

## At a Glance

- **Glacial Times**
- **Mastodons**
- **First Inhabitants**
- **The Neutral**
- **European Advancement**
- **Early Mills**
- **War of 1812 to 1814**

## Glacial Times

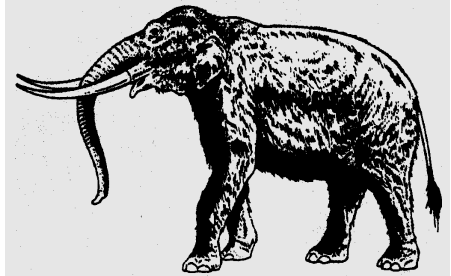
About 15,000 years ago, the glacial ice began to retreat from Ontario for the last time. During that recession, the ice broke up and melted on the high land in the south. The exposed 'Ontario Island' extended from London in the southwest to near Singhampton in the northeast and was surrounded by glaciers and lakes. The movement and melting of glaciers left behind deposits of gravel and sand (**moraines**) which formed the hills strewn throughout and bordering this area today.

The glacial ice finally receded from the Great Lakes basin around 9,000 years ago and the water levels in the Great Lakes dropped. Slowly they settled into their present basins of Huron, Erie, Superior, Michigan and Ontario. **Tundra**, followed by **boreal** (northern) **forest**, colonized the newly exposed lands. Although the initial ground cover was sparse, the process of creating soils from the glacial sediments began, laying down a foundation for the great forests of the future. Within a thousand years of the ice melting, shrubs and herbs were common, and spruce trees grew in southern Ontario. Soil changes supported additional growth of trees such as poplar and tamarack. Late-glacial **mammoths** were common but it was the **mastodon** which lived in the spruce forests around the wetlands in London. Some mastodon bones and tusks have been found there.

As the climate progressively warmed, the spruce forests which had taken about 2,000 years to spread throughout southern Ontario gave way

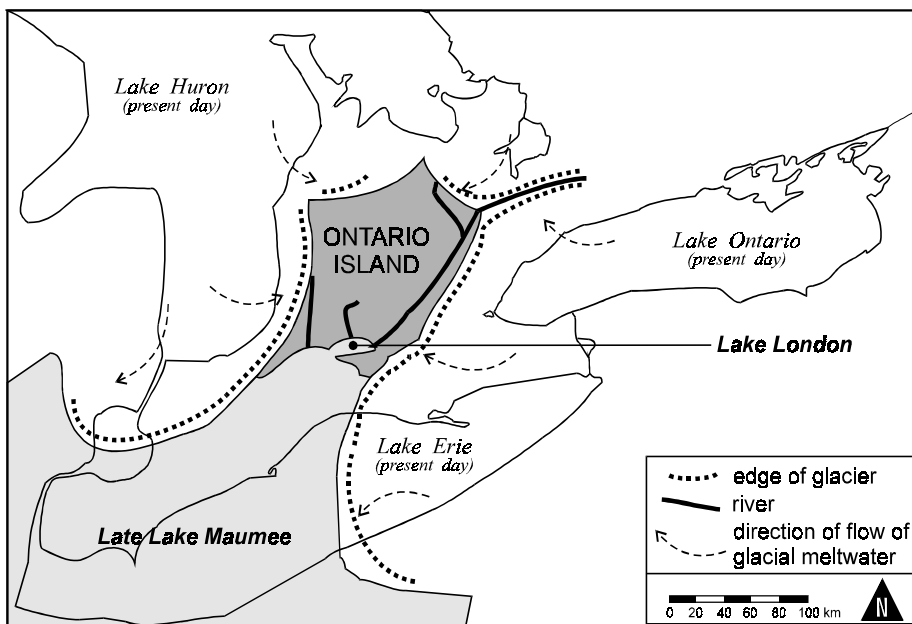
to pine. Deciduous trees, many of them nut-bearing, also appeared. Water levels in the Great Lakes fluctuated from higher to lower than present day levels, not settling at current levels until about 4,000 years ago.

## Where did the Mastodons go?



**M**astodons, the post-glacial elephants which existed from about 15,000 to 9,000 years ago, were already declining 10,000 years ago. Their preferred habitat was spruce forests which were usually found in swamps, poorly drained lowlands or valleys. As the climate slowly warmed and areas once waterlogged dried out, pine and various hardwoods replaced spruce forest.

Other factors such as predators, competition among group members, parasites, changes in climate, inability to adapt and the effects of humans may also have contributed to the decline of the mastodon. By 9,000 years ago, mastodons were virtually extinct.

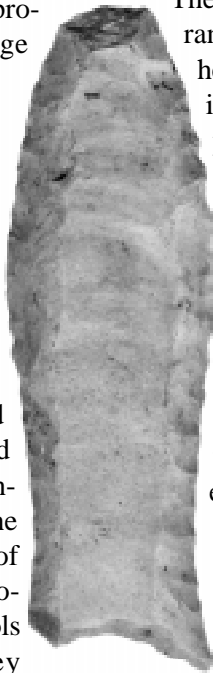


Southwestern Ontario c. 12,000 B.C.

## First Inhabitants

By the time of the mastodons, there is evidence of humans in southern Ontario. While early inhabitants may have hunted mastodons, their main diet was caribou from herds that they probably followed into Ontario. Other animals in the region, such as moose, rabbit, fox and ground squirrel were also killed for food. Primarily hunter-gatherers, early aboriginal people (**Paleo-Indians**) lived in a cooler climate similar to that found in the northern Ontario forest regions of today. **Evidence of these people in London is limited to chert artifacts and the minor remains of campsites.** They chose elevated sites with a southern exposure for camps which provided them with a vantage point to spot game.

The **Paleo-Indians** were a nomadic people who covered large territories, hunting and following caribou herds during their north-south seasonal migrations. As the climate gradually grew more moderate between 8,300 and 7,500 B.C., local food sources became more plentiful, and dependence on the caribou as a main source of food lessened. These peoples used simple, flaked tools for hunting game. They



made projectile points by chipping fragments off pieces of chert, a flint-like form of quartz found locally in the Ingersoll moraine. These early points have distinctive long rounded grooves or channels, extending from the base of the projectile towards the point, into which the shaft was fitted. Over time different techniques were used to make the projectile points. **Today the age of a campsite can be determined by the type of the projectile points found.**

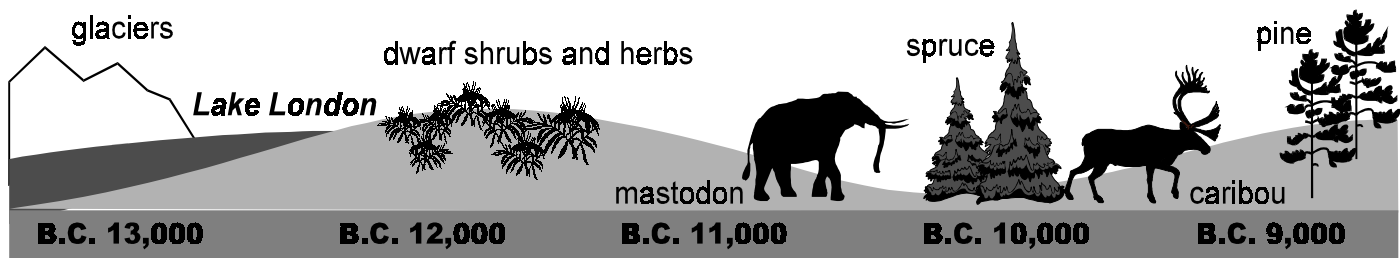
While flaked tools were still predominant from about 8,000 to 6,000 B.C., the practice of grinding and polishing stones (slate) became more common from about 6,000 to 2,500 B.C. These new techniques created a wider range of tools, some of which were heavier and probably used for building dwellings and canoes. Notched pebbles used for weighting fishing nets have been found, along with plant-processing tools and native copper. These finds suggest long-distance exchange (trade) networks. Some of these sites are located in London but have not yet been fully excavated. Other earlier sites are likely now under water or have been destroyed by erosion.

Warmer temperatures about 5,000 years ago caused water lev-

*Spearpoint, 9,000 to 8,000 B.C.*

els in the Great Lakes to fluctuate and allowed the deciduous forests to spread into this area. Campsites from that period show evidence of burial sites, rituals, new fishing technology (the weir), as well as bone-working technology (hooks). Deciduous forests along the Thames River contained plentiful game for hunting, and nut-bearing trees for food. The people maintained a seasonal residence pattern. Larger spring and summer camps, usually beside a fish spawning area, broke up into smaller fall and winter camps. This same pattern continued into the **Woodland** period (800 B.C. to 1,500 A.D.). It is probable that the Woodland people began to dry and/or smoke the fish they caught. Over time the population grew since the ability to preserve food helped people survive winter shortages. Through the years Woodland sites show signs of more permanent use.

The first appearance of pottery occurred about two thousand years ago. The pottery was fired at low temperatures which made it very fragile; as a result it has been poorly preserved on archaeological sites. The pots served for short-term domestic storage and were used in spring burial rituals. Middle Woodland pottery was fired at a higher temperature making it more durable and the pottery was often decorated with a shell or square-toothed stamp.



## The Neutral

The **Neutral** were composed of a variety of distinctive Iroquois groups who had arrived during the **Late Woodland** period. Three villages found within London's present-day boundaries indicate that the Neutral had a strong presence in this area. One of these villages was excavated on the **Lawson Site** in northwest London. Partial reconstruction of that site shows a typical village layout of long-houses surrounded by pallisades and earthworks. Their settlements were located in the midst of fishing, agricultural and hunting areas.

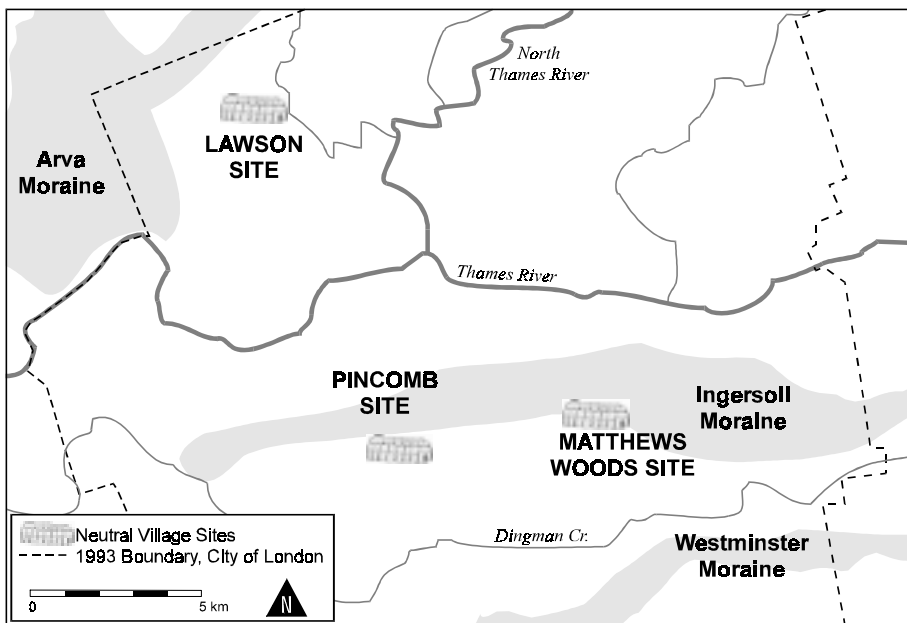
Early native peoples in southwestern Ontario lived on a varied diet of game, fish and gathered fruits and nuts. After A.D. 500-800 (**Middle to Late Woodland** periods) this was supplemented with cultivated crops such as corn, beans and squash (later known as the **Three Sisters**). Better storage methods created a more stable food base. Settlement sites were usually chosen because of their potential for providing a variety of food sources nearby. Raccoons, woodchucks, muskrats, passenger pigeons, wild turkeys and Canada geese were all hunted. Local streams provided catfish, suckers and turtles.

The **Lawson Site**, a Late Woodland encampment, was the last Neutral village in London. Ongoing fighting between the Huron and Iroquois over trade routes crisscrossing southwestern Ontario was a constant threat to Neutral groups. After an active period of 20-30 years, the Lawson Site was abandoned around the early 1500s.

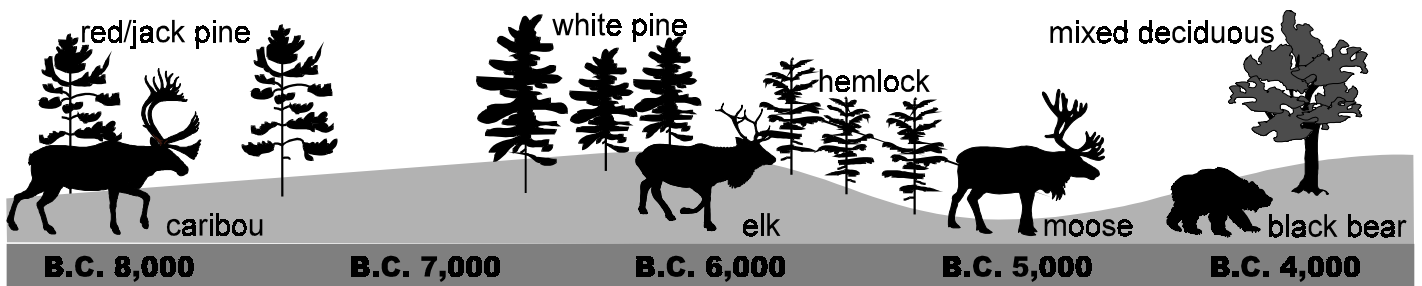
### The Neutral Name

The **Neutral** were given their name by the explorer Champlain, who encountered them in the Hamilton/Brantford area in 1615. He called them "**La Nation neutre**", explaining "between the Iroquois and our tribe (the Huron) they are at peace and remain neutral." The name stuck. "**Attawandaron**" meaning '**peoples of a slightly different language**' was the name by which southwestern Ontario Neutral and the Huron referred to each other.

Probably the **Neutral** were composed of a variety of distinctive Iroquois groups which evolved during the **Late Woodland** period. They maintained a policy of neutrality within their homes and villages, often allowing Huron and other Iroquois to share a meal in peace. However, they frequently launched warring parties outside their own territories and were involved in skirmishes with other tribes such as Iroquois, Algonquin or Huron.



Fifteenth century Neutral village sites.



Recent research supports the theory that the Neutral headed east to join other Neutral tribes around present-day Hamilton-Brantford.

Near the end of the 18<sup>th</sup> century the Crown began to purchase land, some of which was allocated for native settlements. Thirty kilometres southwest of London the Chippewa of the Thames First Nation, the Munsee-Delaware First Nation and the Oneida Nation (Onyota'a:ka) lived on tracts of land that were established by treaties in 1764 and 1819 and by later land purchases. New settlers arriving in Westminster and London townships in the early 1800s were aided extensively by Natives in the area.



Lawson site: "Daily life at the Lawson Indian Village".



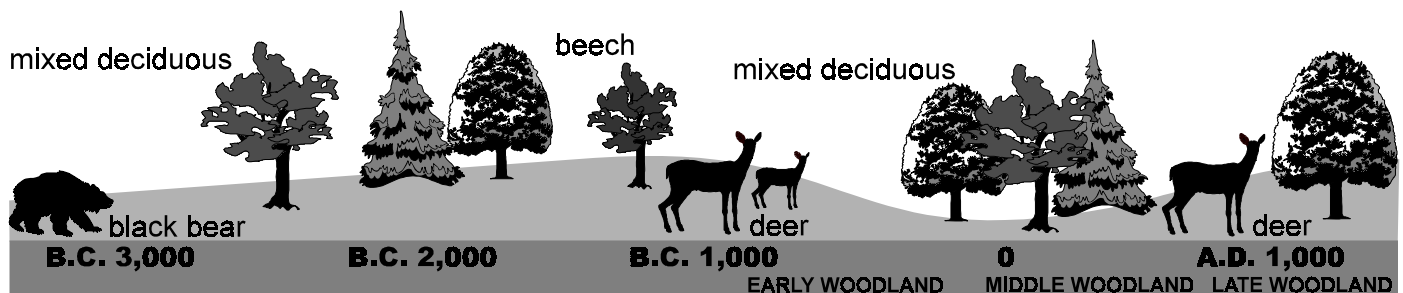
Lieutenant-Governor John Graves Simcoe

## European Advancement

When the Thames River was depicted on 17<sup>th</sup> and 18<sup>th</sup> century maps, it was usually drawn from a secondhand description rather than from firsthand knowledge. In fact, at the time, very little information was available on the interior of the southwestern peninsula. Nevertheless, these maps and descriptions aroused the interest of **John Graves Simcoe**, who had become Upper Canada's first Lieutenant-Governor in 1791. Even before he left England to take up his post, Simcoe envisioned the establishment of a defensive post and new capital of

Upper Canada at the Forks of the Thames. He also viewed it as strategically vital in any future conflict because of southwestern Ontario's proximity to the United States.

In the 1700s, the river's name changed several times. Originally called the *Askunessippi*, meaning **Antlered River**, the river was nicknamed *La Tranchee* (the trench) by the fur traders in the 18<sup>th</sup> century. This name was soon modified to La Tranche. Simcoe chose the name *Thames* on July 16, 1792, and it eventually replaced all the others. However, he did not visit the proposed site of his capital until





March 2, 1793. What he saw reaffirmed his choice of the Forks as an ideal location and as a key factor in his defensive strategy. The siting of this military town also suited his plan for creating an administrative centre, controlling the fur trade and dealing with Native groups in the area.

Simcoe, however, was overruled when it came to picking a new capital, and **York** (Toronto) was chosen instead. But his impact on the development of southwestern Ontario should not be underestimated. Before Simcoe left Upper Canada in 1796, he

oversaw the laying out of counties and townships based on the British system and began important road works. In May 1793, he issued instructions that the Queen's Rangers should construct a road which would lead from Burlington Bay to the Thames. Simcoe named the road **Dundas Street** in honour of his English patron Henry Dundas, but only saw it reach Paris, Ontario, before his departure.

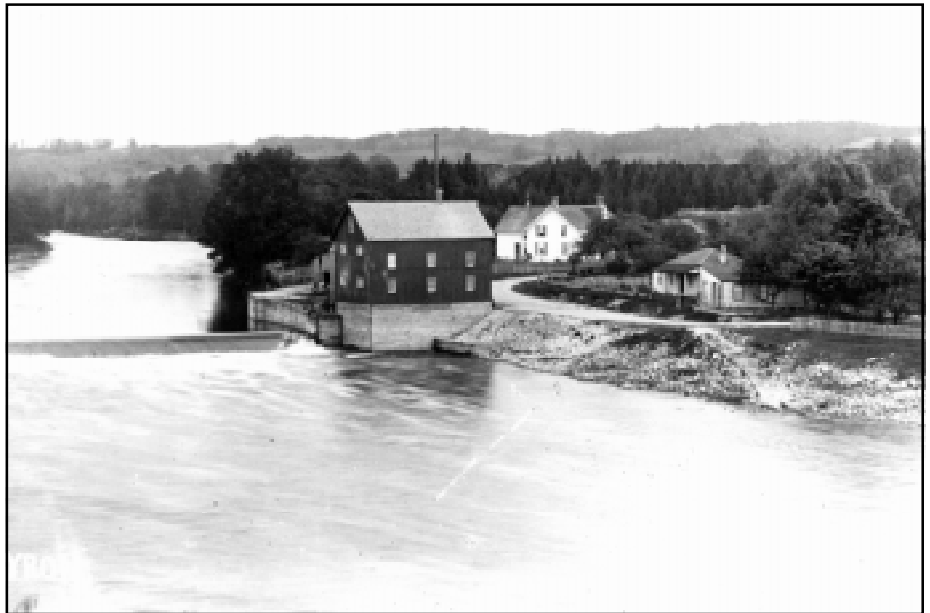


In 1790, prior to Simcoe's 1793 visit, the land to the south of the Thames had been purchased from the Chippewa, Huron, Ottawa and Potawatamie Nations. Six years later the site proposed for **London** (north-east of the Forks) was bought from the Chippewa Nation as part of **Land Treaty No. 6**. Simcoe's Crown Reserve saw little activity for many years. It wasn't until 1826 that a series of events led to the first settlement at the Forks and the subsequent birth of a city.

## Early Mills

American settlers moved into this region by boat or trails along the Thames River corridor. Earlier pioneering experiences in the U.S. had provided them with many skills needed to settle the land. Their initial priority was to either find a good mill site, near rapids or at the junction of a river and creek, or good land near a functioning mill. In the case of a potential mill site, permission had to be sought from the colonial government to acquire the land and dam the waterway to create the mill race.

A sawmill would be one of the first built, allowing settlers to mill the timber needed for houses and barns. After the land was cleared and planted with wheat and corn, a gristmill for grinding grain into flour would be added to the mill complex. The mills provided materials for food and trade and contributed to the prosperity of the fledgling community as well as drawing new settlers and farmers to the area. The local gristmill became the centre



*Byron Grist Mill, c. 1903.*

of the community, not only for grinding grain into flour but also providing farmers with a place to socialize while they waited. Other businesses which depended on the mills often sprang up close by or in the same building. For instance, grain that was not worth grinding into flour was sometimes distilled into whiskey.

Early grist and sawmills required frequent rebuilding as they were periodically destroyed by fires or floods. Intense heat generated by grinding grain or milling lumber, or a stray spark from the machinery or a careless smoker, could easily ignite the dust, grain or wood. Built close to the river, the mills were also vulnerable to flooding.

## War of 1812 to 1814

The lower Thames River provided a corridor for some U.S. and British troop movement on the western front of the War of 1812.

In 1813 the Battle of Moravian-town resulted in the death of the Shawnee Chief Tecumseh, the end of his northwestern Indian alliance and a British loss.



Tecumseh

The inland and sparsely populated upper Thames region was largely untouched by this war. Short battles or skirmishes were fought locally at Longwoods and Hungerford Hill, now called Reservoir Hill.

## MAIN SOURCES

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ADDITIONAL RESOURCES, SEE BOOKLET 8

## ILLUSTRATIONS

- Masthead scene.* Dana Irvine.
- Mastodon, Spearpoint and Lawson Site.* Courtesy of the London Museum of Archaeology.
- Southwestern Ontario, 12,000 B.C.* Upper Thames River Conservation Authority.
- Simcoe Portrait,* by Jean Lauren Moigner. Courtesy of the Toronto Reference Library.
- Byron Grist Mill.* Courtesy of the J.J. Talman Regional Collection, The D.B. Weldon Library, University of Western Ontario.
- Fifteenth Century Neutral Village Sites, Timelines.* Carol Shaw.
- Fur traders, Sword graphic.* Patricia Marr.
- Tecumseh.* B.J. Lossing's *Pictorial Field-Book of the War of 1812, The Shawnee Prophet*.

## CREDITS

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### At a Glance

- *In the Beginning*
- *Surveying London*
- *The Courthouse*
- *Epidemics and Fires*
- *Water Woes*
- *Annexing the Countryside*

### In the Beginning

Although Lieutenant-Governor **John Graves Simcoe** visited the future site of London in 1793 and chose it for the future capital of Upper Canada, prior to 1826 no one had settled permanently at London's proposed site. By the late 1700s there were settlers and farms around Lakes Erie and St. Clair and along the lower Thames. Lands at the Forks had been set aside for public use since Simcoe's day but were inhabited mainly by deer, bear and the occasional lynx. The land was still densely forested, which was why the town would soon be known as the **Forest City**.

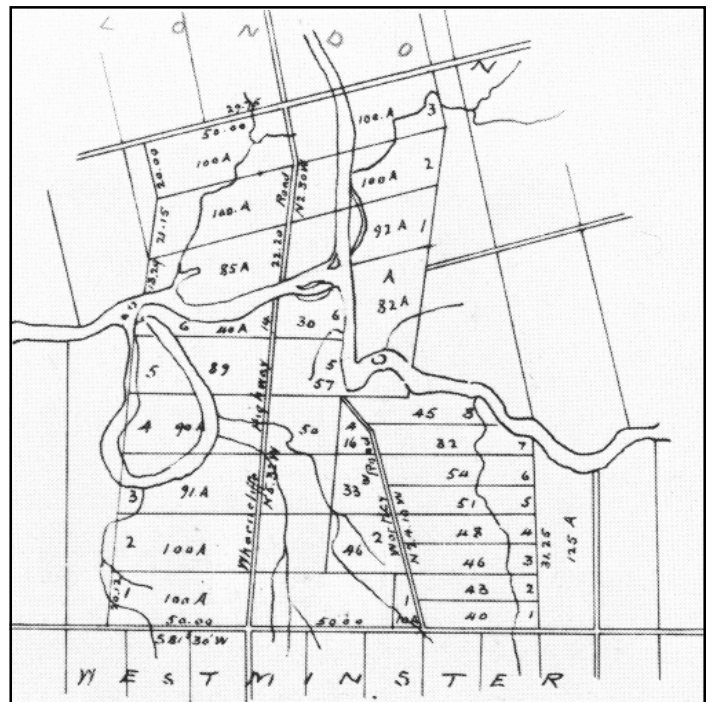
By 1825 the Crown Reserve at the Forks found itself in the centre of the **London District**, a large administrative area running from Long Point, north to Tobermory and from a point near the Grand River, west to Wardsville. The District's courthouse was far to the south near Lake Erie, a long journey to the growing number of settlers in London and Westminster Townships. That courthouse burned down in 1825 and the Colonial Government, no doubt bowing to the will of land baron **Thomas Talbot** and the demands of his settlers, located the

district administrative centre on the Reserve at the Forks. It was surrounded by potentially rich agricultural lands and near a river suitable for powering mills.

### Surveying London

**Thomas Ridout**, the Surveyor-General of Upper Canada, approved the area northeast of the Forks as the site for the district town, and directed **Colonel Mahlon Burwell** to undertake the initial survey and plan for the town and its courthouse in 1826. **Colonel Thomas Talbot**, who was the government land agent throughout most of the District, headed a commission which oversaw the design and construction of the courthouse and jail and worked with Burwell on the original site plans.

The new town was bounded by **North Street** and **North Street East** (now **Carling Street** and **Queens Avenue**), **Wellington Street** and the **Thames** (sometimes known as the **South Thames**) and **North Thames** Rivers. The survey was hard work as the land was treacherous, dotted with bogs, swamps, streams, hills and valleys. Burwell, however, created plans on a grid as was normal practice for the period. Ignoring natural limitations, he drew streets across creeks and placed building lots where swamps and bogs lay.



Burwell's 1824 survey, showing the Crown Reserve and travel links.

### A City on Bogs and Swamps

**Mahlon Burwell** may have ignored the swamps, creeks, hills and bogs in his survey, but the new settlers had to live with these realities and frequently had cause for complaint. The *History of the County of Middlesex, Canada* records the following example of problems experienced traveling around the marshy land in early downtown London.

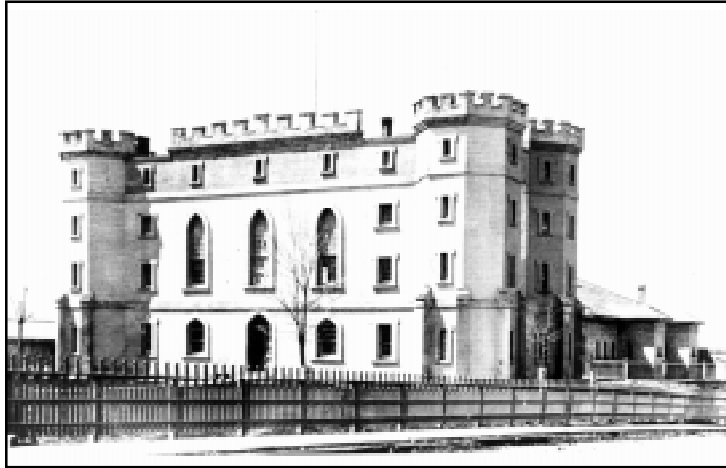
*"In 1829 William Hale's oxen were spooked and ran off, plunging themselves and the cart into a nearby quicksand bog. Following closely after the cart on horseback, Hale also became mired in the bog. Luckily he managed to save himself and his horse, but unfortunately he lost his cart and most of his bags of corn."*

## **The Courthouse**

In 1826, a simple two storey wooden structure was erected as a temporary answer to the judicial needs of the area. This building held the first Court of the Quarter Sessions for the London District in January 1827. A massive brick and stone courthouse building, much of which is visible today, was begun in 1827 and completed in 1829. Its original design placed the entrance facing west to the river, the assumed line of attack from invaders, with a potential supply route along Dundas Street leading to the back door. In 1846 a separate jail was built between the courthouse and the river and the entrance was moved to its present location. In 1878 the courthouse was expanded, almost doubling its size.

Before the courthouse was begun, settlers started to arrive. The first permanent settler, **Peter McGregor**, was a tavern and hotel owner who pulled

Thus McGregor established the first business and residence in London. In January of 1827 when the court opened, he acted as jailer and frequently brought the prisoners across to his tavern for dinner.



*Courthouse, c. 1874*

The early settlement grew quickly, despite the rough conditions. The promise of a thriving administrative centre encouraged development. The river powered a growing number of mills and industries. As demand for land increased, lots were developed beyond the town's initial boundaries. When the

limits were extended in 1840 to Huron Street and Adelaide Street, London acquired areas already settled. With more residents, London incorporated as a village. Eight years later it became a town with a population of 4,688. **In 1854** up stakes from down river to settle in a more profitable spot. **His new tavern at the corner of Ridout and King consisted of a stump outside a small log house, with a tin cup and a jug of whisky.** The inn was a rough log cabin.

limits were extended in 1840 to Huron Street and Adelaide Street, London acquired areas already settled. With more residents, London incorporated as a village. Eight years later it became a town with a population of 4,688. **In 1854**

## **Lake Horn**

**Colonel Horn** who commanded the 20<sup>th</sup> Regiment garrisoned in London in the mid-1800s, decided to create a lake on garrison land at Carling Creek to the north of the barracks. He pressed the soldiers being punished for misconduct into a work detail. With shovels and picks, they leveled the thirty foot hill between Pall Mall and Hyman streets and put the earth in the creek to build the dam. **Lake Horn**, which stretched out behind the dam, was used for the regiment's morning baths and other necessities. Eventually, due to health concerns, the dam was removed and the creek covered over, ending the short existence of London's Lake Horn.

This map shows an area of North London bounded by **Piccadilly Street**, **Waterloo Street**, **Duke Street** (Dufferin Avenue), **Church Street** (Clarence Street) and **Richmond Street**, in about 1865. Today, **Victoria Park** has replaced the Infantry Barracks; the **C.P. Railway** is on the site of Lake Horn; **Carling Creek** is underground in storm sewers, and **City Hall** and **Central Secondary School** now stand on the site of the Royal Artillery Barracks.



*Lake Horn from Map of London, Canada West, 1865.*



with a population of 10,060, London claimed city status, which was officially declared the following January.

London's development was stimulated when the British stationed a garrison in London in response to the **Rebellion of 1837**, after armed violence at Detroit by McKenzie's sympathizers threatened the peace in the peninsula of southwestern Ontario. The increased military presence swelled the town's population. New businesses were established and many prospered. With the influx of British officers familiar with the arts, the cultural scene in London flourished. Some of the officers who had been trained in topographical artistry and map-making produced fine paintings and sketches of London, the Thames and the surrounding countryside both as part of their work and for their own enjoyment. **James Dartnell, James Hamilton and Lady Alexander** are a few of the better known painters of this period. Military pageantry and personnel provided occasions for events and social gatherings.

## ***Epidemics and Fires***

London's early years were marked by epidemics and frequent fires. Over a thirty-four year period outbreaks of Asiatic cholera decimated families. **The first major outbreak of cholera in 1832** (others occurred in '44, '54 and '66) **caused many to flee to the countryside, a heavy blow to such a new and sparsely populated settlement.**

While cholera took its toll on the early residents, fires, which raged throughout London's early history, destroyed their homes. Some fires were



*Waterworks at Springbank*

accidental, others were set on purpose. **The Great Fire of 1845 demolished the area bounded by Ridout, Dundas, Talbot and King streets, almost to the river.** Between 150 and 400 buildings went up in smoke including houses, churches, a post office, and numerous businesses as well as wooden sidewalks and trees.

Up to this time fire prevention was minimal and fire fighting ineffective. **In 1838, a by-law was introduced which required every building to have a black leather bucket for carrying water.** But the bucket brigade was almost useless in a large fire. The long line of people leading from the river provided only a token resistance against the consuming flames.

Water tanks installed on street corners froze in the winter and residents dipped into them in the summer, making them an unreliable water source. In 1844, a fire engine was purchased and in the following year was tested in the Great Fire. It failed miserably when

its slow trickle of water could not even prevent the engine itself from going up in flames.

To help prevent fires, by-laws were passed which regulated everything from the storage of flammable items (no lanterns in stables or sulphur matches in stores) to the types of materials which could be used for rebuilding. **A by-law was introduced in 1849 which forbade anyone from replacing a burned down residence or business with another wooden structure.** This attempt at prevention was modified in the winter of 1851 when another fire broke out, stranding residents in the cold weather. A temporary order allowed people to rebuild in wood, providing that the wood be replaced with brick in the spring.

**In the summer of 1851, the council found it necessary to chastise townspeople who treated fires as social gatherings, and legal action was brought against individuals who refused to help fight fires.**

### Water Woes

Although London was nestled between the North Thames and Thames (sometimes called the South Thames) rivers, early on it suffered from water shortage problems. The locations of wells were not easily accessible to all the townspeople. To get water, a resident living outside the downtown area might fill a whisky barrel at the river, and roll the barrel to his house. In the early 1800s, one eccentric resident known as 'Old Yorkie' supplied water by the bucket to hotels and shops in London's business centre. Although new wells were dug they quickly became polluted, and typhoid fever broke out in 1847. London desperately needed a new water source.

**A committee was appointed to consider the best means for obtaining a supply of clean water in 1852.** Many suggestions were offered, but not all were suitable. In 1854, the London and Westminster Waterworks Company was formed by Elijah Leonard (ironfounder and owner of Locust Mount, now an historic home) who proposed the Westminster ponds as a water source. When it was found that the water in the ponds was surface water and therefore unsafe, the company was dissolved.

**In 1874, Coombs' Springs west of London were proposed as a source of clean water,** but their location across the river four miles from London was inconvenient and bringing the water to the city would be expensive. In 1877, however, after no better site was found, London's first waterworks was established there. Water from Coombs' Springs was pumped to a reservoir on the top of Hungerford Hill, now Reservoir Hill. At 91 metres (298

feet) above the river, it was the highest point in the city except for the spire of the Catholic Cathedral. From the hill, the water moved by gravity through a series of pipes, crossing the Thames River south of the Westminster Bridge and travelling across York Street, to be distributed throughout the city. The new waterworks was a source of great pride to London's residents. Frequently advertised for its cleanliness and freshness, water from Coombs' Springs was also used in the railways' dining cars.

Several changes were introduced to the waterworks system during its years of use. The reservoir was cleaned and re-lined, steam and electrical pumps replaced the early water-powered pumps, new pump-houses were added, and additional land was purchased around the springs to preserve water purity. **The pipelines grew and the hydrants multiplied until a maze of 45 miles of water mains and 250 hydrants lay under late 19<sup>th</sup> century London.**

But the city's water sources soon proved inadequate to meet the heavy demand. In 1908, Adam Beck persuaded the city to build another waterworks at the Parke and Gerry flats, now Thames Park. By the late 1950s to supplement the water supply, the city expanded its

system of artesian wells which significantly lowered the water table in many areas around London. This prompted damage suits to be launched against the city.

Once again the search was on for a new water source. The possibilities considered ranged from using the river itself to tapping Fanshawe Lake. By 1958, attention shifted to building a pipeline to either Lakes Erie or Huron. **In 1967 the construction of a pipeline from London to Lake Huron was completed.**



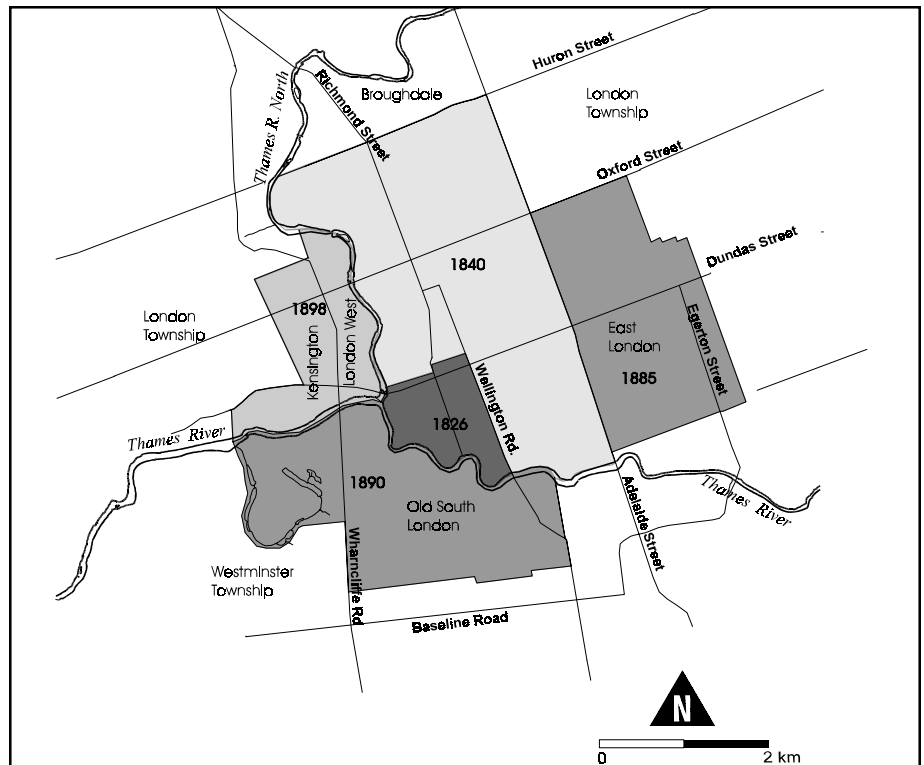
Ting Cartoon - Jan 30, 1963.

## Annexing the Countryside

Although London in 1826 was largely undeveloped, some of the surrounding areas along the opposite banks of the river were already settled. South of the Forks, the settlement of Westminster Township expanded. Settlers appeared as early as 1808, and Westminster Township Council held its first meeting in 1817. The township, which eventually became known as **London South**, did not achieve village status, but instead operated as a suburb of the city.

Other settlements blossomed along the Thames River. West of the North Thames near the Forks, the settlement of **Petersville** was incorporated as a village in 1874. Later known as **London West**, it had a population of 1,601 in 1880. It abutted another small settlement north of the Thames and west of the Forks called **Kensington**, which had a population of only 75 in 1888. **In the 1830s and 40s, Irish settlers arrived in ‘Tipperary Flats’, the area to the east and north of the river between Victoria and Richmond streets.**

As the city developed, industry relocated away from the downtown core to near the Thames in rural **East London** where some of London’s earliest inhabitants had settled and others had country homes. After the first foundry arrived in 1856 London East began to grow. It reached a population of 500 in 1864 and that doubled in only two more years. Incorporated as a village in 1874, it soon became the hub of the oil refinery business. **The first East London refinery was established in 1864, and eventually twenty-three were located on over 50 acres around Hamilton Road.** When



*Annexations made by the City of London in the 19<sup>th</sup> century.*

the oil in southwestern Ontario ran short, several independent oil businesses in London East consolidated to form Imperial Oil in 1880. At that time the local population had reached 3,890.

While there were two villages and one ‘suburb’ along the rivers in the London area, other settlements and houses also dotted the landscape. Sometimes small communities grew around mill sites or farms in areas close to London. **Hall’s Mills** and **Pond Mills** in Westminster Township and **Hyde Park** in London Township are examples of communities which survived independently for many years. The settlement north of Huron Street developed as **Brough’s Bridge**. Named after a local parson, it was renamed Broughdale in 1906 and was not annexed to London until 1961.

Although neighbouring settlements were closely linked with the city

of London, they did not have direct access to some of its basic services. In particular, villages did not receive fire protection from London, nor were they allowed access to the water supply. Despite the villages’ strong interest in receiving these benefits from the city, annexations proceeded slowly. **London East**, containing the majority of industry in the area plus a large population, was seen as bringing the most value to the city. It was the first district to be annexed in 1885. A northern section of Westminster Township, now known as **London South**, was next to join the city in 1890. Seven years later the City took in **London West**, formerly Petersville. Other small parcels of land continued to be added over the years. **Annexations in 1961 and 1992 brought into London huge tracts of predominantly rural land. The 1992 annexation almost tripled the land within London’s jurisdiction.**

## **The Underground Railroad**

As part of the vast network called the ‘**Underground Railroad**’, the Thames River provided a route to freedom for those slaves who crossed to Upper Canada from Detroit. A number of black refugees settled in communities along the Thames, including London.



In the mid 1850s the flow of refugees into London had grown so much that 700 people were temporarily housed in the recently vacated army barracks. For five years during the 1850s a mixed-race school, run and staffed by teachers from Jamaica and Dominica, operated in the barracks under the auspices of the Colonial Church School Society of England. This is said to be the first integrated school in North America.

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ADDITIONAL RESOURCES, SEE BOOKLET 8

## **ILLUSTRATIONS**

- Masthead Scene.* Dana Irvine.
- Burwell’s Survey, Lake Horn.* Courtesy of the J.J. Talman Regional Collection, The D.B. Weldon Library, The University of Western Ontario.
- Courthouse, Waterworks.* Courtesy of the London Room, London Public Library.
- Annexation Map.* Adapted from City of London records.
- Cartoon.* Courtesy of Merle Tingley and the London Free Press.
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## **CREDITS**

Researched by Sarah Samplonius. Written by Susan Bentley, Karen Burch and Rosemary Dickinson with assistance from Mike Baker, Christine Buchanan and Dave Martin.

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## **ACKNOWLEDGEMENTS**

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### • PARTNER/DESIGN & LAYOUT





**At a Glance**

- **Glaciers Shape the Land**
- **Climate**
- **Carolinian Life Zone**
- **Effects of Settlement**
- **Natural Heritage System**
- **Sewage Treatment**

**Glaciers Shape the Land**

The lands and rivers of southwestern Ontario were shaped by about 120,000 years of glacial action. During that period dramatic changes in the climate caused the glaciers to advance and retreat several times. As these massive ice sheets advanced, they bulldozed the land, gathering up huge boulders, gravel, vegetation and soil. These materials, moved forward by the leading edge of the ice, scoured out valleys

and reshaped hills. As the glaciers retreated, this debris or till was dumped in **moraines**, long narrow ridges of rocks, gravel and soil. There were periods when melting glaciers created huge lakes which were trapped between glacial ice and moraines. The finer materials suspended in the meltwater settled to the lake bottoms forming layers of sand or clay. In some areas, the enormous weight of the glaciers pushed down the earth's crust. Once the ice was gone, the land slowly rose again.

As the land emerged from the retreating glaciers it was reshaped by the forces of nature. Gravity moved rocks downhill. Flowing water cut river beds and deposited loose material on plains and in deltas. Winds whipped up waves which eroded coastlines and lifted fine materials inland creating sand dunes.

Located northeast of the present Forks of the Thames in London, **'Ontario Island'** was the first piece of land in Ontario to reappear from the ice. In

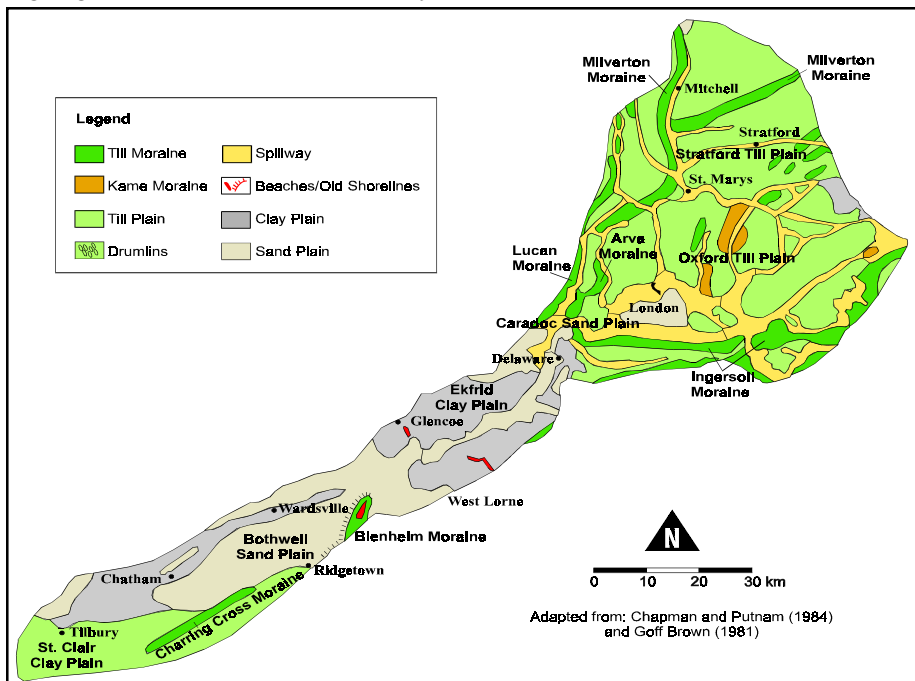
southern Ontario, the Huron glacial lobe retreated northwest leaving behind the **Arva Moraine**, and the Erie lobe receded to the south depositing the **Ingersoll Moraine**. Between these two moraines was the **'London Basin'**. The Huron and Erie glacial lobes temporarily dammed this basin, and Lake London formed, covering the site of the present city.

After the glaciers melted, the Thames River and its tributaries modified the London Basin and gradually settled into their present courses. **Former river beds can be found throughout the city, most noticeably at the Coves west of the Forks.** Downstream from London, the extensive lowlands which had been covered by glacial lakes, emerged as flat clay and sand plains. The lower Thames and its numerous tributaries cut shallow meandering paths through these flatlands.

**The upper Thames valley was once a glacial spillway. The huge volume of melting glacial water carved a deeper and wider valley than is occupied by the Thames River today.**

**How the Land Lies**

The source of the *Thames River* or, as it is sometimes known, the *South Thames*, is a large swamp west of Tavistock. From here the river flows southwest through Woodstock, London and Chatham until it reaches Lake St. Clair at Lighthouse Cove. The *Middle Thames* rises near the source of the Thames and flows south through Thamesford, meeting the Thames River between Ingersoll and Dorchester. The *North Thames* starts

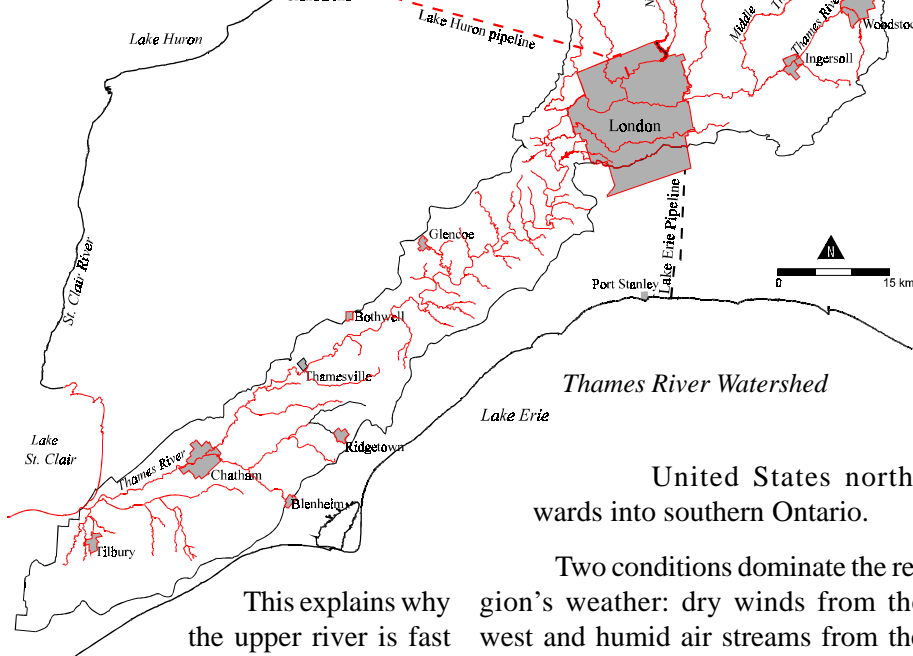


*Some important physiographic features of the Thames River Basin.*

near Mitchell and flows south to its junction with the Thames at the Forks in the centre of London.

**The present day Thames River drains approximately 5,830 square kilometres of land.** The upper watershed north and east of Delaware is roughly triangular in shape with gently rolling hills. The lower watershed between Delaware and Lake St. Clair is narrower and flatter with rich soil deposited by floodwaters over the centuries.

Between the Tavistock headwaters and Delaware, the river bed drops about ten times more steeply than between Delaware and Lake St. Clair.



This explains why the upper river is fast flowing with many rapids while the lower river is more placid.

## Climate

The mild climate of southwestern Ontario can be attributed to its location in the **Great Lakes Basin**.

These Great Lakes have a moderating effect on the harsh climate of central North America producing longer and warmer summers and shorter and milder winters than places to the east and west at the same latitude.

This favourable climate and abundant precipitation has allowed the deciduous forests to expand from the Carolinas through part of the eastern

United States northwards into southern Ontario.

Two conditions dominate the region's weather: dry winds from the west and humid air streams from the middle and southern states. Storms are triggered when these different air masses mix, producing substantial precipitation. Precipitation is increased by the "lake effect", a situation where winds blow over the Great Lakes, pick up moisture and drop it on the land. Over the period of a year, about 40% of the precipitation which falls in the



*Typical cross section of upper and lower Thames valleys.*

Thames watershed runs into the river and is carried to Lake St. Clair. The other 60% is used by vegetation or remains in ponds and wetlands or is stored as groundwater. In the summertime, the rate of evaporation from plants and standing water is very high.

## Carolinian Life Zone

The Thames is the only major river in Canada with most of its watershed (over 90%) lying within the biologically rich Carolinian life zone. North of London the Carolinian Forest extends to and overlaps with the Lower Great Lakes-St. Lawrence Forest Region, which predominates in the upper watershed. The woodlands, wetlands and other natural habitats contain examples of trees, plants, birds and animals found nowhere else in Canada.

Species such as the southern flying squirrel, Virginia opossum and woodland vole are representative of the Carolinian life zone and live in the Thames watershed at the northern edge of their range. Because of intense pressures from urbanization and agriculture, this zone is one of the most altered landscapes in Ontario.

## Trees common in the Carolinian Zone

Blue Ash • Black Walnut  
Pin Oak • Shagbark Hickory  
Wild Crabapple

## Trees common in the Lower Great Lakes- St. Lawrence Region

Basswood • Manitoba Maple  
Black Maple • White Ash

## Wetlands

Wetlands are varied and productive habitats that provide feeding grounds for fish, amphibians, insects, reptiles, birds and mammals. In addition wetlands absorb nutrients, filter out pollutants, regulate river temperature, reduce flooding by storing water, and maintain flow during the dry summer months. Few wetlands border the main channels of the Thames because of the many steep banks. **London has several wetlands such as Sifton Bog, Westminster Ponds, the Coves and parts of Meadowlily Woods.**

## Life in the Watershed

Nearly half of the 75 native mammals in Ontario can be found in the Thames watershed. Beaver, muskrat and mink thrive in the river, ponds and marshes, while the star-nosed mole, long-tailed weasel and raccoon usually live close to rivers or wetlands.

The forests and valleylands of the Thames watershed provide breeding habitat for at least **157 species of birds**, more than half of the bird species that breed in Ontario. Easily spotted from the air and oriented mainly in a north-east to southwest direction, the river provides a navigational aid to migrating birds. Its well-vegetated corridor offers food and shelter for both resident and migrating birds. A variety of species may be encountered on a spring walk along the river, including gray catbirds, red-winged blackbirds, mallards, northern cardinals and great blue herons.

## Life in the River

About two-thirds of Ontario's **150 native fish species spend some time each year in the Thames, comprising one of Canada's most varied fish communities.** The river's complex system of channels, streams, springs and pools provides a variety of habitats. Warmwater species such as sunfishes, coolwater species such as walleye and coldwater species such as trout can all be found in the Thames.

The watershed's limestone bedrock and alkaline soil have contributed to calcium-rich waters making the Thames one of the richest Canadian rivers for freshwater mussels (clams). A range of water temperatures and habitats sustain the river's 26 clam species, some of which have descriptive

**From 1920 to 1946, freshwater mussels were extensively harvested along a 30 kilometre stretch of the river below London and their shells were used for making pearl buttons.**



## Eastern Spiny Softshell Turtle

The Eastern Spiny Softshell Turtle is one of the rarest turtles in Canada. This shy reptile's distinctive flat, rubbery shell and long, snorkel-like nose have given rise to the nicknames of 'pancake turtle' and 'pig-nosed, rubber-backed turtle'. The softshell prefers large lakes with shallow bays, and rivers and streams with sandy beaches or gravel bars for basking.

Once abundant in the Thames, this species started to decline in the 1800s. Like all other native turtles, the softshell is protected by the Ontario Fish and Game Act, which makes it illegal to kill native turtles or keep them as pets. The impact of people on the turtles' environment continues to be a concern.

In 1989, the softshell was added to Canada's Endangered Species List in the *threatened* category. A Recovery Plan is being developed by a 'turtle team' coordinated by local agencies and groups. The team has been studying the softshell on the Thames and Sydenham Rivers. Their goal is to protect the remaining population through education, landowner stewardship and improving habitat and nest sites.

nicknames such as **Warty-Back, False Pig-Toe, White Heel-Splitter** and **Pocket-Book**. An abundant population of crayfish in the Thames supports many other animals higher up the food chain.

**Zebra mussels**, accidentally imported from Europe in ship ballast tanks, have few natural predators in the Great Lakes. They are dramatically increasing in numbers at the expense of native species which rely on the same sources of food. For instance, 80% of the walleye that spawn in the Thames each spring spend the summer in Lake St. Clair. This walleye population is now threatened because of the impact the zebra mussels have on species at the lower end of the food chain.

Changes up and down the river have benefited some species and disadvantaged others. **There are now more species in the Thames than existed a few hundred years ago.** As people have moved into the watershed new species were introduced and some native species were eliminated, both inadvertently and deliberately. It is difficult to judge whether the long term effect of these changes will be harmful or beneficial to the river system.

## **Effects of Settlement**

### **Changing the Landscape**

Because of its favourable climate, fertile soils, and proximity to the United States, the land and rivers of southwestern Ontario have been under intense pressure from agriculture and the growth of towns, cities and industries. In the 1800s the landscape changed rapidly as forests were cleared and wetlands were drained. By the end

of the century the clearing of large tracts of forest was bringing about changes in the river. The frequency and severity of floods increased and the quality of the river water was diminished. People logging the forest floated logs down river to sawmills. The logs scoured the river bed and banks, and tannic acid from their decomposing bark contaminated the water.

### **Draining Wetlands**

Before settlement there were over two million hectares of wetlands in southern Ontario. **After nearly two centuries of draining the land for settlement and agriculture only about 17% of the original wetlands remain.** With fewer wetlands and forests left to maintain the water table and conserve ground moisture drought has become more common in the summer months.

### **Farming Land**

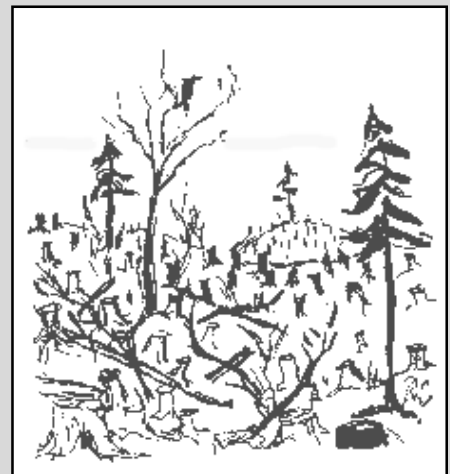
In the Thames watershed farming dates back over a thousand years to the

Woodland peoples who grew corn on fertile floodplains near their villages. Over the centuries farming expanded and diversified. **The agricultural lands in Southwestern Ontario have been and still are the most productive in Canada, supporting a wide variety of both intensive and specialized farming operations.**

While farming brought many benefits to the growing numbers of settlers, it has had an impact on the river. Around the turn of the century as the dairy industry prospered and grew, the untreated liquid waste from dairies and cheese factories was a major source of pollution in the river downstream from those operations. By the mid 1900s when much of the land had been settled and cleared for farms, activities such as ploughing and tilling loosened the soil increasing erosion. Sediment was deposited in rivers and streams covering clean gravel spawning grounds with a layer of silt. Even with improved agricultural practices, erosion and sedimentation still occur.

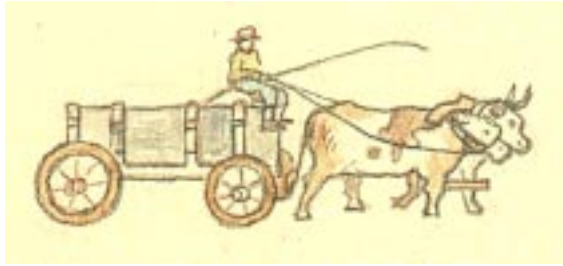
### **Clearing Forests**

It has been said that before the European settlers arrived about two hundred years ago, a squirrel would have been able to travel from tree to tree without ever touching the ground between the sites of Windsor and Montreal. **Today less than 10% and in some counties less than 5% of the forests remain.** Though once found in this area, animals such as the bear, lynx and elk disappeared as the forests vanished. Others, such as the Passenger Pigeon, became extinct. With little of the original habitat remaining, other species are now in jeopardy.



*Clearcut forest.*





After World War II there was a huge increase in the farm use of chemical fertilizers and pesticides such as DDT. Many of these chemicals were carried into the river by rainwater, impairing the water quality and threatening the viability of some species.

### **Working and Living Here**

By the 1960s, high phosphate levels from industrial, agricultural and household uses threatened aquatic life in Lake Erie. Toxic chemicals from abandoned industrial sites leached into the river. In London a number of problem sites were discovered throughout the city. Some early industries were located near the river and they disposed of their waste near by. Efforts have been made to clean up some of these sites including coal tar buried near the Forks and the former dump at what is now St. Julien Park.

The discharge of human and industrial wastes into the river has a significant impact on both water quality and quantity. Although sewage treatment plants deal with most industrial and residential effluent, stormwater runoff from urban areas is still a major source of pollution. Improperly managed livestock manure and human waste are a source of bacteria and other organisms which can cause disease. If allowed to reach the river, they can have a detrimental effect on the aquatic life in the river and create a health hazard for anyone using the water.

Inappropriate use of pesticides is a problem in both urban and rural areas. **In general, homeowners use about ten times more pesticides on an equal area of land than do farmers.** While pesticide use on farms

has declined over the years, the accumulation and persistence of chemicals in the environment is still cause for concern. Some chemicals dissolve in rainwater and find their way to the river where they mix with **effluent** (liquid waste) flowing from storm sewers. This mixture may contain contaminants such as yard and pool chemicals, and oils and paints which are sometimes dumped into sewers.

Initially dams were built to provide mills with power. Later dikes and larger dams were constructed to protect homes and workplaces from floods. (This topic is covered in booklet 4.) These dams have altered the natural fluctuations of water levels and restricted fish and other animals from moving along the length of the river. In some places the natural shoreline vegetation which had provided shelter, food and cooling shade for aquatic species has been replaced by dikes of concrete, rocks and grass.

Over time some species in the river have been able to adapt to changes such as altered flows, straightened rural waterways, excess sediments and impaired water quality. High nutrient levels in the river promote plant growth. As the plant material decomposes, the process uses up a lot of the water's available oxygen. **Low levels of dissolved oxygen in the water, warmer temperatures and reduced base flows are the most significant threats to aquatic species nowadays.**

### **Treated Water Swells the Thames River**

London's water supply is now drawn from Lakes Huron and Erie, treated and then pumped to London.

On average, Londoners use about **35 million gallons of water per day in the summertime and 32 million gallons per day in the wintertime.** After use most of this water passes through sewage treatment plants and is discharged into the river, swelling the river's base flow.

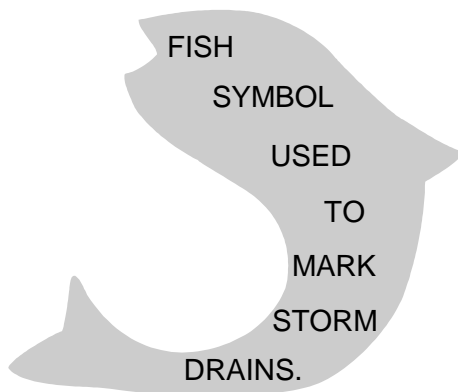
**The combined discharges from all the sewage treatment plants in London can account for as much as 40% of the water in the Thames when the river is low.**

The **effluent** (liquid waste) that flows into the river from the sewage treatment plants in London meets provincial guidelines and is cleaner than the water in the river. However, during periods of heavy rainfall, the combined sanitary and stormwater sewers in older areas of the city can occasionally send a flood of effluent through the sewers, exceeding treatment plant capacity. Some sewage can bypass these plants and end up in the river untreated.

There is a long term plan to replace all the combined sewers in London with separate storm and sanitary sewers. This will be costly and take many years to complete.

## Changing Attitudes

There is increasing recognition that the actions of individuals in their homes, communities and businesses are affecting river water quality. One program to raise awareness has been spearheaded by the Girl Guides. They mark storm drains with fish symbols to remind people that materials dumped in drains will eventually reach the river untreated.



Increasing amounts of unused toxic substances are being taken to the **Household Hazardous Waste Depots** for safe disposal. A number of riverbank clean-ups are organized each spring by groups of willing volunteers.

Growing public and civic awareness of the importance of the environment and especially of the river has led to the beginnings of a more thoughtful approach to land use and development and to a range of community conservation projects. Riverbank and stream restoration, reforestation and “**species at risk**” initiatives are all helping to improve our environment. **In rural areas farmers are adopting conservation farming practices such as reducing tillage and chemical use, fencing cattle from streams and planting wind-breaks.**

## Natural Heritage System

Beginning in the 1960s, the City, in partnership with the Upper Thames River Conservation Authority, began to acquire floodplain lands for parks and open spaces. Five provincially significant Natural Areas or Environmentally Significant Areas (ESAs) were identified and set aside. **Meadowlily Woods, Westminster Ponds/Pond Mills Conservation Area, Warbler Woods, Sifton Bog and Medway Valley Heritage Forest** had survived in a more or less natural state because steep valley walls, flood prone bottomlands and bogs were more difficult to clear and farm than much of the surrounding land.

The ESAs contain some unique landforms left behind by the glaciers. The Medway River follows a glacial spillway as it cuts through the Arva Moraine. The exposed steep river banks show evidence of different glacial deposits laid down during the advances and retreats of the glaciers. At Meadowlily Woods, three terraces were cut into the Ingersoll Moraine by the Thames River as it settled into its present course. The Westminster Ponds and Sifton Bog occupy kettle depressions which were left behind when huge chunks of ice from the glaciers slowly melted.

Some of London’s five Environmentally Sensitive Areas are also important Carolinian sites in which several *endangered, threatened* and *vulnerable* species can be found.

The Environmentally Sensitive Areas, together with riverside parklands and open spaces, form the majority of London’s Natural Heritage System. In the near future other natural areas within the city’s expanded

boundaries will be designated. Most of these new ESAs will be on private property; a few will be on public lands.

## Sewage Treatment

The greatest impact on the Thames River system has been made by people. As the population increased, the need for clean and efficient ways to dispose of industrial and household waste grew.

**In 1901 London built the Greenway Pollution Control Centre, which used primitive coke filter beds, to provide sewage treatment.**

The process was improved in 1931 by adding an activated sludge treatment system which combined physical, biological and chemical treatment methods for wastewater. Four more sewage treatment plants were constructed between the late 1940s and 1960s, as London’s population and boundaries expanded and the river became more polluted.

The city’s seven sewage treatment plants have been upgraded to conform to increasingly stringent treatment requirements imposed by the province. In 1997 preliminary planning began for the new Southside sewage treatment plant. It will replace the small and inefficient Lambeth and Westminster plants located on Dingman Creek, providing sewage treatment for future developments in the south of London. This will be a costly undertaking and will require both research and public input before the site is chosen.

## **Wildlife at Risk in the Thames Watershed**

This list is based on the 1997/98 Canadian Endangered Species List published by World Wildlife Fund Canada. The list is determined and reviewed annually by the **Committee On the Status of Endangered Wildlife In Canada (COSEWIC)**. The status for a species at risk is assigned according to the following criteria:

**Endangered:** A species threatened with imminent extinction<sup>1</sup> or extirpation<sup>2</sup> throughout all or a significant portion of its Canadian range.

**Threatened:** A species likely to become endangered in Canada if the factors affecting its vulnerability are not reversed

**Vulnerable:** A species particularly at risk because of low or declining numbers, small range or for some other reason, but not a threatened species

The species on the list are those which fill two criteria:

- (a) they are endangered, threatened or vulnerable in Canada, and
- (b) they spend most of their life cycle and/or breed in the Thames Watershed.

| <b>ENDANGERED</b>  | <b>THREATENED</b>  | <b>VULNERABLE</b>  |
|--|--|--|
| <b>Mammals</b><br>None   | None   | Southern Flying Squirrel   |
| <b>Birds</b><br>Acadian Flycatcher*<br>Loggerhead Shrike<br>Northern Bobwhite*<br>Peregrine Falcon | Hooded Warbler*  | Cerulean Warbler    Red-headed Woodpecker<br>Least Bittern        Red-shouldered Hawk<br>Short-eared Owl     Louisiana Waterthrush*<br>Prairie Warbler      Yellow-breasted Chat*        |
| <b>Fish</b><br>None  | Black Redhorse<br>Eastern Sand Darter                          | Bigmouth Buffalo    Northern Brook Lamprey<br>Brindled Madtom     Pugnose Minnow<br>Silver Shiner          Central Stoneroller<br>Greenside Darter     Spotted Sucker<br>Lake Chubsucker |
| <b>Reptiles and Amphibians</b>   | Eastern Spiny Softshell Turtle*                                | Spotted Turtle        Eastern Hognose Snake  |
| <b>Plants (partial list only)</b><br>Wood Poppy  | Blue Ash*    Kentucky Coffee Tree*<br>Ginseng*     Golden Seal | Green Dragon*  |

\* Plant and animal species representative of the Carolinian Life Zone.

The above information was taken from *The Thames River Watershed: A background study for nomination under the Canadian Heritage Rivers System*. Upper Thames River Conservation Authority. 1998.

<sup>1</sup> Extinct: A species formerly indigenous to Canada that no longer exists anywhere.

<sup>2</sup> Extirpated: A species no longer existing in the wild in Canada but existing elsewhere.

## Sewage facts

In London we have:

- 1,100 km of sanitary sewers
- 15,100 sanitary man holes
- 80,000 private drain collections
- 35 pumping stations
- 1,000 km of storm sewers
- 7 km of combined sewers
- 13,500 storm man holes

## How old is our sewer system?

- 45% is 30 to 50 years old.
- 18% is 50 to 80 years old.
- 8% is over 80 years old.

## MAIN SOURCES

*The Thames River Watershed: A background study for nomination under the Canadian Heritage Rivers System.* Upper Thames River Conservation Authority. 1998.  
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ADDITIONAL RESOURCES, SEE BOOKLET 8

## ILLUSTRATIONS

*Masthead Scene:* Dana Irvine.  
*Physiography, Watershed map, Valleyland Cross-section.* The Thames River Watershed: A background study for nomination under the Canadian Heritage Rivers System.  
*Clearcut Forest,* Courtesy of the McIlwraith Field Naturalists.  
*Cartoon,* Courtesy of Merle Tingley and the London Free Press.  
*Turtle Photo,* Courtesy of Upper Thames River Conservation Authority.  
*Small Graphics,* Patricia Marr.

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Ting Cartoon - June 3, 1949

### At a Glance

- **The Watershed & Flooding**
- **The Flood of 1883**
- **The Flood of 1937**
- **Managing the River**
- **Corridor of Green**
- **The Bedrock Beneath Us**
- **Fanshawe Dam & Reservoir**

### London & the Thames River

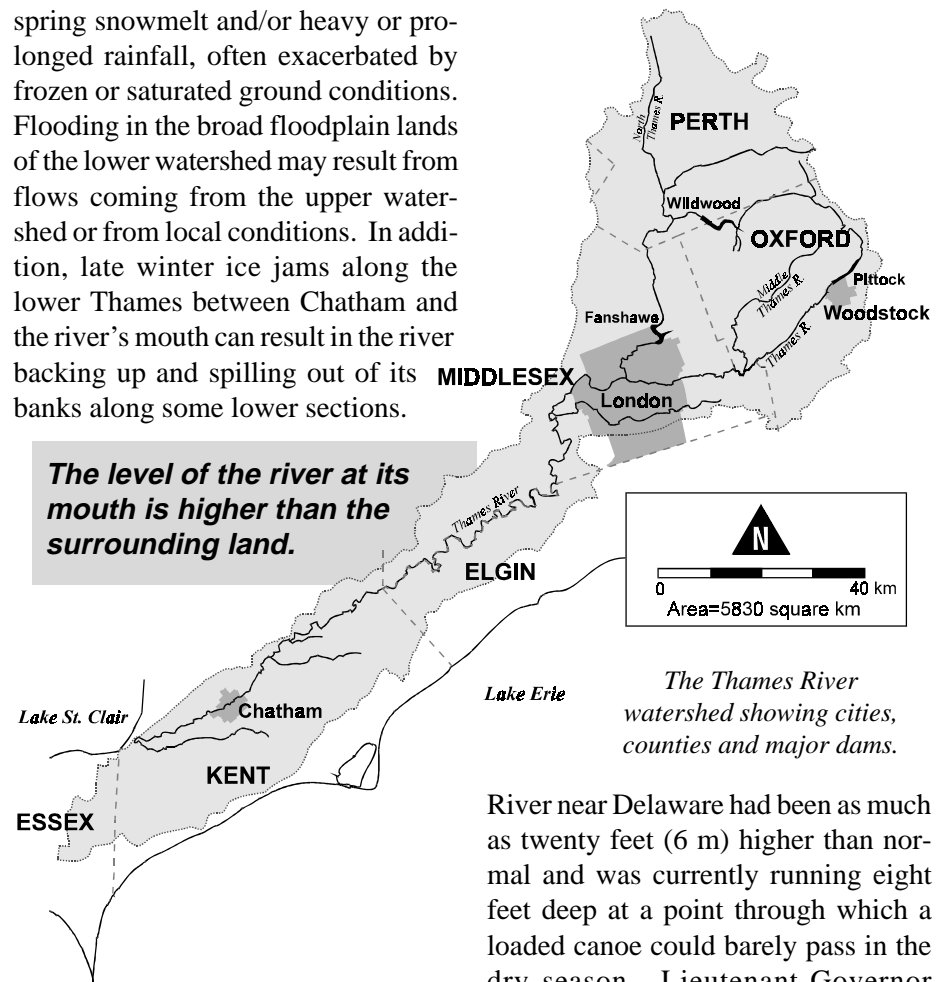
The relocation of the District Court house from Vittoria near Lake Erie to a site overlooking the Thames at the Forks marked the birth of London. This site was chosen primarily because it was Crown land and its location overlooking the river was inland and defensible against American invaders. The river itself offered water, a means of transportation and a power source for mills. Both natives and early settlers had used the low riverside land to the west of the Forks for farming. These nutrient-rich lands were formed over thousands of years by spring floods depositing silt onto flood plains.

### The Shape of the Watershed & Flooding

Water from snowmelt and spring and summer storms runs off the land to creeks and streams and then into the Thames River, which drains about 5,830 square kilometres of land. The large triangular upper watershed is drained by the North Thames and Thames Rivers, which meet at the Forks and flow as a single river to Lake St. Clair. Flooding in the upper watershed is usually due to runoff from

spring snowmelt and/or heavy or prolonged rainfall, often exacerbated by frozen or saturated ground conditions. Flooding in the broad floodplain lands of the lower watershed may result from flows coming from the upper watershed or from local conditions. In addition, late winter ice jams along the lower Thames between Chatham and the river's mouth can result in the river backing up and spilling out of its banks along some lower sections.

**The level of the river at its mouth is higher than the surrounding land.**



The Thames River watershed showing cities, counties and major dams.

As people colonized southwestern Ontario, changes wrought to the landscape contributed to both the frequency and severity of flooding. Before settlement, forests and swamps retained some of the seasonal rainfall and released the rest more slowly to the river, moderating fluctuations in the water levels. But as towns, villages, farmland and industries advanced across the land so did tile drains and storm sewers which helped move water quickly to the river without giving it a chance to soak into the ground.

### Early Records of Flooding

In April of 1791, surveyor Patrick McNiff reported that the Thames

River near Delaware had been as much as twenty feet (6 m) higher than normal and was currently running eight feet deep at a point through which a loaded canoe could barely pass in the dry season. Lieutenant-Governor Simcoe's party recorded in 1794 that their group took advantage of the high water and swift current to descend from Woodstock to London by boat. Evidence of significant flooding from 1792-1798 is found in the records of the Moravian Mission at Old Fairfield (on the Lower Thames). Early accounts of weather conditions such as spring thaws and prolonged periods of rain included descriptions of flooding, **freshets** (floods caused by heavy rains or melted snow), currents too strong for boats, and river water too muddy for drinking.

As the population in the London area began to grow, road travel and



bridge and mill building increased. After 1849, reports of floods, ice jams and their resulting damage began to appear in the newspapers. Bridges and buildings were often destroyed in floods caused by mill dams failing. The spring flood of 1857, with water levels three and a half metres or more above normal, swept away Clarke's Bridge. Editorials criticized the constant rebuilding of cheap bridges which were damaged by floods.

## ***The Flood of 1883***

In the summer of 1883 a catastrophic flood struck London. The area experienced several days of heavy rain followed by a fierce electrical storm on July 10. That night the **Imperial Oil Buildings** in London East were struck by lightning and caught fire. Early the next morning, a reporter returning from the fire decided to check the river level. When he drew near to the Dundas Street bridge, he heard a loud roar as a wall of water broke over the river bank at the Oxford Street bridge and rushed towards the sleeping village of **London West**. He watched in horror as houses were knocked over and people screamed for help. Tearing himself away from this frightful scene, he ran back into the city to raise the alarm. Soon the river banks were lined with people launching boats, trying to pull survivors from the water or rescue those still trapped. His account of the flood, along with the fire, appeared in the *London Advertiser* the following day.

The communities of **London West** (Petersville) and **Kensington** near the Forks were hardest hit. These areas had only recently been developed because the land was relatively cheap and conveniently located close to down-

town. The flood of 1883 caused more deaths than any other in London's history. Sixteen people drowned; many of these were children asleep in their beds, including three of the six Lacey children.

Afterwards some families abandoned the area but others could not afford to leave. The Ontario government contributed \$5,000 to provide residents with some food, clothing and shelter. The tragedy led to the construction of earthen dikes in London and London West along the lowest sections of the river.

## ***The Flood of 1937***

Between 1883 and 1937, London experienced only minor flooding. Confidence in the protection offered by the earthen dikes grew and development continued on the land behind them.

Six days of steady rainfall following the spring thaw in an unusually wet April caused the great flood of 1937. It produced the highest flood levels ever recorded as well as the most extensive property damage. **Thirteen centimetres of rain fell between April 21 and 26** throughout the upper watershed, causing numerous small streams to burst their banks before they reached the main branches of the Thames River. By noon on April 26, the river was rising at almost 30 centimetres an hour in London. Soon streams of water were running down the middle of streets in London West, bubbling up through the sewers in spots that were now lower than the river.

***The flood of 1833 caused more deaths than any other in London's history***

Volunteers piled sandbags on top of the dikes but it quickly became apparent that this effort was futile.

In some places the water was more than four metres above normal, so high that the Shell gas pumps on the corner of Mount Pleasant and Wharncliffe were submerged.

The steadily rising water gave many Londoners time to leave their homes, but not enough time to move all of their belongings to safety. Those who did not flee were later rescued by volunteers who came from far and wide to help the flood victims. When streets became waterways, rescuers in boats went from house to house, peering into second floor windows and ferrying trapped residents to safety. The river rose higher and spread further than ever before, damaging over 1,100 homes and businesses.

After the water receded, residents returned to homes filled with mud, silt and ruined furniture.

***Over 150 pianos were thrown out in London West and area.***

While some houses were completely ruined, many others remained standing. The damage created by the flood devastated London West, parts of Broughdale, and areas around Wellington Road, as well as other settlements in the watershed.

This tragic event occurred at the tail end of The Depression, causing more suffering to people who were already finding it hard to make ends meet. The city appealed for provincial aid, however, not wanting to set a precedent, the government refused to help. Residents with property damage



*Floods on Wharncliffe Road (1937).*



*1937 flood.*



*Volunteers at Empress Public School (1937).*

were offered a 10% property tax break by the city, but little was done for those who had lost everything. The Red Cross provided supplies and helped with the huge clean-up task. Health authorities administered vaccinations and imposed strict clean-up regulations and this, combined with the hard work of London's residents, successfully prevented an outbreak of infectious diseases. Local citizens did what they could to help their neighbours; **'flood showers'** were held and gifts of various household items were given to flood victims.

### ***Plans to Manage the River***

After the 1937 flood, further attempts were made to strengthen the dikes and prevent future flooding. In addition flood victims and local residents pressed for government assistance to help build more permanent control structures such as dams. In June 1937, representatives of the five counties in the Thames watershed (**Perth, Oxford, Middlesex, Elgin and Kent**) met in London to decide what actions should be taken to prevent flood damage in the future. They agreed that a survey of the Thames valley should be undertaken by the Province to determine what flood control measures were needed. However, plans were shelved when Canada became caught up in the war effort. In 1943, a delegation from the counties applied again to Toronto, and this time a survey was approved.

In 1944, the government convened an Ontario/U.S.A. conference in London to discuss flood control and conservation issues, including those related to the Thames. As a consequence of the information shared at that conference, the government set up a Con-

servation Branch within the Department of Planning and Development and began drafting the Conservation Authorities Act which was passed in 1946.

## Creation of Conservation Authorities

The river provided a timely warning in 1947 of the devastation flooding could bring. In late March and early April, the London area experienced a spring thaw, rain, a severe blizzard, and then more heavy rain. Water levels in the North Thames River soon rose to within a metre or so of the top of the West London dike. The area was temporarily evacuated and the dikes re-

inforced with sandbags, but water levels fell without causing serious damage. Along the Thames River east of the Forks, however, conditions were much worse as 150 houses and some factories suffered serious flooding.

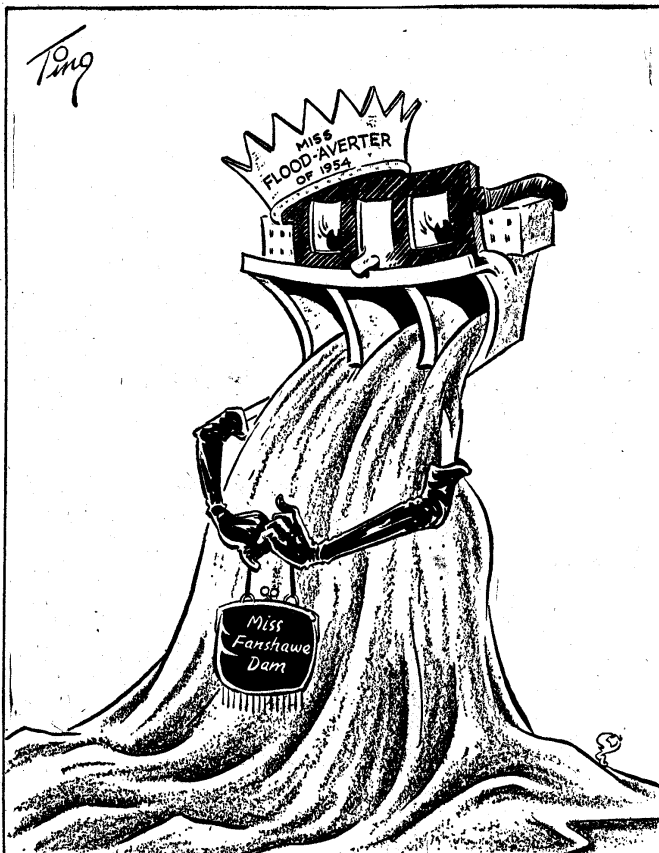
While the 1947 flood inflicted little damage compared to that of 1937, people were reminded that, despite meetings and conferences, no protective measures against flooding had yet been taken.

**The Upper Thames River Conservation Authority was formed in 1947 with a mandate that included protecting people and properties from flooding.**

sufficient. As a result, the Conservation Authorities, including the Upper Thames, developed policies and regulations under the Conservation Authorities Act to ensure that land use in the floodplain is managed to prevent loss of life and minimize property damage in the future. These controls, coupled with new ways of managing runoff which are less costly and environmentally damaging, have made construction of more dams on the Thames less necessary.

However, existing buildings on floodplain lands needed to be better protected. After the 1947 flood, the City of London spent over \$86,000 to improve existing dikes and build new ones. There are **seven areas of diking** in London; examples can be seen at the **Forks of the Thames** and downstream on the north bank **near the Wharncliffe Bridge**. The most recent dike to be built in London is on the North Thames River in **Broughdale**.

## Our Choice for "Queen of the Ball"



Ting cartoon - February 19, 1954.

## Managing Floodplains

The Upper Thames Valley Conservation Report 1952 recommended eight dams in the Thames Valley. Three of these have been completed: **Fanshawe Dam in 1953**, **Wildwood Dam in 1965** and **Pittock Dam in 1967**. The other five dams may never be built.

In 1954 the damage caused by Hurricane Hazel in the Toronto area reminded southern Ontarians that total reliance on flood control structures to avert property damage was in-

## Corridor of Green

In 1922, the city hired town planner **Thomas Adams** to suggest possibilities for creating a beautiful city. Adams declared the Thames River to be London's greatest asset, and encouraged the city to acquire the floodplain lands and turn them into open green spaces for residents to enjoy. Economic depression and the second World War delayed these plans. In the 1960s, Adams's suggestions, which were similar to the UTRCA's subsequent regulations, were implemented and a 25 year beautification plan was started.

Buildings and factories on the newly acquired lands were torn down, and the land became parks or open spaces. *St. Julien's Rendering Works*, where soap was made from wood ashes

sold by early residents, became **St. Julien's Park**. Major alterations were undertaken at the Forks of the Thames. *The Old Dutch Laundry* to the west, *London Soap Works* to the south, and *Penman's*, one of London's biggest factories to the east of the Forks, were all demolished. The Penman's site is now **Ivey Park**, and another parcel of land nearby has been dedicated as the **Peace Gardens**.

Floodplain lands form the backbone of the city's network of parks. The beauty of the Thames River is now accessible to everyone. The pathway system along the length of the river connects London's neighbourhoods and offers walkers, rollerbladers and bicyclists opportunities for enjoying the natural landscape.

## Fanshawe Dam

- **Construction:** 1950-1952
- **Cost:** \$5 million (land and structure)
- **Drainage Area:** 1,450 square km
- **Length of dam:** 625 metres
- **Top of dam:** 23.5 m above riverbed, 30.5 m above bedrock
- **UTRCA property around reservoir:** 7.3 square km



*Fanshawe Dam and reservoir c. 1970.*

| <b>Fanshawe Reservoir - Normal Operating Potential</b> |                           |                         |
|--|---------------------------|-------------------------|
|  | <b>Maximum Conditions</b> | <b>Flood Conditions</b> |
| Length   | 6.4 km                    | 12 km                   |
| Maximum Width  | 0.8 km                    | 1.4 km                  |
| Maximum Depth  | 12.5 m                    | 21.6 m                  |
| Storage Capacity                                       | 12 billion litres         | 48 billion litres       |
| Surface Area   | 2.61 square km            | 6.5 square km           |
| Surface Elevation (above sea level)                    | 262.1 m                   | 271.3 m*                |

\* The highest water elevation recorded was 270.7 m in March 1977.

## The Bedrock Beneath Us

London sits on layers of sediment deposited over the underlying bedrock during the advance and retreat of glaciers about 13,000 years ago. The sediment which covers the bedrock ranges in depth from eight metres at Fanshawe Dam to 100 metres in parts of Byron, the average depth being around 40 metres. In the sediment are water-bearing layers of porous rock and sand called aquifers which served as a source of water for London's early wells.

**Fanshawe Dam is the only structure in the city built directly on the bedrock.** This makes it an ideal location for monitoring both local and distant earthquake activity.

The University of Western Ontario's Department of Earth Science (formerly Geophysics) has operated a seismic station at the dam since 1961. **Three quakes, averaging a magnitude of 2.3 on the Richter scale, have occurred within 50 kilometres of London since November 1, 1993.**

These events were too weak to be detectable without special equipment. In the last 12 years, however, two earthquakes of magnitude >5 have occurred within 200 km of London and were felt by many. **The most recent of these occurred on September 25, 1998** (a magnitude 5.4 earthquake near the Ohio-Pennsylvania border). The epicentres of both earthquakes were near the south shore of Lake Erie, too far from London to pose any threat of structural damage at the dam.



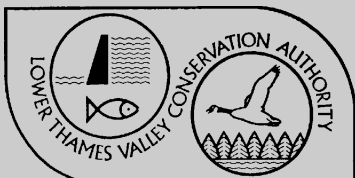
## Management of the Thames River

The Upper Thames River Conservation Authority (UTRCA) was formed in 1947 to oversee the planning and construction of flood control measures. It has jurisdiction over the upper watershed (3,432 sq. km, 1,380 sq. mi.) down as far as Delaware.

The Lower Thames Valley Conservation Authority was formed in 1961 in response to continuing ice jams and frequent flooding in the lower Thames basin mainly below Chatham. Since then over 81 kilometres of dikes and channels have been constructed to protect low-lying areas between Thamesville and Lake St. Clair. LTVCA has jurisdiction over some 3,275 sq. km (1,264 sq. mi.) of land draining the lower Thames River basin and several smaller watersheds which flow to Lake Erie.

Conservation Authority activities have expanded beyond water control and flood warning to include **community education, tree planting, soil conservation, water quality, environmental planning, natural areas protection, private sewage disposal and recreation.**

UPPER THAMES RIVER  
CONSERVATION AUTHORITY



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ADDITIONAL RESOURCES, SEE BOOKLET 8

## ILLUSTRATIONS

- Masthead scene.* Dana Irvine.
- Flood Photos.* Courtesy of the London Room, London Public Library.
- Fanshawe Dam Photo.* Upper Thames River Conservation Authority.
- Watershed Map.* Carol Shaw.
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### **At a Glance**

- **Swimming Holes & Canoes**
- **The Steamship Era**
- **The Victoria Day Disaster**
- **Gone Fishing**
- **A Ribbon of Green**
- **Thames Valley Golf Courses**
- **Ontario White Sulphur Springs**

### **Swimming Holes & Canoes**

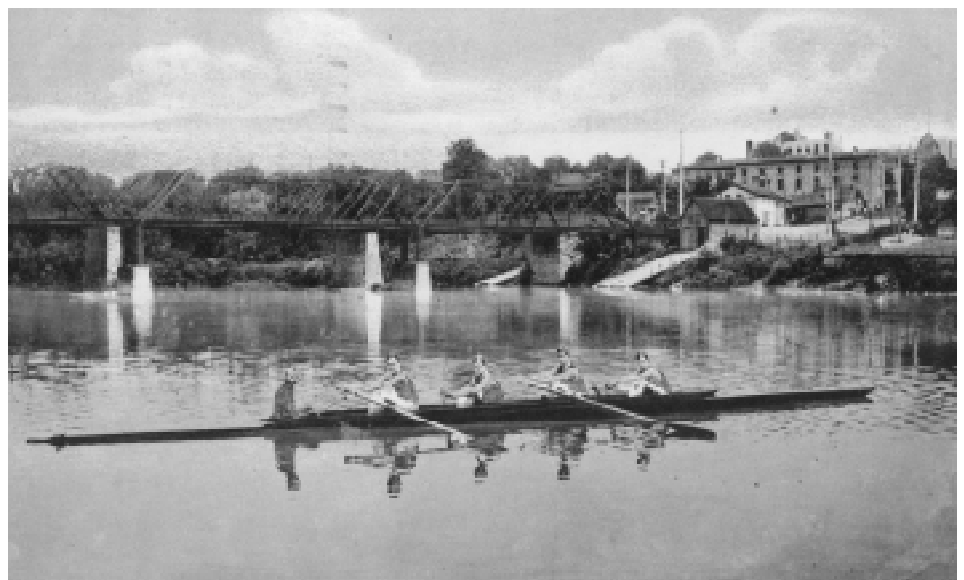
In the early years of European settlement in London, the river served a broad range of uses for settlers. It provided **transportation, water power** to run timber and grist mills, and **a place to bathe and fish** and **to dump refuse** from industry and households. As roads were built and other forms of power introduced, the river's main use became recreational. In summer months, swimming, boating and fishing were popular activities. During early years, the land along the Thames east of the Forks remained sparsely settled. But later, when oil refining and other industries were established in Hamilton Road and East London areas, contamination of the nearby waters increased, and those waters flowed westward through the forks towards Byron. Swimming in the river became less healthy and, in the early 1900s, the city began to construct public swimming pools.

Before swimming pools, children had favourite swimming holes: a spot at Burkett's Flats [now Chelsea Green Park], a pool near the Meadowlily Bridge, the mouth of Carling Creek and many others. In the late 1800s, swimming at Waterworks Park, west of London and near the waterworks dam, was popular though it could be hazardous. A group of experienced swimmers formed the Springbank Lifesavers to help swimmers in trouble and to warn bathers and boaters of the danger of venturing too close to the dam.

Canoes were among the first boats used on the Thames. From the times of early Aboriginal settlements, the canoe was used for travel and trade and was adopted for those uses by the first Europeans coming into the area. As the number of settlers and the diversity of their activities increased, so did the need for a variety of watercraft for transport, hauling and pleasure. In 1881 the artist, **William Lee Judson**, canoed the length of the Thames making sketches of his surroundings and jotting down descriptions of what he saw. Published

under the pen name of Professor Blot, *Tour of the Thames* observed that in London on a lovely June morning, the scene provided in addition to steamers and steam tugs near the Forks, "yawls, scows, dug-outs, bark canoes, shells, tubs and kayaks, besides scores of skiffs, light, strong and graceful..."

As early as the 1850s London had a boat club. **The London Rowing Club**, formed in 1870, brought rowers such as Canada's famous sculler, **Ned Hanlon**, to demonstrate their skills and compete in local regattas. Men and women raced while other lined the banks of the Thames to watch and cheer them on. Handmade boats and rafts were frequently seen on the river and were joined by the occasional unusual craft. One day in the late 1800s, a bathtub carrying a young boy was spotted floating down the Thames, chased on the riverbank by a policeman yelling for the boy to come ashore. Apparently enjoying his trip downstream, the boy ignored the shouts of the angry policemen who slipped, fell into the water, and lost the pursuit.



*Early Rowers on the Thames c. 1910*

## *The History of Labatt Park at the Forks*

Land north of the Forks was purchased in 1877 as the home for the London Tecumseh Base Ball team which became the minor league professional champions of North America that year when they won the International League title. In 1892, Tecumseh Park's owner, W. J. Reid, built a bicycle track there for professional and amateur races. In 1895, it was the



location for London's first moving picture show. Baseball continued to be played there intermittently over the years by teams that included many famous baseball players. When the flood of 1937 damaged the stands, the Labatt family purchased, rebuilt, and donated the park to the City, which renamed it *Labatt Park*. This park is London's oldest existing sports facility, and is believed to be the oldest baseball grounds in continuous use in North America.

## *Full Steam Ahead*

As London's population grew, a new source of fresh water was needed. In 1877, the City Council approved the construction of new waterworks to be built the next year four miles west of the city, close to Coombs' Springs. Around the Springs a new

park was created for public use. Now part of Springbank Park, this parkland provided families with a place for picnics and social gatherings. **London's Annual School Picnic**, an outing for every student in the city, was held there until the city's students grew too numerous to all fit into the park on one day.



*London's Annual School Picnic, c. 1910*

## *The Steamship Era*

Mayor Robert Lewis suggested that a steamship would make the journey from the Forks to Springbank more enjoyable. Following the Mayor's suggestion, the Thames Navigation Company (T.N.C.) was formed. Its first steamship, *The Forest City*, was launched in September 1878, but only ran for a couple of weeks during that season. The following summer, the T.N.C. launched the *Princess Louise* and a rival company, the London and Waterworks Line, commissioned the *Enterprise* to travel the same route. Of the three, the *Princess Louise* was the fastest and most agile. Badly designed, the *Enterprise* was bulky and difficult to manoeuvre. All but her hull was destroyed when a fire broke out during repairs late in the season of 1879. While the rest of the boats were stored in the Coves for the winter, the *Enterprise's* hull spent those months sunk near the dock, under the ice.

The following year the *Enterprise's* hull was sold. The owner had the hull rebuilt into a new steamship which he named *Victoria* in an attempt to give it a higher ranking and more popular title than the *Princess Louise*. *Victoria* was, after all the Queen of England, whereas *Princess Louise* was only her daughter and the wife of Canada's Governor-General. The *Victoria* was ready to sail by the summer of 1880.

To attract passengers frequent changes were made to the appearance of the boats. Gold paint and fancy scrolled letters gave the impression of expensive pleasure ships rather than local ferry boats. Cushioned seats provided comfort on the decks and bands were employed to entertain passengers



*Victoria (stern) and Princess Louise Steamships at the end of Dundas Street with the Ontario White Sulphur Springs in the background, c. 1880.*

during the voyage. Asbestos insulated the boiler to cut down the noise of the engine. In the second year of operation, popular moonlight cruises were added.

All steamships sailed from docks at the end of Dundas Street, paused below Woodland Park and Cemetery to take on or let off passengers, and arrived at the park just above the waterworks dam. Each boat could carry several hundred passengers on a pleasant half-hour trip to or from the park.

During that period of the late 1800s, Londoners worked a six-day week and followed strict rules of behaviour on Sundays and religious holidays. The celebration of the Queen's birthday each May was the first opportunity for a holiday excursion after a

long winter. It is not surprising then, that this also became the first official day of the steamship season. Many Londoners crowded onto the boats to make a day trip to Springbank Park or to ride to an afternoon's stroll in Woodland Park and Cemetery.

## **The Victoria Day Disaster**

The morning of May 24, 1881 dawned clear, promising beautiful weather for the holiday. Hundreds of passengers boarded the three steamships, the *Princess Louise*, *The Forest City*, and the *Victoria*, for the day's excursion. All day the boats made trips back and forth between the Dundas Street docks and the park. Because of the fine weather, many people lingered at the park, waiting until late in the day before making the trip back downtown.

As each of the three steamships had a capacity of around 300 people, a large returning crowd should not have been a problem. But late in the afternoon, *The Forest City* ran aground just off the dock at Dundas Street. Steamships often got stuck on sandbars in the river, causing annoying delays for those waiting on the boats or at the docks. As the *Princess Louise* worked to free *The Forest City*, the *Victoria* was sent on to pick up the waiting passengers.

At the Springbank dock there were hundreds of people late for supper and eager to get home; as a result, anywhere from 600 to 800 people crowded onto the boat.



*Steamship on the Thames*

The *Victoria* left the dock so heavily laden with passengers that the boat listed under the weight. Water lapped over the side wetting people's feet. The *Victoria* was also taking on more water below decks than usual. Possibly its hull had been damaged earlier in a brush with the sunken timbers of the old dam at Griffith's Mill near the end of Wonderland Road. The additional weight of the water and the extra passengers made the situation precarious. When the captain and crew realized the seriousness of the problem, they attempted to distribute the passengers more evenly throughout the boat to stabilize her. However, when two rowers sped by, many passengers rushed to that side to see the race. The *Victoria* tilted from the uneven weight, and the frightened passengers rushed to the other side, unbalancing the boat even more.

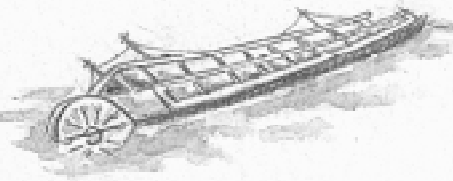
The ship's boiler broke free and crashed through the boiler room wall,

**Nearly every home in London was affected by the loss of a family member, a relative, a friend, or a near-neighbour.**

Orlo Miller ... in London 200.



scalding several people. It tore out supports for the upper deck which buckled and crashed down on the lower deck, crushing many people to death. Passengers close to the railings were able to jump into the river. Some swam safely to shore, but others drowned, including women in heavy skirts and children unable to swim. **A total of 181 people died in the accident** which occurred just west of the Cove railway bridge. Today, a riverbank plaque commemorates the site of the disaster.



*The Victoria Sinking*

The Victoria Day disaster was a tragic combination of overcrowding and inadequate safety regulations and possibly a damaged hull. Initially it was felt that the *Victoria's* owner and her captain should take responsibility for the accident. Charges were laid against them, but they were later acquitted. After the tragedy, the public was less interested in steamships excursions and the two remaining boats were put up for sale.

## **The Decline of Steamships**

In the flood of 1883 the *Princess Louise*, which had just been refurbished and was operating again, was swept over the Waterworks Dam and destroyed. *The Forest City* was later disassembled and sold in parts and the Thames Navigation Company eventually went bankrupt. Brief attempts to bring back the steamship era in later

years were unsuccessful. In 1896, the London Street Railway began offering service to Springbank Park from many points in the city as well as moonlight excursions to the electrically illuminated park. This railway, which operated until 1940, provided a cheaper, faster and more reliable service than the steamships. In the 1970s the tradition of pleasure boat rides on the Thames resumed with the nostalgically named *London Princess* which has sailed the round trip from Springbank Park as far east as the river sandbars now allow.

## **Boating Rebounds**

During the period following World War II, water quality in the Thames deteriorated and many Londoners turned their backs on an increasingly polluted and sometimes 'smelly' river. In the 1950s and 60s, new sewage treatment plants were constructed and the Greenway plant was upgraded, improving Thames water quality. Riverside industries gradually disap-

peared. These changes coincided with an increase in leisure time for families and brought Londoners back to the river and its banks for adventure, relaxation and enjoyment.

Rowing and canoeing on the Thames regained popularity. The opening of the Joe McManus Canoe and Rowing Facility to house the clubs and their boats in 1973 marked a recognition of widespread interest in those activities. Today rowers, canoers and kayakers of all ages can be seen enjoying their sport and sharing the river with occasional motor craft, rubber rafts, sail boats and, one weekend a year, dragonboats. **The London Canoe Club is now the largest canoe club in North America.** The creation of an artificial lake in 1953, when the Fanshawe dam was built across the Thames, provided Londoners with a new swimming beach and a place to take out a boat for a day's fishing. Eventually campsites, hiking and skiing trails and a Pioneer Village were constructed. In summer, sails of yachts and windsurfers decorate the lake.



*Fishing at Springbank Park*

The recent establishment of the London High Performance Rowing Centre on Fanshawe Lake has raised London's importance as a setting for national competitions. This is the second Canadian training centre for national and Olympic rowers. University of Western Ontario rowing teams have used Fanshawe Lake as a base for training since the early 70s. More recently medallists such as Silken Laumann and Marnie McBean have trained there.

## ***Gone Fishing***

**H**umans have fished the Thames since the first inhabitants arrived in this area. **The river provides habitats for at least 88 of the 150 species of fish listed in Ontario**, and perhaps another 10 hybrids, though not all of them will spend their entire life cycle in the Thames. This diversity stems from the river's connection to the Great Lakes, its location in the southerly, Carolinian section of Ontario and its wide range of available habitats.

Fishing organizations such as the London Sport Fishery, the Thames River Anglers, and the Western Ontario Fish and Game Protective Association have worked over the years to improve fish habitat along the river. Together with the Ministry of Natural Resources and the Upper Thames River Conservation Authority, they have participated in restocking the river, developing a year-round hatchery, and transferring fish. Their efforts, combined with river and stream clean-ups and bank restorations, are helping to reestablished and maintain a viable fishery in the Thames. Around London, pike, wall-eye and bass are popular with fishermen. Spring, summer, fall, and to a

lesser extent in winter, men, women and children can be seen along the banks, poles in hand, waiting for a strike.

## ***A Ribbon of Green***

**T**he many parks located along the Thames draw Londoners for a respite from the bustle of the city. These riverside parks, which represent the majority of the parklands in London, are relative newcomers in terms of London's development. An early attempt to create London's first park was unsuccessful. The surveyor who laid out the early city of London, **Mahlon Burwell**, donated a parcel of land between Wortley and Wharncliffe roads to be used for parkland. The city leased this land to a citizen on condition that trees be planted. However, as he was only interested in growing vegetables and could not be persuaded to plant trees, the city took back the land. Eventually it was sold for building lots.

By the 1870s, the city had grown substantially. Houses replaced trees and open spaces. The need for parkland became urgent. A Standing Committee on Public Parks was struck and City Council sent a representative to Ottawa to apply for title to the former military reserve. **Thirteen acres of those lands became London's treasured Victoria Park.** It was a typical Victorian urban park complete with an ornate fountain and the obligatory bandstand. However, in its early years some citizens treated it as common land and let their pigs and cows graze there.

London gradually acquired parkland bordering the river, either through donations or by direct purchase. **Springbank Park**, the oldest riverside

## ***An Island No More***



*Thornwood, 1852*

**G**ibbons Park was once Becher's Island, a long hummock of swampy land, completely contained by the North Thames River and a mill stream. It was named after Henry Becher who built his now historic home, *Thornwood*, on a rise overlooking the area. As a result of the flood of 1883, the meander between the island and the bluff to the east disappeared. With money supplied by the Gibbons family, E.V. Buchanan purchased the property for the City. The park created on this land was named in memory of their father, Sir George Gibbons. In 1950, Buchanan persuaded Miss Helen Gibbons to donate \$20,000 for the construction of a public swimming pool in the park.

park, was established in the 1880s. Thames Park, near Horton and Ridout streets, was made possible by the sale of the **Parke and Gerry Flats** in 1908. Colonel William Gartshore's donation of Birkett's Flats in 1915 enabled **Chelsea Green Park** to be established along the Thames just east of Wellington Street. **Gibbons Park**, in North London, was created in 1926 on land purchased by the City.

In the 1960s with the help of the Upper Thames River Conservation Authority, London began the acquisition of floodplain lands. During this decade, the Forks of the Thames benefited

from a beautification project. (See *Floodplain Land* in Booklet 4.) The Harris family donated the land for Harris Park along with Eldon House, London's earliest remaining residence.



Eldon House, 1834

The addition of this piece of land to the riverside parklands provided a link which made it possible to extend the riverside pathway system. At the strong urging of local residents, a park was created on the Broughdale community lands bordering the North Thames River. The city named it after C.J.F. Ross. In the 1990s, the asphalt multi-use pathway was extended into this park making it possible to walk, jog, bike, or rollerblade from there to the downtown along the water's edge. Recent additions to this riverside park system are Meadowlily Woods,



Park Farm, c. 1849

formerly known as Park Farm and bequeathed to London by the late Harrison Fraser, and St. Julien Park, reclaimed through the joint efforts of area residents and the City. Both are situated in southeast London.

In 1993 London annexed from surrounding townships a large area of land

## Thames Valley Golf Courses

In the early 1920s E.V. Buchanan, the general manager of the Public Utilities Commission, saw the need for more parkland. During his 38 years in office he was instrumental in creating parks and playgrounds for Londoners.

*A sound body is the first requisite of good citizenship. The benefits accruing from playgrounds must be apparent to all thoughtful citizens, and that only the children of the well-to-do with their country homes should have good air and sunlight in which to exercise and grow, presupposes a continuance of the narrow view of community prosperity.*

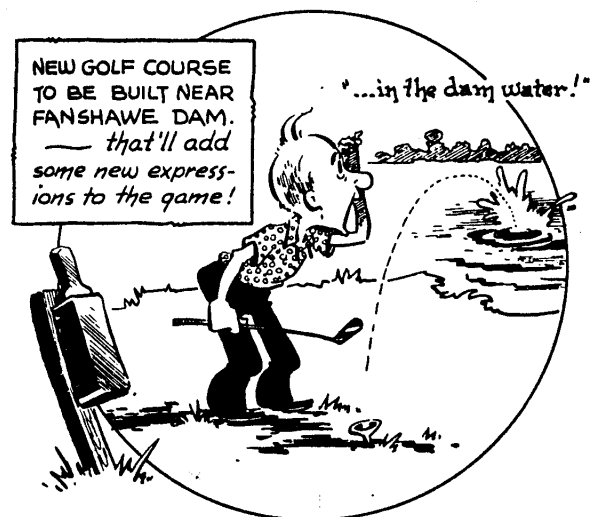
P.U.C. Annual Report 1918.

In 1924, Buchanan suggested that the former site of Ward's Hotel, on the riverbank opposite Springbank Park, be converted into a golf course. In order to create the course at no cost to the taxpayers, Buchanan successfully solicited donations for its construction. Golfers travelling out by streetcar to Springbank crossed the Thames to the golf course by pulling themselves over in a flat-bottomed boat attached to a cable. A few years later a suspension bridge replaced the cable-boat crossing.

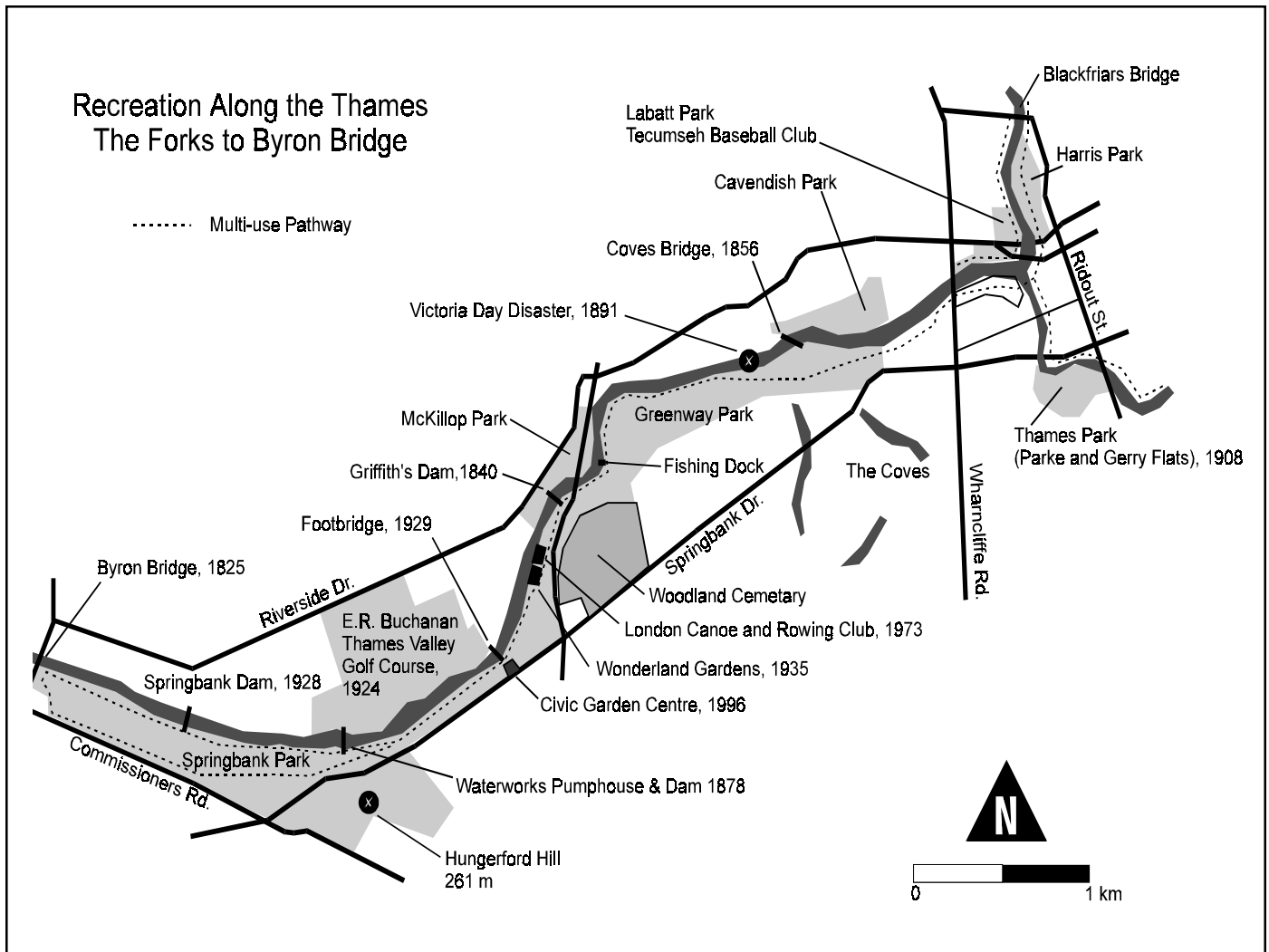
During the Second World War the course was taken over by the government and tents were put up as quarters for the militia and cadets. Troops could often be seen marching down to the rifle range at the Coves for target practice, or heading off to the Western Fair grounds where there were practice trenches.

Fanshawe Golf Course overlooking the lake was also established by Buchanan, again using private funds to pay for construction. Recently a third city-run golf course on River Road north of the Thames River and east of Hamilton Road has been completed. The Thames Valley Golf Course has been renamed in honour of Buchanan.

## HEADLINES an' PENLINES



Ting Cartoon - February 3, 1955.



Recreation along the Thames. The Forks to Byron Bridge

including significant river valley corridors. At that time, city staff and citizens undertook a comprehensive goal setting process to create a community-based vision for the future of the new London. The resulting plan states, as one of its environmental goals, that **“The City recognizes the Thames valley corridor as its most important natural, cultural, recreational and aesthetic resource.”** Efforts are now underway to add some of the newly-annexed river valley lands into the existing parkland system extending London’s *ribbon of green*.





## Ontario White Sulphur Springs



During the southwestern Ontario oil boom in the mid 1800s, speculators erected a derrick at the Forks and drilled for oil. Instead they found sulphur water. When the Ontario White Sulphur Springs was established in 1865 the oil derrick was converted to the central tower of the spa. Visitors came from all over to take the waters for their health.

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- Down by the Riverside*. London Regional Art and Historical Museums. London. Ontario. June 19 - August 29, 1993.

ADDITIONAL RESOURCES, SEE BOOKLET 8

## ILLUSTRATIONS

- Masthead Scene*. Dana Irvine.
- Early Rowers. Steamship and Fishing Photos*, Courtesy of the London Room, London Public Library.
- Victoria and Princess Louise Steamship and School Picnic Photos*. Courtesy of the J.J. Talman Regional Collection, The D.B. Weldon Library, The University of Western Ontario.
- Small graphics*. Patricia Marr.
- Cartoon*. Courtesy of Merle Tingley and the London Free Press.
- Recreation Map*. Carol Shaw.

## CREDITS

Produced by *Celebrate the Thames*.  
Researched by Sarah Samplonius. Written by Karen Burch, Rosemary Dickinson and Susan Bentley with assistance from Fred Armstrong, Dan Brock and Christine Buchanan.  
Initial Design: Don Duncan.  
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## ACKNOWLEDGEMENTS

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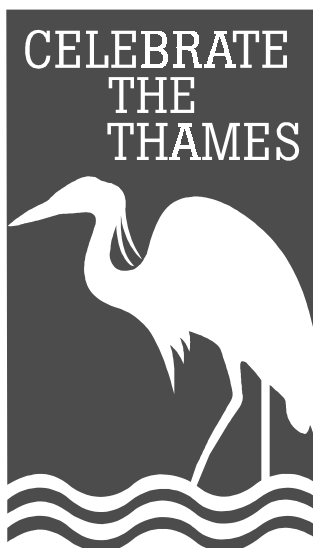
### • FUNDING

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UPPER THAMES RIVER  
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### At a Glance

- **Wooden Bridges**
- **Railway Bridges**
- **Iron Road Bridges**
- **Twentieth Century Bridges**
- **Building Bridges & Roads**
- **Downtown Bridge Tour**

### Settling In

Early London was nestled between the Thames and North Thames rivers, east and south of the Forks. One of the challenges faced by the first settlers was crossing the water to London. That need grew as more people moved from the originally surveyed site to parcels of land across the rivers to the south and west.

In the early 1800s, the river was forded by foot, horse and cart. Canoe ferries were more reliable, particularly during the spring runoff, when oxen, cart and driver could be swept away by the powerful currents. Two separate ferry landings are known to have been in use near the Forks of the Thames in the early 1800s. Near the foot of what is now York Street, an American squatter named Miller operated one service. Just west of the present day **Wharncliffe Bridge**, the William Montague family had a boat landing.

Local legend was that an unusual and less reliable third ferry service was offered by the Beverlys. This family apparently suffered from fever and ague and because of their severe shivering they could ferry people across only when one of them was steady

enough to perform the service. It seems that travelers familiar with the Beverlys knew they were likely to be at their best in the late afternoon and would happily wait for them at the local tavern. Their landing was said to have been near Joshua Applegarth's hemp farm which was located to the east of what is now Mount Pleasant Cemetery.

### Wooden Bridges

London's first bridge was **Westminster Bridge**. Built at the foot of York Street in the autumn of 1826 by contractor Levi Merrick, this span linked the new site of London to Westminster Township south and west of the Forks. The second, **Blackfriars Bridge**, was completed in 1831 and joined the north end of Ridout Street to the community of London West in London Township. Private subscriptions financed construction of Westminster Bridge but contributed only part of the two hundred and fifty pounds it cost to build Blackfriars Bridge. A district grant made up the rest.

Having only two river crossings into London proved useful during the

cholera outbreak of 1832, when the Reverend Mr. Boswell, an Anglican minister, stood guard at Blackfriars Bridge and warned travelers to stay away. During the Rebellion of 1837 and its aftermath, guards were posted on the two bridges and would not let anyone cross who could not give the password. Since the river was low enough to be easily forded on foot, the guards were the source of much amusement.

Mainly owing to the petition of the Reverend William Clarke, a congregational minister, Wellington Street Bridge was the next to be built in about 1840. Apparently Clarke had built a house on the river bank opposite his church which was on Wellington Street in town. Many people thought Clarke's choice for the site of his house was impractical, as he had to walk down to Westminster Bridge, cross the river, and then walk back along the opposite side. But his petition was successful and **Wellington Street Bridge** was constructed. This link between his house and church did not last long. In 1847, it was declared unsafe and ordered rebuilt. Nevertheless, in recognition of Clarke's efforts, the first and all subsequent bridges there have been



Clarke's Bridge

named after him.

A personal interest in having a bridge built was not so unusual for the times. Many residents who had set up homes on the other side of the river regularly petitioned for bridges to link their settlements with London. Because of the cost of construction and the need for constant repairs and replacements, these petitions were rarely granted. Frequently citizens had to organize something like a bridge building bee in which the community would cut the necessary wood and build the bridge. These early bridges were often hastily constructed and poorly built.

Regardless of who built them, there were never any guarantees that these early bridges were sound. **Victoria Bridge** at the south end of Ridout Street was built in 1848 and was washed away in the spring flood the same year. Rumor has it that lazy workmen cut off the top of the piles at night to avoid driving them all the way into the ground. No replacement bridge

was built at that site until 1863. In the meantime, residents had to rely on a canoe ferry during spring and fall and a **footbridge made of sugar casks and planks in the summer.**

Before the second **Victoria Bridge** was constructed, **Charles Hunt** built a private bridge from his house on the south side of the Thames across the river to his mill at the end of Talbot Street, fencing in the street allowance on the city side. He was sued by angry residents for closing a public right of way north of the river and lost the case. He was forced to open up his bridge and Talbot Street was extended through an orchard on his property to the river. The bridge did not last long, however, and eventually that new section of Talbot Street to the river was closed again by the city.

Spring freshets caused by heavy rains or melted snow frequently damaged bridges in London and made repairs necessary. Debris, buildings including garages and clubhouses, and

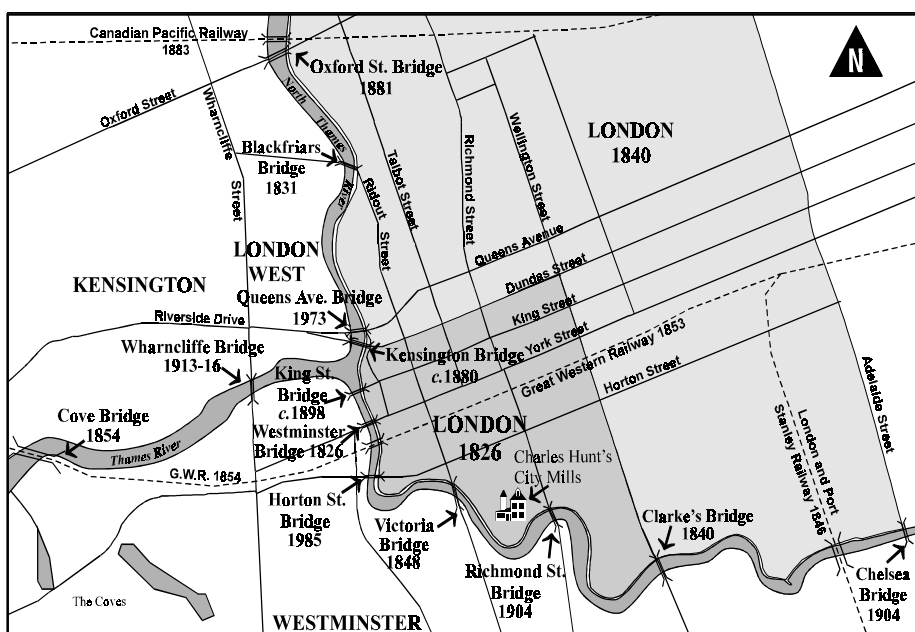
once even a cart and team of horses, were carried downstream and slammed into bridges. Westminster Bridge was chained to immense butternut trees on the river bank to avoid complete destruction during floods.

Although bridges were susceptible to damage or destruction when the river was in full flood, convenience prompted residents to petition for bridges at two new locations: one at the west end of Oxford Street and one at the west end of Dundas Street. Both petitions were granted in 1871, but financial constraints caused delays. **Kensington Bridge** was the first of the two built. **This bridge, one of London's last wooden bridges,** linked the downtown via Dundas Street with the district of Kensington to the west. The flood of 1883 destroyed this bridge and it was replaced with an iron bridge the following year, which was itself reconstructed in 1930.

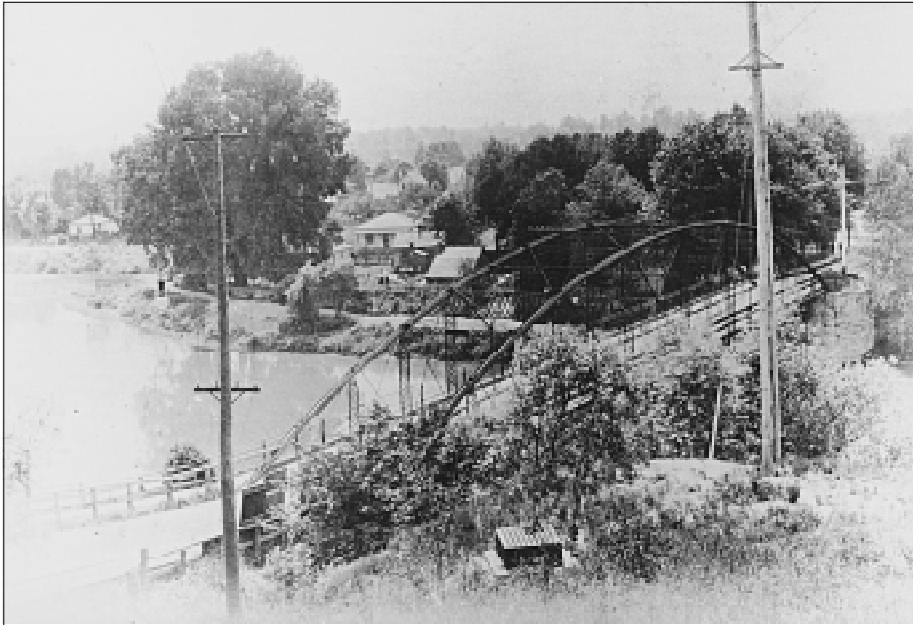
## Railway Bridges

In the 1850s, London entered the railway age. **The Great Western, the London and Port Stanley, and the Grand Trunk Railways** all laid track during this decade and established routes which crossed the city. Three bridges were built to carry the tracks over the Thames. Since timber bridges had shown an alarming tendency to ignite when sparks flew from the train's engine or wheels, these bridges were constructed entirely of iron rather than timber reinforced with iron.

The first railway line operated by the Great Western Railway reached London from Hamilton in 1853. Bridges carried the rail line across the Thames near the Forks and across the



*London's bridges close to the Forks.*



*Blackfriars Bridge*

river again at the Coves en route to Windsor. It was just west of **Cove Bridge** that the steamship *Victoria* sank on Victoria Day, May 24, 1881. **The London and Port Stanley Railway** bridged the Thames just west of Adelaide Street in 1856. Later, in 1883, the Canadian Pacific Railway also extended its line between London and Windsor, in the process building a bridge across the North Thames River close to the Oxford Street road bridge.

### ***Iron Road Bridges***

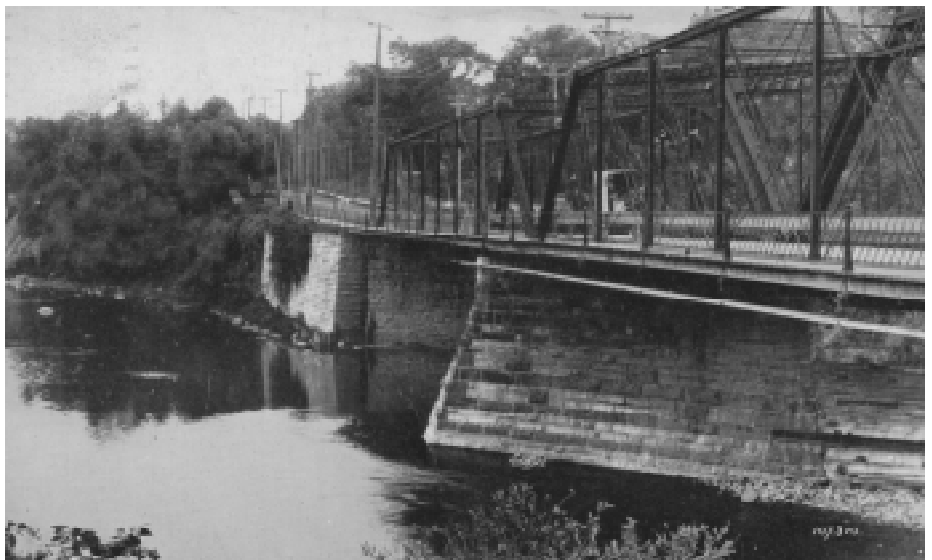
**Y**ears of reconstruction, repairs and near washouts convinced the people of London and the surrounding areas that they should look for more dependable bridges for their river. One solution came in the form of a mail-order catalogue and 4,050 kg (9,000 lbs.) of wrought iron. The Wrought Iron Bridge Company of Canton, Ohio offered pre-fabricated bridges by mail order. The iron spans were sent by rail, often accompanied by an engineer to

oversee construction. London's iron bowstring truss bridge, ordered to replace Blackfriars Bridge, was assembled in 1875. Interested townspeople watched ten teams of oxen repeatedly pull 40 tons of gravel across the bridge, and then agreed that the new structure seemed stable. Currently Blackfriars is the only bridge in London which has seen continuous use without massive repairs or reconstruction, requiring

only reinforced tension rods in 1950. This bridge has been designated as an historic site by the Province of Ontario.

Victoria Bridge also needed to be replaced in 1875. The wooden structure collapsed in a spring freshet the previous year, drowning two London residents, Miss VanWormer and Miss Elliot, who were standing on it at the time. The iron replacement bridge required repeated repairs and was reconstructed in 1926. However, the bridge provided a more permanent link to the south side of the river and settlement there grew as city residents moved into the pleasantly rural lands of what is now called Old South London.

Other bridges were also replaced by iron when they fell into disrepair or were damaged in floods but the cost of the new iron bridges was fairly high. Several settlements around London waited years before they were linked to the city by an iron bridge. **Oxford Street Bridge** was eventually built in 1881 but soon after was damaged in the flood of 1883. The bridge was reconstructed seventy-two years later, then widened in 1980. Westminster Bridge was also rebuilt with iron in



*Victoria Bridge*

1881, followed by **Clarke's Bridge** the next year. The flood of 1937 badly damaged Clarke's Bridge and it was reconstructed in 1974. Westminster Bridge did not undergo extensive reconstruction until 1977.

**Brough's** (Richmond Street) **Bridge**, on the North Thames River, was named for the Reverend Charles Crosbie Brough. Originally built out of wood and known as London Bridge, it was replaced in 1843 with an early iron suspension bridge, designed by Casimir Gzowski, who was by now a well-known engineer. To give the skeptical residents confidence in his new design, Gzowski had a battery of the Royal Artillery march to and fro across the bridge while he stood underneath. Since then this bridge has been replaced several times. Unlike



*Vauxhall Bridge*

other bridges which were named after the settlements they served, this bridge gave its name to the surrounding community. The village's name of Brough's Bridge was eventually lengthened to Broughdale in 1906.

By the late 1880s, records show eight bridges in London, seven of which were iron. The only remaining wooden bridge, which crossed the North Thames River at Adelaide Street, was replaced by iron in 1887, and reconstructed again

as a concrete structure in 1982.

Since the 1880s, many other bridges have been built. **King Street Bridge**, built in 1898, was the first bridge to carry a sewer line across to the west side of the river. King Street Bridge was closed to trucks and cars in 1948. It now serves as a foot/bikeway route linking the Riverforks community with downtown and providing a key connection in the recreational path system.

## **Building Bridges & Roads**

In the early 1800s, settlers had little time to spend on bridge or road building. The first roads, which had been surveyed by the military, were often only partly cleared, and travel along them by foot, horseback or oxcart could be difficult. The trees felled in opening up these roads, however, provided the logs for building simple bridges and improving roads. A bridge could be constructed by placing two logs across a stream from bank to bank and laying more logs on top at right angles. Roads were improved by laying down logs and filling the cracks between them with gravel or earth. These "corduroy" bridges and roads could

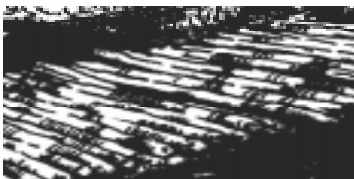
be built by unskilled settlers and were easily repaired. To span larger rivers, piers were built to support the sections of a bridge, but these were frequently taken out by ice jams or floods.

From 1841 to 1849, a total of 43 major bridges and many roads were built by the Department of Public Works in Canada West (southwestern Ontario), financed by loans from the British Government. In 1849, the Municipal Act was passed, placing the responsibility for roads and bridges entirely in the hands of towns and counties. Funds for this would have to come from property taxes. For the next 60 years little was done to maintain or improve roads and bridges as local governments had neither the money nor the expertise to take on this responsibility.

With the advent of the railways in the 1850s, erecting reliable bridges became a priority. Railway engineers devised stronger truss designs using

timbers and wrought iron, allowing bridges to safely carry much heavier loads. In subsequent years wrought iron gradually replaced timber in road as well as railway bridge construction. A few bridges were built of stone where there was a local source, such as in St. Marys.

In the early 1900s, the use of concrete reinforced with iron or steel allowed bridges to be built partly of local material, thus reducing the costs. It also permitted greater flexibility of design. Many of the more attractive twentieth century bridges are from this period. Nowadays most of our highway bridges are built using a standard design in reinforced concrete without any ornamentation. The recent city requirement of a 'character statement' for all new river bridges in London may provide an opportunity to choose more aesthetically pleasing designs that are in keeping with the surrounding landscape.





## Looking at London's Bridges - Downtown Tour

Bridges from several eras can be seen in London close to the Forks of the Thames. Some of these bridges are the original structures at that crossing. Others are the most recent structure in a series of bridge replacements. A short walk takes you past the following eight bridges, north and south of the Forks.

### • Blackfriars Bridge

First built: 1831 Rebuilt in iron: 1875. Kit assembled on site.

Design: Single span bow-string arch through truss with a span of 66.8 m (219 ft.).

Materials: Wrought iron trusses, reinforced in 1950 with steel stringers.

### • Queens Avenue Bridge

First built: 1973.

Design: Three span continuous beam.

Materials: Reinforced deck over steel girders on reinforced concrete piers and abutments.

### • Kensington Bridge

First built: 1880. Rebuilt: 1930.

Design: Three simple spans, pony trusses. Total span of 95.4 m (313 ft.).

Materials: Reinforced concrete deck over steel superstructure on reinforced concrete piers and abutments.

### • King Street Bridge

First Built: 1897. Closed to vehicular traffic in 1947.

Design: Through truss main span with beam and slab end spans.

Materials: Wood walkway and trunk sewer over steel superstructure. Abutments and piers of masonry and concrete.

### • Westminster Bridge

First built: 1826. Rebuilt: 1976.

Design: Single span beam and slab.

Materials: Reinforced concrete with structural steel box beams.

### • C.N. Railway Bridge

First built: 1854. Rebuilt: 1899. Second track built: 1905.

Design: Double track, pin-connected deck truss.

Materials: Steel truss and stone abutments.

### • Horton Street Bridge

First built: 1985.

Design: Twin, three span continuous variable depth voided slabs.

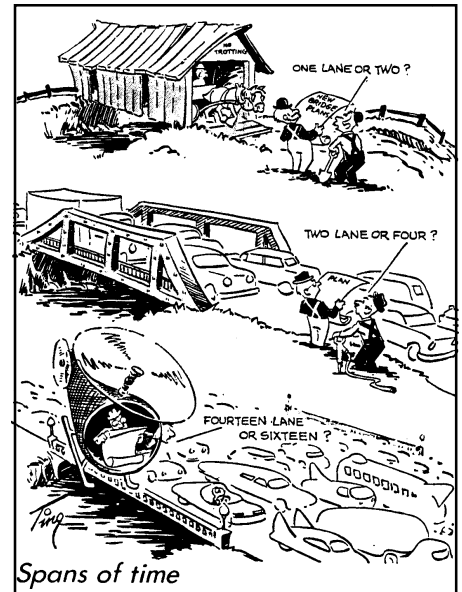
Materials: Post-tensioned concrete deck on reinforced concrete piers and abutments.

### • Victoria Bridge

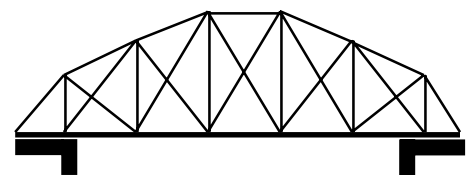
First bridge: 1848. Rebuilt: 1926, replacing the twin of the Blackfriars Bridge.

Design: Two simple spans, pony trusses. Span of 78.6 m (258 ft.).

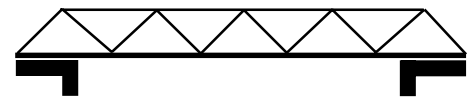
Materials: Reinforced concrete deck over steel superstructure. Abutments and piers of masonry and concrete.



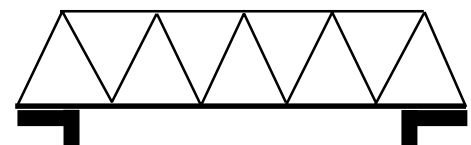
Ting Cartoon - 1956



Bowstring arch



Pony truss



Through truss



Deck truss

### Twentieth Century Bridges MAIN SOURCES

More recent bridges include **Meadowlily Bridge** (built in 1910 and now closed to traffic), **Wharncliffe Bridge** (1913-1914) and **Byron Bridge**. This latter bridge, first built out of wood (possibly around 1825), was changed to iron in 1910 and reconstructed again in 1964 after the city annexed Byron. **Queen Street Bridge** was built much later, in 1973, and was twinned with **Kensington Bridge** to relieve some of London's traffic problems. The first **Vauxhall Bridge**, at the bottom of Egerton Street, was built in 1904 on the site of an 1837 bridge. It was nicknamed the 'talking bridge' because its rattling wooden planks frequently became loosened and clattered. The present Vauxhall Bridge was constructed between 1957 and 1958.

One of London's more elegant bridges was built in the 1930s to link Springbank Park to the E.V. Buchanan Thames Valley Golf Course. It is a single span suspension bridge with a timber walkway over structural steel. The sole remaining suspension bridge in London, it is expected to be rebuilt in 2000.

The 33 road, rail and foot-bridges over the Thames in London have had a varied history. Some of them have fallen out of use, and others have undergone major facelifts. Bridges offered a vital connection between the various settlements, and were seen as a lifeline to individual communities. When **Richmond Street Bridge** over the Thames was built in 1904, a street dance was held to celebrate its completion. Today's bridges tie London's neighbourhoods together and ease movement throughout the city. Yesterday's bridges, however, remain firm favourites. They offer interesting history, varied designs and each provides a unique perspective of the river.

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ADDITIONAL RESOURCES, SEE BOOKLET 8

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### ILLUSTRATIONS

- Masthead Scene*. Dana Irvine.
- Clarke's, Blackfriars & Vauxhall Bridge Photos*, Courtesy of London Regional and Historical Museums.
- Victoria Bridge Photo*, Courtesy of the London Room, London Public Library.
- Cartoon*, Courtesy of Merle Tingley and the London Free Press.
- Bridge Truss Illustrations*, courtesy of the Historic American Engineering Record, National Parks Service.
- Map of London Bridges, Corduroy Bridge Illustration*, Carol Shaw.

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### CREDITS

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UPPER THAMES RIVER  
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...AND WHEREAS,  
the Thames River  
inspires us with  
its beauty  
and constancy and  
unifies Londoners  
by linking  
neighbourhoods and  
diverse community  
groups;....

Proclamation of the Year  
to Celebrate the Thames  
May 4, 1996

*By the Thames River  
in October*

... The aftermath of storms  
is in leaf-filled puddles  
and in the troubled river  
awash with colours of  
burnt orange  
harvest amber  
bleached gold  
and autumn fire....

Sheila Martindale  
(Closing the Gaps. Southwestern  
Ontario Poetry, 1983.)



John Tamblin

*"The common ground in all the quotations contained in 'Riverforks Documentary' points to the obvious: a landmark such as the intersection of the north and south branches of the Thames is something to be continually rediscovered and re-evaluated."*

Ted Goodden

**The Thames Through Time**

Balloon ascents, fireworks, parks, pleasure craft,  
Floods, waste disposal, drinking water, wooden bridges,  
Water power, dams, forded by pioneers,  
Elm bark canoes, teeming with fish,  
The Thames, La Tranche, Askunesippi,  
Glacial spillways, Lake London.

Dan Brock

*"Nothing inspires a potter like time spent in nature. A river—with its tree-lined banks, the movement of wildlife and water, and the interplay of light and shadow—speaks to the creative spirit. The shapes and textures of rocks, leaves, and seed pods generate ideas for exploration in clay. The river bank itself, as a source of clay, is a reminder of pottery's roots in prehistory."*

Genet Hodder



Barbara Bain



Ken Wightman

The London Free Press, 1997

*"Within London, the Thames River is tamed - constrained by dykes, crossed by bridges and bordered by parks. But immediately outside the city, there are wonderful stretches which retain the wilderness look of the last century."*

Ken Wightman

# THAMES TOPICS

## Booklet 7 Inspired by the Thames

### Reading the River

(*The Half-Way Tree*, manuscript)

I look at the water line  
on your door jamb in London  
and see in the dark  
a disbelieving stain like the height mark  
a mother might have made  
to measure her child in the morning  
fifty years ago....

John B. Lee

*"Along with the blue water highway of the St. Clair River, and the Grand flowing through Brantford, rivers remain a major inspiration for my literary works, but the Thames was the first river to figure large in my imagination and it remains the most important." J.B.L.*

*"The River Thames winds its way through London's history, a constant thread, sometimes blue and sometimes muddy brown, from the earliest days to the present. There would be no London without the river."*

Pat Morden

(*Putting Down Roots: A History of London's Parks and River*. St. Catharines, Ontario. Stonehouse Publications, 1988)



Barbara Bain

**"Celebrate the Thames"**  
Tapestry London District Weavers and Spinners Guild



Christine Buchanan

Detail, mural, Grosvenor Lodge.



Ken Wightman

The London Free Press, 1997

Illustrator, Patricia Marr,  
drawing watershed scene for map,  
The Thames - Our Heritage.

*"Possibly humanity recognizes the results of its own efforts more than it does the gifts of nature. In upstate New York the Erie Canal engendered so many urban centres that it became known as "the Mother of Cities." In London we have never given the Thames the credit it deserves, for the river is London's mother. Without it Simcoe would have moved on, and there would be no city here."*

Fred Armstrong

### Reflections on the Thames.

(i)

in the background  
of my life  
the Thames has always been there  
a starting point  
and a guide

Mark Young

(*Reflections on the Thames*. London, Ontario. City Lights Bookshop, 1989.)



Les Kallman

1996 Western Fair "Celebrate the Thames" Photographic Competition Winner





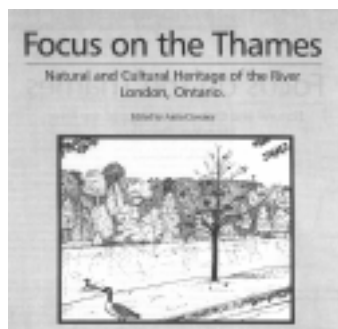
**Lost April: The Flood of '37**

*"In the days following the flood of 1937 more photos were taken of the Thames River than at any time in its history - and people still wonder where I got all the material for my documentary."*

Chris Doty

*"The Thames was initially London's raison d'etre. Since then it has been a source of productivity and pleasure for people from all walks of life, a cultural focal point, and a treasure for natural historians."*

Anita Caveney  
(ed. *Focus on the Thames*,  
McIlwraith Field Naturalists of London,  
Ontario, Inc. and Upper Thames River  
Conservation Authority, 1996)



***My Granddaughters Are  
Combing Their Long Hair***

....Fly back! calls Middlesex  
Right now! calls St. Peter's.  
Bell towers take the time  
from glint of wings  
clear up the Thames. My  
wheels are still silver  
on the cinder path...those  
gulls are abundant,...

Colleen Thibaudeau

(*My Granddaughters Are Combing Their Long Hair*. Toronto Coach House Press, 1977)



**Jack-in-the-Pulpit** □

Flip Eyoitson

*"And so, for ages yet to come, fair Antler River flow,  
And glitter on thy winding way, to clear St. Clair below,  
And may the Pale Face on thy banks, no less thy guardian be;  
Than was the Redman, who first claimed and named thee—"As-Kune-ssippi".*

James Reaney  
(Manuscript)



**Crows over North America**

Tom Benner.

John Tamblin

*"Canoeing on the Thames River is an enjoyable recreational pursuit on many sections of the river. Members of canoe clubs participate in marathon canoe races, Dragonboat races, North Canoe events as well as kayaking, tripping, and flat-water racing. Even in London, a leisurely canoe ride from Harris Park to Springbank Park brings you closer to the natural beauty of the river in an urban setting."*

Doug Bocking





*Mother Nature*

Dennis Kalichuk

*"It is a place of many moods. There are remote spots that seem as if they exist just for you. There are areas where the path compresses, where bushes and trees come close and the air from the woods and river cools the skin."*

Christine Dirks

(The London Free Press. "The Thames Valley Parkway")

*"One of my winter pleasures is to ski along the Thames from Gibbons Park to the University Bridge. Ducks and geese ride like corks in the current. Trees along the shore dip their branches into the water, collecting fantastic icy sculptures on their tips."*

Barbara Bain



Dorothy Wilson

*Dewy Web*

*"The areas along the Thames River are excellent areas to photograph and observe nature throughout the year."*

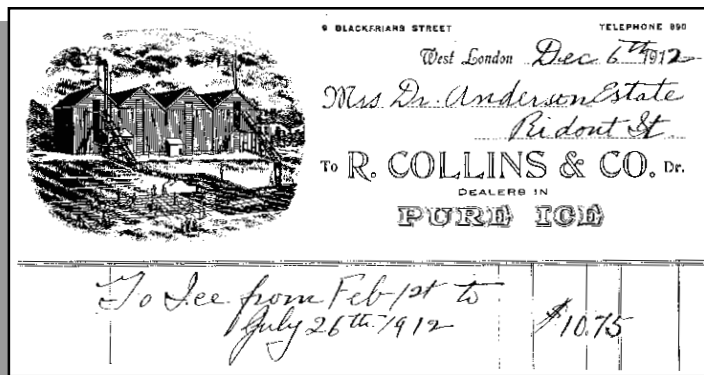
Dorothy Wilson



*Springbank Sanctuary*

Ken Jackson

*"I've seen this old pump house many times in the fifteen years that I lived on Greenway Park next to the Thames River. One late winter morning while taking a walk along the river I sat in a snow bank to take in this scene. I was surprised by the silence, broken only by the sound of the geese flying low over the tree tops."* K.J.



*Collins Ice House Invoice*

(Courtesy of London Regional Art and Historical Museums.)

*"We must come to look at the Thames as a functioning organism. It is, after all, the backbone of our heritage, our environmental circulatory system, the womb of London's birth."*

David Hayman  
(*The London Free Press*. "When a River Runs Though Us". June 22, 1996)

## **Edges of the Thames**

*"As cartographers chart the path of the Thames, they have unwittingly codified the river's edges based on observed measurements at a fixed point in time. These measurements, plotted on large-scale maps, create an illusion that the edges of the Thames are fixed. In reality, like all rivers, the Thames' edges change as they expand and contract in response to changing weather and seasons. Have we not seen the Thames' retreating edges during summer's dry spell? Or experienced its swelling during spring run-off? From day to day the edges of the Thames change. It makes us wonder which edges are the more real: the exposed limestone and clay verges during droughts, or the soggy land along overflowed banks during floods? However much the elastic shifts in the river banks have been tamed by dams, the Thames' edges remain actively transient, and continue to tease the observant by covering lands and revealing the river bottom."*

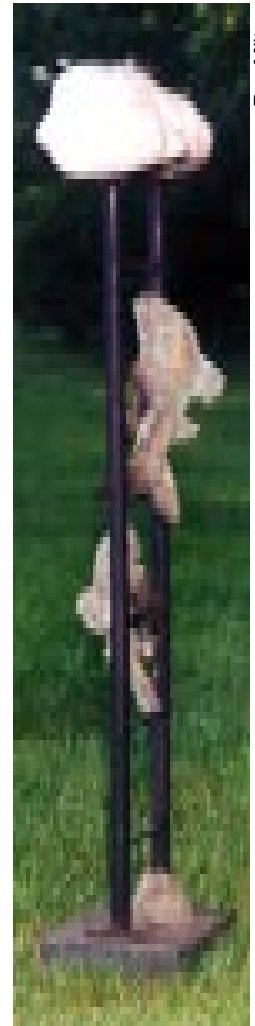
Lynne Delehanty DiStefano



Ron Milton

**Toad**

*"As a native Londoner, the Thames River and its wildlife have had an impact on me. I collected tadpoles and minnows as a child and continue to have an interest in nature along with my wife, who has a background in biology, and my two daughters. I think of animals as little jewels. The hidden meaning of different creatures appeals to me, and I combine them with other forms of symbolism in my work."* R. M.



Ron Milton

**Jacob's Ladder**

## **Thames Valley Trail Association Trail**



*"East of Adelaide much of the trail is on sandy plain and again, Manitoba maple, sycamore, cottonwood and black willow are commonly found, as well as red osier dogwood, buckthorn and scrub willow. Great blue herons, bank and rough-winged swallows and kingfishers may be seen near the river."*

(*A Guide to Hiking the Thames Valley Trail*, London, 1998).

*"There's such a variety of wildlife habitat. The contrast between this place and its surroundings is what makes it so enriching."*

Wayne Tingle



Warren Dodgson

*The Seasons of the Thames*

Canadian Embroiderers' Guild, London

## The River Thames Flows words and music by Merwin Lewis

1. Stea-di-ly on-ward the Ri-ver Thames flows past the school we will build\* on a  
 2. Ri-ver is ma-ther to tall, stir-dy trees, and the trees pro- wide shel-ter for

rise ———, so we asks her to tell us the se-crets she knows, and with  
 birds ———. Five-ry eve-ning she sings to the lit-tle ones; these are the

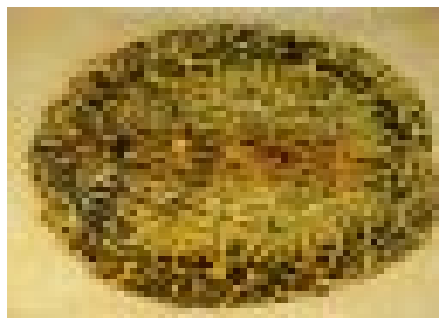
*"A river's incessant motion is an image for me of the enduring, creative process of life."*

Merwin Lewis.

*"As a landscape painter I am always looking for new situations of forms, colours, perspective and the picturesque. The Thames River and valley have been a constant in these studies as well as a reminder of the poetic."*

Tim Cosens

### Medway Valley, Winter



### Map Turtle

*"The 4 Turtles of the Apocalypse is a portrait of the Thames River in which submerged paintings of the 4 indigenous turtles are represented as decontextualized homages to their 20 million year existence."*

Kevin Curtis-Norcross



This masthead was used in the 1993 *"Down by the Riverside"* art exhibit catalogue at the London Regional Art and Historical Museums. The scene is based on a 1881 William Lees Judson drawing of the Forks from his book, *"Kuhleborn: A Tour of the Thames."*



A valiant prince bearing the Kiwanis "K" badge of service appears on the scene to rescue the once-beautiful princess Thames, by the 1950's very down on her luck. The Kiwanis clubs spearheaded major parkland development for many years.

**Ting Cartoon** (Courtesy of Merle Tingley and The London Free Press)

**The Thames**  
(a poetic guide)  
Mark Young

Water flows through bends and curves  
often stopping  
to kiss the fertile banks.  
They feed a city like blood pumping madly through flesh across water and along roads to a nerve centre

Rivers often appear on a map like the single branch of a complex web of nerves in a system not unlike the human brain



Ken McTaggart

**Model of the Victoria**

*"As a child, my mother startled me with a story of a ship sinking in Springbank. Years later I recalled the story and curiosity resulted in my model."*

Ken McTaggart  
(model displayed in the Middlesex County Courthouse.)

## SUMMARY

(The American Midland Naturalist, 1957)

Between March 27 and November 6, 1954, 9,152 adult insects were trapped in five tent-traps set out on five bodies of water tributary to the Thames River at London, Ontario. Most of the insects were species whose larvae are aquatic and whose adults emerge from the water, but a few were insects which commonly dwell on aquatic vegetation at the surface or in the littoral zone.

W.W. Judd.

## Lanterns for Peace

....Sky deepens

fireflies glow brighter

weave kaleidoscope patterns on flowing water

then settle one by one

until - a thousand firefly lanterns

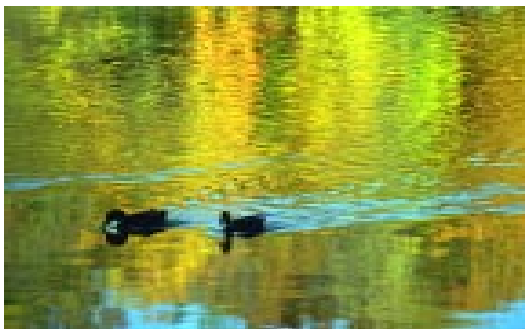
wait together, patiently bobbing

waiting to ride on river's run....

Patricia Black  
(*Lanterns for Peace*, manuscript, 1990)

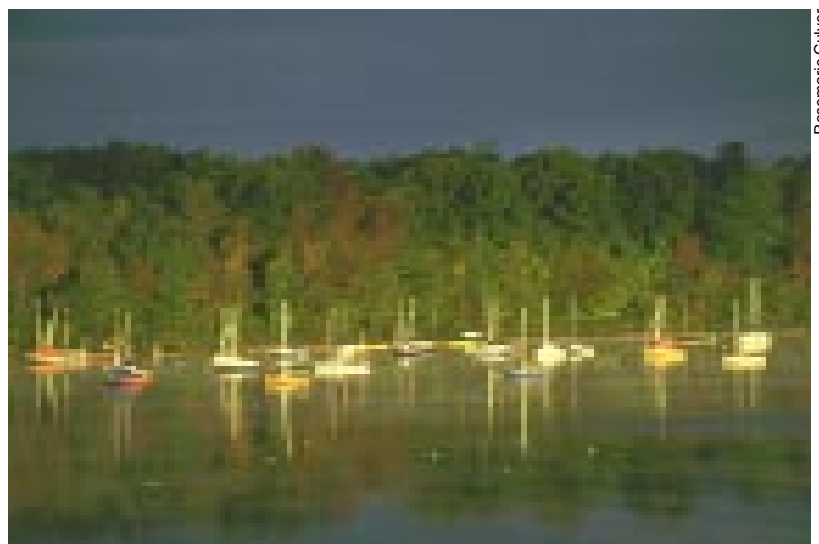
*"The Thames River offers many moods and activities throughout the year. Many areas of nature provide peace and solitude."*

Rosemarie Culver



Rosemarie Culver

**Ducks at Springbank**



Rosemarie Culver

**Boats at Fanshawe Lake**



**Winter Sunset Along the Thames at Springbank Park**

*“To me the Thames River and its banks are the most scenic areas of the London region. It provides me with a constant flow of inspiration as the seasonal and light conditions change. Let’s appreciate and protect it.”* Martin Zimmer



**River of God (Thames)**

When you walk on the banks  
of the River Thames  
seeking comfort and tranquility  
you’ll come home with a peace  
only nature can give  
Mother Earth’s morning gift  
unto thee.

Jacquelyn Brown  
Troubadour Harpist

**The Bridges of the Thames River**

*“Bridges are signs of a river’s relationship with people. Ontario’s Thames River is a tame and domesticated creature that lets itself be harnessed by its human master. Hundreds of bridges from anonymous concrete crossings to picturesque steel hulks, intersect the Thames and its tributaries as if they are a natural part of the river.”*

Ho-Yin Lee

*“Having lived in New York City with a view of the harbour, near the Pacific Ocean in Venice, California and near Lake St. Clair, I was determined, as an artist, to ignore the Thames River. It seemed such a let down to me. However, the river refused to be ignored since I couldn’t seem to go anywhere in London without crossing it. It begged me to paint it. How could I refuse?”* J.M.

**Along the banks of the Thames**

Johnnene Maddison



**CREDITS** □

Produced by *Celebrate the Thames*.  
Compiled by Karen Burch, Rosemary Dickinson and Christine Buchanan.  
Design & Layout: Carol Shaw.

*Celebrate the Thames* thanks everyone who has contributed material to this booklet or offered advice and suggestions. Regettably, this small booklet contains only a few examples of the many works inspired by people’s interactions with the Thames River and valleylands.

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of the  
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UPPER THAMES RIVER  
CONSERVATION AUTHORITY



The *Thames Topics* booklets offer a glimpse of the history, environment and characteristics of the Thames River, with a focus on London. The source of the Thames River is near the eastern edge of the watershed north of Tavistock while its main tributary, the North Thames River, rises close to northern boundary of the watershed near Mitchell. The North Thames joins the Thames at the Forks, trisecting London and flowing westwards to Lake St. Clair. The interactions of settlers and the Thames were an important part of London's beginning and have continued to affect the growth and character of this city to this day. Descriptions of the shaping of the landscape by glaciers and the change into a region of fertile farms, communities and cities, the construction of the courthouse, the sinking of the Victoria, the creation of riverside parks, the impact of major floods and the building of London's bridges, interspersed with stories and illustrations from London's history, fill the pages of these booklets.

**Booklet 8** concludes this series and directs the reader to sources providing further details and additional information about the Thames River and London. It lists a broad range of books to read, websites to browse and videos to view. Other ways to discover the river are to visit regional collections and museums, explore historic buildings and sites, walk or bike along riverside trails, canoe a stretch of river, pause, look and listen on the riverbank.....

### **Places in London to Visit for Information**

- The J.J. Talman Regional Collection in the D.B. Weldon Library at the University of Western Ontario
- The Serge A. Sauer Map Library, The University of Western Ontario
- The London Room at the London Public Library Central Branch

### **Public Places of Historic or Artistic Interest**

- The London Regional Art and Historical Museums
- Middlesex County Courthouse
- London Museum of Archaeology and the Lawson Site
- Fanshawe Pioneer Village
- Eldon House
- Grosvenor Lodge
- Elsie Perrin Williams Estate

### **Outdoor Experiences**

- Fanshawe Conservation Area
- Historical Plaques, Bridges and Mill Sites. Self-guided walks
- London's Parks: Gibbons, Springbank, Reservoir, Harris, St. Julien, etc.
- London's Natural Areas: Meadowlily Woods, Medway Valley Heritage Forest, Sifton Bog, Warbler Woods, Westminster Ponds
- London Princess Cruises

- The City of London *Parks, Bikeway/Fitness and Hiking Trails Map* is a useful guide

### **Historic buildings which can be viewed from the outside only**

- Labatt Buildings, Thornwood House, Locust Mount, Brescia, Huron and King's Colleges, Park Farm, Springbank Waterworks Pumphouse, Flint Cottage.

### **Miscellaneous**

- Greenway Pollution Plant (guided tour)

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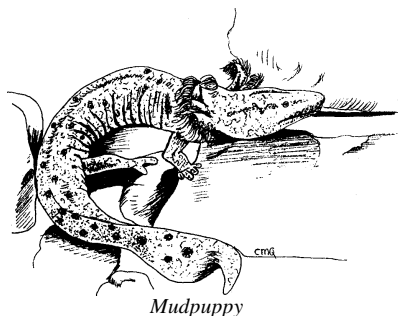
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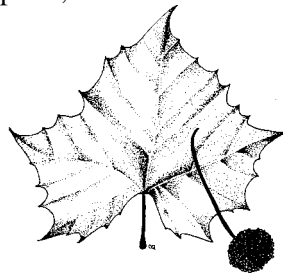


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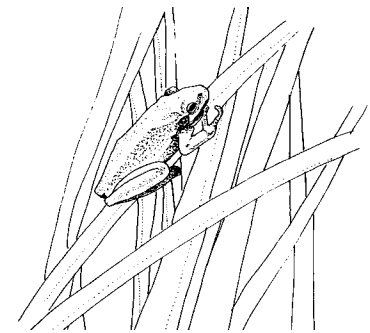
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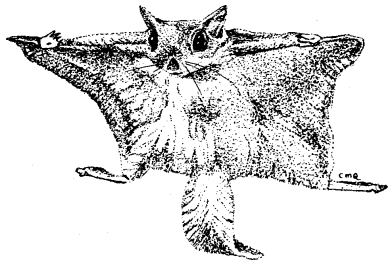
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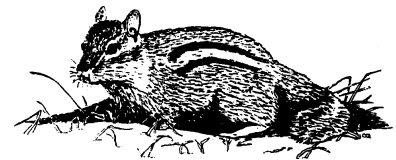
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- Canada Centre for Inland Waters: <http://www.cciw.ca/>
- Canadian Nature Federation: <http://www.magma.ca/~cnfgen>
- Canadian Parks and Wilderness Society: <http://www.cpaws.org>
- Canadian Wildlife Service: <http://www.cciw.ca/green-lane/wildlife/>
- Carolinian Canada: <http://www.carolinian.org/>
- Celebrate the Thames: <http://www3.sympatico.ca/thames/> (through 1999 or find on UTRCA web site listed below)
- City of London: <http://www.city.london.on.ca>
- Environment Canada: <http://www.doe.ca/envhome.html>
- Federation of Ontario Naturalists: <http://www.ontarionature.org>
- Friends of the Earth - Canada: <http://www.intranet.ca/~foe/>
- Great Lakes Information Management Resource: <http://www.cciw.ca/glimr/intro.html>
- Green Canada: <http://www.greencanada.org/>
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- Natural Heritage Information Centre: <http://www.mnr.gov.on.ca/MNR/nhic.html>
- Ministry of Environment and Energy: <http://www.ene.gov.on.ca/>
- Ministry of Natural Resources: <http://www.mnr.gov.on.ca/MNR/>
- Upper Thames River Conservation Authority: <http://www.thamesriver.org>
- UWO Earth Science Department's: <http://www.gp.uwo.ca>
- World Wildlife Fund Canada: <http://www.wwfcanada.org>



Rose-breasted Grosbeak

## Videos to See

- Doty, Chris. *Lost April: The Flood of '37*. London, Ontario. Rogers Community Television, 1997.
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- Suzuki, David. *The Green Zone in The Nature of Things* series by CBC. This documentary explains the importance of a river's riparian zone. First broadcast on March 19, 1998.

## ILLUSTRATIONS

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## CREDITS

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