CHAPTER 3

HISTORY

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Lake Erie is named after the Erie tribe, a Native American group that lived along the lake's southern shore in present-day northwestern Pennsylvania and western New York. The word "erie" is a shortened form of the word, "erielhonan," which means "long tail" in the Iroquois language. "Erie" itself means "cat," or "wildcat." Between 1653 and 1657, the Erie, known as the Cat Nation, were attacked and destroyed by the hostile, westward-moving Iroquois Confederacy, comprised of Mohawk, Oneida, Onondaga, Cayuga and Seneca. The Iroquois occupied the land around Lake Erie as a hunting ground. Other historic Native American tribes occupying land in the Lake Erie region included the Delaware, Huron, Missisauga, Ottawa, Potawatomi, Sandusky and Wyandot, among others.

The French were the first Europeans to explore the Great Lakes region. Lake Huron was the first of the Great Lakes to be discovered (1615), followed by Ontario (1615), Superior (1629) and Michigan (1634). Lake Erie was first documented by French explorer Louis Joliet in 1669. The French referred to it as "Lac du Chat," meaning "Lake of the Cat." Due to the Iroquois' long stronghold on the area, Lake Erie was also the last of the Great Lakes to be explored by Europeans.

The French presence in the Great Lakes region centered on exploration, securing territory, establishing Christian missions (to convert Native Americans), finding passage across North America to establish a trade route to Asia, and expanding the fur trade with Native Americans. From 1634 to 1763, the French claimed and controlled many lands within the interior of the North American continent and established numerous forts and settlements throughout Quebec, Ontario, the Great Lakes region and down the Mississippi River to Louisiana and Mississippi. The French, British and Dutch were all competing to establish fur trading routes and relationships with Native American tribes. Animal pelts, especially beaver furs, were symbols of affluence and status in Europe. In return for furs and skins, Europeans offered metal tools, cooking utensils, rifles, buckshot, fishing line and hooks, cloths, jewelry and other items to native groups.

When the thirteen original colonies were first founded by the British in the 17th and 18th centuries, many were established under royal proclamations, or charters. These charters declared colonial territories to extend "from sea-to-sea." Since the size and geography of the North American continent was vastly unknown, colonial land claims were strictly theoretical. Eventual western exploration and expansion revealed that many land claims overlapped and/or conflicted with the territorial claims of other European powers.

In accordance with Connecticut's Royal Charter of 1662, confirmed by King Charles II, the colony of Connecticut claimed all western lands in a narrow strip west of the Delaware River (which forms Pennsylvania's present-day eastern boundary with New Jersey and a portion of New York). Conflict occurred as King Charles II granted portions of the same land to Pennsylvania and New York. These disputes did not end in Connecticut's favor, and consequently their western land claim began at Pennsylvania's western border and comprised the entirety of present-day northern Ohio, including the Lake Erie shore.

In 1745, English traders built Fort Sandoski on the northern shore of Sandusky Bay near present-day Port Clinton. Construction of the fort was an attempt to drive the French from their post at Detroit and from other posts. The strategy failed, and the fort was destroyed in 1748. The British later returned to the region, prompting the French to construct Fort Junundat on the opposite side of the bay in 1754. Tensions between France and Great Britain escalated when the French established a trade route from the Great Lakes to the Gulf of Mexico, via the Maumee, Wabash, Ohio and Mississippi rivers, through lands that were also claimed by Britain's American colonies. The French and Indian War ensued. Both the French and British were battling for control of the North American fur trade and to settle land conflicts. The Iroquois Confederacy joined forces with the British, while the Wabanaki Confederacy (a group of tribes that included the Ottawa, Shawnee and Wyandot, et al.) allied with the French. By 1760, the British had taken control of Fort Duquense (present-day Pittsburgh), Fort Niagara, Quebec and Montreal. Additionally, Indian tribes that allied with the French began to fight alongside the British. In 1760, the French and Indian War ended. The 1763 Treaty of Paris formally ended the war and gave Great Britain control of the lands west of the original colonies to the Mississippi River; France was forced to cede its territory in present-day Canada.

AMERICAN INDEPENDENCE AND EXPANSION

The Articles of Confederation was the United States' first written constitution and was ratified by all 13 states (between 1777 and 1881) during the American Revolution. However, prior to full endorsement, state land claims west of the Appalachian Mountains, per colonial charters, were matters of great concern and contention. Connecticut, Massachusetts, New York and Virginia had overlapping land claims north of the Ohio River, and therefore refused to ratify the Articles of Confederation without a resolution. Virginia, North Carolina, South Carolina and Georgia had land claims to the south. States without western land claims—notably Maryland, Delaware and New Jersey—refused to ratify the Articles of Confederation, fearing states with western lands would tip the balance of power. To prevent significant western expansion of land-holding states and to appease the concerns of states without land claims, nearly all lands between the Appalachian Mountains and Mississippi River were ceded to the federal government between 1781 and 1787 and became public.





"Path to Freedom" statue at Facer Park, Sandusky, Erie County

A second Treaty of Paris, ratified in 1783, marked the end of the American Revolutionary War and led to the creation of a boundary line between the United States and British North America (Canada). The United States also acquired 260,000 square miles of land from the British. The territory, located north and west of the Ohio River, encompassed most of the Ohio Country, parts of the Illinois Country and parts of old French Canada below the Great Lakes. In 1787, Congress passed the Northwest Ordinance, thus establishing the land as the Northwest Territory, an organized and incorporated territory of the United States. The Northwest Ordinance provided a structure for western expansion and shaped policies for the admission of new states into the Union. The Northwest Territory comprised the present-day states of Ohio, Indiana, Illinois, Michigan, Wisconsin, and a portion of Minnesota.

CONNECTICUT WESTERN RESERVE

In 1786, Connecticut ceded most of its western land claim to the federal government, but retained approximately 3.4 million acres of land lying north of the 41st parallel of latitude and extending 120 miles westward from the Pennsylvania state line. This land became known as the "Connecticut Western Reserve." Its northern boundary was the southern shore of Lake Erie. The Reserve was originally believed to be four million acres, however the geography of Lake Erie—particularly the location of the southernmost shore in present-day Erie County—was not precisely known. The eastern boundary of the Western Reserve was originally surveyed by Andrew Ellicott in 1786 to determine Pennsylvania's western border. The line, called the Ellicott Line, followed a true meridian (80° 31′ 12″ W). The Reserve's western boundary was a line that maintained a 120-mile distance from the Ellicott Line. Due to the convergence of longitudinal lines (meridians), the western boundary veered to the northwest and away from a meridian by four degrees.

In 1792, Connecticut set aside the westernmost 500,000 acres of the Western Reserve for residents who suffered home and property losses during the Revolutionary War. This land became known as the "Fire Lands" (later stylized, "Firelands"), owing to the many homes in the Connecticut towns of Danbury, Fairfield, Greenwich, Groton, New Haven, New London, Norwalk and Ridgefield that were burned by British forces during the war. Despite Connecticut's claim, hostilities with Native Americans did not make the Western Reserve and Firelands conducive to settlement.

During the Northwest Indian War (1785-1795), the United States was battling for control of the Northwest Territory against a confederation of Native American tribes, known as the Western Confederacy, who resisted American expansion. In 1794, American forces, led by General Anthony Wayne, defeated the allied confederacy in the decisive Battle of Fallen Timbers near present-day Maumee, Ohio. This led to the 1795 signing of the Treaty of Greenville, which defined a boundary between lands open for American settlement in the Northwest Territory and Indian lands. The Greenville Treaty Line began at the mouth of the Cuyahoga River on Lake Erie and ran upstream to present-day Akron. The line then followed a long-established Indian portage to the Tuscarawas River, which it then navigated downstream (south) to Fort Laurens in present-day Tuscarawas County. From there, the treaty line angled west-southwest to Fort Loramie (in presentday Shelby County) and then west-northwest to Fort Recovery (in present-day Mercer County). From Fort Recovery, the treaty line ran south-southwest to its ending point at the Ohio River in present-day Indiana, opposite the Kentucky River mouth. The Treaty of Greenville opened southern Ohio and much of eastern Ohio, including the eastern portion of the Connecticut Western Reserve, to prospective American settlers. Western Reserve lands west of the Cuyahoga and Tuscarawas rivers, including the Firelands, were within the Indian territory.

In 1795, the Connecticut government sold the Western Reserve—excluding the Firelands—for \$1.2 million to a group of private investors who later formed the Connecticut Land Company. In doing so, Connecticut relinquished its rights to govern the land, however retained jurisdictional control. The Connecticut Land Company's first survey team, led by General Moses Cleaveland, landed at the mouth of Conneaut Creek on July 4, 1796 and set up a base camp known as Port Independence. The team included surveyors, chainmen, axmen, packhorse men and a physician. On July 7, Cleaveland led a party west along the shore to the mouth of the Cuyahoga River. Recognizing the site's natural assets and favorable landscape for protection, shipping and commerce, he proceeded to survey a 220-lot town, which included a New England-style public square. His crew named the town, "Cleaveland" (present-day city of Cleveland). It became the first permanent settlement in the Western Reserve (1796).

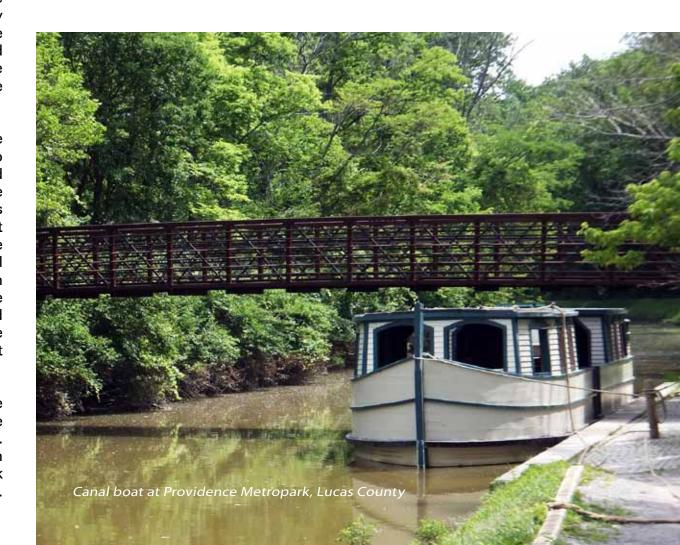
Concurrently with Cleaveland's party, a second crew was traversing the Ellicott Line from the Lake Erie shore to the Western Reserve's baseline, the 41st parallel. The 74-mile trek through swollen waterways, swamps, saturated ground and dense foliage took seventeen days. From the southeastern corner of the Western Reserve, the party proceeded west along the baseline and ran range lines north every five miles. The Land Company elected to disregard standard surveying protocol outlined in the Land Ordinance of 1785, which specified land be surveyed into six-mile square (36 square miles) townships. Instead, the Western Reserve was surveyed into five-mile square townships (25 square miles).

In 1797, after two separate expeditions, the Connecticut Land Company completed the survey of the Western Reserve, east of the Greenville Treaty Line. Selling land lots to settlers progressed at an extremely slow pace. By 1800, only 1,000 people had settled in the Western Reserve. The Land Company was burdened with a massive expanse of unsaleable property. Isolation, distance to markets, vast wilderness and no schools or services were deterrents. Governing the land was also problematic. Connecticut refused to provide government assistance. The United States did not recognize the Western Reserve as part of the Northwest Territory, and therefore offered no legal or military protection. In April 1800, the Quieting Act was signed by President John Adams to reestablish Connecticut as the governing authority of the Western Reserve so that the legality of land titles granted by the Connecticut Land Company would be guaranteed. Later in 1800, Connecticut ceded jurisdiction of the Western Reserve to the federal government, and the land was officially absorbed into the Northwest Territory. On March 1, 1803, Ohio was admitted into the Union as the 17th state.

In 1805, the Treaty of Fort Industry (Toledo) redefined the eastern boundary of the Indian lands, thus annulling part of the Treaty of Greenville. The new treaty opened the remainder of the Western Reserve, including the Firelands, to American settlement. Survey work commenced between the former Greenville Treaty Line and the eastern boundary of the Firelands. The surveying method was consistent with the work completed by the Connecticut Land Company. In 1806, the Firelands was surveyed.

Due to Lake Erie's irregular shore, townships in the Firelands were purposely plotted slightly larger than five miles square (by two-fifteenths of a mile). The Firelands comprised present-day Huron County, most of Erie County, Ruggles Township in Ashland County, and Danbury Township and a part of Catawba Island Township in Ottawa County. It did not originally include the Lake Erie Islands. For more information, see the Original Land Subdivisions map on page 74.

In 1808, 16 years after Connecticut first established the Firelands, a public drawing was conducted to determine how land would be distributed among sufferers of the Revolutionary War. Many eventual land holders and settlers were heirs of the original sufferers. The Firelands was remote, difficult to reach and considered the least-desirable land in the Western Reserve. Population growth prior to the War of 1812 was slow. Settlers cleared trees and built primitive roadways through the Western Reserve to reach their lands, thus making the entire Reserve more accessible. Gradual settlement of the Firelands increased land values in the eastern portion of the Western Reserve.



THE WAR OF 1812 AND THE BATTLE OF LAKE ERIE

In 1812, armed conflict erupted between the United States and Great Britain. Many factors and actions prompted the War of 1812. Great Britain was also at war with France in the Napoleonic Wars. To bolster their navy, the British began stopping American merchant ships and forcing sailors into the Royal Navy. By 1812, many American commercial ships had been fired upon, boarded and sunk, and nearly 10,000 American seamen had been "impressed" into British service. Additionally, despite the signing of the Treaty of Paris in 1783 after the Revolutionary War, many British soldiers remained in the United States' Great Lakes region and were supporting Native American raids on American settlers—hindering western expansion. The British were also attempting to restrict trade between the United States and France.

President James Madison declared war against Great Britain on June 28, 1812. Battles were fought nationwide, including in Ohio. In the span of three months, the U.S. military lost at Fort Mackinac in northern Michigan, Fort Detroit on Lake St. Clair and at Fort Dearborn (Chicago) on Lake Michigan. The threat of British invasion from Upper Canada across Lake Erie to Ohio loomed. Great Britain had also formed an alliance with Tecumseh, a Shawnee warrior and chief, and his assembled confederation of Native American tribes. Led by Tecumseh, Native American forces began invading northern Ohio.

Fort Meigs, an American fortification on the southeast bank of the Maumee River in present-day Perrysburg, was built under the command of General William Henry Harrison to protect Ohio and northeast Indiana from invasion. Construction began in February of 1813 and was finished in three months. The ten-acre log enclosure included seven blockhouses, five emplacements and about 20 artillery pieces. Shortly after its completion, American forces at Fort Meigs withstood two separate sieges (in May and July) by British troops, Canadian militiamen and Tecumseh's Confederacy. Following their second defeat, British troops proceeded to present-day Fremont on the Sandusky River to attack Fort Stephenson. Under the command of George Croghan, the Americans successfully defended the fort, prompting the decimated British to retreat to Upper Canada.

In September of 1813, the Battle of Lake Erie was fought between American and British naval fleets. The battle took place near Rattlesnake Island, northwest of South Bass Island. It was a pivotal clash in the War of 1812. Master Commandant Oliver Hazard Perry led the Americans to victory over the British fleet. The victory secured American control of Lake Erie and the Northwest Territory and cut British supply lines. Consequently, Fort Detroit was recaptured by the United States and the British were forced to retreat up the Thames River into the interior of Upper Canada (with General Harrison and 3,500 American troops in pursuit). In October of 1813, the Americans defeated the combined unit of 800 British soldiers and 500 Native American warriors in the Battle of the Thames. Tecumseh was fatally wounded in the battle, which marked the end of his Indian confederacy and ultimately ended most Native American resistance in Ohio.

In 1814, American and British representatives signed the Treaty of Ghent in Belgium, ending the War of 1812. The agreement was a treaty of peace and friendship between the United States and Great Britain. The international boundary between the United States and (Upper) Canada remained unchanged. The British military's departure from the Great Lakes region and the end of Native American hostilities allowed U.S. settlers to continue moving west into Ohio without resistance.

Between 1818 and 1838, many Native American tribes were forced to surrender large areas of land in Ohio, Indiana and Illinois, while retaining only small and scattered treaty-land reservations. In 1830, President Andrew Jackson signed the Indian Removal Act, forcing native tribes to relocate from the eastern United States to the "Indian Territory" (present-day Oklahoma) and to other lands west of the Mississippi River, including Kansas. The last of the Delaware and Seneca tribes left Ohio in 1831. The Shawnee and Ottawa followed in 1832. By the 1840s, very few Native American tribes remained in Ohio. In 1843, despite adapting to American settlement culture and embracing Christianity, the last Native American group in Ohio, the Wyandot Indians, was forced to relinquish reservation lands (163,000 acres) in Upper Sandusky (in present-day Wyandot County) and relocate to Kansas.

Today, many counties, places and waterbodies throughout Ohio and the United States are named after or derived from Native American tribes and words. Below are examples of Native American-inspired geographic names in the Lake Erie Watershed:

Lakes, rivers and streams:

Ashtabula River, Auglaize River, Chippewa Creek, Conneaut Creek, Cuyahoga River, Huron River, Lake Erie, Maumee Bay, Maumee River, Ottawa River, Sandusky Bay, Sandusky River, Tontogany Creek and Tymochtee Creek

County names:

Ashtabula County, Cuyahoga County, Erie County, Geauga County, Huron County, Ottawa County, Sandusky County, Seneca County and Wyandot County

Place names:

Ashtabula, Conneaut, Cuyahoga Falls, Cuyahoga Heights, Huron, Maumee, Ottawa, Ottawa Hills, Sandusky, Tontogany, Upper Sandusky and Wapakoneta

THE TOLEDO STRIP AND TOLEDO WAR

The northern tier of Lucas, Fulton and Williams counties was originally claimed by both Ohio and Michigan. The Northwest Ordinance of 1787 established the boundary between the Ohio and Michigan territories as an east-west-bearing line extending from the southern point of Lake Michigan to Lake Erie. The U.S. Congress originally drew a line that was derived from a map that inaccurately represented the position of Lake Michigan's southern shore. It was believed that the line intersected Lake Erie well north of the Maumee River mouth. The placement was disputed by the Michigan Territory, which assumed the boundary line to be farther south. In the Ohio Constitution of 1803, it was specified that its northern boundary fall north of the Maumee River mouth to include Toledo. Congress accepted Ohio's constitution, but did not officially address or resolve the boundary dispute.

The line's position was contended for much of the early 19th century and well into Ohio's statehood. In 1817, William Harris, per an order from Ohio's surveyor-general, Edward Tiffin, surveyed the boundary line as described in the Ohio Constitution. In response, Lewis Cass, governor of the Michigan Territory, ordered a survey to be completed based on the original line described in the Northwest Ordinance. John Fulton completed the survey and concluded the boundary line should be located south of the Maumee River mouth. The disputed five-to-eight-mile wide, 468-square mile strip between the two surveys became known as the "Toledo Strip."

The 900,000-acre Great Black Swamp, which covered much of northwest Ohio, extended from Lake Erie to Fort Wayne, Indiana and separated the Toledo Strip from the rest of Ohio. By 1820, areas of Ohio south and east of the swamp were well-settled and no longer part of the frontier. Michigan's presence in the Toledo Strip was growing. The territory's efforts to quietly occupy the strip included the establishment of local governments, the construction of roads and even tax collection. In 1835, to prevent losing the contested land, the Ohio General Assembly created Lucas County. The Michigan Territory responded by sending its militia to defend the area. Ohio countered with its militia. The "Toledo War" involved little interaction between the two sides and no casualties. In 1836, Congress settled the conflict and ruled in Ohio's favor. As compensation, Michigan received the western two-thirds of the Upper Peninsula.

Additional information about Lake Erie and the many prominent roles it has played in Ohio's history is presented throughout this chapter. Topics include: (1) Natural Vegetation; (2) Native American Trails and Villages; (3) the Underground Railroad; (4) Original Land Subdivisions; (5) Canals; (6) Lake Erie Shipwrecks, and; (7) Interurban Railway Routes.

Learn more about the information presented in this chapter: Ohio History Connection www.ohiohistory.org

A complete list of chapter sources is found in the Appendix.



LAKE ERIE REGION TIMELINE

PREHISTORIC

1200-1600 Native American drawings are engraved into Inscription Rock on Kelleys Island

EXPOLRATION, EXPANSION & SETTLEMENT

- 1669 French explorer Louis Joliet is the first European to discover Lake Erie; Erie is the last of the Great Lakes to be discovered by Europeans
- 1679 French explorer Robert de La Salle stops at Middle Bass Island while crossing Lake Erie, becoming the first recorded European to visit the Lake Erie islands
- 1718 Sandusky Bay is identified as Lac (Lake) Sandouské on a map by French cartographer Guillaume Delisle
- 1760 British Major Robert Rogers and his Rangers are the first known Europeans to the Grand River as they take shelter from a storm
- 1764 British Colonel John Bradstreet and his armada encounter treacherous navigation conditions due to a violent Lake Erie storm and are forced to stop at Spencer Creek, just west of the Rocky River; 25 boats in the 60-boat fleet are destroyed and many others are damaged



- 1786 Andrew Ellicott surveys Pennsylvania's western border
- 1795 The Treaty of Greenville establishes the Cuyahoga River as the eastern boundary of the Indian lands
- 1796 Moses Cleaveland and the Connecticut Land Company land at Conneaut Creek
 - Moses Cleaveland completes the first survey of Cleveland, the first settlement in the Connecticut Western Reserve
- 1797 Connecticut Land Company surveyor, Charles Parker, builds a cabin on Mentor Marsh and establishes the first settlement in Mentor
- 1799 The first permanent settlement in Conneaut is established
- 1805 The Treaty of Fort Industry (Toledo) opens lands west of the Cuyahoga River to European settlement
- 1833 Toledo originally founded as part of Monroe County, Michigan
- 1837 Toledo is re-founded and incorporated in Ohio following the resolution of the Ohio-Michigan boundary dispute
- 1844 Cunningham Island officially renamed Kelleys Island after brothers Datus and Irad Kelley
- 1973 The Michigan-Ohio state line through Lake Erie is redrawn, bisecting Turtle Island

CONFLICT & MILITARY

- 1761 The British Military fort, Fort Sandusky, is constructed
- 1794 The Battle of Falling Timbers is fought during the Northwest Indian War in present-day Maumee; it is a decisive American victory and pivotal to America's westward expansion
 - British Royal Engineers design and construct Fort Miamis, an earthwork fortification along the Maumee River in present-day Maumee
- **1812** The first War of 1812 battle in Ohio is fought at Crystal Rock near Marblehead
- 1813 The U.S. successfully defends Fort Meigs—twice—against British, Canadian and Native American forces

18,000 years before present

Glacial grooves on Kelleys Island are scoured into solid limestone bedrock by a massive ice sheet

- 1813 The Battle of Lake Erie, a pivotal War of 1812 clash, is fought between U.S. and British fleets; led by Commodore Oliver Hazard Perry, the victorious Americans secure control of Lake Erie and the Northwest Territory during the war
- 1834 An Ohio-Michigan boundary dispute, known as the "Toledo War" and "Ohio-Michigan War," erupts over a 468-square mile strip of land which includes Toledo and the Maumee River mouth
- 1862 Confederate captives are first imprisoned on Johnson's Island in Marblehead; approximately 10,000 men are brought to the prison during the 40 months of its existence
- 1906 Camp Perry land is purchased for the state rifle range and camp; the first National Rifle Matches are held in 1907
- 1909 Camp Perry evolves into a permanent camp with the largest and best equipped rifle and pistol ranges in the U.S.

TRANSPORTATION, SHIPPING & INDUSTRY

- 1803 The first lighthouse west of Buffalo is built at the mouth of the Cunningham Creek (known today as Arcola Creek) in present-day Madison Township
- Marblehead Lighthouse, the oldest continuously-operating lighthouse on the Great Lakes, is constructed (operation began in 1822)
- 1825 The first Fairport Harbor lighthouse and keeper's house are built
 - The primitive corduroy-planked "Maumee and Western Reserve Road" between Fremont and Perrysburg is completed; the 31-mile throughway is the first road constructed through the Great Black Swamp and takes weeks to travel
 - The first steamboat built west of Buffalo is built in the town of Ellensburg, located at the mouth of the Cunningham Creek (known today as Arcola Creek) in present-day Madison Township; the last steamboat built in Ellensburg is launched in 1863
- 1827 Cuyahoga River shipping channel straightened
- 1831 Fairport Harbor becomes the first federally-sponsored port facility on Lake Erie

 Turtle Island Lighthouse is constructed; it is deactivated in 1904
- 1833 The Ohio & Erie Canal opens, connecting Lake Erie at Cleveland to the Ohio River at Portsmouth
- 1835 Groundbreaking takes place for the Mad River & Lake Erie Railroad in Sandusky

- 1839 Construction of the Milan Canal is complete; Milan becomes one of the busiest Great Lakes ports
- 1845 The Miami & Erie Canal opens, connecting Lake Erie at Toledo to the Ohio River at Cincinnati
- 1847 Amherst begins to flourish in the sandstone quarrying industry; it is recognized as the "Sandstone Center of the World"
- 1848 West Sister Island Lighthouse is built
- 1850 The Griffith steamer catches fire and sinks; 286 of the 300 aboard perish
- 1868 A Milan Canal feeder dam fails due to flooding; as a result, Milan's waterborne connection to Lake Erie ends
- 1871 A new lighthouse is built in Fairport Harbor, replacing the original 1825 lighthouse; the lighthouse and adjacent keeper's quarters currently serve as a maritime museum
- 1876 A Lake Shore and Michigan Southern Railway train plunges into the Ashtabula River; known as the Ashtabula River railroad disaster, 92 passengers are killed
- 1897 The Toledo Harbor shipping channel is widened and deepened, leading to increased ship traffic and the need for a new lighthouse
 - South Bass Island Lighthouse is built
- **1899** First Hulett Automatic Ore Unloader constructed in Conneaut
- 1901 Toledo Harbor Lighthouse is constructed
 - The Lake Shore Electric Railway, an interurban railroad connecting Cleveland and Toledo via Lorain, Sandusky and Fremont, is created from the merger of four smaller electric railways
- 1908 Roche de Boeuf (Roche de Bout), a bedrock outcropping and historic Indian council rock in the Maumee River, is used to support the Ohio Electric Railroad Bridge
- 1917 The Lorain West Breakwater Lighthouse is built; it is listed on the National Register of Historic Places in 1978
- 1925 Ashtabula Harbor Lift Bridge is constructed
- 1925 The Fairport Harbor West Breakwater Lighthouse is built; the iron frame is constructed in Buffalo and brought by barge to its current location, where construction is completed

LAKE ERIE REGION TIMELINE

- 1940 Spanning the Black River in Lorain, the Erie Avenue Bascule Bridge and the Central High Level Bridge are dedicated on the same day; the bridges are later renamed the Charles Berry Bridge and the Lofton Henderson Memorial Bridge, respectively, after local Marines who served in World War II
- 1947 Burke Lakefront Airport in Cleveland opens as the nation's first downtown airport
- 1961 The International Salt Company begins to mine rock salt from below the bed of Lake Erie in Cleveland
- 1965 The four-lane, limited access Thomas A. Edison Memorial Bridge over Sandusky Bay opens
- 1976 Dike 14, a confined disposal facility used to place dredged materials from the Cuyahoga River and Cleveland Harbor, is created; it is used until 1999 and in 2012 is dedicated as Cleveland Lakefront Nature Preserve
- 1977 A feasibility study (initiated in 1972) recommends the construction of an international jetport in Lake Erie, located five miles off the Cleveland shoreline; the Federal Aviation Administration discontinues its support in 1978
- 1978 Davis-Besse Nuclear Power Station in Ottawa County is commissioned



- 1985 The two-lane lift bridge carrying State Route 269 over the Sandusky Bay, commonly known as the Bay Bridge, closes
- 1987 Perry Nuclear Power Plant in North Perry is commissioned
- 2007 The Veterans' Glass City Skyway, a cable-stayed bridge carrying Interstate 280 over the Maumee River in Toledo, opens; at the time of its opening, it was the largest single project ever undertaken by the Ohio Department of Transportation
- 2008 The Smolen-Gulf Bridge is constructed over the Ashtabula River in Ashtabula and Plymouth townships; the 613-foot long span is the longest covered bridge in the country

RECREATION & LEISURE

- 1869 Geneva-on-the-Lake is developed as Ohio's first summer resort
- 1870 Cedar Point bathing beach in Sandusky attracts its first guests
- 1873 Lakeside, a church-affiliated vacation resort and independent Chautauqua near Marblehead, is formed
- 1905 Hotel Breakers at Cedar Point opens
- 1913 The first Cedar Point access road opens; it closes in 1919 after storm damage
- 1919 The Hotel Victory (built in 1892) on South Bass Island, America's largest hotel at the time, burns to the ground
- 957 Cedar Point Causeway opens
- 1962 Crystal Beach Park, a popular lakefront Vermilion amusement park since 1907, closes
- 1969 Euclid Beach Park, a popular lakefront Cleveland amusement park since 1895, closes
- 1974 Cuyahoga Valley National Recreation Area, later known as Cuyahoga Valley National Park (2000), is established
- 1990 The Blue Hole in Castalia closes as a tourist attraction; it had been a popular sightseeing destination since the 1920s
- 1915 Construction of Perry's Victory and International Peace Memorial in Put-in-Bay is completed

- 1991 Maumee Bay State Park Lodge and Conference Center opens
- 1998 The city of Mentor purchases the Mentor Lagoons Nature Preserve and Marina
- 2004 Geneva State Park Lodge and Conference Center in Geneva-on-the-Lake opens
- The 293-mile Lake Erie Coastal Ohio Trail is dedicated in Ashtabula as Ohio's 21st Scenic Byway; the trail is also recognized as one of America's Byways®
- 2009 Construction of the new Middle Bass Island State Park Marina is completed

ENVIRONMENTAL

- 1850 The Ohio General Assembly passes the first of many laws authorizing drainage of the Great Black Swamp
- The first Kirtland's warbler in North America is identified from a specimen collected on Dr. Jared Kirtland's farm in Rockport Township (present-day Lakewood)
- 1887 The Lake Erie Islands region produces more than one-third of Ohio's total grape yield and half of its wine product
- 1917 Cleveland Metroparks is established; the first parcel of land secured by the park district is located within the Rocky River Reservation
- 1925 The largest bald eagle nest ever recorded topples to the ground during a storm in Vermilion
- 1929 The Ohio State University's Franz T. Stone Laboratory on Gibraltar Island is formally dedicated
- 1930 Toledo Metropolitan Board leases land along the Maumee River that would become its first park, Side Cut Metropark
- 1958 Vermilion River Reservation becomes the first park in the Lorain County Metro Parks system
- 1961 Ottawa National Wildlife Refuge is established to preserve habitat for migrating birds

- 1961 West Sister Island National Wildlife Refuge is established to protect the largest wading bird colony on the Great Lakes
- 1964 Cedar Point National Wildlife Refuge is established
- 1966 Mentor Marsh is designated a National Natural Landmark
- 1970 The Sandusky River—between Fremont and Upper Sandusky—becomes Ohio's second designated State Scenic River; it is the first designated Scenic River in the Lake Erie Watershed
- 1971 Mentor Marsh State Nature Preserve is dedicated as Ohio's first state nature preserve
- 1974 The Maumee River between Perrysburg/Maumee and Defiance is designated a State Recreational River; the portion between Defiance and the Indiana state line is designated a State Scenic River

A portion of the upper Cuyahoga River is designated a State Scenic River

The Grand River between Painesville (Lake County) and the Harpersfield Covered Bridge in Ashtabula County is designated a State Wild River; the portion between Harpersfield Covered Bridge and the U.S. Route 322 bridge in southern Ashtabula County is designated a State Scenic River



LAKE ERIE REGION TIMELINE

1975	Most of West Sister Island is designated as Ohio's only wilderness area under
	the Federal Wilderness Act of 1964

- 1979 Portions of the Chagrin River, including the Aurora Branch, are designated a State Scenic River
- 1980 Sheldon Marsh State Nature Preserve is dedicated
- 1985 The Ashtabula, Black and Cuyahoga rivers are listed as Areas of Concern
- 1986 A 5.0-magnitude earthquake rattles Northeast Ohio; the epicenter is located in southern Lake County near the Lake-Geauga county line
- 1987 The Maumee River is listed as an Area of Concern
- 1988 The first observances of zebra mussel in the Western Basin are documented
- 1996 Artificial reefs are created from Cleveland Municipal Stadium debris
 - As a result of lake-effect snow, Ohio's greatest single snowfall event dumps 68.9 inches of snow in Chardon (Geauga County) over a six-day period
- 1999 The Nature Conservancy names the Oak Openings region one of the 200 "Last Great Places on Earth"



- 2004 The State of Ohio purchases 589 acres on North Bass Island to create a state park
- 2005 A portion of the Conneaut Creek is designated a State Wild and Scenic River
- 2008 Portions of the Ashtabula River, including parts of the East and West branches, are designated a State Scenic River
- 2011 The Lake Erie water snake is delisted from the federal threatened and endangered species lists
- Two toxin test samples from a Toledo water treatment plant show signs of microcystis, caused by harmful algal blooms near the city's water intake
 - Ashtabula River Area of Concern cleanup is deemed complete
- 2015 Ten thousand gallons of benzene are pumped from the *Argo* shipwreck east of Kelleys Island; the barge sank in 1937 and had been considered the worst pollution threat from a Great Lakes wreck
 - Fremont voters elect to remove the Ballville Dam on the Sandusky River, which was built in 1913 for hydroelectric power generation

CULTURAL & SOCIAL

- 1831 Joseph Smith, Jr., founder of the Latter Day Saint movement, and his followers move to Kirtland; the Kirtland Temple—the nation's first Mormon temple—is dedicated in 1836
- 1833 Oberlin College is established; among the college's earliest graduates are women and African Americans
- 1841 The William Hubbard House, which served as an end point on the Underground Railroad, is built in Ashtabula
- 1842 Author Charles Dickens sails Lake Erie aboard the Lorain-built steamer, Constellation
- 1847 Inventor Thomas A. Edison is born in Milan
- 1864 Civil War-financier Jay Cooke purchases Gibraltar Island; construction of the Cooke Castle begins
- 1998 The Cuyahoga River is nationally recognized as one of 14 American Heritage Rivers

- 1867 Jay Terrell discovers the massive skeletal remains of a long-extinct armorplated fish, "Dunkleosteus terrelli" (named after Terrell), in Sheffield Lake
- 1873 President Rutherford B. Hayes inherits the Spiegel Grove estate in Fremont and makes it his permanent residence
- 1876 President James A. Garfield purchases a home in Mentor; the house is a National Historic Landmark and now managed by the National Park Service
- 1910 Aviator Glenn Curtis flies 65 miles over Lake Erie from Euclid Beach in Cleveland to Cedar Point in Sandusky, setting the record for the longest flight over water at the time
- 1916 The Rutherford B. Hayes Presidential Center—the first presidential library in the country—is founded in Fremont
- 1924 Ohio's deadliest tornado hits Sandusky and Lorain, claiming 85 lives
- 1929 Electricity is brought to South Bass Island for the first time via underwater cables from Catawba Island
- 1936-37 The Great Lakes Exposition is held at present-day North Coast Harbor to celebrate the city of Cleveland's centennial
- 1945 The Fairport Harbor Maritime Museum opens in the keeper's quarters of the Old Fairport Main Light
- 1953 Inland Seas Maritime Museum of the Great Lakes Historical Society is established in Vermilion; the museum subsequently moves to Toledo and reopens as the National Museum of the Great Lakes (2014)
- 1969 The Kirtland Temple is listed on the National Register of Historic Places
- 1988 A retired Great Lakes bulk freighter, the steamship *William G. Mather*, is permanently docked as a maritime museum in Cleveland's North Coast Harbor
- 1989 The former Lonz Winery building on Middle Bass Island is placed on the National Register of Historic Places
- 1995 The Rock and Roll Hall of Fame and Museum is dedicated in Cleveland; the I.M. Pei-designed structure is partially built above the North Coast Harbor

- 1996 The Great Lakes Science Center opens at Cleveland's North Coast Harbor
- 2003 Fifty million people lose power in the single-largest blackout in North American history; the cause is traced back to the power plant in Eastlake
- 2012 The weather event associated with Hurricane Sandy slams the coast of Cleveland with 20-foot waves and 70 mile per hour winds; over 255,000 northeast Ohioans were left without power
- 2014 The National Museum of the Great Lakes opens along the Maumee River in Toledo; the museum includes a retired Great Lakes bulk freighter, the steamship *Col. James M. Schoonmaker*

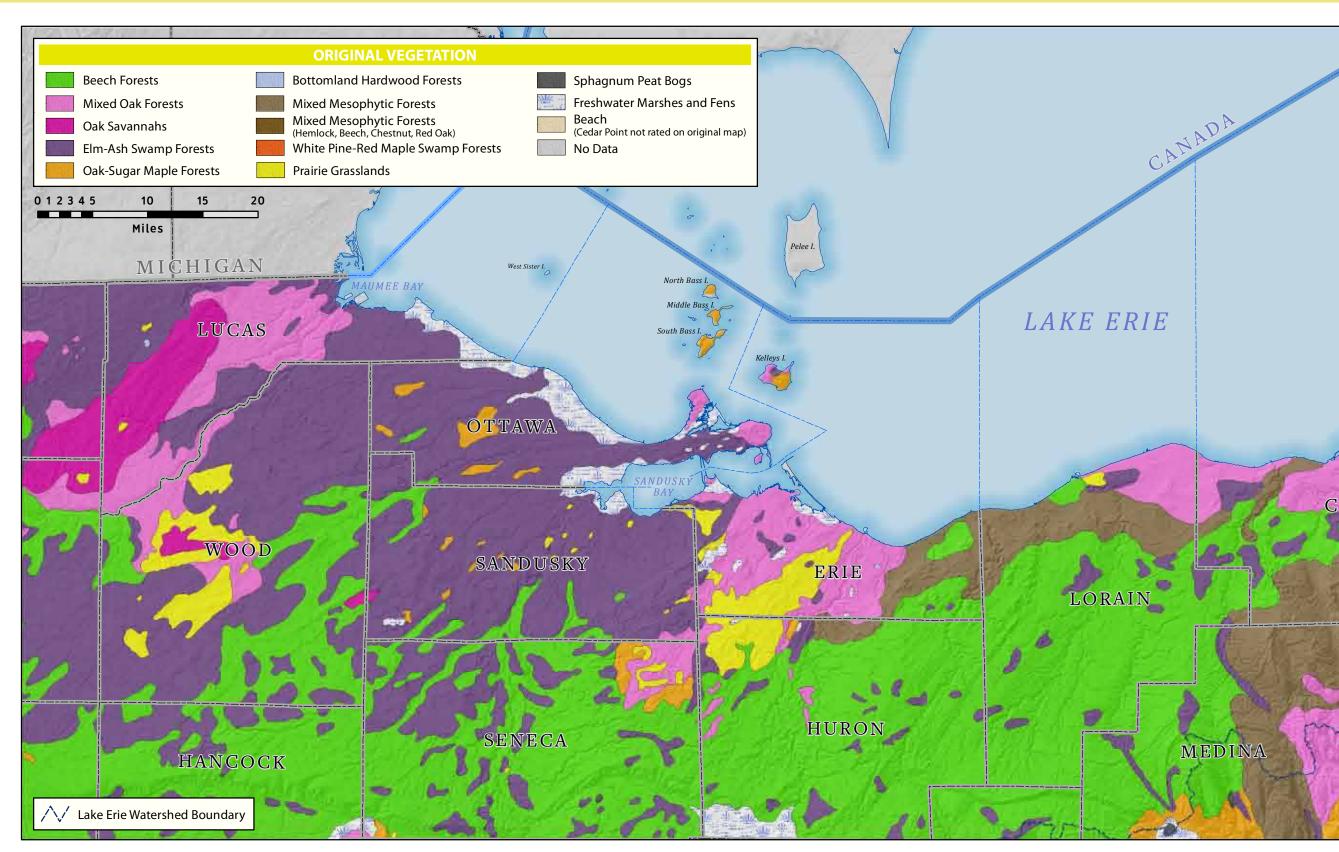
FOLKLORE

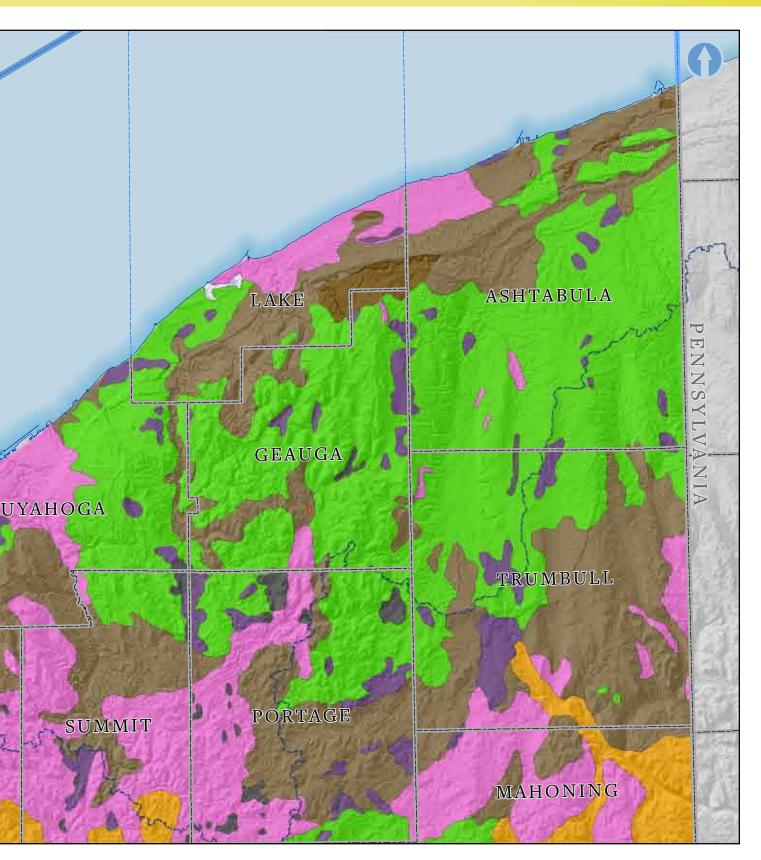
- 1793 The first purported sighting of the alleged Lake Erie monster, "Bessie"
- 1817 While hunting a deer that had fled into Lake Erie, Solomon Sweatland of Conneaut is carried by strong south winds in his canoe to Long Point in Canada in a thirty-hour ordeal; he returns home days later to discover that his funeral had taken place



1907 Dr. Lee DeForest makes the first ship-to-shore radio transmission at Put-in-Bay

ORIGINAL/PRE-SETTLEMENT VEGETATION





This map provides a general snapshot of the natural vegetation that was original to Ohio's Lake Erie region at the time of exploration and settlement. Natural vegetation types occurred due to the cumulative effect of various physical and biological properties and processes, such as climate, topography, geology and various disturbances, and over the course of many millennia. Original vegetation has largely been replaced by man-made surfaces, non-natural land cover types and cultural vegetation (see the Land Cover map on page 52).

The original vegetation presented in this map is an adaptation of Robert Gordon's *The Natural Vegetation of Ohio* (1966), published by the Ohio Biological Survey. Data used to compile the map was originally collected by Ohio's first land surveyors, who took note of the trees (known as "witness trees") situated near the corners of newly-plotted townships and sections. Surveyors also documented where available timber resources existed and where treeless areas were. It was thought that tree-lacking areas were ill-suited for agricultural production.

The most widespread natural vegetation type in northwest Ohio was elm-ash swamp forest, common throughout the poorly-drained lake plains of the former Great Black Swamp. Dominant elm-ash canopy species found in the region included American elm, black ash, white ash, silver maple and red maple. Pearson Metropark in Oregon (Lucas County) contains remnant examples of this once vast forest community.

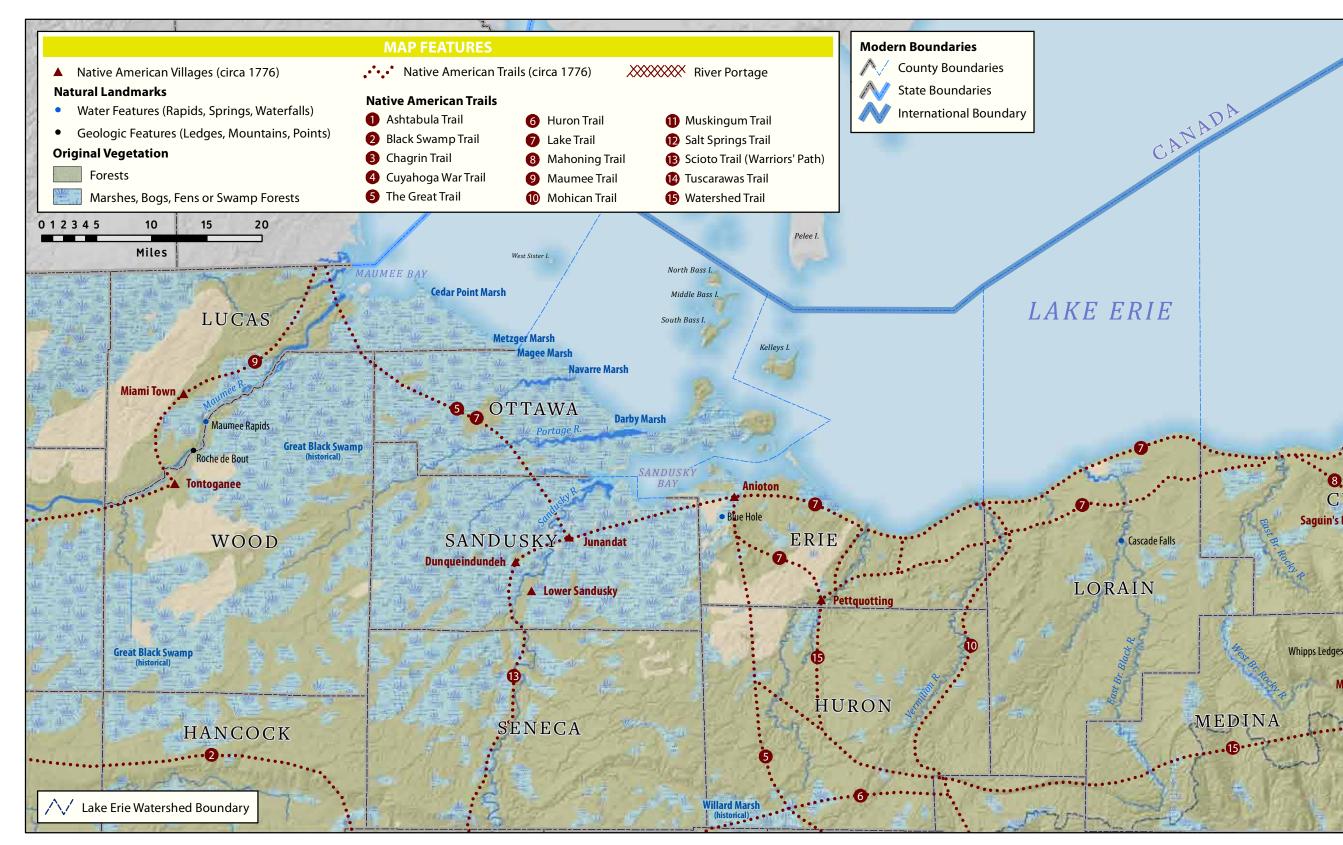
Swamp forest gradually transitioned to freshwater marsh near the Lake Erie coast. This community supported tall emergent aquatic plants, including bulrushes, giant reed grass, cattail and pickerel weed. Unlike inland wetlands, coastal wetlands are impacted by Lake Erie water level changes. Freshwater marshes were prominent along the coast in Lucas, Ottawa and Sandusky counties. Today, many adjoining protected lands are managed to preserve these remnant marsh communities (see Protected Lands map on page 144).

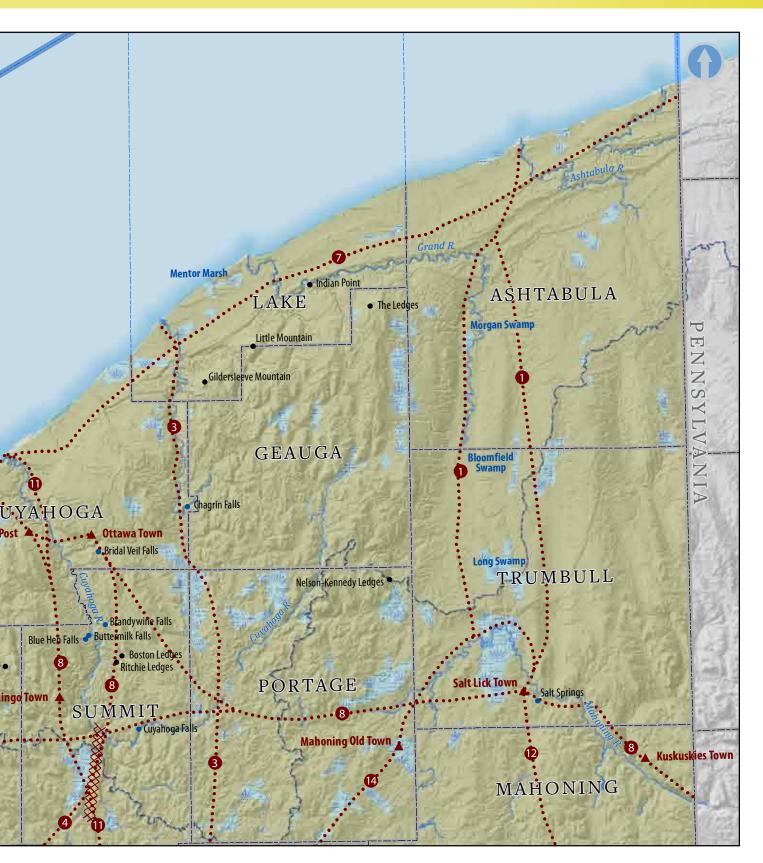
The Oak Openings region in Lucas, Fulton and Henry counties featured thin groves of white and black oak-dominated savanna vegetation, oak woodland and wet prairie communities. These vegetation types flourished atop post-glacial beach ridges, sand dunes and swales. Remnant areas of the Oak Openings are globally-rare and significant ecosystems and support diverse communities of rare plants and wildlife.

Large areas of prairie grasslands were once found throughout northwest Ohio. Concentrated in flat, poorly-drained landscapes, lake plain prairie communities featured tall grasses, such as big bluestem and Indian grass. The Firelands Prairie (Erie and Huron counties), Castalia Prairie (Erie and Sandusky counties) and the Wood County prairies were the largest in the region. While remnants of the Castalia Prairie are protected at Resthaven Wildlife Area, these communities have largely been destroyed.

Upland forest was common throughout the eastern coastal region. Mixed mesophytic and beech forests contained canopy species such as beech, sugar maple, tulip tree, oak, chestnut and hickory. Mixed oak forests were established on slightly drier areas throughout the region.

NATIVE AMERICAN TRAILS (CIRCA 1776)





Native American trails and villages illustrated in this map are based on Frank Wilcox's *Ohio Indian Trails* (1970). The locations of trails and villages (not comprehensive) are approximate. Areas of forestland and swampland are based on Robert Gordon's *Natural Vegetation of Ohio* (1966), published by the Ohio Biological Survey (see previous map).

Native American trails in Ohio traveled through thick forest, meandered alongside river courses and ancient ridges, traversed swamps and connected many Indian villages and natural landmarks. Trails were used by the American Indians as migration routes, trade routes, hunting routes and war paths. Native American trails were also used by European explorers, traders and militaries. These trails ultimately aided American settlement in Ohio and were used to lay out modern transportation routes.

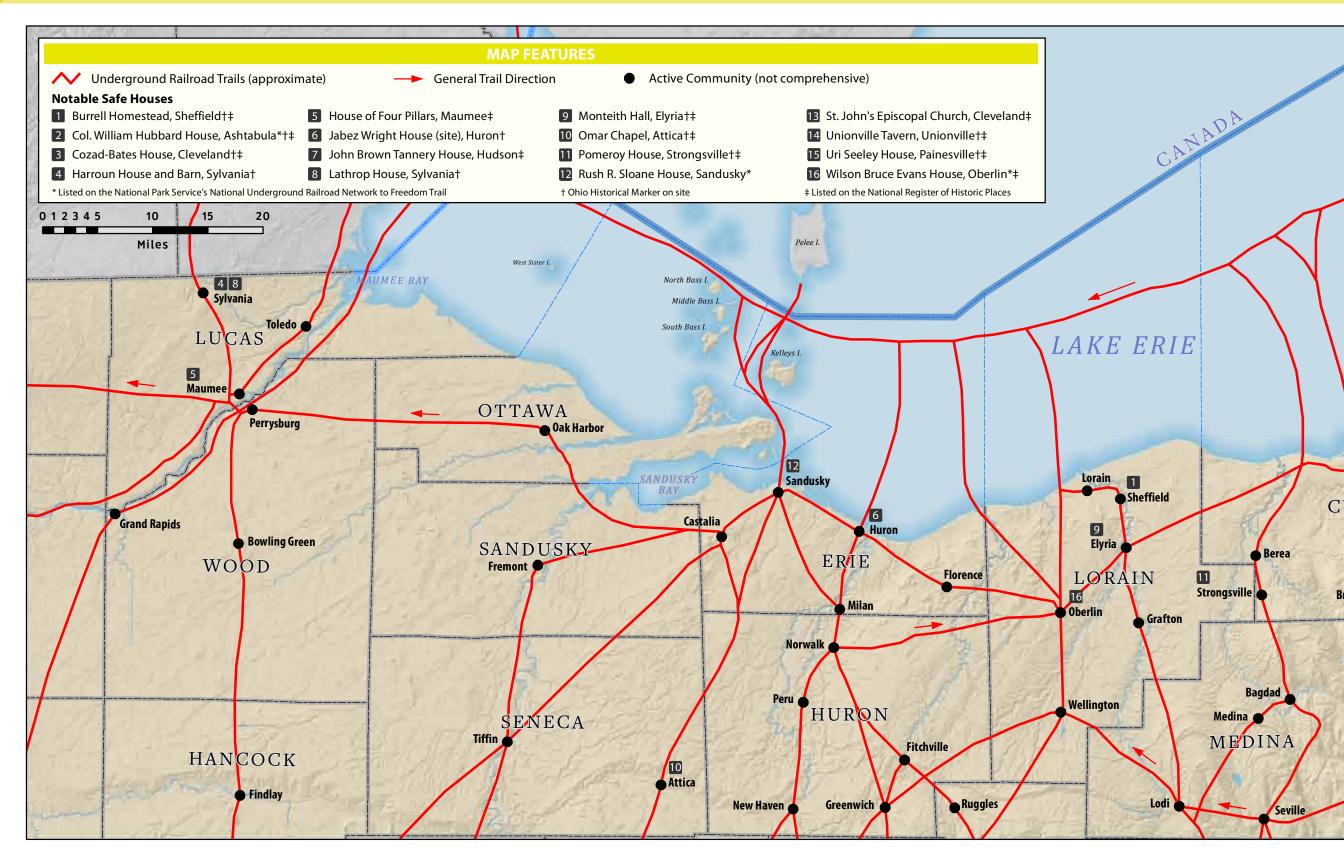
Lake Trail: The Lake Trail, also known as the Shore Trail, generally followed the southern shore of Lake Erie between the present-day cities of Buffalo, New York and Detroit, Michigan. From Cleveland to Painesville, the Lake Trail closely followed what is now Euclid Avenue. East of Painesville, the trail traveled along the South Ridge, an ancient beach ridge. West of Cleveland, the Lake Trail followed present-day Detroit Avenue. In Rocky River, the trail branched into two pathways. The northern path closely paralleled Lake Erie along present-day U.S. Route 6 to Sandusky and the southern path traveled along the North Ridge (another ancient beach ridge) to Milan. These branches converged near the Indian village of Anioton near the freshwater pond known today as Blue Hole (near present-day Castalia). The Lake Trail continued west with the Great Trail through the Great Black Swamp to Toledo.

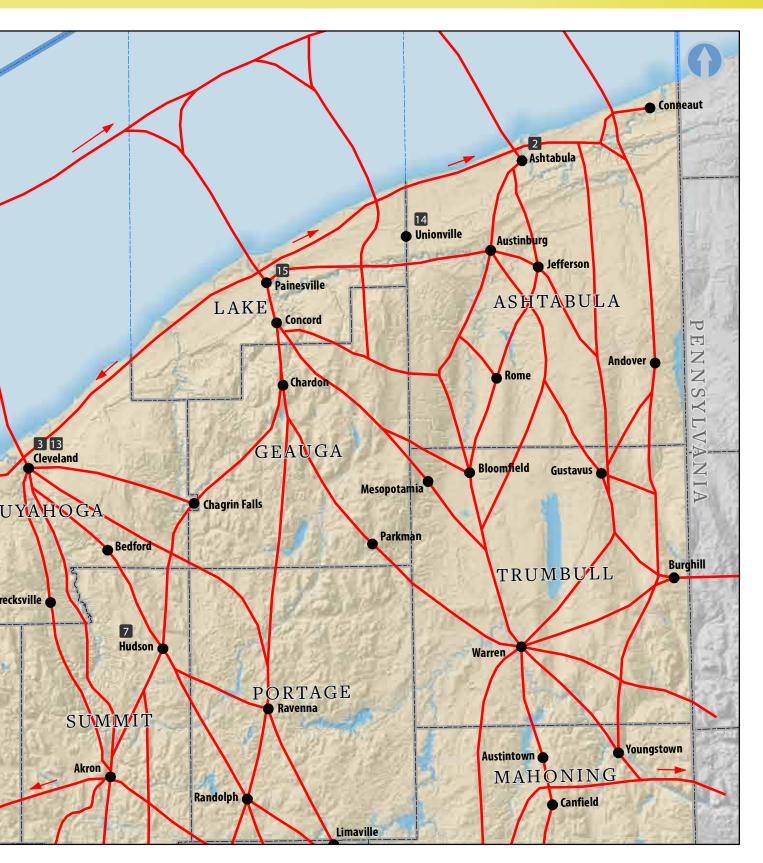
Watershed Trail: The Watershed Trail extended from present-day Kent in western Portage County to the Cuyahoga Falls (Summit County) and then west along the watershed divide. Near the Huron River it changed course to the north toward the Indian village of Pettquotting (present-day Milan) where it met the Lake Trail.

The Maumee Trail, Scioto Trail (Warriors' Path), Mohican Trail, Muskingum Trail and Chagrin Trail all closely paralleled the Maumee, Sandusky, Vermilion, Cuyahoga and Chagrin rivers, respectively. The Ashtabula Trail linked the mouth of the Ashtabula River with the Salt Springs near present-day Niles. An alternate Ashtabula Trail likely paralleled the Grand River to avoid swampland.

Paddling Ohio's rivers expediently aided north-south travel. Rivers in the Lake Erie Watershed flow northward to Lake Erie, and rivers in the Ohio River Watershed flow southward to the Ohio River. The watershed divide posed a significant paddling obstacle, therefore portage routes were used to connect major rivers. There were four primary portages in Ohio: the Auglaize-Great Miami; the Sandusky-Scioto; the Vermilion-Mohican, and; the Cuyahoga-Tuscarawas (Portage Path). This map shows the roughly eight-mile Portage Path between the Cuyahoga and Tuscarawas rivers in Summit County.

UNDERGROUND RAILROAD





The Underground Railroad was a network of secret routes, safe houses and hiding places that helped 19th-century runaway slaves of African descent escape from captivity in the southern United States to freedom in Canada. Despite Ohio abolishing slavery in 1802, the Fugitive Slave Act of 1793 and the Fugitive Slave Act of 1850 allowed slave owners the authority to reclaim runaways, even across state lines. Fugitive slave laws also made harboring runaways a punishable crime. Despite possible fines or imprisonment, many white and free black opponents to slavery, or abolitionists, actively guided runaways to freedom, and were called "conductors."

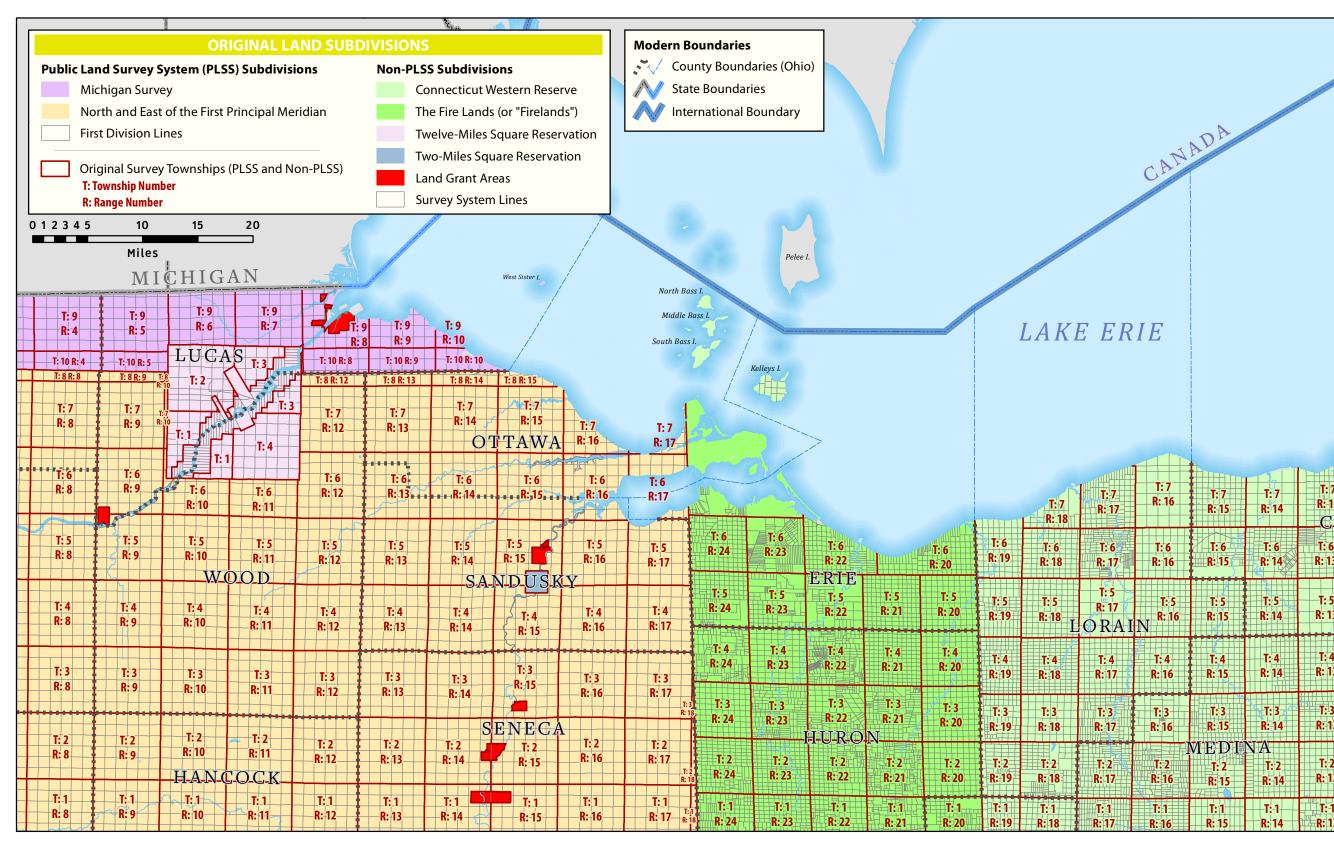
The Underground Railroad reached its peak between 1850 and 1860. Ohio bordered two slave-allowing states: Kentucky and Virginia (West Virginia split from Virginia in 1863). Although the Underground Railroad was active in many states—north and south—the shortest path between enslavement and freedom was through Ohio. The network of routes traveled by runaways in Ohio totaled around 3,000 miles, more than any other state. The trails (approximate) and active communities (not comprehensive) illustrated in this map are based on the "Ohio's Underground Trails" map from Wilbur H. Siebert's book, *The Mysteries of Ohio's Underground Railroads* (1951). Ohio's Underground Railroad system was the most active in the country.

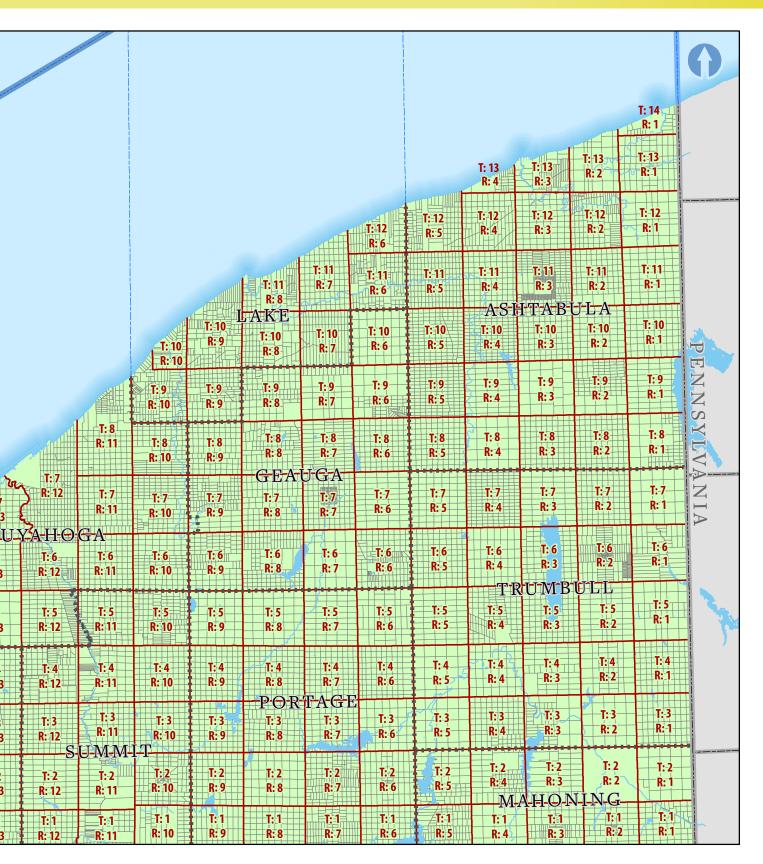
Runaway slaves, known as "passengers" or "cargo," travelled the unnamed and indirect routes of the Underground Railroad by night to confuse and avoid pursuing federal marshals and slave catchers. Safe houses and hiding places, known as "stations," were established by abolitionists. Oberlin, a Lorain County community recognized for its abolitionist attitudes and anti-slavery views, was one of very few communities considered completely safe.

Lake Erie posed a daunting final obstacle for many runaway slaves. Toledo, Sandusky, Huron, Lorain, Cleveland, Painesville, Ashtabula and Conneaut were all prominent endpoint stations where runaways began their journey across Lake Erie to Canada. Referred to as "abolition boats," several types of vessels, many privately owned, were used to transport runaways from endpoint stations.

Historians have verified and continue to discover many houses and sites that were active Underground Railroad stations. This map features 16 notable safe houses. These include houses listed on the National Park Service's National Underground Railroad Network to Freedom Trail, houses and buildings listed on the National Register of Historic Places and/or houses and buildings that have an Ohio Historical Marker on site. In addition to these mapped sites, many other safe house locations are documented with local historical societies, featured in community walking tours and recognized as historic points of interest.

ORIGINAL LAND SUBDIVISIONS





Prior to the American Revolution, many of the 13 original states, per their colonial charters, claimed extensive tracts of land west of the Appalachian Mountains. To prevent significant expansion of land-holding states, nearly all western claims were ceded to the federal government and became publicly owned (see chapter Introduction).

The original surveys that were conducted throughout most of Ohio took place before the land was occupied by settlers. Systematic methods allowed the land to be subdivided and subsequently sold in an orderly manner. In contrast, many land surveys and subdivision boundaries in the eastern U.S. were completed after lands were occupied and used. Many roads in northern Ohio follow original survey lines, owing to orderly, grid-like surveying methods.

The Land Ordinance of 1785 provided standardized protocols for surveying and subdividing public lands and marked the beginning of the Public Land Survey System (PLSS). Under the PLSS, land is divided into six-mile-square townships, then further divided into one-mile square sections, quarter sections, and quarter-quarter sections or irregular lots.

The PLSS consists of many distinct surveys. Each features a starting point, or "initial point," and establishes a principal north-south meridian and an east-west baseline. The principal meridian and baseline intersect at the initial point. Townships are surveyed north, south, east and west of this point. The PLSS was first implemented in eastern Ohio along the Ohio River in the land tract known as the Seven Ranges. Subsequent surveys within Ohio were progressively fine-tuned and improved as new laws were passed and survey standards updated. Thus, Ohio's original land subdivisions comprise a patchwork of many surveying systems and techniques using both PLSS standards and non-PLSS methods.

The Connecticut Western Reserve is not based on the PLSS. The portion east of the Cuyahoga River was privately surveyed by the Connecticut Land Company in 1796 and 1797. Land was divided into five-mile-square townships. The portion west of the Cuyahoga River—to the Firelands—was surveyed in 1805 using methods consistent with the work completed by the Connecticut Land Company. The Firelands was surveyed in 1806. Due to Lake Erie's irregular shore, townships in the Firelands were purposely plotted slightly larger than five-miles square (by two-fifteenths of a mile). For more information on the history of the Connecticut Western Reserve, see the chapter Introduction.

The "North and East of the First Principal Meridian" (N&E) and Michigan surveys in northwest Ohio are based on the PLSS. Most of the mapped portion of these two subdivisions were surveyed in 1820 and 1821. The "First Principal Meridian" (not on map) was surveyed by Israel Ludlow in 1798 and later became the Ohio-Indiana state line. It was the first of principal meridian established in the country. The N&E baseline was the 41st parallel. Townships in the Michigan Survey were surveyed east and west of the Michigan Meridian, which bisects Gorham and Franklin townships in western Fulton County. Both the N&E and Michigan surveys were conducted around existing non-PLSS subdivisions and land grant areas.

HISTORIC CANALS





During the 1700s and early 1800s, very few roads or waterways crossed the Appalachian Mountains from the East Coast. Transporting goods and people into Ohio was slow and expensive. High delivery costs prevented many farmers and manufacturers in eastern markets from shipping goods west across the mountains.

Construction of the Erie Canal began in July of 1817 and was completed in October of 1825. The 363-mile canal through New York connected the Hudson River at Albany with Lake Erie at Buffalo. The linkage established the first navigable water route from the Atlantic Ocean to the Great Lakes. Completion of the Erie Canal was critical to northern Ohio's population growth and to the development of ports at Cleveland and Toledo. The success of the Erie Canal helped influence the investment and construction of canals in Ohio.

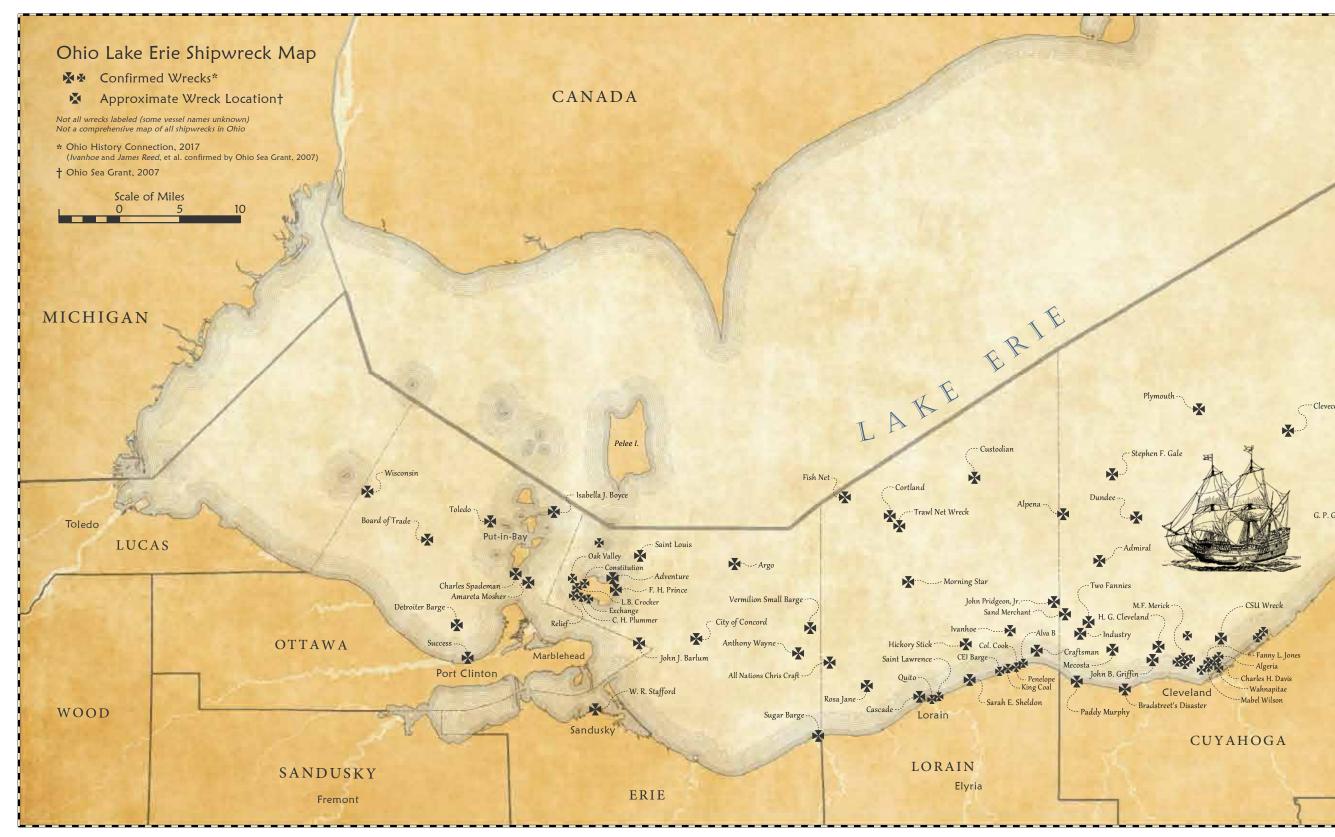
The 308-mile Ohio & Erie Canal (O&E) connected Lake Erie and Cleveland with the Ohio River at Portsmouth in Scioto County. Construction began in July of 1825. In 1827, the section between Cleveland and Akron was completed and operational. Additional sections extending to Massillon, Dover, Newark and Chillicothe were completed over the next five years. It was fully operational in 1833 and featured 146 lift locks to help navigate elevation changes. Feeder lakes included the Portage Lakes and Buckeye Lake, helping maintain the canal's required water depth. Much of the O&E paralleled portions of the Cuyahoga, Tuscarawas, Muskingum and Scioto rivers.

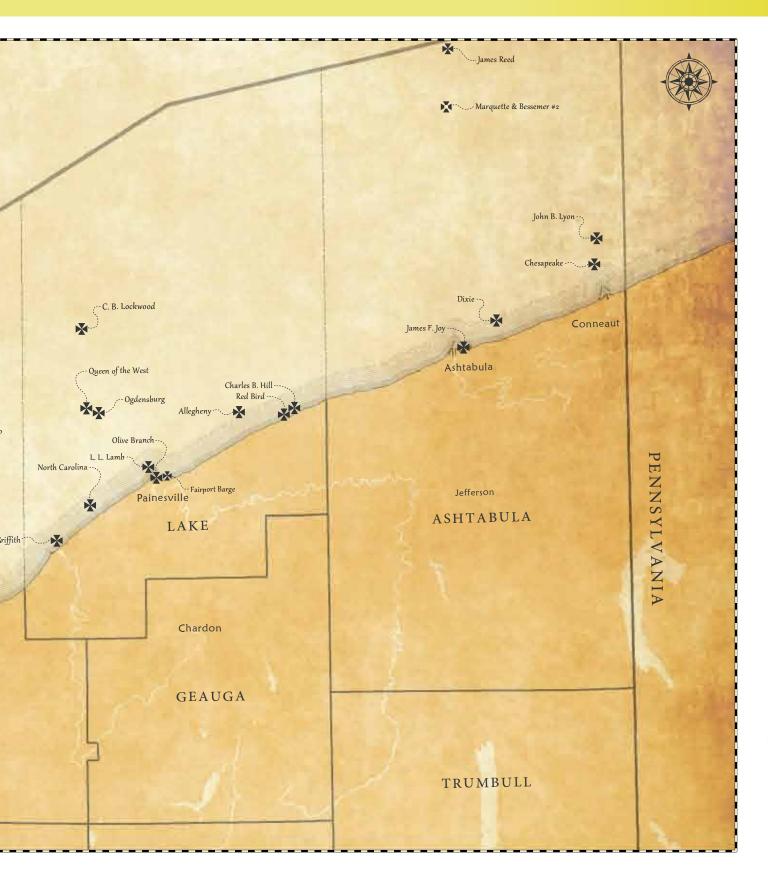
The 249-mile Miami & Erie Canal (M&E) connected Maumee Bay (Lake Erie) and Toledo with the Ohio River at Cincinnati. Construction began in July of 1825. In 1828, the section between Cincinnati and Dayton was completed (operational in 1829). The entire length of the canal was finished in 1845 and featured 103 lift locks. Feeder lakes included Grand Lake St. Marys, Lake Loramie and Indian Lake. Much of the canal paralleled portions of the Maumee, Auglaize and Great Miami rivers. The cost to complete both the O&E and M&E canals nearly bankrupted the state, however the movement of goods helped recover the economy.

The 468-mile Wabash & Erie Canal (1843) connected the M&E, south of Defiance, with the Ohio River at Evansville, Indiana. It was the longest canal ever built in the U.S. and mostly navigated through Indiana. The 83-mile Pennsylvania & Ohio Canal (1840-1872) was a privately-funded feeder canal that connected the O&E at Akron with the Beaver & Erie Canal at New Castle, Pennsylvania. The 3-mile Milan Canal (1839-1868) connected the inland village of Milan in Erie County with the Huron River and Lake Erie. Construction began in 1832. During its peak, Milan thrived as Lake Erie's largest inland port and as one of the busiest ports on the Great Lakes.

The O&E and M&E operated to 1861 and 1913, respectively. The O&E was later used (1862-1913) to provide water to industries and municipalities. Ultimately, Ohio's canals were unable to compete with the emergence of rail transportation and were largely abandoned after damaging flood events (notably in 1913).

LAKE ERIE SHIPWRECKS





The Great Lakes are important transportation and shipping corridors. Moving people and goods stimulated the region's population growth and economic vitality. However, countless maritime disasters have occurred while navigating the lakes. The Great Lakes Shipwreck Museum at the Whitefish Point Light Station in Michigan (on Lake Superior) approximates over 6,000 shipwrecks in the Great Lakes. It is estimated that over 2,000 wrecks are in Lake Erie (33 percent of all Great Lakes wrecks). Of the wrecks in Lake Erie, nearly 600 vessels, or roughly 30 percent, are believed to be in Ohio waters. This map shows the locations of 90 known shipwrecks in Ohio's portion of Lake Erie.

Adverse lake conditions, navigation hazards, severe weather events (e.g gales, storms and fog) and human error have caused many shipwrecks. Lake Erie is the shallowest of the Great Lakes and has many areas where ships can run aground. Gale-force winds during storm events make Lake Erie susceptible to sudden and dangerous waves. Strong waves can capsize ships and alter sandbars. Collisions and vessel malfunctions, notably fires and leaks, have also caused numerous wrecks in Lake Erie.

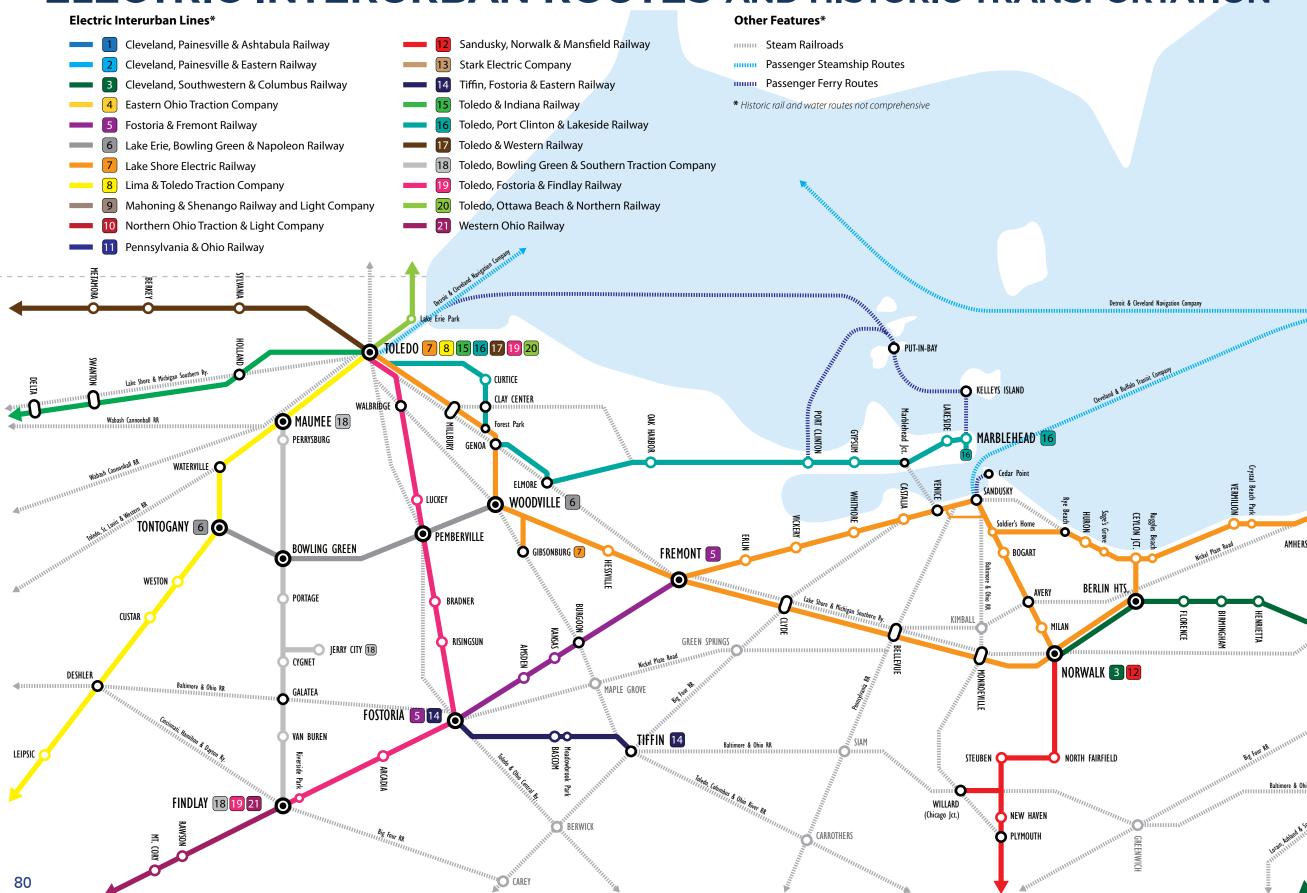
Several vessels, including the *C.B. Lockwood* (north of Painesville), have sunk into the lakebed where muddy substrate is present (see the Lakebed Substrates maps on pages 176-179). It is believed that the *Marquette & Bessemer #2* (north of Conneaut), a 338-foot long railcar ferry, is also buried beneath the muddy bottom. It sank in December 1909 and has yet to be found. Its location on the map is approximate. While many wrecks may never be discovered, some ships have been salvaged, re-floated and put back into service. Other wrecks have been purposely destroyed to prevent future hazard to other ships. The hull of the *James Reed* (north of Conneaut) sank in 66 feet of water near a shipping channel. It was dynamited to ensure a 45-foot clearance over the wreck.

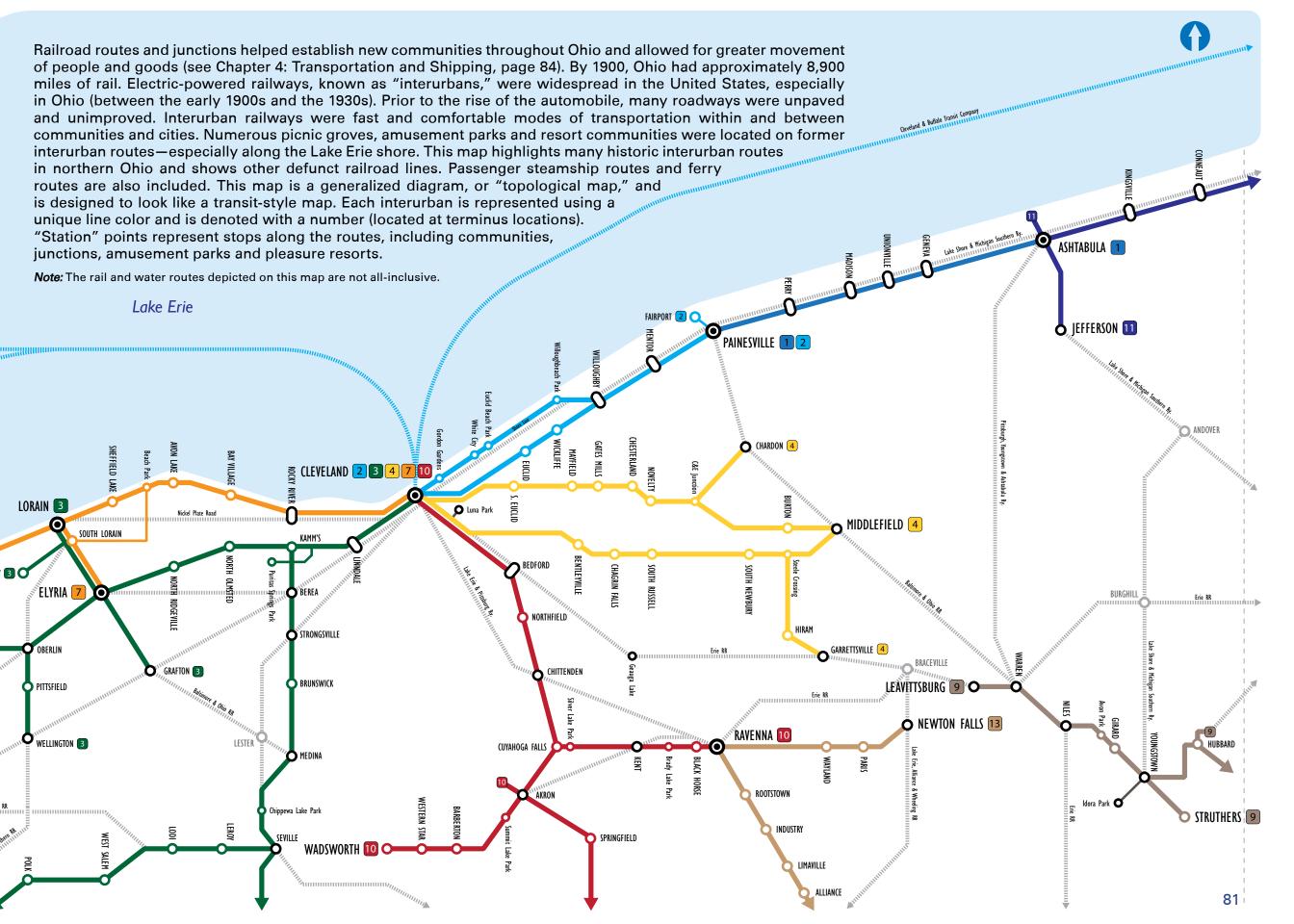
The condition of shipwrecks range from being well intact to severely damaged, with debris scattered across the lake bottom. Cold, fresh water often keeps Lake Erie and other Great Lakes wrecks, artifacts and cargo well-preserved. Shipwrecks can act as artificial reefs and provide safe habitat for many fish species.

Non-profit groups, such as the Maritime Archaeological Survey Team (MAST) and the Cleveland Underwater Explorers, Inc., are actively involved in locating, studying and exploring Lake Erie's shipwrecks. The Ohio Historic Preservation Office, part of the Ohio History Connection, maintains an inventory of Ohio's shipwrecks. Information such as vessel name, ship history, wreck location and condition are documented. The Peachman Lake Erie Shipwreck Research Center, part of the National Museum of the Great Lakes, locates, investigates and inventories wrecks all throughout Lake Erie, provides outreach and training events, and serves as the headquarters for MAST.

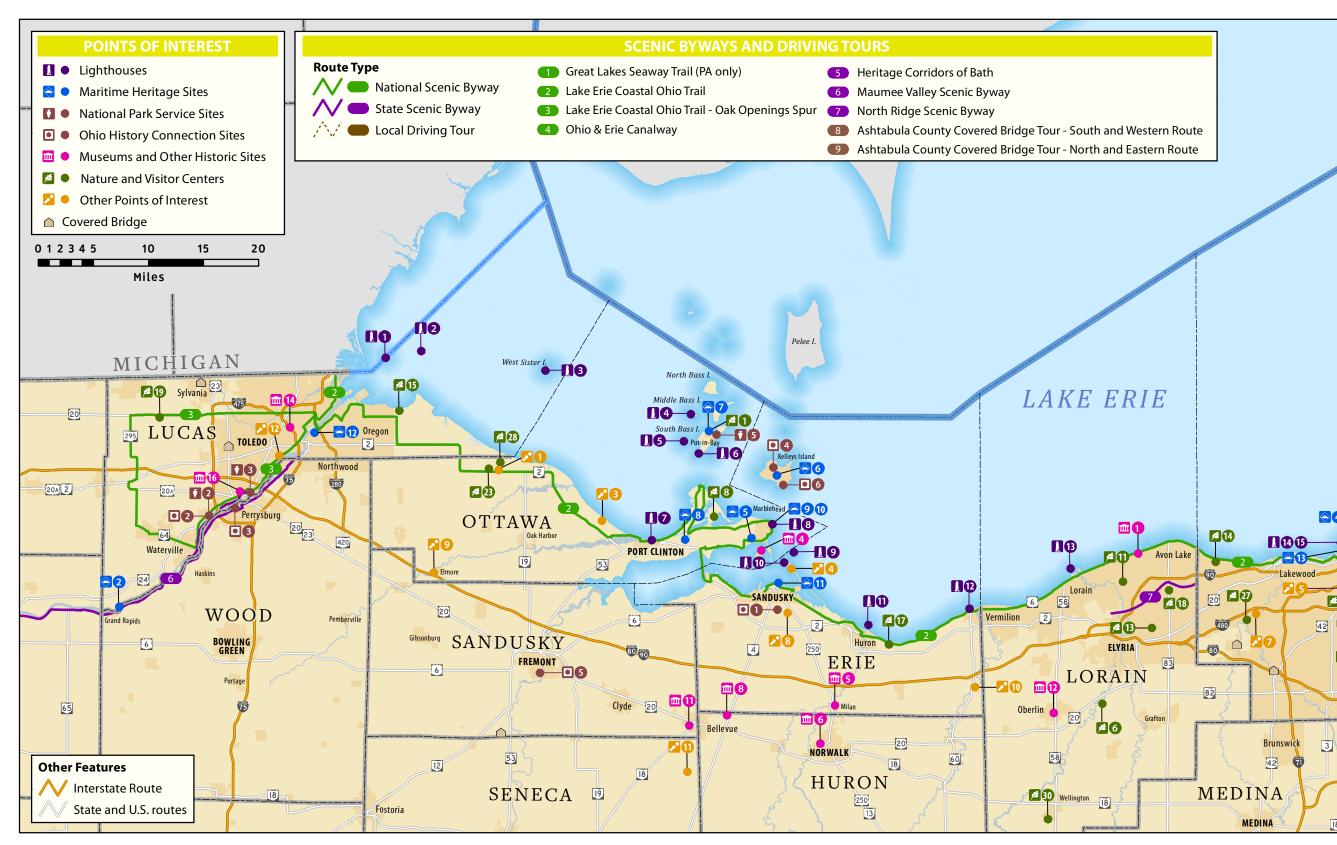
It is illegal to recover items from a shipwreck without proper permits. Application for the recovery, alteration, salvage or destruction of submerged watercraft (or aircraft) is available through the Ohio Department of Natural Resources (ODNR), Office of Coastal Management. Both ODNR and the State Historic Preservation Office must approve the application, per Ohio Revised Code 1506.32.

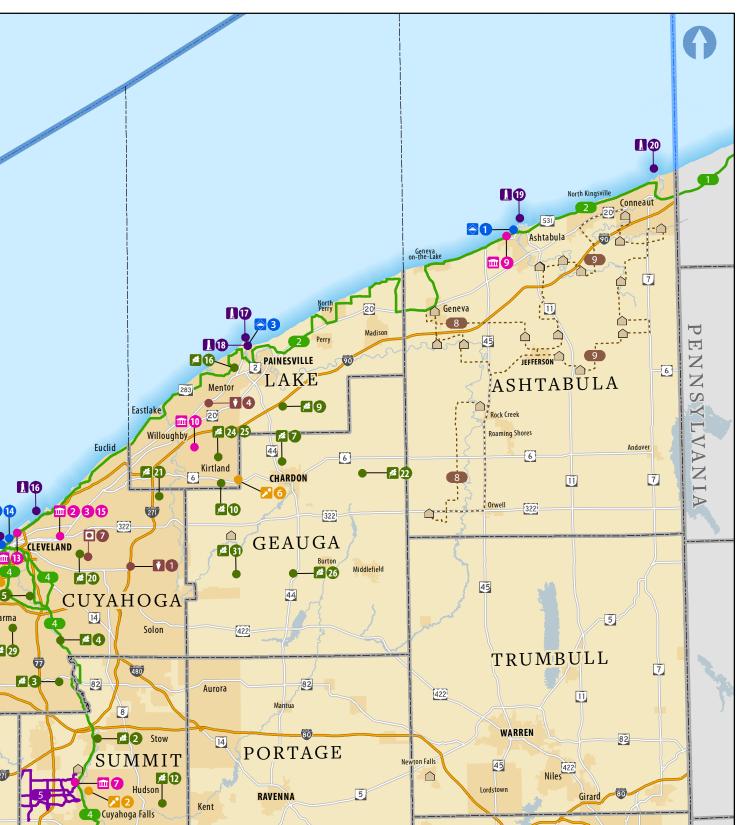
ELECTRIC INTERURBAN ROUTES AND HISTORIC TRANSPORTATION Electric Interurban Lines* Other Features*





CULTURAL POINTS OF INTEREST





Turtle Island Light (ruins)	1
Toledo Harbor Light	2
West Sister Island Light	3
Rattlesnake Island Light	4
Green Island Light	5
South Bass Island Light	6
Port Clinton Light	7
Marblehead Light	8
Sandusky Harbor Breakwater Light	9
Cedar Point Light	
Huron Harbor Light	11
Vermilion Light (replica)	12
Lorain West Breakwater Light	13
Cleveland Harbor Main Entrance Light (West Pierhead)	14
Cleveland Harbor Main Entrance Light (East Pierhead)	15
Cleveland East Entrance Light	16
Fairport Harbor West Breakwater Light	17
Grand River Lighthouse (museum)	18
Ashtabula Harbor Light	19
Conneaut Harbor West Breakwater Light	20

MARITIME HERITAGE SITES

Ashtabula Maritime & Surface Transportation Museum	1
Canal Experience at Providence Metropark	2
Fairport Harbor Marine Museum and Lighthouse	3
Great Lakes Science Center	
(Steamship William G. Mather)	4
The Keeper's House	5
Kelleys Island Historical Association	6
Lake Erie Islands Historical Society & Museum	7
Liberty Aviation Museum	8
Lifesaving Station Museum	9
Marblehead Lighthouse Keeper's House	10
Maritime Museum of Sandusky	
National Museum of the Great Lakes	
(Steamship Col. James M. Schoonmaker)	12
Old U.S. Coast Guard Station	13
U.S.S. Cod Submarine Memorial	14

NATIONAL PARK MONUMENTS AND SITES

David Berger National Monument
Fallen Timbers Battlefield National Historic Site
Fort Miamis National Historic Site
James A. Garfield National Historic Site
Perry's Victory and International Peace Memorial

OHIO HISTORY CONNECTION SITES

Cooke-Dorn House Historic Site	
Fallen Timbers Battlefield Memorial Park	. 2
Fort Meigs	. :
Glacial Grooves State Memorial	٠.
R.B. Hayes Presidential Library & Museums	. (
Inscription Rock State Memorial	. (
Shaker Historical Museum	

MUSEUMS AND OTHER HISTORIC SITES

103rd Ohio Veterans Infantry Civil War Museum Cleveland Museum of Art
Cleveland Museum of Natural History
Confederate Soldier Cemetery
Edison Birthplace
Firelands Historical Society and Museum
Hale Farm & Village
Historic Lyme Village

Hubbard House Underground Railroad Museum	9
Kirtland Temple	
Mad River & NKP Railroad Museum	
Oberlin Heritage Center	12
Rock and Roll Hall of Fame and Museum	13
Toledo Museum of Art	14
Western Reserve Historical Society	15
Wolcott House and Maumee Valley Historical Society	16

NATURE AND VISITOR CENTERS



Aquatic Visitors Center	
Boston Store Visitor Center	2
Brecksville Nature Center	3
Canal Exploration Center	4
CanalWay Center	5
Carlisle Visitor Center and Raptor Center	6
Donald W. Meyer Center	7
East Harbor Nature Center	8
Environmental Learning Center	9
Farmpark1	0
French Creek Nature & Arts Center 1	11
Harold Welch Nature Center 1	12
Johnson Wetland Center 1	3
Lake Erie Nature and Science Center 1	4
Maumee Bay Trautman Nature Center 1	5
Mentor Marsh (Carol H. Sweet) Nature Center 1	6
Mike DeWine Center for Coastal Wetland Studies 1	
Miller Nature Preserve Visitor Center 1	8
National Center for Nature Photography1	9
The Nature Center at Shaker Lakes2	20
North Chagrin Nature Center2	
Oberle Observatory & McCullough Science Center2	22
Ottawa National Wildlife Refuge Visitor Center2	23
Penitentiary Glen Nature Center	
Penitentiary Glen (Kevin P. Clinton) Wildlife Center	25
Punderson Nature Center	26
Rocky River Nature Center	27
Sportsmen's Migratory Bird Center2	28
Watershed Stewardship Center	
Wellington Visitor Center3	30
The West Woods3	

OTHER POINTS OF INTEREST



Black Swamp Bird Observatory	1
Blossom Music Center	
Camp Perry	3
Cedar Point	4
Cleveland Metroparks Zoo	5
Holden Arboretum	6
NASA John H. Glenn Research Center	7
Ohio Veterans Home - Sandusky	8
Schedel Arboretum and Gardens	9
Schoepfle Garden	10
Seneca Caverns	11
Toledo Zoo	12