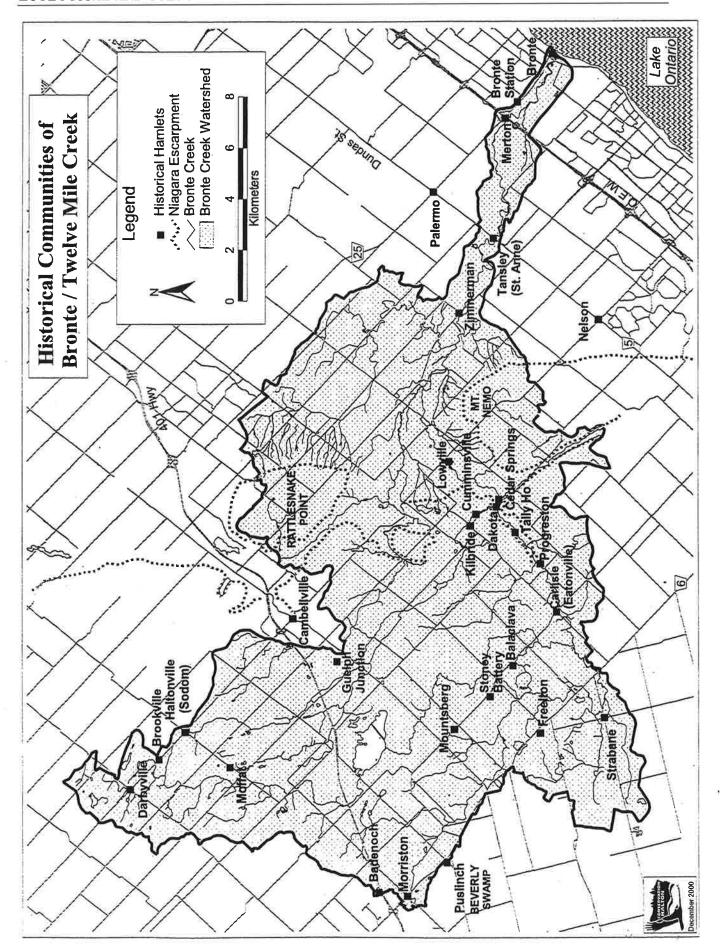
NOTES

The report on the Cultural and Ecological Heritage for the Bronte Creek Watershed Study is a general overview of the history of the Bronte Creek. It is intended to serve as a broad introduction to some of the events that have marked the history of the watershed and the surrounding region. It is not an original piece of in-depth research. Rather it tries to describe the watershed over the years. It is an amalgamation of history, facts, ideas, writings and reminiscences from many sources. For those readers who have had their interest aroused, I recommend that they peruse the reference section in the Appendix and obtain copies of the books and articles listed in order to read the information first hand and in more detail.

A note on the names used in the report is warranted. The name of the creek and some of the communities have changed over the years. In the report I have used the name that is appropriate to the era being described. So the name of the creek that we now call the Bronte Creek is referred to as the Twelve Mile Creek throughout much of the report. A similar approach was used for the names of some of the villages.

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Chapter 1: PRECONTACT

The Bronte Creek watershed has been shaped by ice, water, wind and time. When the Wisconsin glacier began its final retreat from the watershed some 13,000 years B.P., the melt water created thundering cascades and roaring spillways that shaped the region. Initially much of the Bronte Creek watershed was covered by water, but over time as glacial Lake Iroquois receded, more and more of the barren, rubble-strewn landscape was exposed and gradually transformed.

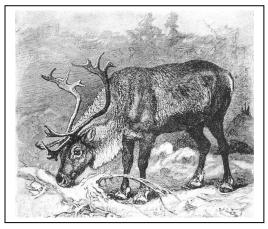
Pat and Rosemarie Keough aptly describe the scene in their portfolio on the Niagara Escarpment. "Hardy arctic plants, rooted from seeds and spores carried northwards by winds, rivers and migrating animals soon covered the raw glacial tills" (Keough, 1990). The exposed jagged cliffs of the Niagara Escarpment rose above the "greening tundra below" (Keough, 1990)

The retreating glaciers left behind distinctive features above and below the escarpment. Above the escarpment are the deposits of sand, gravel and several wetlands that are the important recharge areas for ground water and base flows in Bronte Creek. Below the escarpment, the clay loam and sandy loam soils form the Iroquois Plain down to the shores of Lake Ontario (Machan, 1997).

The vegetation on the till plain attracted iceage animals, including mastodon, mammoth, muskox and caribou. They roamed the landscape, grazing on the lichens and mosses. Giant beaver built lodges in the ponds and wetlands. Following these large herbivores came predators and scavengers and, eventually, humans.

Known today as Paleolithic peoples, these nomadic hunters lived for generations near the southern edge of the retreating glacier and on the shores of Lake Iroquois. They have been described as "ecosphere people" (Rogers & Smith, 1994), dependent on the resources of the land they inhabited. They occupied open spruce parkland much like the

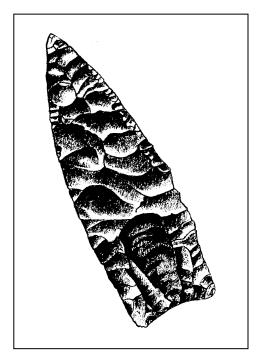
taiga landscape bordering the Arctic tundra today. It has been estimated that there may have been only one or two bands in all of southern Ontario (Rogers & Smith, 1994).



Caribou

The Paleolithic peoples had a consummate understanding of their environment. Living in small, mobile groups, they migrated hundreds of kilometres in search of caribou and other animals. In their dugout canoes, they could easily find their way through the network of waterways below the ice fields, locating strategic points for hunting and fishing. They periodically settled on southfacing ridges where they could monitor the migration of the animals on which they depended. They were successful big game hunters using spears and, later, spear throwers. They utilized the entire animal the meat, hides and tusks for food, shelter and tools (Foley, 1997).

The Escarpment provided sources of toolstone for the large, fluted projectile points necessary for killing the migratory animals. Earlier Paleolithic cultures were known as Clovis people while later cultures were known as Plano people. The terms refer to the distinctive type of projectile points they made. Archaeological evidence suggests that the Paleolithic toolmakers in southern Ontario people preferred the use of particular high-quality white and red cherts.



Facsimile of a Clovis point

According to the Master Plan of Archaeological Resources of the Regional Municipality of Halton (1998), eighteen Paleolithic sites have been identified within the Bronte Creek watershed.

About 10,000 years B.P., as the glacier retreated to the north, the open spruce-tundra of southern Ontario was gradually replaced, first by black and white spruce, then by jack and white pine and, eventually, by birch forests (Rogers & Smith, 1994). The megafauna of the ice age disappeared. New species such as the white-tailed deer, moose and elk settled in the mixed forest.

These changes also influenced the Paleolithic peoples. Some bands continued to follow the retreating glaciers to the north and their traditional ways of life. Others remained in their territories and adapted to the new conditions. Around 9,000 years B.P., the Paleolithic peoples of southern Ontario assimilated with more-recent immigrants from farther south and fashioned different technological and cultural traditions. This

led to a new era, referred to by archeologists as that of the Archaic Indians (Rogers and Smith, 1994).

Archaic peoples are known to have inhabited the region until approximately 3000 years ago. Still nomadic, they hunted game, fished the rivers and lakes and used the plants of the forest. The modern forest cover, and most of the species of fish, birds and mammals documented by the earliest European explorers, was now well established.

Increasingly, the bands became established in specific river basins. They lived in small bark- or skin-covered lodges located on well-drained, elevated sites that faced south, overlooking wetlands and shorelines where game congregated to feed and drink. Dogs were domesticated during this period to help hunt game or to transport goods (Foley, 1997).

According to McMillan (1988), these people developed a rhythm with the seasons. During the spring, bands gathered at fishing camps where they built weirs and used nets to fish for pickerel, suckers and perch. They also hunted beaver in the ponds and wetlands.

In the summer, they subsisted on the diverse biota of southern Ontario. Strawberries, raspberries, elderberries and blueberries were important in the diet. Black walnuts, hickory and butternuts were staples. They hunted deer, bear, and raccoon.

Autumn would bring an abundance of game, including flocks of migratory waterfowl, spawning salmon, lake trout and whitefish along with deer and turkey. They caught and smoked cisco to supplement winter food stocks. They harvested a variety of nuts.

As winter set in, the bands would leave the shores of Lake Ontario and move inland in search of game. They would camp on the perimeter of the extensive cedar swamps to

hunt for deer that had yarded there for winter cover and forage.

New types of stone tools and other items were developed during this period. availability of large trees meant woodworking skills evolved. Dugout canoes were fashioned using fire, axes, adzes and gouges. New trading alliances introduced tobacco and men began smoking it, first in stone pipes and later in pipes fashioned from clay. Tobacco became a sacred, thanksgiving plant used to honour the Creator. Burial ceremonies became complex. more Archeologists have found cemeteries associated with the large seasonal fishing

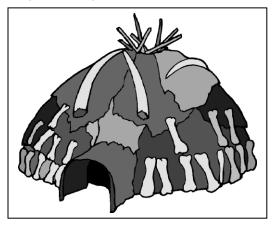
One hundred and fifty-eight Archaic Indian archaeological sites have been identified in Halton, according to the Master Plan of Archaeological Resources of the Regional Municipality of Halton (1998).

About 3,000 B.P., two major innovations were introduced: the bow and arrow and ceramic technology (Foley, 1997). The adoption of these technologies ushered in what is known archaeologically as the Woodland period. The ability to fashion clay into durable pots proved extremely useful. Unlike previous containers made of hide, birch bark or carved wood, clay pots could be put directly over the fire, allowing for the lengthy cooking of seeds and grains.

Like their Archaic forefathers the Woodland peoples were hunters and gatherers who moved about as the seasons dictated, from a spring fishing camp to a summer hunting ground, to a fall passenger-pigeon roost and on to a winter deer yard. But the Woodland peoples now hunted with bow and arrows, adopted various spiritual symbols into their culture and practiced increasingly complex burial rituals. Birch bark canoes replaced wooden dugouts. Trading alliances were extended. New ideas and technologies were introduced from the south (Foley, 1997).

Approximately 1,500 years B.P., the Woodland peoples of southern Ontario began experimenting with agriculture. While gourds and perhaps squash were known as early as 2,500 years B.P., the introduction of maize ushered in a totally new lifestyle. A suitable climate meant a relatively dependable food source. As they became less dependent on migrating game and seasonal changes, and more reliant on their own crops, the Woodland peoples gradually ceased their nomadic ways. With sufficient quantities of stored corn available, communal living through the winter became feasible (Rogers & Smith, 1994).

By the middle of the fourteenth century AD beans and squash, together with the maize and sunflowers provided a balanced protein diet. The success of agriculture and the storage of surpluses gave the bands a measure of security against hunger and famine. They could now live year-round in more-or-less permanent villages. Only when soil fertility declined, or other natural resources such as firewood or birch bark gave out, did the nations resettle, usually every 10 to 15 years (Jenness, 1977).



An impression of an early dwelling of bone & hide

The early Iroquoian people living in and around the Bronte Creek watershed burned and cleared patches of forest to establish their villages and plant their crops (Ray, 1996).

Land clearing was an on-going human activity well before the first European settlers arrived in the area. Wherever possible, they would have taken advantage of natural breaks and edges in the forest cover. Hunting and gathering now supplemented agriculture.

As food supplies became more reliable, populations increased. There was more idle time and bands frequently engaged in

warfare. Villages were now located on strategic hills and surrounded by fortified palisades. Long houses were erected to house several related families. By this time the main elements of the Iroquoian cultures first encountered by Europeans were well established (Rogers & Smith, 1994).



Woodland Fishermen

Chapter 2: THE WOODLAND PERIOD

In the early part of the 17th century, the natural features of the Bronte Creek watershed would be quite recognizable to its present-day inhabitants. The Niagara Escarpment, the flora and fauna, the drumlins, the wetlands and swamps were all recognizable characteristics of the watershed.

The Niagara Escarpment has always been a vital corridor for specialized flora and fauna, including ferns and wildflowers, and traditionally has served as a transition zone between two forest communities (Bakeless, Below the Escarpment, the 1961). Carolinian Forest Zone ecosystem dominated, characterized by sweet chestnut, black walnut, butternut, flowering dogwood and sassafras. Huge willows and oaks were found around the mouth of the creek. Above the escarpment, dense forests of red and white oak, hickory, ash, basswood, sugar maple and stands of majestic white pine blanketed the drier areas of the Great Lakes-St. Lawrence Forest Region. The dense swamps in the headwater areas were covered in silver maple, white cedar and hemlock (Rogers & Smith, 1994).

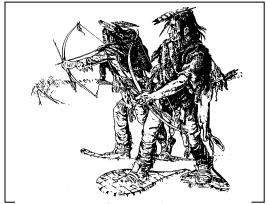
The rivers teemed with fish: pickerel, sturgeon, cisco, catfish, perch, sucker and trout. Game of many types, including bison, elk and deer, was extremely plentiful. Furbearing animals like fisher, marten, wolverine and lynx abounded. There were large predators such as bear, cougar and the timber wolf (Bakeless, 1961).

The earliest French explorers thought the region was "the earthly paradise of Canada" (Thwaites, 1906). Jesuits reported an "astounding number of deer" along with an abundance of "moose, beaver, wild cat, black squirrel, duck, turkey and crane" (Thwaites, 1906).

The human occupants of the watershed at various times during this era were two

groups of Iroquoian-speaking people: the Wendat and the Attiwandaron. The Wendat were known to the French as the Huron while the Attiwandaron were known as the Neutral

The Iroquoian-speaking peoples consisted of several different confederacies occupying the land around the southern Great Lakes. The Wendat occupied the area around Lake Simcoe and Georgian Bay over to the Niagara Escarpment. The Attiwandaron lived to the west, in the Niagara Peninsula and along the north shore of Lake Erie. The Niagara Escarpment and the Bronte Creek watershed represented a frontier between these two confederacies (Wright, 1972).

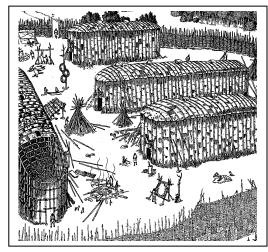


Winter hunt

Other members of the Iroquoian language and cultural group included the Petun or Tobacco Nation (to the west and north around Lake Huron), the Erie (around the south shore of Lake Erie). Susquehannock, and the Haudenosaunne or Five-Nation Iroquois as they were called by the French (to the south and east of Lake Ontario). The Five-Nation Iroquois were a confederacy of the Seneca, Mohawk, Oneida, Onondaga and Cayuga (Patterson, 1985).

The Iroquoian-speaking confederacies were amalgamations of separate nations. Though not known for certain, it is thought that between five and ten nations made up the Attiwondaron confederacy in the early part of the 17th century. In turn, several villages might make up a nation while several extended families or clans formed a village.

The Wendat referred to the Attiwandaron as the "people who speak a slightly different language." The term "Neutral" was applied to these people by the French based on their determination not to be dragged into the destructive wars between the Wendat and the Haudenosaunne or Five-Nation Iroquois. Any person from either warring nation had sanctuary once inside a Neutral village.



Iroquoian village

Although known as the Neutral by the French they should not be thought of as pacifists or weaklings. Fierce warriors in their own right, the Attiwandaron were involved in a long-standing war with the Algonquian-speaking Mascouten or "Fire Nation." of Ontario and Michigan (Kubiak, 1999). They practiced all the cruelties of Iroquoian) warfare, including torture and death by fire.

Jury (1982) reports that Father Jerome Lalement, a Jesuit missionary, described the Neutral as "taller, stronger and better proportioned" than the Wendat. They were taller than the Europeans. The men covered their bodies in tattoos and wore skins, "but with less modesty than the Huron" (Jury, 1982). When De Laroche Daillon encountered them, he said the men were

"armed with clubs and bows and were very warlike. Their real business is hunting and war" (Jury, 1982).

Iroquoian villages were situated near suitable agricultural land and placed strategically for defense. The village was usually palisaded and contained several longhouses. The palisade was made of straight slim saplings found at the forest edge. Some 3 to 5 meters high, the palisade was raised around the village, bound together with twisted outer bark. Inside the palisade were ten to twenty longhouses (Jury, 1982).

An Iroquoian village unearthed near Carlisle during an archaeological dig in 1986 found longhouses between 10 and 20 meters long, each of which is believed to have housed up to 30 people. They were arranged in clusters of related families, sufficiently far apart to avoid the spread of fire. A reconstruction of a small Iroquoian village can be found at the Crawford Lake Conservation Area, southwest of Milton.

The longhouses were made of saplings bent over to form a curved roof, covered with sheets of elm or cedar bark. As their name suggests, they were long and narrow, with fire pits placed along the earthen floor and an entrance at each end. On each side of the corridor fastened to the saplings of the wall, there were rows of sleeping platforms covered with soft mattresses of cedar boughs and animal skins and furs. Overhead were hung rows of drying fish and strings of braided corn (Patterson, 1985).

Throughout the longhouse were a variety of utensils and articles made and used by the people of the longhouse. Pots made from clay dug from wet places near lakes and streams and decorated around the rim with unique markings were used to store and cook food. Baskets and mats were made out of reeds, shredded bark and corn husks. They made storage bags from animal skins. The bags and baskets were often decorated

with coloured earth or fruit and vegetable dyes (Ridley, 1961). Reproductions of some of these articles can be seen at the Crawford Lake Conservation Area.

The Attiwandaron and Wendat were slash and burn horticulturists. According to the Jesuits, they were resourceful people who planned ahead for times of drought or poor crop yields and annually harvested more food than would be needed to meet their immediate needs. They stored up to two years of food in underground storage pits. Father Jerome Lalement noted that the villagers "had corn, beans, squashes, tobacco and other vegetables in equal plenty" (Thwaites, 1906). Surplus food was generously shared.

The planting, tending and harvesting the crops was generally done by the women and They raised corn, beans and children. squash known as "The Three Sisters." The three plants were physically linked, the corn and beans being planted in the same mound so that the corn stalks would support the climbing beans. The squash, planted at the same time, grew between the mounds, their broad leaves discouraging weeds. They also tobacco and sunflowers, both important commodities (Jenness, 1977).

With plenty of game in their territory, hunting was probably more accessible to the Attiwandaron than to the Wendat. Daillon reported the "astounding number of deer which were slaughtered by driving them into enclosures" (Thwaites, 1906). Lalement commented on the "multitudes of wild turkeys which go in flocks through the woods and fields" (Thwaites, 1906).

According to William Kubiak (1999), the Attiwandaron had one strange custom practiced by none of the other nations. They would kill every animal they came across. Although they might not need it for food or pelts, they believed the animal would warn others of its kind. This would make it almost impossible for the hunters to find the animals when they needed them. It has been

estimated that over 60 percent of the average Iroquoian daily diet was made up of their own crops with the balance made up of fish, meat, and forest vegetation such as berries and nuts. Only when the fertility of the land and the other natural resources become exhausted was the village moved to a new site (Ridington & Ridington, 1982).



Preparing corn

The Attiwandaron system of government was probably similar to the Wendat. It is thought that it was based on the extended family unit (known as the clan) enhanced by a system of marriages outside the clans and traced through the female side (i.e., matrilineal). When married, men generally went to live with their wife's clan and the children took on the clan name of the mother. Land was communally owned and personal wealth meant little.

Traditionally, there would have been two sachems (or chiefs): a civil sachem and a war sachem. The sachems would be supported by a number of headmen. The eldest woman in each longhouse, known as the clan mother, was important in choosing, politically supporting and if necessary, removing, the sachem from the political arena if he was not following the wishes of his clan. The government might have had

three tiers; a village council, a national council and a confederacy council. Annual meetings of the councils strengthened social, political and military ties within the confederacy (Jury, 1982).

The tasks of the men and women were clearly defined. In addition to taking total responsibility for the crops, the women were responsible for gathering firewood, preparing skins, making clothing, as well as making all the various domestic pots and utensils. They prepared all the meals.

The men cleared the land, constructed the palisades and dwellings. They defended the village and took part in the hunting and fishing expeditions. Deer hunting was a cooperative affair. The men made all the stone tools and weapons (Patterson, 1985).

While the Attiwandaron men built canoes, they were less adept canoeists than other Woodland tribes and did not set out on long journeys by water. Excellent runners, they could cover remarkably long distances overland in a short period of time.

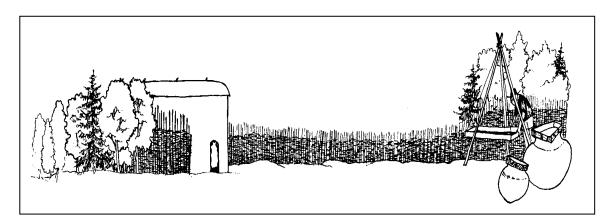
During the summer months the Attiwandaron men embarked on trading missions to other nations. They bartered with the Algonquin, for example, for flint, native copper, prime animal pelts and porcupine quills, sometimes from as far

away as Lake Superior. In return they offered corn, tobacco, fishing tackle and "wampum" (white and purple beads made from shells and much valued as a medium of exchange) (Rogers & Smith, 1994).

Like other Iroquoian tribes, the Attiwandaron practiced burial rituals. One practice may have involved keeping the body of the dead family member in the village, sometimes in the longhouse and later on a high scaffold until all the flesh had decayed from the bones. The bones were then reverently displayed in the family's longhouse. Every ten to twelve years a Feast of the Dead was held at which time all the bones were gathered up and with elaborate ceremony, placed in a common grave or ossuary (Jury, 1982).

Several ossuaries have been uncovered in Halton. Along with the bones of the dead, flint arrowheads, stone axes, stone chisels, pottery, wampum, shell beads and stone pipes have been unearthed in the watershed. Some examples of these artifacts can be seen at Crawford Lake Conservation Area.

According to the Master Plan of Archaeological Resources of the Regional Municipality of Halton (1998), 95 Woodland Indian archaeological sites have been identified in Halton.



Woodland village image

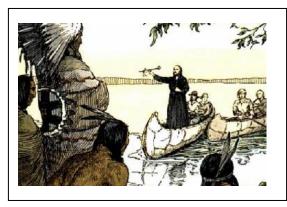
Chapter 3: *EUROPEAN CONTACT*

Shortly after the culture of the Woodland peoples was first encountered by European explorers and documented by the Jesuits, it largely disappeared from the Bronte Creek watershed. The Attiwandaron had always resisted greater contact with the French. Fed misinformation by the Wendat who were jealously trying to protect their fur trade monopoly, the Attiwandaron regarded the Jesuits with suspicion. During his visit in 1626, Daillon noted that he "was roughly handled" (Thwaites, 1906). The Jesuits were regarded as "sorcerers who carried death and misfortune everywhere" (Jury, 1982).

At the same time the greater demand for furs was increasing tensions among the Iroquoian As the supply of fur-bearing nations. animals diminished, the search for new sources exacerbated long-standing tensions between the Wendat and Five-Nation As each group expanded its Iroquois. trapping territories, there was increasing contact and competition. This resulted in increased warfare between the various nations. Blood feuds and skirmishes between were replaced by clans wars extermination. Both nations became increasingly dependent on trade goods from Europeans. In 1639, a smallpox epidemic decimated the Wendat and to a lesser extent, the Attiwandaron. The former political and military balance became increasingly unstable (Rogers & Smith, 1994).

Finally in 1648, the Five-Nation Iroquois destroyed and displaced the Wendat. With no counter-balancing force, the Five-Nation Iroquois then fell on the Attiwandaron. Seneca expansion in search of more furs and arable land, first resulted in an attack on and the burning of, an Attiwandaron village. Hoping to avoid full conflict, initially the Attiwandaron did nothing. Following a second Seneca attack and the destruction of another Attiwandaron village, however, an Attiwandaron war party carried out a reprisal raid. Furious, the Seneca mounted

increasingly ferocious attacks Attiwandaron territory that weakened their resolve and caused the confederacy to collapse. Those living in villages not yet attacked abandoned their lands and fled in terror. Many of the Attiwandaron survived as captives of the Seneca, while others were scattered as refugees, many being absorbed The collapse of the into other groups. confederacy and the dispersal of 1651 marked the end of the Attiwandaron as a separate political and cultural entity (Rav. 1996).



Early contact

The next recorded contact with the region is in the fall of 1669. Rene Robert Cavelier Sieur de La Salle led an expedition from Montreal to the western end of Lake Ontario on his way to explore the Ohio River. He had heard this great river might be a way to the Pacific Ocean. Also travelling with La Salle were two Sulpician priests, Fathers Casson and Galinee who hoped to establish a mission in the Lake Erie region. Father Galinee kept a detailed record of the journey (Foley, 1997).

Their diaries give first-hand accounts of the lush nature of the region - its dense forests, abundant animals, teaming fish and the indigenous peoples and their villages. For example, the west end of Lake Ontario was renowned for the wild grapes and berries that grew abundantly. When game was scarce, the explorers often survived on the

blueberries and raspberries. The grapes made an acceptable wine (Loverseed, 1988). Father Galinee described encounters with rattlesnakes on the Escarpment. He wrote: "[they] are a very ugly sight; for these animals are not timid like other serpents but wait for a man . . . all the time making a great noise with the rattle they carry at the end of their tails . . . there are a great many of them at this place . . . as thick as one's arm, six or seven feet long, entirely black . . . the rattle makes a noise like that which a number of melon or squash seeds would make, if shut in a box" (Thwaites, 1906).

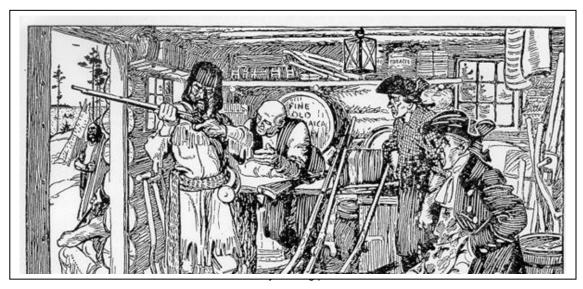
For the next one hundred years there is little record of the Bronte Creek watershed. The Senecas were known to have several hunting camps and temporary encampments in the region. French missionaries probably continued their work among the native peoples of the area. Fur trapping continued in the region. French surveyors mapped the area, calling the Bronte Creek "Rivière de Gravois" (Brimacombe, 1976).

The French erected a large trading post at the mouth of the Niagara River (Fort Niagara) and a smaller one at the mouth of the Humber River. The Seneca of this area most likely visited those posts and European traders probably visited the Indian camps in the watershed. Many French trade goods such as clay pipes, iron pots and axes have been unearthed at local archaeological sites.

The numbers of fur-bearing animals such as beaver, marten, fisher and lynx declined. The nature and extent of the forest cover remained more or less intact. The Bronte Creek continued to support a rich fishery (Robinson, 1965).

By the early eighteenth century, the Seneca had abandoned the lands around the Bronte Creek and withdrawn across the Niagara They had been replaced by the River. Mississauga or "people of the river mouth", a nomadic Algonquian tribe, who migrated into the region from the area around northern The Mississauga hunting Lake Huron. ground included much of the area around the north shore of Lake Ontario, from the Humber River down into the Niagara Peninsula and as far north as Lake Simcoe (Machan, 1997). The Mississauga referred to Bronte Creek as "Esquisink" or "last out creek" (Langlands, 1972). Archaeological evidence suggests that the Mississauga had two large encampments in the watershed. One was located near Rebecca Street in Oakville while the other was upstream, at the south end of Bronte Provincial Park (Langlands, 1972).

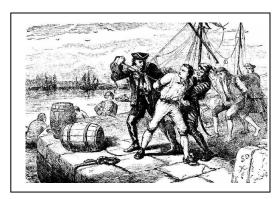
After the Treaty of Paris and the fall of New France to the British in 1764, little changed in the region except the flags flying over the trading posts. But with the end of the American War of Independence, major changes were to come to the watershed.



Chapter 4: TRANSITION

In 1775, the Revolutionary War broke out as the thirteen American colonies fought for and achieved their independence from Britain.

Many of the colonists were still loyal to the Crown and opposed secession. To the British they were "Loyalists"; to the Americans they were traitors. When the rebels prevailed, the Loyalists were persecuted. They lost the right to vote, had their land and belongings confiscated and were sometimes imprisoned.



Expelling the loyalists

Forced to abandon their homes and farms, tens of thousands fled north into Canada, some taking refuge across the Niagara River. Coming by boat or cart or horse, but mostly by foot, many settled in and around Fort Niagara (Machan, 1997). Most hoped to return to their homeland. But as time went by, it became increasingly apparent that there would be no welcoming return.

Having been petitioned by the Loyalists for compensation for their losses and hardships, the Crown eventually decided to provide them with free land (Rogers & Smith, 1994). The British started to make provision for the Loyalists by purchasing land from the Mississauga Indians. Establishing permanent settlement in the area had the added advantage of reducing the possibility of territorial incursions by the Americans. In 1784, the land from the Niagara frontier to beyond the western end of Lake Ontario was

purchased and the first eight townships were surveyed (Rogers & Smith, 1994).

In 1792, John Graves Simcoe arrived from England to take up his post as the first Lieutenant Governor of Upper Canada. His task was to administer the province and bolster it against the Americans. One of his first decisions was to relocate the newly inaugurated seat of government from the vulnerable Newark (Niagara-on-the-Lake) to York (Toronto) (Johnston, 1958).

In provide improved order to communications and travel within the province, Simcoe had the army construct roads, particularly Dundas Street from the Indian Landing Place (Dundas) west to the Mohawk Village (Brantford) and, eventually, to the Thames River (London). The route was laid out farther inland than the Lakeshore Road (Highway 2) so as to be less vulnerable to attacks by Americans across Lake Ontario. Dundas Street was to be the main military road to span the province from Detroit to Montreal (Johnston, 1958). This route crossed through the watershed and would open it to the outside world. The watershed was about to change drastically.

By 1794, the portion of Dundas Street from the Thames River to the Head of the Lake (Burlington), had been completed. In 1796, Augustus Jones, Deputy Provincial Surveyor, was instructed to lay out the road from York to the Head of the Lake. In 1796, the creeks along the north shore were designated as "Twelve Mile," "Fourteen Mile," "Sixteen Mile," etc. This was in accordance with the British practice of the time to designate the streams in terms of distance from a significant point, in this case the Head of the Lake. What is now known as Bronte Creek was named Twelve Mile Creek (Langlands, 1972).

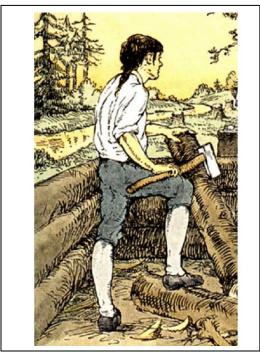
Several historic records make reference to what appears to have been a tornado that came through the watershed during the latter part of the eighteenth century. The effects of the storm, known locally as the "great windfall," were documented by several of the early provincial surveyors. It started in the region of Goderich on Lake Huron and extended through the watershed to Port Credit on Lake Ontario. There was considerable loss of life when it passed thorough the Mississauga Indian settlement at Twelve Mile Creek (Matthews, ND).

By 1805, European settlement had spread around Lake Ontario from Niagara to Burlington, and eastward. In the same year, the Mississauga Indians ceded another large section of land, between the Head of the Lake (now Brant's Block) and Etobicoke Creek, to a depth of 6 miles, to the crown for 1000 pounds. A small fishing reserve at the mouth of the Twelve was retained by the Mississauga (Langlands, 1972)

Samuel Wilmont, Deputy Provincial Surveyor, began surveying the townships of Nelson and Trafalgar. He used Dundas Street as a baseline to survey two concessions north, and four concessions south of the road. Except for the broken front along the Lake Ontario shoreline, the townships were laid out in rectangular 200 acre lots that measured 20 chains wide by 100 chains deep, divided by concession roads running east and west and line roads running north and south. (Note: 1 chain = 66 feet). The road allowances were 1 chain wide (Loverseed, 1988).

As they laid out the townships, the provincial surveyors had been instructed to keep detailed notes on the forest types they encountered. From survey notes taken by Samuel Wilmont in 1806 we know that the land in the watershed was predominantly forested with oak, maple, and pine. White elm and basswood were found bottomlands. On the till plain, oak, hickory, maple and pine predominated. Often open pine-oak savannas were found. Great stands of white pine were located on the sandy soils of the creek banks. The stands of white pine reached sixty to seventy feet (Langlands, 1972). Lumber merchants reported that the stands were among the finest on the continent.

After the road was cut and the townships surveyed, lots were awarded. The grants were mainly designated for government officials, former soldiers and militia personnel who petitioned the government for land. Clergy and crown reserves were scattered throughout the township and accounted for approximately one-quarter of the available land. Eventually, the lots were offered for sale to settlers. Location tickets allowed new settlers to live on the land (Langlands, 1972).



Building a home in the wilderness

Initially settlement was slow and by the time of the War of 1812, only 26 families had taken up land along the entire Lakeshore, between the Credit River, and the Head of the Lake (Burlington) (Archaeological Services Inc. & Geomatics International Inc., 1998).

During the War of 1812, Upper Canada was defended by militia units commanded in part by Captain William Applegarth, an early pioneer of the Grindstone Creek watershed, and Captain John Chisolm, brother of the



Bronte Creek upstream of Bronte Road

founder of Oakville. Although no battles were fought in the watershed during the war, troops used Dundas Street to move along the north shore of Lake Ontario.

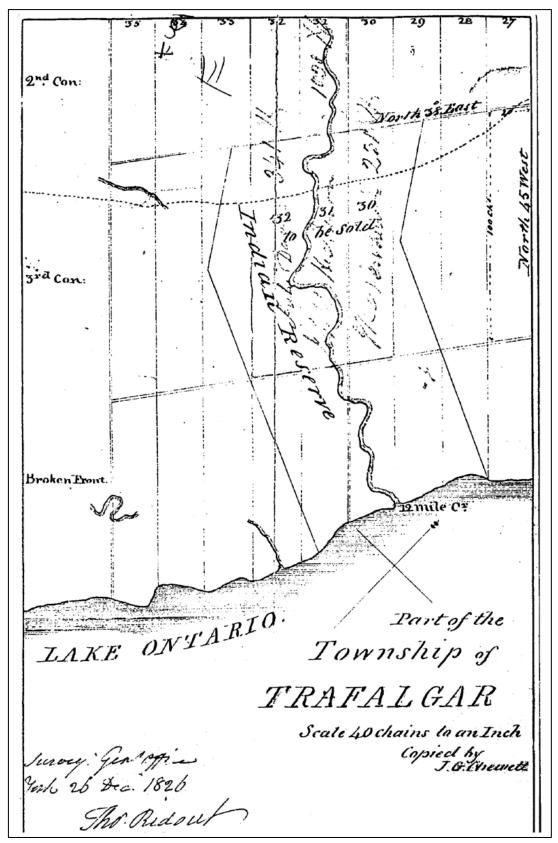
After the War of 1812, there was renewed interest in settlement of the watershed. Two new townships, Nassagaweya and Esquesing were surveyed, and Nelson and Trafalgar were extended to the north. These four townships formed the County of Halton, part of the Gore District (Pope, 1877).

According to Brimacombe (1976), one of the earliest settlers was Philip Sovereign, who arrived at the mouth of "The Twelve" in 1814 from New York State. Another early pioneer was John Bellyea, a United Empire Loyalist from New York. The story of his journey to the watershed is typical. He joined the British army in 1776, leaving his family behind on the farm. He was later captured but subsequently escaped. In the meantime rebels descended on his farm, drove off his livestock, and seized most of the produce. Following the end of the

Revolution, the family was forced to leave New York, and re-establish themselves in the St. John's River valley of New Brunswick. Unable to farm in that area, they eventually resettled in Upper Canada.

When the settlers first arrived in the watershed, the land was described as generally very flat and fertile (Brimacombe, 1976). The mouth of the creek offered a good site for the development of a port and town site. The creek also offered excellent "mill seats," that is sites for water mills (Brimacombe, 1976). The lots were well endowed with oak and white pine stands. At the same time the forest was open enough that clearing the land for farming was not as arduous a task as it might have been with denser forests.

In short, the early settlers were attracted to the area for many of the same reasons as the native peoples. Good, arable land for farming, stone and wood for building, water for industry and domestic use and sufficient fish and game to provide additional food.



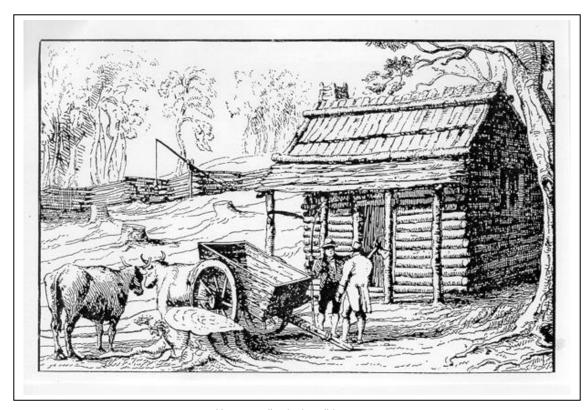
Facsimile of 1826 map of a portion of the Twelve Mile Creek (Matthews, ND)

Chapter 5: *EARLY SETTLEMENT*

Following the end of the War of 1812, the Twelve Mile Creek watershed began to undergo an era of rapid change. In Great Britain, the end of the Napoleonic Wars meant the end of an era of economic prosperity, resulting in a surplus of manpower. The crown compensated veterans with land and urged the more adventuresome of its citizens to seek their fortunes in Upper Canada. Although hampered by the terrain, forests and swamps, colonization of the region gradually advanced.

The Twelve Mile Creek watershed attracted hard working settlers. The grantable properties along Dundas Street were quickly land to be conquered and subdued. The closest neighbours were often miles away. Self-reliance, perseverance and resourcefulness were required to overcome the terrain, disease and isolation. Farm tools and utensils were primitive, clothing and furniture homemade. Subsistence farming often meant near starvation (Fryer, 1989).

The early settlers were given two years to complete their settlement duties, which included: building a house (16x20 feet), opening half of the concession road on which they fronted, clearing and fencing 10 acres of land and "rendering it fit for cultivation and crop." A patent fee was also due. Records



Homesteading in the wilderness

taken up with many of the lots going to satisfy the claims of children of United Empire Loyalists (Langlands, 1972).

Survival in the bush of Upper Canada was an ordeal of toil and struggle. The settlers saw a

from the era show that the total cost of establishing a homestead would have been approximately 25 pounds. Some lots were leased or rented. Rent could be paid in either currency or wheat. The annual rent started at 10 shillings or three bushels of wheat, and

eventually rose to one pound, ten shillings, or nine bushels of wheat (Clarke, 1955).

The first homes were generally crude, oneroom buildings with a fireplace for heating and cooking made of logs cut from timber on the land. Initially the settler would leave a hole in the roof to let smoke out until a stick chimney could be erected. The roof was made of peeled elm bark, and the single window would have oiled paper. The floor would have been made of halves of split logs. A pot-bellied iron kettle, which held about a gallon of water, was heated in the fire. Furnishings, unless imported from the east, were crude. They would have included bunk beds, two chairs, a pot along with other articles for housekeeping (Matthews, ND).

Clothes were homespun. Tallow candles were the only source of light. Made from molded beef fat, inside they were placed in the open or in a lantern for trips outside. With no screens, insects were a constant problem. Barn frames were timbers hewed with a broad axe (Guillet, 1933).

Nelson Township was first settled in 1800 by the Bates family. By 1817, according to the Historical Atlas of the County of Halton (1877), the township had 476 inhabitants, two grist mills and three saw mills, At the same time, the Historical Atlas said that Trafalgar Township had 548 inhabitants, one grist mill and four saw mills. Land was valued at 22 shillings an acre. The Townships of Nelson and Trafalgar were named to honour the Napoleonic war hero and his great naval victory.

By 1819, Rubin Sherwood, Deputy Provincial Land Surveyor, was well into a Nassagaweya Township. survey of According to the Nassagaweya Centennial (1985), the name Nassagaweya is an Indian term best described by Henry Scadding of Toronto as "between the two waters or streams" The earliest settlers included David Scott and William Trudgen who first settled in the township in 1819.

The Township of Esquesing was surveyed and began to be settled about 1819. The name Esquesing means "The Land of the Tall Pines" according to the Historical Atlas of the County of Halton (1877). In 1821 its population was listed as 424.

By 1817, there were eighteen grist mills, forty-one saw mills, four places of worship and three doctors in all of Halton County. Most of the mills were in Esquesing and Nassagaweya Townships. The total population of the county was 6,684 inhabitants (Pope, 1877).

It is understandable that the attitude of the early settlers to the endless forest was almost completely hostile. The pioneer settler had to clear and fence his land, and make it ready for spring crops. Most of the work had to be done by hand, sometimes aided by oxen. The land was cleared first along the fronts of the farms to fulfill the terms of the settlement duties and then the woods gradually shrank back to the rear of the lots (Craig, 1963).



Clearing the land

Throughout the watershed the progress of settlement could be seen. Each year a field or two was cleared, often without any reference to the quality of the soil. With a seemingly limitless forest, little thought was given as to how the clearing was done. At first, apart from what was necessary for construction material, the trees were simply piled and burned. The resulting potash, was spread as fertilizer. This practice continued until the mid 19th century. Often logs were

burned for charcoal. The remnants of charcoal pits can still be found on some farms in the watershed (Langlands, 1972).

Another backbreaking job was removing the stumps and stones. Originally they were pulled or pried out or burnt and chopped out; eventually, the job became specialized, with teams of oxen and a lever or screw stump puller. The stumps were often placed in rows with their roots set on edge for fences to prevent livestock from wandering into the woods and divide the farms into fields. The remains of such fences can still be seen today. Stones were hauled from fields and piled into fence rows or used for house and barn foundations. Later, rail fences were built from split pine, cedar, oak and ash logs (Craig, 1963).



Bronte Creek downstream of No.1 Side Road

In the early days of settlement, a self-sufficient farm economy was necessary. Isolation, poor transportation and a lack of facilities necessitated a subsistence form of farming where the production of food and clothing for the family were of prime importance. A variety of crops, including

hay, grain, potatoes, turnips and corn was grown; however, the emphasis was on wheat. Specialty crops such as tobacco, flax or hops were sometimes grown. But wheat and lumber emerged as the first cash crops and their sale and export were vital to the survival of the farm (White, 1985).

Oxen were the primary draft animals, sheep were kept as a source of meat and wool, cows were kept for their milk. Cash income from wheat was sometimes supplemented by the sale of extra cattle, pigs or chickens. Barter was a common method of obtaining goods, often involving several individuals exchanging grain for livestock for lumber for apples (Reaman, 1970).

The grain crops were sown or planted by hand, harvested with a scythe and cradle, and bound by hand. Grain was threshed with a flail on the ground and cleaned on a windy day. Two good men could cover an acre in a day. Later, horses were used for power.

In the early days of settlement there was still plenty of game available for food. But as the years passed, the population grew, the clearing continued and the supply of game began to dwindle.

The area around the mouth of the Twelve was particularly attractive. The land was flat and arable. It was heavily forested with white pine and white oak. The white oak was valued for construction of schooners, and for barrel staves. The best of the white pine was used for masts. Pine was also needed for general construction, as well as items such as matches (Matthews, ND).

In 1820, the last of the Mississauga hunting and fishing reserves at the mouth of the Twelve was ceded. Pressure from increased settlement and declining stocks of fish and game forced the Mississauga to settle farther east on the site of what is now the Mississauga Golf Course near the Queen Elizabeth Way and Mississauga Road.

Philip Sovereign and his family started farming along the lake front, west of the Indian Reserve. Philip's son Charles farmed the land until his death in 1885. In 1824 John Belyea, the loyalist from New York, leased land on the east side of the Twelve from the Mississauga Indians (although by that date, the land was owned by the crown).

The watershed also attracted people keen to One of the first establish businesses. requirements was for mills. In the early days grain had to be carried by horseback as far as Applegarth's Mill on Burlington Bay or by water to the mills on the Humber River (Brimacombe, 1976). Saw mills were needed to process the timber into lumber. In the Twelve Mile Creek watershed there was a natural fall at the edge of the escarpment. This was sufficient to power the machinery necessary to grind the grain, saw the lumber, tan the leather and make the furniture and clothing necessary for the growing population.

In December 1825, the Board of Directors of the Welland Canal, received permission to cut timber for construction of the canal from land around the mouth of the Twelve Mile Creek. In 1826, a petition had been signed by residents of Nelson and Trafalgar Townships and presented to the Lieutenant-Governor to develop "a mill site above the planting grounds of the Indians" [near the mouth of Bronte Creek]. The site would be

sold at public auction and the proceeds were to be used to construct the new Mississauga Indian village. Although the site was sold,the mill was never successfully developed until some ten years later when Samuel B. Harrison took over and built a mill in 1837. With settlement of the land moving ahead, plans were initiated to lay out a town at the mouth of Twelve Mile Creek. By 1832 the Surveyor-General was receiving inquiries from persons wishing to buy lots. In December 1833, Deputy Provincial Surveyor William Hawkins submitted plans for the village to be called Bronte (Matthews, ND).

The village was named after the Duchy of Bronte. The Duchy was presented by the King of Naples and Sicily to the British war hero Lord Horatio Nelson for saving the Neapolitan Monarchy from the French in 1799. It consisted of a seventeen thousand-acre estate located on the western slope of Mount Etna. As mentioned, the townships of Nelson and Trafalgar were also named to honour this Napoleonic war hero (Brimacombe, 1976).

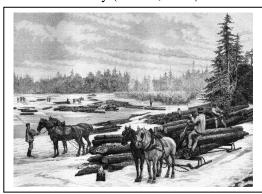
William Hawkins also recommended that the course of the creek be changed slightly so that the water at the mouth of the creek could be deepened for a harbour. By 1834 advertisements appeared in the Upper Canada Gazette for the sale of lots. Charles Sovereign bought several in the town, including Lot 18 for five pounds, fifteen shillings (Matthews, ND).



Chapter 6: *PROSPERITY*

As the watershed was opened up, the road system became more developed. Concessions that started as a blaze through the forest became a trail and then a track. Travel was still limited however. Most of the roads were impassable much of the year, particularly in spring and fall. Only in the winter when the ground was frozen could settlers reliably get about with sleighs.

The forest cover was cleared at an impressive rate. Based on census data, it can be estimated that at the turn of the nineteenth century over eighty-five percent of the watershed was in woodland (Dept. of Commerce & Development, 1960). As the farms became established and transportation improved, the timber was taken to the numerous local sawmills to be cut into lumber for construction. By selling the timber, the cash-strapped settlers received a bonus. This process went on year after year. Land clearing bees were a common communal activity (Guillet, 1933).



Winter logging

Settlements began to appear at key points on the roads throughout the watershed. The locations of the historical communities is shown in Figure 1 (Page iv). As early as 1806, tenders were put out to bridge Twelve Mile Creek at Dundas Street (Langlands, 1972). There followed a series of petitions from residents to bridge the other ravines that were a hindrance to travel. By the 1820s St. Anne, a settlement located where Dundas Street crosses the Twelve Mile creek, had become the local outlet for goods arriving

from the interior to be transshipped to Bronte and Brown's Warf in Burlington. William Chisholm and William Crooks were early merchants who owned land at St. Anne to take advantage of the travel and commerce.

Carlisle was first settled in the 1820s. It was originally known as Eaton, or Eatonville, after the first settlers. John Eaton's ancestors had originally come to North America on the Mayflower. The family moved first to Nova Scotia, then Niagara, then to Brantford and finally to Stoney Creek before taking possession of 400 acres in East Flamborough (Turcotte, 1993).

The Riggs family arrived in the watershed about 1830 and started farming at Middle Road (Queen Elizabeth Way) and the Second Line of Trafalgar (Bronte Road). They named their 100-acre plot of Crown land, Sunnyvale. This road intersection was located at the middle of School Section #15 of Trafalgar, so a post office was established there. The name Merton was chosen to honour the English birthplace of one of the area's residents, Ed Wrinch. The hamlet grew up around the post office, the blacksmith shop, the school and a church.

Prominent among the Merton landowners was James White who, along with his brother John, operated saw mills on the creek. James White became notable among Upper Canada's early prizewinning horse breeders, establishing his stables and a racetrack at the Merton corner. In 1860, one of his horses won the first running of the Queen's Plate. Subsequently, he and his brother John White went on to win the Queen's Plate on a number of occasions (G. Atkins, Pers.Com.).

John Breckon and his family were other pioneers in the area, settling just west of the creek. After the farm was established, it was said that John Breckon and his wife Isabella often walked to Hamilton and back in one day for shopping (Turcotte, 1993).

After the formation of the Gore District in 1816, the militias in Trafalgar and Nelson Townships that had been formed to fight in the War of 1812 were reorganized as the Gore Militia. The militia again went into action in 1837 to help put down a rebellion in Upper Canada led by William Lyon Mackenzie. Following the unsuccessful rebellion, Mackenzie traveled through the watershed on his way to Niagara and exile in the United States. During his flight, he took refuge over night in a cave on the banks of Twelve Mile Creek (Langlands, 1972).

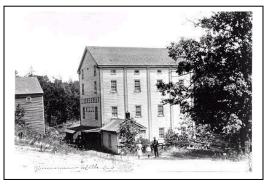
Gradually the roads became increasingly passable and more small communities became established. Strabane, originally known as Nairn, was settled in the 1830s by Scottish pioneers who were buying lots on a large tract of land owned by the Canada Company. The name Nairn was changed to Strabane after it was discovered that the name was already in use by another village (Turcotte, 1993). Located on Brock Road, Strabane became an important stopping point on the way to Guelph.

William Panton settled in the Kilbride area in the 1830s and Josiah Mount and his family first settled Mountsberg in 1835 (Turcotte, 1993). More and more hard working, industrious people were drawn to the watershed by the promise of new opportunities and a better life. The era of early pioneers and subsistence farming was gradually giving way to an era of prosperity and expansion.

Many of the communities in the watershed were founded because a good mill site was located on Twelve Mile Creek. Timber was first used by the pioneers to build cabins and barns, but by 1825, logging took on more of a commercial aspect. Wood products such as ships' masts, lumber, barrel staves, and ash were major exports, and water powered saw and planing mills could be found on the creeks. Grist and woolen mills were also important to the rural community.

In the 1830s and the 1840s it was estimated that a sawmill could be built for about 100 pounds. Most were simple timber designs that used local materials for the flutter wheel and the penstock, geared to take advantage of a natural fall of water and the local topography. The individual design was often based on site-specific requirements.

The construction of mills also reflected a growing export market for lumber and potash. In the 1830s, a lumber boom in the United States created a demand for sawn



Mill at Zimmerman
Courtesy Burlington Public Library

lumber that made the watershed a prime producing area. By 1850, Bronte was exporting 1,835,000 feet of pine boards annually (Langlands, 1972).

The forest cover in the Twelve Mile Creek watershed was now down to less than fifty percent (Dept. of Comm. & Development, 1960). Much of the transportation system on the Great Lakes at the time was starting to depend more and more on steam powered boats which, in turn, required an ever larger supply of firewood. To increase the tillable acreage of the farm and supplement their incomes, many farmers felled trees in the winter and hauled them down to Bronte at the mouth of the Twelve or Brown's Wharf near Burlington. Mr. Brown had a contract with steamship companies to supply fuel for the boats. In one season, as many as 5,000 cords of wood were shipped from the wharf. The growing population and industrialization of the region also placed demands for wood.

Cord wood was burned for heating and cooking. Sawn lumber was needed for frame structures such as houses and barns. Another notable consumer of lumber was planking for the often-impassable local roads.

A shingle factory needed a steady supply of cedar and pine. White oak staves were fashioned by hand for the barrel making industry, another important early export. Eventually, these varied products found ready markets in Toronto, Hamilton and western New York State. By 1850, Nassagaweya Township boasted seven sawmills (Pope, 1877).



Bringing in the catch

While William Chisolm had succeeded in gaining enough capital to build piers, wharves and warehouses at the mouth of the Sixteen Mile Creek, funds to build similar structures at the mouth of the Twelve had to be raised publicly. The petition to build a harbour was approved in 1846, and construction was started shortly thereafter. The entire mouth area was dredged well upstream to allow schooners and barges to unload their cargoes of lumber and flour directly in the harbour, without the need for

transshipment. Much of the marsh at the mouth was filled in. The harbour was completed in 1856 (Brimacombe, 1976).

During this period, Bronte saw the rise of a bustling ship industry that required a steady supply of oak and pine. Making use of local artisans, and using the lumber produced at two nearby sawmills, the Simpson Brothers built several fishing schooners. By 1861, one of the two saw mills established by John and James White employed 5 sawyers and was producing 300,000 feet of pine board valued at \$2,400.00 (Langlands, 1972).

At that time Bronte was an attractive little village of white frame buildings situated along the east and west banks of the harbour. The population would have been about 150. Between Bronte and St. Anne at Dundas Street, there were at least four mills. Local businesses included a wagon-maker, blacksmith, cabinetmaker, shoemaker, and a cloth factory. There were two hotels. In 1858, the largest steam gristmill in Canada was opened in the village. Distinguished by a tall brick smokestack visible for several miles out onto the lake, it was a landmark of village for nearly 100 vears (Brimacombe, 1976).

In the 1850s, fishing became important to Bronte. At first white fish and lake trout were the most sought after species. Later cisco, or "yellowback", became the preferred species. As stocks of the more desirable species declined, herring or "blueback", became the main commercial fish. There was also a market for bass, blue and yellow pickerel, and pike. Sturgeon were caught right up until the 1930s. Later, perch became very popular (Brimacombe, 1976).

But overexploitation of most of the available fish, led to a decline of their availability. Pollution, particularly waste products from the mills also played a significant role in the decline of the fishery. In the 1850s, as many as five to six hundred white fish and lake trout could be caught in one night near the mouth of the creek. By the 1890s, forty or

fifty was considered to be a good catch. With stocks declining, the importance of Bronte as a centre of commercial fishing, steadily waned (Brimacombe, 1976).

In 1850 the population of Trafalgar Township was 4,513 people. By comparison, Nassagaweya Township had a population of only 1868 people (Pope, 1877). Its lack of settlement was due primarily to the poor roads and the absence of railway facilities. According to The Nassagaweya Centennial 1850–1950 (1985), "roads were merely trails... game was abundant; so were wolves, bears, and other unwelcome pests. Sheep had to be watched all day and housed every night. One day Mr. Sherwood's flock was left unguarded for about an hour, and fourteen of them were killed."

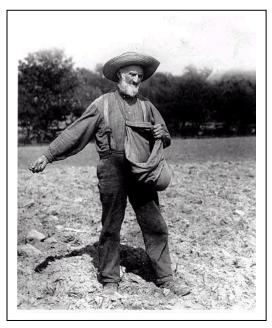
As the watershed prospered, more roads were opened up through the townships. Inns, taverns, and other services quickly sprang up. Communities such as Merton, Darbyville, Brookville, and Sodom or Haltonville were established along the major routes (See Figure 1, Page iv).

Moffat was founded in 1843, when Charles King built a general store on the corner of First Line. More shops soon followed including a post office, schoolhouse, and blacksmith shop. Sodom or Haltonville was also founded around the 1840s. It was first known for the large frame hotel built by George McLarty to service the traffic along the Guelph Line.

Brookville was first settled in 1852 when Thomas Easterbrook built a house and store. By 1860 there was also a hotel. The residents of Sodom used the nickname "Gomorrah" to characterize one of the nearby villages. However, there seems to be some debate over which village was so nicknamed. George Atkins believes that the term was applied to Brookville (G.Atkins, Pers. Com.). Dorothy Turcotte writes that it was Moffat that was also known as "Gomorrah." Even the exact origin of the nickname is uncertain, but it is

thought to pertain to the numerous taverns located in the village (Turcotte, 1993).

Farther north up Guelph Line, Darbyville is named for one of its early settlers. Originally settled in 1837 by John Taylor, the land was sold the following year to Edward Darby. In partnership with his son, Darby opened a wagon-maker's and a blacksmith's shop (Turcotte, 1993).



Sowing by hand Courtesy Burlington Public Library

Although the village of Bronte grew steadily, its importance as a port to the region never matched that of Oakville. When the main means of transportation was by ship, most of the important arteries through the watershed tended to be in a north-south direction. However, with the construction of railways, much of the travel changed to east west. The Great Western Railway opened a line between Toronto and Hamilton through the watershed in 1856, while the Grand Trunk Railway ran from east to west through Georgetown in the northern portion of the watershed. The Hamilton and North-Western Railway also opened a railway diagonally through the watershed from Burlington to Georgetown. The telegraph was established in the region in the 1870s (Langlands, 1972).

As life in the townships was changing, the type of farming was evolving as well. A typical farm in the 1850s would have grown wheat, with some rye, corn, buckwheat and beans. The farm would have included an orchard, and there would have been a field for potatoes (Craig, 1902).

Livestock were raised both for domestic use and to be sold for cash. Sheep were raised primarily for their wool, cattle for dairy products and meat, and hogs for domestic use and for sale. In the winter, the forest would be logged to clear the land for farming and to sell the lumber for cash (Reaman, 1970).

The wheat boom brought prosperity to the watershed. Farm machinery such as plows, stump machines and straw cutters were being adopted. Frame structures were replacing log cabins, and prized animals were now being raised in the area (Langlands, 1972).

By the mid-nineteenth century, there was an increasing tendency to move away from intensive wheat farming and into mixed farming, market gardening or fruit farming. Some farmers, known as "wheat miners" had already exhausted their soil by successive crops without any attempt at rotation or replenishment. After Confederation, better wheat growing areas were being developed in Western Canada. The influx of the wheat midge also forced farmers to diversify.

The end of the wheat boom dealt a severe blow to the farming economy. The loss of the wheat market, and the decline in the yields caused by overexploitation and disease, meant that farmers increasingly turned to general mixed farming (Langlands, 1972).

The watershed continued to be cleared of its forests. By 1867, the amount of forest cover was down to about thirty percent and by 1878 it had been reduced to about twenty percent (Dept. of Comm. & Development, The large "sticks" needed for shipbuilding were mostly gone. The Historical Atlas of the County of Halton (1877) notes that the "large lumbering business [that] was formerly done in the neighborhood of Cumminsville had declined owing to the scarcity of timber." stretches of forest that had once seemed endless had been reduced to the point where often there was only enough wood to supply firewood to the individual farms.

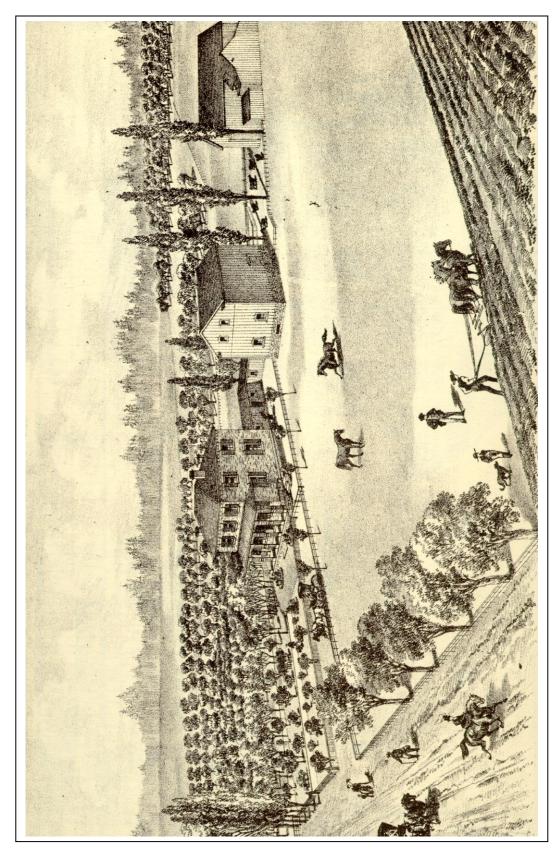
The dams along the Bronte created many millponds that provided recreation and enjoyment for area residents: fishing, swimming and boating in the summer. In the winter they were a source of ice for refrigeration (Brimacombe, 1976). But the dams degraded the fishery. They limited the movement of migratory species, accelerated siltation that smothered spawning beds and increased water temperatures.

With over eighty percent of the forest cover gone (Dept. of Comm. & Development, 1960), the level of exploitation of this resource could not continue. By using up so much of the wood, the milling industry of Bronte Creek unwittingly became the instrument of its own demise. By the 1870s the era of watershed prosperity brought on by the thriving export trade in lumber and wheat was largely over (Langlands, 1972).



Setting out for a ride

Courtesy Burlington Public Library



A facsimile of the Zimmerman farm (Historical Atlas of the County of Halton)

Chapter 7: *DECLINE and ADJUSTMENT*

With the collapse of the wheat market and the financial crisis brought on by the end of the Crimean War, there were changes in the watershed economy. In 1865 the Grand Trunk Railway opened its track between Montreal and Sarnia. Since the line passed through Georgetown and Acton, most farmers in the watershed began carrying their wagonloads of grain north to the rail line rather than south to the harbour. The importance of Bronte as a commercial port declined. Warehouses disappeared. Between 1860 and 1875, the population of the village dropped from about 550 to a little over 200.

The decline was offset somewhat by increased activity based on stone hooking. Stone hooking involved the pulling up of the soft, flat layer of Dundas shale from the bottom of the lake. The shale was sought after as building material for foundations, walls, and sidewalks. Bronte was a centre for the stone hooking trade in the latter part of the 19th Century (Brimacombe, 1976).

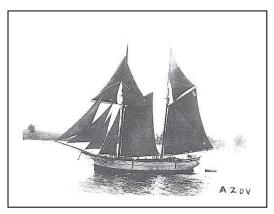
To harvest the stone, men sometimes worked waist deep or poled into deeper water in scows where the stone was pulled up using long handled rakes. The stone was stacked in piles called "toise" on the docks, in piles three feet high by six feet wide by twelve feet long. The hookers received three dollars for a "toise" (Turcotte, 1993).

Eventually so much of the shale was removed that local farmers began to complain of erosion, and loss of land along the shoreline. Eventually, a statute was passed prohibiting the practice within 50 feet of the shoreline. However, the hooking continued for many years afterwards. The trade only declined around World War I as quarries began to open up on the Escarpment.

By the end of the 1880s, crops such as oats, barley and rye finally overtook wheat in importance to farmers. Stock raising and livestock breeding also began to be an

important part of the farm economy at this time. There was a greater use of manure to fertilize fields. The flat bottomlands of Twelve Mile Creek were used as pasture. Businesses were created to utilize local produce. For example, dairies, creameries, ice cream parlours and several butchers were established at Tansley (Langlands, 1972).

Farming techniques and equipment were evolving. More and more machinery was being used on farms, although horses were still the main source of power. Reapers, binders, horse rakes, cultivators and disc harrows gradually appeared (Reaman, 1970).



The schooner "Azov"

Courtesy Burlington Public Library

The climate in the watershed meant that nearly every farm had several acres of apple trees and more fruit was being grown as time passed. A wide variety of apples was grown either for eating or to be processed into cider. By the late 19th century other fruits developed as major crops. Pears, plums and cherries became important at this time. The well-drained sandy loams along the lake were particularly suitable for strawberries. The produce grown on watershed farms was transported to Toronto and Hamilton and sold at market (Craig, 1902).

As the growing of tender fruit became more prevalent in the watershed, shipping this produce from Bronte became an important activity. However, any hope that the importance of the local grain industry would improve was dashed by the mid 1880s. Not only was there a glut of wheat on world markets, but the vast wheat producing areas of Western Canada were beginning to open up. Grain tariffs enacted in the 1890s effectively finished Bronte's days as a grain port forever (Brimacombe, 1976).



Picking strawberries
Courtesy Burlington Public Library

Although lumber and wheat exports were declining, the watershed still supported a variety of manufacturing businesses including tanneries, knitting mills, glove factories, potteries, furniture factories, foundries, carriage works, tool works, breweries, cheese factories, and a gunpowder plant (White, 1985).

The remaining mills of the Bronte Creek slowly converted to steam power. Steam boilers were more powerful and were often portable. When many older, less economical water-powered mills had their dams wash out, they were abandoned or, if fire struck, were not rebuilt. There was still enough wood to serve locally as a source of firewood for boilers or stock for some manufactured goods such as baskets, barrels, rakes or handles: but, the once vibrant milling industry was waning (Matthews, ND).

Limestone quarries became more important in the latter part of the 19th century. The four common uses for limestone were in agriculture, as dimension stone, as crushed stone, and as burnt lime. In agricultural use, lime was beneficial when added to certain soils, especially heavy clays. Lime made the

soil more workable, promoted drainage, and caused a more rapid decomposition of vegetable matter. Agricultural lime consisted of finely cut stone. Dimensional stone was important for buildings and structural work such as bridges. Crushed stone was used for a variety of purposes, such as road construction, concrete aggregate, and limestone flux. Limestone was burnt in kilns to produce quicklime, which was slaked with water to produce mortar or cement.

By the turn of the century, the once extensive woodlands covered less than ten percent of watershed (Dept. of Comm. Development, 1960). Much of the remaining forests were now being cut for fire wood, fence posts, railway ties and telegraph posts. Farmers continued to log the valleys and less accessible areas for firewood. But as electricity increasingly became available in the watershed, the demand for cordwood declined. So much of the forest cover had been cleared that the strong, regular flow of the Twelve Mile Creek was permanently affected.

The filling or draining of wetlands and swamps that were the source for the creek compounded the problem. Originally, only the best land was cleared for farming and the rough, swampy areas avoided. But as time passed even the wetlands were subjected to attempts to turn them into arable fields, particularly when the rich, organic soils revealed were found to be particularly desirable for growing vegetables.

When the majority of the watershed was forested, the forest floor acted as a sponge to help hold the water for an extended period of time. In forests, snow stayed on the forest floor longer. Snow was not so exposed to direct sunlight and took as much as three times longer to melt than on exposed fields. Runoff was more gradual.

But with deforestation, the pattern changed. Runoff, particularly the spring freshet, became much more sudden and intense. No longer did the forest hold and slowly release the trapped moisture. In order to allow farmers onto their fields as early as possible for spring planting, more fields were ditched and drained. By the 1880's, tile drains were being used to drain the fields with heavier soils (Reaman, 1970).

According to Coventry (1940) the flow in many creeks in southern Ontario became less consistent and more seasonal. Spring floods tore out dams and damaged mills and equipment. Summer droughts reduced flow to the point where there was not enough to power the mills. The abundant, steady flow of water in Bronte Creek that first attracted the settlers and entrepreneurs was waning.

With the disappearance of the forests, the fish and game populations were affected as well. With more sunlight reaching the creek and warming the water, the trout were adversely affected. The more abrupt spring freshet altered water quality for spring spawning. Sawdust and other polluting by-products of the milling industry had degraded water quality. Dams prevented the free movement of fish populations for spawning.

Water flow became more seasonal, reducing available habitat. Cattle and horses had unrestricted access to the creek, leading to the destruction of habitat and the siltation of spawning beds. With less spawning habitat available, the once abundant Atlantic salmon population disappeared, although the waters around the mouth of the creek still supported sizable populations of whitefish, bass and pike (Langlands, 1972).

The reduction of the forest cover similarly affected game populations. Loss of habitat and hunting pressure reduced or eliminated several species. The wolf, cougar, lynx and black bear were hunted down and eliminated from the watershed. Birds such as wild turkey and passenger pigeon vanished due to loss of habitat and over-hunting. The once rich, natural bounty of the watershed was fast disappearing.

The nature of the woodlands had changed as well. Some of the land cleared for farming proved so inferior that after attempts at cultivation, it was abandoned and reverted to bush. Aspen, a pioneer species, became one of the most represented types in the watershed. Sugar maple was the dominant species on rougher land and tended to make up many individual woodlots.



Sawyers at work
Courtesy Burlington Public Library

With the disappearance of much of the pineoak forests, the supply of wood available for construction dwindled until it was no longer economically viable. With so little woodlands remaining, the rate deforestation had bottomed out and the amount of forest cover had actually increased slightly. With the introduction of coal and then electricity, the demand for fuel wood fell off. White cedar, silver maple and white elm were still predominant in the wetlands and swamps. Only on the rough lands and in the steep ravines immediately below the Escarpment did the remnants of the Carolinian forests remain.

While some species such as the timber wolf, cougar, fisher and marten were gone from the watershed; others such as the white-tailed deer and beaver were increasing in numbers. Introduced species such as the European hare, house sparrow, starling and house finch were now found in the watershed. Brown headed cowbirds, a species associated with open fields and agriculture were first seen in the watershed.

In the latter part of the nineteenth century the human face of the watershed was changing as well. A mercantile economy geared to supplying products and services to the farm community was now the main business of many of the villages that dotted the watershed. More manufactured goods began to be produced in major centres. This had a negative impact on some of the small communities in the watershed.

The story of the village of Dakota illustrates the trend. It was apparently named for a group of Dakota Indians who camped at the site when the village was surveyed. The earliest settler to the area was Thomas Simpson who received a grant of 100 acres for his service in the British Army. Eventually, the Canadian Powder Company acquired the Simpson property because it was considered an excellent location to build a factory to manufacture explosives and gunpowder. After many difficulties, the factory was completed and started operation in 1854 (Turcotte, 1993).



Mill at Dakota Courtesy Burlington Public Library

In 1862, the Canadian Powder Company was purchased by the Hamilton Powder Company. With the great demand for explosives from the Canadian Pacific Railway for completion of the Trans-Canada Railway, the operation and surrounding communities of Cumminsville and Dakota prospered. By 1884, it employed more than 200 men. But on October 8th of that year, a

tremendous explosion, blew the factory apart. Five men were killed. The explosion was reported to have been heard and felt as far away as Owen Sound and St. Catharines. An inquiry blamed the explosion on machinery that was not in good repair. The factory was never rebuilt, and the company moved its operations to Quebec (Turcotte, 1993). With the loss of all the jobs, the prosperity of Cumminsville and Dakota started to decline.

In the years leading up to the turn of the twentieth century, other villages evolved and adapted to the changing times. St. Anne was re-named Tansley to honour its first postmaster in the 1880s. It remained a small service centre for the rural population by virtue of the hotel, post office general store. In 1888, Moffat received a boost when the railway built a branch line and the village became a flag station. A station, stockyards and a grain elevator were then erected. Some villages were less fortunate. Brookville was almost completely destroyed by a devastating fire (Turcotte, 1993).

Roads were mostly dirt and travel in the watershed was still difficult. The Twelve Mile Creek ravine, at the point where Dundas Street crosses, is 37 metres deep and very steep. Many bridges built at the bottom of the ravine washed out and had to be re-built. At one time a cable car was built to aid travelers across the valley at Dundas Street (Turcotte, 1993).

By the turn of the century, social and technological changes were influencing the watershed. Although most people still relied on shallow dug wells or local springs, hydro was being introduced, along with the telephone and telegraph. New businesses emerged while old trades vanished. Banks, newspapers and libraries were established. Now the residents of the villages included railway men, telephone operators, printers, postal workers, dentists and bankers (White, 1985). More and more people started to work outside the community in which they lived. Some villages prospered with these changes while others disappeared.

Chapter 8: THE EARLY TWENTIETH CENTURY

Between the turn of the twentieth century and the outbreak of World War II, changes in the watershed were steady. Roads and other forms of transportation continued to improve. An electric radial railway joined Hamilton and Oakville. It was used by local farmers in the Bronte area to take their eggs to the Hamilton Market. The radial closed down in the mid 1920s in favour of bus transportation.

The extent and type of farming evolved with newer and more scientific methods being introduced resulting in better yields. Farm prices generally rose through the first twenty-five years of the new century. Steampowered and gasoline-powered equipment replaced horses. Electricity and telephone service became more wide spread. The small communities continued to evolve.



Lowville General Store Courtesy Burlington Public Library

The story of Progreston is typical. downstream of Carlisle, the Twelve Mile Creek drops five metres over a natural waterfall and forms an ideal site for a mill. At one time Progreston had a saw and shingle mill, another gristmill and a woolen mill. A factory was also built that made maple pegs for boots. The pegs were used in the boots used by the workers at the nearby Canadian Powder Company. The workers could not wear boots with metal nails for fear of creating sparks (Turcotte, 1993). But the destruction of the Canadian Powder Company meant the end of the peg factory and a decline in the village's fortunes. In 1911, the Southern Ontario Canadian Pacific

Railway built a rail line joining Hamilton and Guelph Junction that crossed Twelve Mile Creek at Progreston.

Zimmerman prospered in the early days as a farming centre. A grist mill was built on the creek to grind the local grain. Following the collapse of the wheat boom, the lumber industry created opportunities in Zimmerman. A saw mill was built to take advantage of the lumber trade. Eventually as the last of the good trees were felled, the local economy declined. When the mill burned in 1914, it was not rebuilt. The village with its general store, survived into the 1930s.

Lowville, founded by Daniel Picket, was noted for its mill and general store (Turcotte, 1993). The large flouring mill (now a residence) and a dam were built by James Cleaver in 1837. Later a millrace was cut under the road. At one time Lowville boasted 5 hotels, a telegraph office, a blacksmith shop, a harness maker, a tannery, an iron foundry, and a variety of shops. The mill continued to operate into the 1950s. Now a residence, it operated as a restaurant for a time.

Improvements to the road system were likely responsible for the demise of Tansley. Crossing Twelve Mile Creek had still been a problem well into the twentieth century. Bridges were washed out with depressing regularity. Finally a steel reinforced concrete bridge was raised some 30 metres above the creek to span the ravine and avoid flood damage. There was now little reason to stop in the village. A homemade ice cream parlour brought visitors until after World War II. But in due course traffic on Dundas Street largely by-passed the village and only a small group of houses remained.

Downstream of Progreston, the Tally Ho valley once boasted 22 houses, a dam and a saw mill. There was also a cooperage that made barrels to pack the apples grown in the

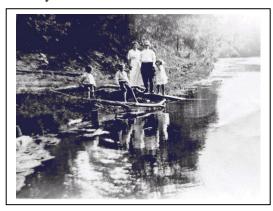
surrounding orchards (Turcotte, 1993). The hamlet was connected to Dakota by a corduroy road. Nothing remains of the settlement today.

Another village that has disappeared is Cumminsville. Located at Cedar Springs Road and McNiven Road, the site was first settled by Titus Cummins. He was attracted to the area by the waterpower of Twelve Mile Creek. The actual plan for the village was laid out in 1857. Eventually the community had three sawmills, a shingle mill, post office, blacksmith shop, bakery, licensed hotel and general store. By 1877, the village had some 200 residents, with most of the men working at the new Hamilton Powder Company (Turcotte, 1993). The destruction of the powder factory at Dakota and subsequent hard times meant the end of Cumminsville.

But other areas of the watershed prospered. For example, following the explosion of 1884, the land that had been owned by the Hamilton Powder Company passed through several different owners. In 1924, it was purchased by William Delos Flatt. Mr. Flatt, a successful timber merchant and land developer, owned other properties in the area. When the property on the Twelve Mile Creek became available, he purchased it with the intention of creating "a beautiful summer camp where families can, while within short distances of leaving cities, enjoy the peace and contentment found only in the solitude of nature" (Turcotte, 1993). He named the development "Cedar Springs" for the great number of cedar trees that grew in the area and the pure spring water that bubbled from the ground.

Over the next three years, Mr. Flatt built over 70 rustic cedar cottages complete with stone chimneys, fieldstone fireplaces, electricity, and modern sanitary conveniences. Varying in size, they sold for \$250 to \$500. Willowbrook Creek was dammed to create a trout pond, which was stocked with over ten thousand fish. Twelve Mile Creek was dammed to create a swimming pond.

Eventually a golf course and a ski hill were added. Mr. Flatt finally turned the camp over to the residents who formed the Cedar Springs Community Club, an early form of co-op housing (Turcotte, 1993). This unique enclave remains a feature of the watershed to this day.



Family outing on the "Twelve" near Zimmerman

Courtesy Burlington Public Library

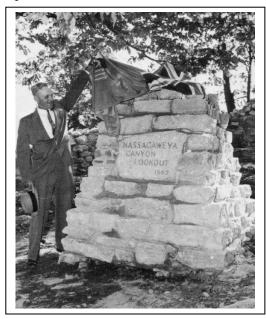
In the years leading up to World War II, there were two significant changes to the watershed. First, the Ontario Geographic Names Board decided to change the Name of Twelve Mile Creek to Bronte Creek. The decision was made to avoid confusion with a creek located on the southern shore of Lake Ontario at Port Dalhousie, located 12 miles from the mouth of the Niagara River (Turcotte, 1993). Accordingly, the Ministry of Energy, Mines and Resources Canada changed the name of the lower part of the watershed. In 1954 the name was applied to the entire watershed.

Construction of the Queen Elizabeth Way through the watershed in the late 1930's signified other changes. The hamlet of Merton was wiped out all together (Langlands, 1972). Located on Middle Road, Merton had been a stage stop between the Dundas Highway and Bronte Station. A post office, school, and church serviced the local area as well as travelers (Turcotte, 1993). Now all that is left of Merton is the Methodist cemetery, still visible from the Oueen Elizabeth Way. The highway also signaled the beginning of the end of many of the tender fruit and market garden farms in the lower watershed.

Chapter 9: THE PRESENT

With the end of World War II, the area began to experience another era of change. The population growth and resulting housing boom following the end of the Second World War brought major changes to much of the Bronte Creek watershed.

It was an era of rapid population growth with the small communities expanding as the demand for housing increased. Pressures for development meant the farmland in and around many of the villages began to be converted into residential areas. Reflecting a general trend, while there were more households in the village, fewer people actually worked there. People still lived in villages like Carlisle and Kilbride but worked in the major centres of Hamilton, Burlington, Oakville and even as far as Toronto. Bronte became part of Oakville, while Burlington expanded to annex Lowville and Kilbride.



Opening Rattlesnake Point Conservation Area

The continued demand for housing brought the biggest change to the watershed. Urban growth swallowed up many of the fruit farms and orchards south of Dundas Street, although others continued to supply high quality vegetables and horticultural products to the region. As the role of farming declined, more and more lots were severed for building properties. In some areas whole farms were converted to residential subdivisions or golf courses.

Regional growth brought increased demand for the other resources of the watershed. The construction boom resulted in the need for stone, sand and gravel. More and more quarries were started to exploit the high quality dolostone of the Niagara Escarpment. Pressure from unchecked residential development also threatened to degrade this unique ecosystem. The irrevocable loss of natural areas and headwater wetlands became a real possibility.

Areas of the watershed continued to be affected by agriculture. Livestock operations allowed cattle into creeks and wetlands, impeding natural regeneration and degrading water quality. Efforts continued to drain headwater wetlands, hindering the effectiveness of swamps and wetlands to naturally regulate stream flow.

Other ecological setbacks occurred. The introduction of the European Elm Bark Beetle in the 1930s brought Dutch elm disease to the Province. Over the next thirty years most of the once-prevalent white elm were eliminated from the area, further reducing the bio-diversity of the watershed.

After World War II, sport fishing became an important pastime in the watershed. During the 1950s, there were several stockings of small mouth bass in the creek. At one time it was proposed to build a small dam to prevent lamprey migration. At the time, Bronte Creek was said to be the second largest producer of lamprey in Ontario (Sly, ND).

But growing public concern finally brought a halt to the long period of ecological decline. Threats to the environment, the loss of natural areas, pollution in the creeks, exploitation of the Niagara Escarpment all served to galvanize public opinion. Public and private initiatives began to reverse the degradation and create a healthier watershed.

1958. the Twelve Mile Creek Conservation Authority was established to mitigate the impacts of flooding and protect valuable natural resources such as creeks, valleys, wetlands and escarpment features. The "Twelve Mile Creek Conservation Report" was adopted in 1960 as a guide to conservation in the watershed and in 1963, the Twelve and Sixteen Mile Creek Conservation Authorities amalgamated to form the Halton Region Conservation Authority, now Conservation Halton.

The first major initiative for the Twelve Mile Creek Conservation Authority was the acquisition of 88 acres of prominent escarpment at Mount Nemo to prevent the expansion of a quarry operation. This action led to an evaluation of the Escarpment at the Provincial level, ultimately resulting in the Escarpment Planning Niagara Development Act and the approval of the Niagara Escarpment Plan. In 1990. designated UNESCO the Niagara Escarpment as a World Biosphere Reserve.

Important natural areas such as Burns and Mountsberg were developed as public-use conservation areas. Crawford Lake, with its rare meromictic lake, was protected and became an interpretive centre for local archaeology and aboriginal culture. Land was assembled from public and private sources to create the Bruce Trail. Land between the Queen Elizabeth Way and Highway No. 5 was gradually assembled for Bronte Creek Provincial Park (Turcotte, 1993).

Environmental awareness led to the designation of parts of the watershed as Environmentally Sensitive/Significant Areas (ESAs) and Areas of Natural and Scientific Interest (ANSIs). Programs such as Carolinian Canada were created to help protect the vestiges of that increasingly rare forest zone.

As people became increasingly aware of what had been lost, efforts were made to reverse the decline. Groups created clean-up projects to improve conditions in the watershed. Garbage was removed and tree planting days scheduled. Where once the community came together to clear a forest, now it came together to re-establish one.

Land stewardship became a force in the watershed. On watershed farms, large estates and small residential properties, residents were increasingly aware of their natural heritage and started taking actions to enhance it

Residents began to resist the push for further development at the cost of the natural features of the watershed. Instead, they sought ways to control development through planning legislation. They looked to restore portions of the watershed to its original beauty and diversity. Local tourism and recreation promotes the great natural beauty of Bronte Creek. Public involvement has become the watchword for protecting the diverse fabric of the watershed.

An example of public involvement is the restoration of Courtcliffe Park. For many years, the Weaver brothers operated a seasonal campground on the site. By the 1970s people were living in mobile homes all year round. The creek that traverses the site had been channeled and re-routed. Recently, the Town of Flamborough obtained the property and is in the process of having a study done to identify the best way to restore the creek and surrounding parkland to a more natural state for the benefit of the watershed and the community.

The Bronte Creek Watershed Study presents the next opportunity for residents to have input in determining the future of the watershed. It will help guide them in translating their vision for the watershed into strategies that will recognize and preserve the best of the natural and cultural heritage while allowing for continued growth, prosperity and opportunity for the future.

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