

## II. Community Profile

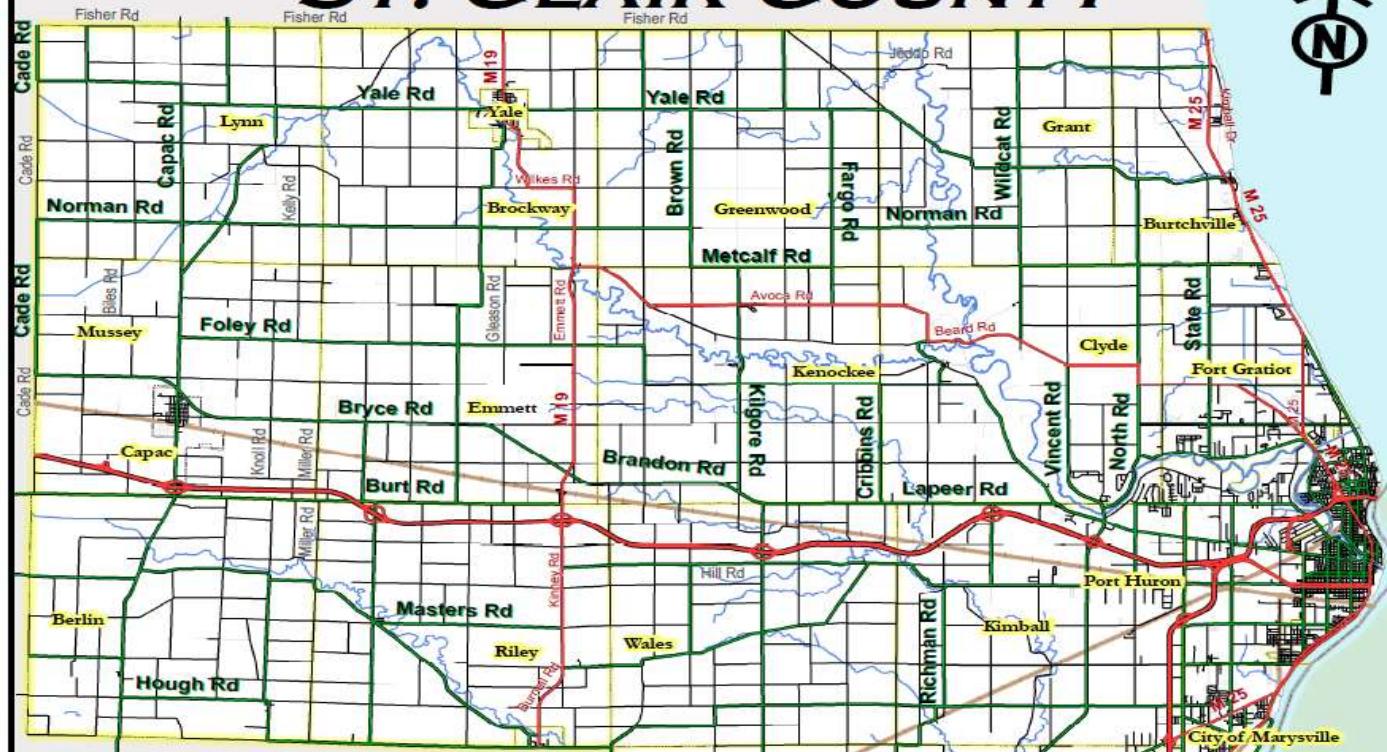
St. Clair County covers an area of 720 square miles and had a 2013 population of 160,469 persons. The county is located in southeastern Michigan. St. Clair County ranks 13<sup>th</sup> in population and 26<sup>th</sup> in area. There are a total of 34 government jurisdictions within St. Clair County, including 23 townships, eight cities and two villages.



**Table 2.1 Local Governments in St. Clair County**

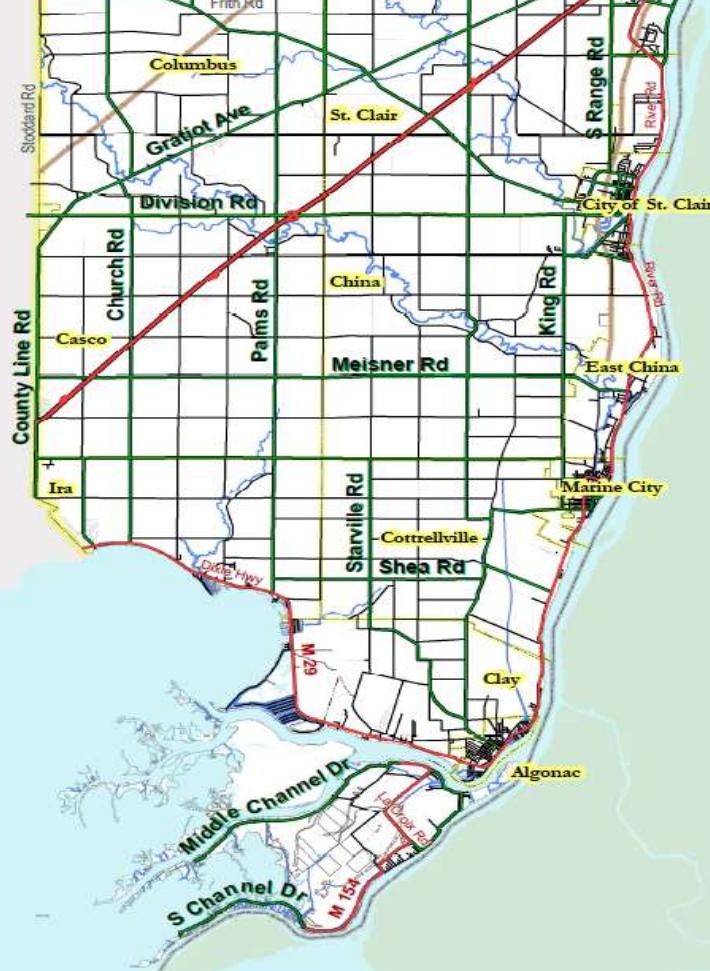
Jurisdiction	Phone Number	Office Location	Email	Participation Status
Algonac	(810)794-9361	805 St. Clair River Dr. P.O. Box 454, Algonac, MI 48001	<a href="mailto:cityclerk@algonac-mi.gov">cityclerk@algonac-mi.gov</a>	Continuing Participant
Berlin Twp.	(810)395-4518	740 Capac Rd. Allenton, MI 48002	<a href="mailto:info@berlintwpstclair.org">info@berlintwpstclair.org</a>	Continuing Participant
Brockway Twp.	(810)387-3375	7645 Sayles Rd. Yale, MI 48097		Continuing Participant
Burtchville Twp.	(810)385-5577	4000 Burtch Rd. Lakeport, MI 48059		Continuing Participant
Capac	(810)395-4355	131 N. Main St. P.O. Box 218 Capac, MI 48014		Continuing Participant
Casco Twp.	(586)727-7524	4512 Meldrum Rd. Casco Twp., MI 48064	<a href="mailto:cascostclairdeputyclerk@comcast.net">cascostclairdeputyclerk@comcast.net</a>	Continuing Participant
China Twp.	(810)765-1145	4560 Indian Trl. China, MI 48054		Continuing Participant
Clay Twp.	(810)794-9303	4710 Pte. Tremble Dr. Clay, MI 48001		Continuing Participant
Clyde Twp.	(810)985-7258	3350 Vincent Rd. North Street, MI 48049	<a href="mailto:KathleenT@clydetownship.net">KathleenT@clydetownship.net</a>	Continuing Participant
Columbus Twp.	(586)727-2055	1732 Bauman Rd. Columbus, MI 48063	<a href="mailto:columbastownshipclerk@comcast.net">columbastownshipclerk@comcast.net</a>	Continuing Participant
Cottrellville Twp.	(810)765-4730	7008 Marsh Rd. Cottrellville, MI 48039	<a href="mailto:supervisor@cott-township.org">supervisor@cott-township.org</a>	Continuing Participant
East China Twp.	(810)765-8879	5111 River Rd. East China, MI 48054	<a href="mailto:sandy@eastchinatownship.org">sandy@eastchinatownship.org</a>	Continuing Participant
Emmett Twp.	(810)384-8070	11100 Dunnigan Rd. Emmett, MI 48022	<a href="mailto:emmetttownship@yahoo.com">emmetttownship@yahoo.com</a>	Continuing Participant
Emmett	(810)384-6991	P.O. Box 127 Emmett, MI 48022		Continuing Participant
Fort Gratiot Twp.	(810)385-4489	3720 Keewhadin Rd. Fort Gratiot, MI 48059		Continuing Participant
Grant Twp.	(810)327-6775	7942 Wildcat Rd. Jeddo, MI 48032	<a href="mailto:office@granttownship.com">office@granttownship.com</a>	Continuing Participant
Greenwood Twp.	(810)387-4044	9025 Yale Rd. Greenwood, MI 48006	<a href="mailto:greenwood@iwarpx.net">greenwood@iwarpx.net</a>	Continuing Participant
Ira Twp.	(586)725-0263	7085 Meldrum Rd. Fair Haven, MI 48023		Continuing Participant
Kenockee Twp.	(810)324-6126	4420 Kilgore Rd. P.O. Box 400 Avoca, MI 48006	<a href="mailto:officmgr@kenockeetwp.com">officmgr@kenockeetwp.com</a>	Continuing Participant
Kimball Twp.	(810)987-9797	2160 Wadham's Rd. Kimball, MI 48074	<a href="mailto:nblasczuk@kimballtownship.org">nblasczuk@kimballtownship.org</a>	Continuing Participant
Lynn Twp.	(810)724-8507	7280 Cade Rd. Imlay City, MI 48444		Continuing Participant
Marine City	(810)765-8846	303 South Water St. Marine City, MI 48039	<a href="mailto:mcinfo@marinecity-mi.org">mcinfo@marinecity-mi.org</a>	Continuing Participant
Marysville	(810)364-6613	1111 Delaware Ave. Marysville, MI 48040	<a href="mailto:rwarnke@cityofmarysvillemi.com">rwarnke@cityofmarysvillemi.com</a>	Continuing Participant
Memphis	(810)392-2385	35095 Potter St. Memphis, MI 48041		Continuing Participant
Mussey Twp.	(810)395-4915	135 North Main St. Capac, MI 48014		Continuing Participant
Port Huron	(810)984-9725	100 McMorran Blvd. Port Huron, MI 48060	<a href="mailto:cphdp@porthuron.org">cphdp@porthuron.org</a>	Continuing Participant
Port Huron Twp.	(810)987-6600	3800 Lapeer Rd. Port Huron Twp., MI 48060	<a href="mailto:bdavis@porthurontownship.org">bdavis@porthurontownship.org</a>	Continuing Participant
Riley Twp.	(810)392-2326	13016 Belle River Rd. Riley, MI 48041		Continuing Participant
St. Clair	(810)329-7121	547 N. Carney Dr. St. Clair, MI 48079		Continuing Participant
St. Clair Twp.	(810)329-9042	1539 S. Bartlett Rd. St. Clair, MI 48079	<a href="mailto:debbie@twp.stclair.mi.us">debbie@twp.stclair.mi.us</a>	Continuing Participant
Wales Twp.	(810)325-1517	1372 Wales Center Rd. Goodells, MI 48027	<a href="mailto:wales@walestownship.org">wales@walestownship.org</a>	Continuing Participant
Yale	(810)387-3311	111 W. Mechanic St. Yale, MI 48097		Continuing Participant

# ST. CLAIR COUNTY



## Legend

- Interstate
- Local Highways & Ramps
- Major Roads
- Road Ends
- Local Roads
- Private Roads
- Active Rail
- Major Watercourses
- Municipal Boundary
- Township Highlight



## **Historic Overview of St. Clair County**



Downtown Port Huron

Source: rootsweb.ancestry.com

Between 1850 and 1900, over 70 small communities in St. Clair County, most of them inland, became officially recognized settlements. Many had a post office and a school, and all sported some kind of commercial trade and at least one church.



Downtown Port Huron

Source: rootsweb.ancestry.com

The first inhabitants of the area in and around what is now St. Clair County were Native Americans. Peoples of many nations held ceremonies and buried their dead along the banks of the great Huron waters and the river into which it flows. They hunted game from expansive woodlands, fished from rivers and streams, and honored the land and water from which their sustenance came.

The area's recorded history began in 1670 when two French priests navigated what later became known as the St. Clair River. As a result of their exploits, the French claimed ownership of vast lands surrounding the Great Lakes and soon established missions and trading posts in the region. In 1688, they built forts, including the oldest in Michigan – Fort St. Joseph – at the mouth of Lake Huron, near the present site of Port Huron.

In 1764, after the British took dominion of the region, Patrick Sinclair built a fort, a mill, houses, and barns on 24,000 acres of land where the Pine River flows into the St. Clair River. Only a few settlers came to the area until twenty years later, after the treaty that ended the Revolutionary War was signed by the United States of America and Great Britain.

In 1820, Lewis Cass, governor of the Northwest Territory, declared the area to be St. Clair County, named after the county's first and largest village. The county's first census reported 79 residents. The first county jail (1821), first post office (1826), first county courthouse (1827), first newspaper (1834), first brick yard, first river ferry, and first salt mine were all in the village of St. Clair.

In the late 1820's, Ward's Point or Newport (later Marine City) became the second village established in the county. Algonac became the third village, organized in 1836. Prior to 1850, these three downriver settlements were the fastest growing communities in the county.

The first settlers in the area of old Fort St. Joseph came about 1790 and named the settlement Desmond. In 1814, this became the site of Fort Gratiot, which garrisoned troops. By 1830, the community had only 377 people. In 1837, the same year that Michigan became a state, the community changed its name to Port Huron. By 1840, the community grew to 1,113 people. It was organized as a village in 1849, and L.M. Mason was its first president.

Port Huron became a city in 1857. By 1870, it was the largest community in the county. Its industries included seven sawmills, four shipyards, three breweries, two dry docks, and a soap factory. Port Huron became the county seat in 1871, after a legal battle with the city of St. Clair. The city county building was erected in 1873.



City of St. Clair Community Center and Historical Museum. Source: St. Clair County.

Between 1850 and 1900, over 70 small communities in St. Clair County, most of them inland, became officially recognized settlements. Many had a post office and a school, and all sported some kind of commercial trade and at least one church. Many people around these settlements worked a family farm.

This trend toward settlement living was in keeping with Michigan's and the Midwest's economy, which was heavily based on agriculture and extraction of natural resources, such as lumber and minerals. Laborers not directly involved with harvesting crops, cutting trees, or mining were employed in related transport or processing industries. Proximity to a railroad was a dominant factor in determining quality of life.

In contrast, since the start of the twentieth century, most of St. Clair County's growth has occurred in five waterfront communities and four rural cities and villages. Rural communities away from the waterfront were often abandoned. St. Clair County hamlets and villages such as Tara's Halls, Brockway, Fargo, Blaine, Abbotsford, and Lamb became either much smaller entities or disappeared completely.

This growth away from agricultural areas was spurred by dwindling lumber and mineral resources in the late 1800's, and the advancement of manufacturing technologies and facilities within city centers that offered a glut of high-paying jobs. Even though many families continued to farm their fields, St. Clair County's economy throughout the first half of the 1900's shifted from being resource-based to manufacturing-based.

After World War II, the population shift changed direction as people began to move from declining central cities to more attractive suburbs. In St. Clair County, development spread a few miles inland and had a large impact on how land was used, where and how people lived, and provision of public services. People measured quality of life on availability of schools, streets, waste removal systems, safe drinking water, hospitals, and police and fire protection.



Vehicles aboard the Harsens Island Ferry. Source: Detroit Free Press

Today, people are moving back to the rural areas, the result of another shift in the economy and lifestyle. Manufacturing processes are less centralized. Computer technologies and transportation/automotive improvements have facilitated mobility so people can live farther away from their jobs. Additionally, growing personal income for some of the population has provided options for home building locations. As a result, many of the county's small hamlets and villages are reviving.

## **Geography**

### **Topography**

Topography refers to the elevations, relief features, or surface conditions of a geographic area. The understanding of topography is critical for a number of reasons. In terms of environmental quality, agriculture, and hydrology, understanding the topography of a region enables the understanding of watershed boundaries, drainage characteristics, water movement, and impacts on water quality.

The land surface of the county is a glacial landform, with characteristic slopes, substrata, soils, and drainage conditions, and as a result of these physical factors, certain vegetation evolved and now exists. According to the United States Geological Survey, St. Clair County is part of the landform called Washtenaw-Maumee Lake Plain, consisting primarily of clay soils, along with several one to three mile-wide end moraines that have been reshaped by water and runoff. Beach ridges and small sand dunes are common on the sand channels, which are visible from Fort Gratiot Township to St. Clair, running parallel to the shoreline.

Elevations throughout the county range from 580 feet to 800 feet above mean sea level. The highest points are in a glaciated area in the western part of the county, along the Black River in the northern part of the county, and along Lake Huron and the northern part of the St. Clair River. The lowest part of the county is in the south in an area known as St. Clair Flats, which is within the Lake St. Clair floodplain.

### **Soils**

Soil refers to the portion of the Earth's surface that consists of disintegrated rock or humus – the ground used for vegetation and for cultivating crops. Soils in St. Clair County are largely wet loam and clay. These are calcareous (non-acidic) at shallow depths, have low permeability, and generally require drainage for agricultural purposes.

Sand is common along – and a few miles inland from – the eastern and southern shores. These areas are poorly or very poorly drained in depressions, excessively drained on dunes, and subject to wind erosion if cultivated. Sand in lower slope positions is calcareous, while sand on ridges is acidic.

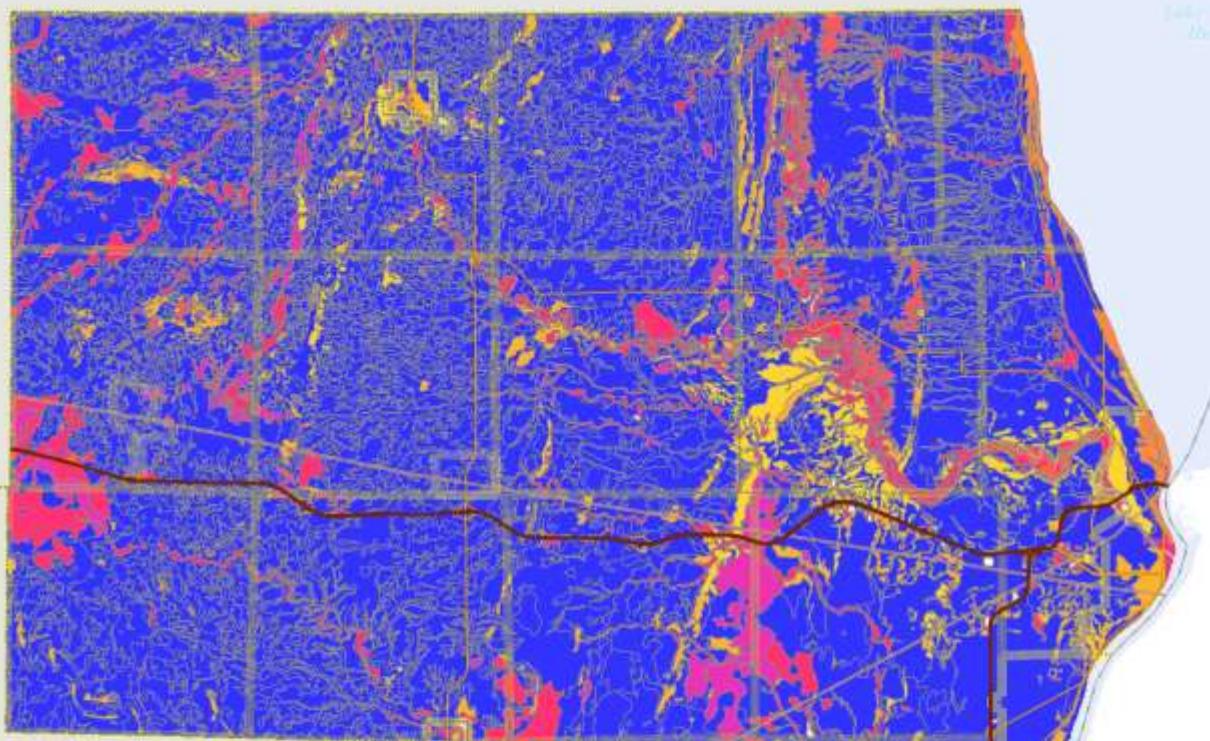
The majority of St. Clair County has drainage problems and more than 95% of the soils are severely limited for development, especially near the shoreline and on farmland. The soils most suitable for development are away from the shoreline and in areas that are flatter and less susceptible to flooding, erosion, and fading or sinking.

Hydric soils refer to wet or moist soils that merit particular consideration because they cover nearly 444 square miles, or more than half of St. Clair County, chiefly in the southern portions.

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Agricultural area in Burtchville Township. Source: St. Clair County



## Soil Restrictions for Non-Ag Use

### Legend

- Better 4 Building
- Few
- Few (Sand&Gravel)
- General Limits
- General Severe
- Good if Accessible
- Severe Wetness
- Very Severe
- Wetness
- Local Highways & Ramps
- Interstate
- Active Rail
- Village Highlight
- Township Highlight
- International Boundary

### Map Citation

This map was created as part of the St. Clair County Master Plan process: for county-wide reference purposes. No site-specific decisions should be made without independent field verification of the information presented.



Hydric soils generally have been exposed to water saturation conditions for extended periods, such as in a wetland. They are very poorly drained, saturate easily and retain large quantities of water. If artificially drained, they are often suitable for farmland use. They are commonly populated by cattails, sedges, bulrushes, water plantain, wild rice, wild celery, duckweed, and other wetland vegetation. Hydric soils are another limitation on development.

More than half of the soils in St. Clair County are classified as prime farmland soils. Prime farmland soil types have been identified by the Natural Resources Conservation Service as those best suited for food production: they require minimal soil enhancement measures such as irrigation and fertilizer. Crops grown on these soils will produce the highest yields with the smallest input of energy and economic resources. This land is primarily north and west of a line from Port Huron to Memphis.



Clay Township, Harsens Island. Middle Channel and Canada (Seaway Island).

Source: St. Clair County.

## Water Courses

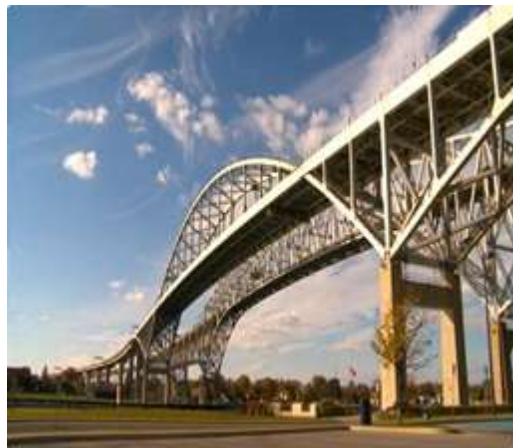
Watercourse refers to a stream of water, such as a river or creek, the bed of a stream that flows only seasonally, or a natural channel that conveys water. Six major watercourses flow in, through, or adjacent to St. Clair County.

**Lake Huron:** Lake Huron is the largest neighboring watercourse. It creates a 12.5-mile shoreline boundary on the northeast corner of the county and is an integral recreational and economic factor. The cities of Detroit (60 miles south), Flint (75 miles west), and 90 other communities pump 400 million gallons of water per day from Lake Huron. The quality of the water, from Lake Huron and the Great Lakes has been, in general, an environmental concern since the mid-1970.

**Lake St. Clair:** Lake St. Clair borders 11.3 miles on the southern corner of St. Clair County and is a recreational mecca for boaters, anglers, and sightseers. The largest fleet of pleasure boats on the Great Lakes is on Lake St. Clair, and about 1/3 of all the fish caught on the Great Lakes are caught there. However, a lack of public land limits access to the lake.

The largest remaining marshland in the Great Lakes Basin is located at Canada's Walpole Island near Lake St. Clair. Environmental concerns abound in this area and are evidenced by beach closings due to bacterial contamination, visible changes in the lake, and changes to lake plants and animal populations.

**St. Clair River:** The St. Clair River is 34.3 miles long and borders most of the east side of St. Clair County. The St. Clair River extends from Lake Huron in the north, from which it receives water at a rate of 194,000 cubic feet per second, to Lake St. Clair to the south, where it empties at a rate of 184,000 cubic feet per second. The city of Port Huron gets its water from the St. Clair River.



Blue Water Bridge connecting Michigan and Canada together. Source: Times Herald Newspaper.



The Pine River flows from Emmett Township to the City of St. Clair and into the St. Clair River. Source: St. Clair County.



The Tall Ship Highlander Sea in Lake Huron off of Lighthouse Beach in Fort Gratiot. Source: Trevor Floyd.

Except for a few drains that flow into Lake Huron or Lake St. Clair, the St. Clair River is the receptor of all drainage basins within St. Clair County, and water level fluctuations of two to three feet are common. This fluctuation, plus rapid currents, causes tree mortality, shoreline erosion, and major alterations on the composition and habitat of marshes and wet prairies. Six locations along the St. Clair River, plus one in Lake Huron, are monitored monthly to determine water level fluctuations. Water levels are usually lowest in February, then rise through July, and decline through the rest of the year.

The St. Clair River's current and the predominance of large lake freighters result in limited recreational opportunities, primarily in the northern part of the river. Shipping has also brought infestations of non-indigenous aquatic species that are potentially detrimental to the environmental health of the river. The St. Clair River Binational Public Advisory Council (BPAC) is having remarkable success in improving the quality of both water and habitat in and along the river.

**Black River:** The Black River is the major tributary of the St. Clair River. It flows south from the Minden Bog in Sanilac County through Port Huron. Along with its major tributary, Mill Creek, the Black River drains almost all of the northern and western parts of St. Clair County. The river's watershed – 159,930 acres – is the largest in southeastern Michigan and is primarily a broad, flat plain bounded on three sides by hills ranging from 20 to 100 feet high. The Black River offers limited recreational use due to easily eroded clay soils. Traditionally, the river has afforded high-quality fishing, but fish populations have diminished and become almost nonexistent in recent decades.

**Pine River:** The Pine River is a tributary of the St. Clair River and is the largest watershed – 126,110 acres – contained within St. Clair County. It flows through relatively flat land from the central part of the county and through the city of St. Clair.

**Belle River:** The Belle River is also a tributary of the St. Clair River. It originates in the west central part of the county, passes a short distance through a corner of Macomb County, then continues southeast through Marine City, draining 83,000 acres of relatively flat land. The largest power generating facility in the county is located along the Belle River.

## Floodplains

Areas adjacent to creeks, streams and rivers are susceptible to periodic flooding that can cause extensive damage to buildings and can pose a substantial threat to public health and safety. A floodplain is an area of relatively level land that is inundated from time to time. A floodplain may border a stream, lake or river, or may be a watercourse in its own right. It is often defined as being contained the floodway, which normally is inundated during annual flooding and the floodway fringe, which may be inundated during a 100-year flood. A 100-year flood refers to a floodplain where there is a 1-in-100 chance that a flood will occur in any given year. When flooded, floodplains serve as a natural retention area for floodwaters and, thus, reduce the danger of vast amounts of water moving too rapidly downstream. 100-year floodplains exist in St. Clair County along the lower portions of the Black, Pine, and Belle Rivers and along numerous creeks and drains.

The federal government offers a mapping program that helps communities preserve designated floodplains. Some St. Clair County communities participate in this program, which establishes Flood Hazard Boundary Maps, Flood Insurance Rate Maps (FIRM), and land use regulations for designated floodplains. This program helps local communities prevent construction within a floodplain that would result in obstructions and cause floodwaters to backup and expand the floodplain's size. On the Mapping website for parcels, FEMA FIRM is one of the layers which can be displayed. This will be migrated to a special FEMA FIRM mapping application after the county rolls over to ArcGIS 10.2.2 and GeoCortex. A complete list of participating communities can be found here: <http://www.fema.gov/cis/MI.pdf>

Mapping floodplains helps to determine areas that are unsuitable for construction because of potential safety hazards, property loss due to flooding, and the possibility for even further flood damage downstream.

## Wetlands

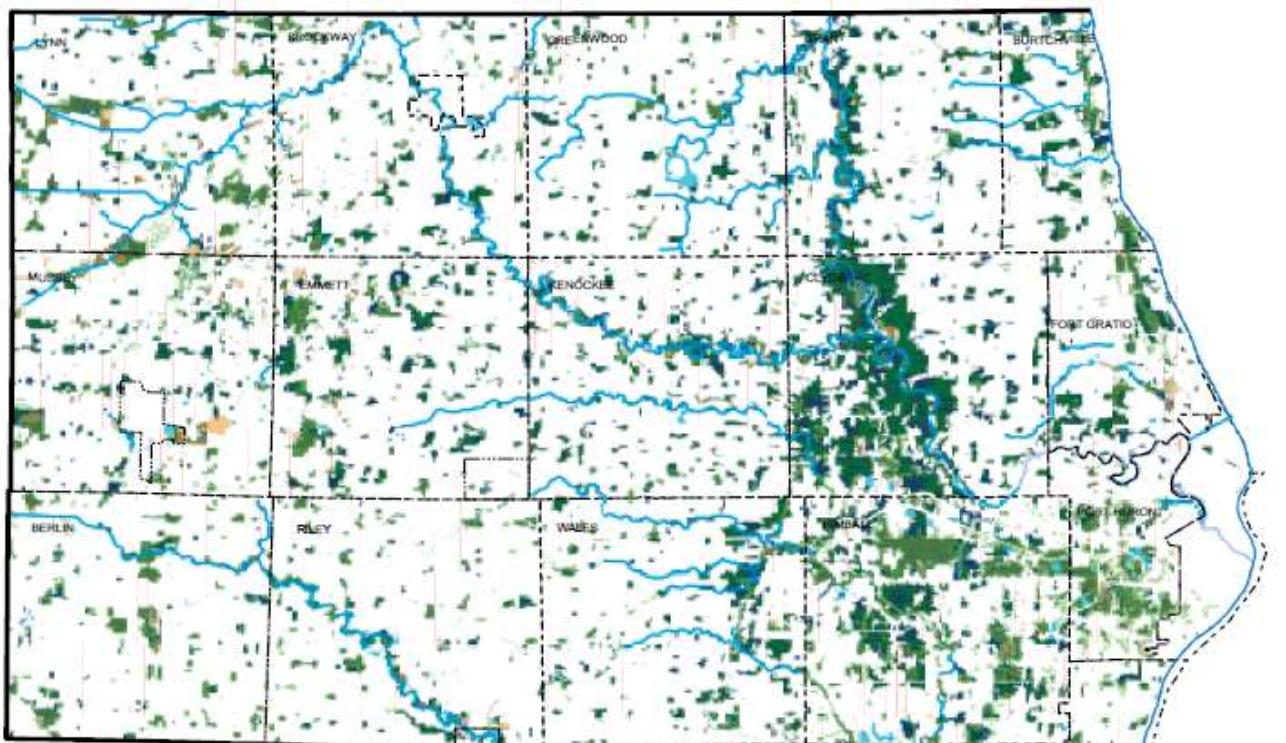
Because wetlands are a valuable natural resource, they are protected by Part 303 of Public Act 451 of 1994. Part 303 requires that permits be acquired from the Michigan Department of Environmental Quality (DEQ) prior to altering or filling a regulated wetland. The Wetland Protection Act defines wetlands as characterized by the presence of water at a frequency and duration sufficient to support and that under normal circumstances does support wetland, vegetation or aquatic life and is commonly referred to as a bog, swamp, or marsh and is contiguous to the Great Lake, an inland lake or pond or a river or stream. Michigan is one of only two states (the other is New Jersey) allowed assuming federal permitting authority according to the Federal Clean Water Act of 1984. Regulated wetlands include all wetland areas greater than 5 acres or those contiguous to waterways.



Major flooding inundated many areas of St. Clair County in 2011, including this subdivision. Photo

Courtesy of St. Clair County Emergency Management

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# Wetland and Forested Areas

- Village Boundaries
- Local Unit Boundaries
- St. Clair County Land Border
- St. Clair County Shoreline

## Wetland Areas

### Laymen Terms

- Aquatic Bed
- Emergent
- Error
- Farmed
- Flat
- Forested
- Open Water
- River
- Scrub-Shrub
- Unconsolidated Bottom
- Upland

Data Source: 2000 Wooded or Wetlands

Shoreline created by SCC MPC

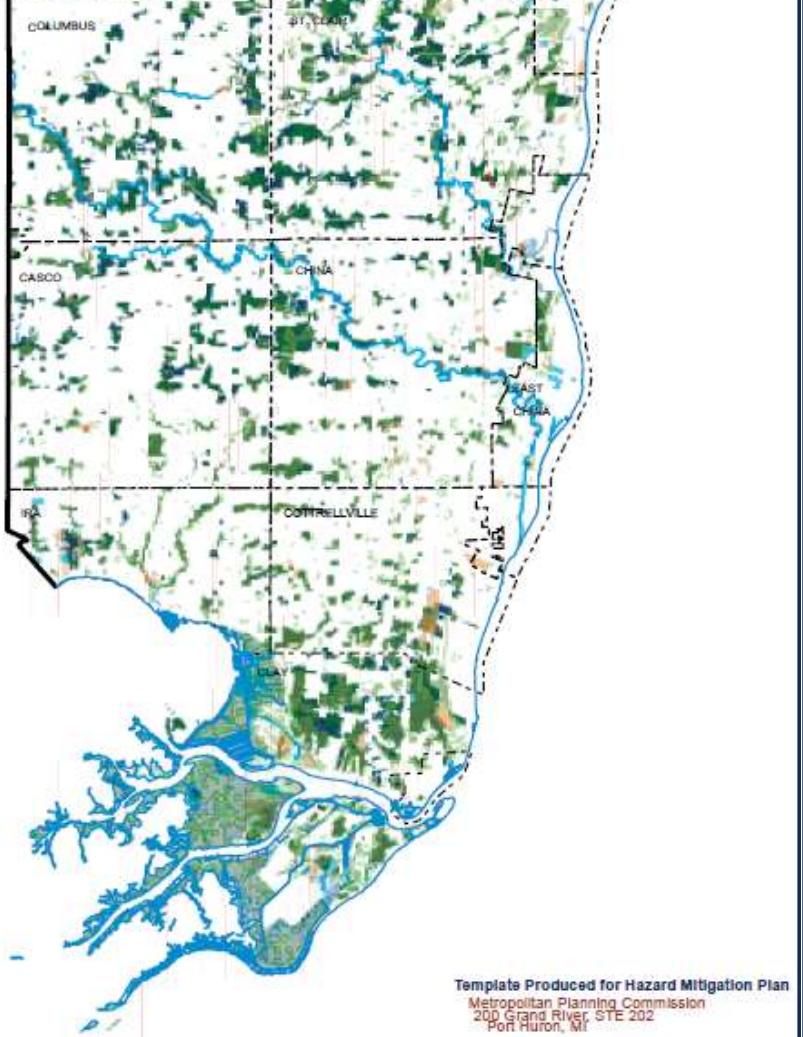
Land boundary provided by MCGI

2000 Wooded & Wetlands by SEMCOG

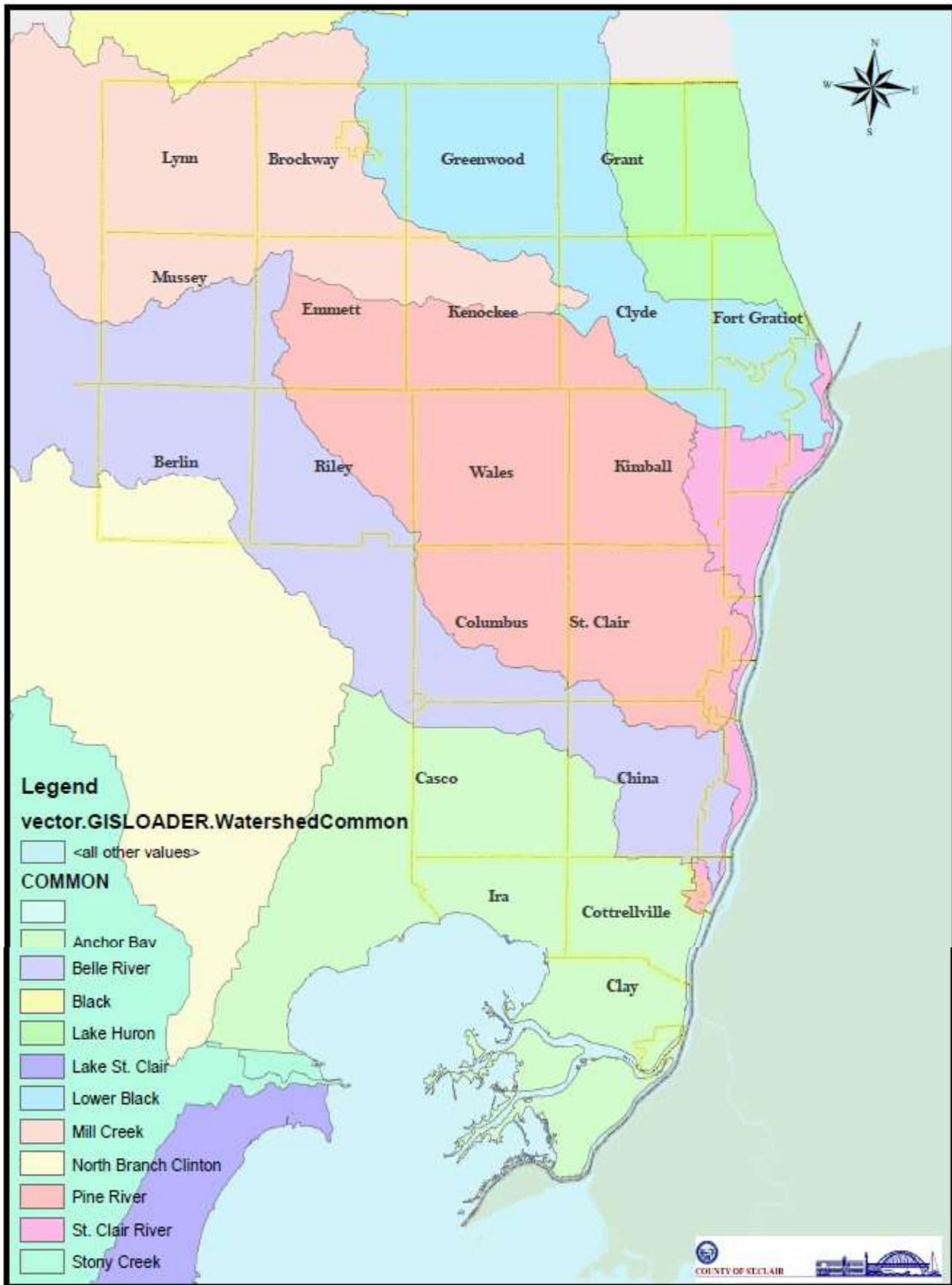
Wetlands by NWI

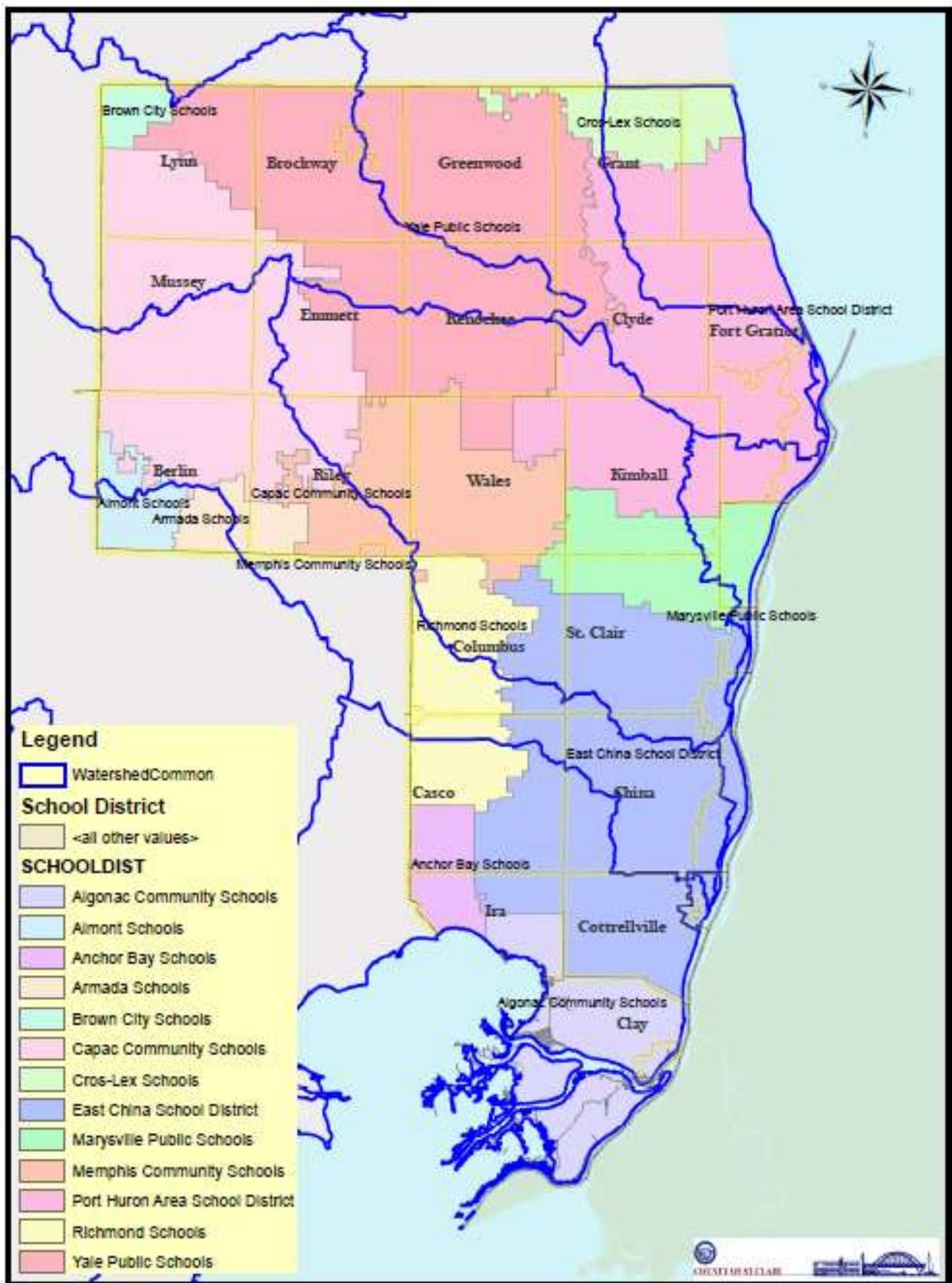
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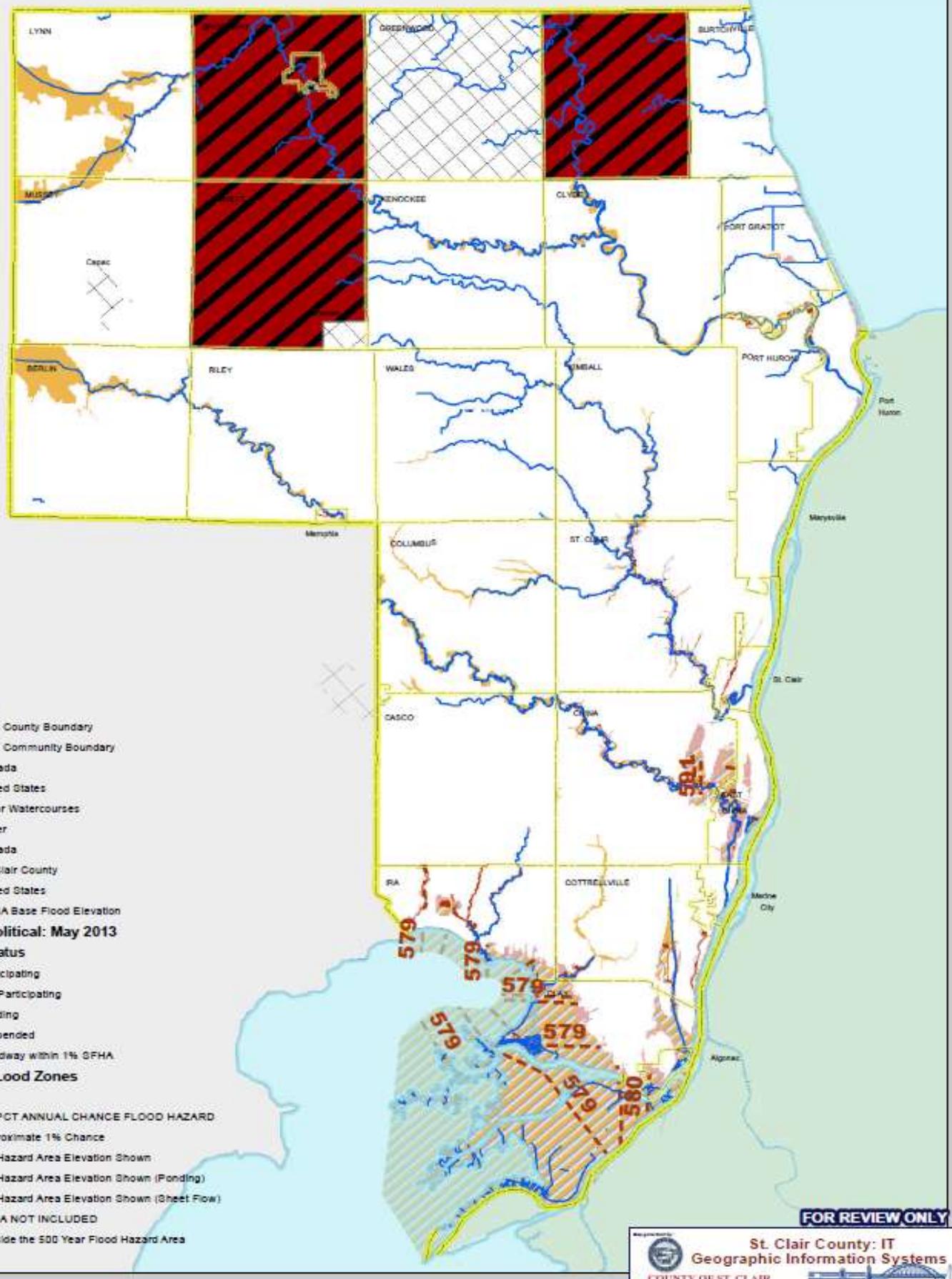
Miles



Template Produced for Hazard Mitigation Plan  
Metropolitan Planning Commission  
200 Grand River, STE 202  
Port Huron, MI







Wetlands which are hydrologically connected to waterways are also regulated. Activities exempted from the provisions of the Act include farming, grazing of animals, farm or stock ponds, lumbering, maintenance of existing nonconforming structures, maintenance or improvement of existing roads and streets within existing rights-of-way, maintenance or operation of pipelines less than six inches in diameter, and maintenance or operation of electric transmission and distribution power lines.

Wetlands cover approximately 62 square miles, or 8.6% of St. Clair County's land area. These wetlands are scattered throughout the county, but are more abundant along the eastern and southern coastline and along inland rivers. They are covered with lowland hardwoods, lowland conifers, shrub or scrub growth, or aquatic beds.

## Groundwater

Groundwater from wells is an unseen resource and is therefore particularly vulnerable to poor management and contamination. The leading causes of groundwater contamination in Michigan are from small businesses and agriculture. More than 50% of contamination comes from small businesses that use organic solvents, such as benzene, toluene and xylene, and heavy metals, such as lead, chromium, and zinc. The origin of the problem stems from careless storage and handling of hazardous substances. On paved surfaces where hazardous materials are stored, substances can seep through or flow off the edge of the pavement. Materials can get into floor drains which discharge to soils, wetlands or water courses.

The depth of groundwater in St. Clair County ranges from 50 to 170 feet below the Earth's surface. In the eastern part of St. Clair County, wells dug into glacial deposits generally yield a low volume of less than 10 gallons of water per minute. Water pumped from greater depths is highly mineralized, which limits household use. In the western part of the county, wells dug into glacial deposits provide greater yields and mineralization is generally not a problem.

The St. Clair County Health Department issues all water well and septic system permits. The number of permits has increased in the late 1990's, but some of the permitted septic systems were not constructed. Several large areas of the county have natural water well problems, including salty taste, sporadically dry or low-pressure yield, and gaseous odors.

There are no known areas of groundwater contamination from human sources within the county. However, there is a threat to groundwater by a chemical known as Methyl Tertiary Butyl Ether (MBTE), an oxidation additive that helps automotive gasoline burn cleaner. The chemical leaches quickly into groundwater from damaged underground gas station storage tanks. Leaking underground storage tanks are a problem throughout St. Clair County.

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## Surface Water



The St. Clair River is often busy with freighter traffic. Source: St. Clair County.

The Great Lakes contain 20% of the world's fresh surface water, and are a vital resource for both Michigan and St. Clair County because of their commercial and recreational usage. St. Clair County is unique because its entire eastern shore borders on part of the Great lakes watercourse. The water quality of the open waters of the upper Great Lakes, including Lake Huron, is quite clean, with only a few exceptions.

In 1986, the St. Clair River was declared an Area of Concern (AOC) by both the Canadian and U.S. governments. Industry was determined to be the main source of pollution. Municipal sewage treatment plants and other point source and nonpoint source pollutants are also contributors to the problem.

High nutrient levels, which cause an overabundance of algae in water, were a concern for many parts of the Great Lakes in the 1950's and 1960's. Fortunately, the nutrient level has been greatly reduced in recent decades due to the reduction of phosphorous loading from point sources.

Other problematic pollutants include the persistence of toxic substances, such as polychlorinated biphenyl (PCB), chlordane, and dioxin. PCB and the pesticide DDT were banned in the 1970's, and levels found in fish have declined. But the rate of decrease appears to have slowed, and fish samplings from this area show that Michigan Water Quality Standards for these chemicals are not being met.



The Black River flows into St. Clair River in the city of Port Huron.  
Source: St. Clair County.

## Shore lands

Shore land refers to the banks and adjacent land along a lake or stream. St. Clair County has a total of approximately 60 miles of shore land along Lake Huron, the St. Clair River, and Lake St. Clair. Most of the shoreline, especially along the St. Clair River, has been stabilized with sea walls.



St. Clair County is home to numerous woodland areas. Source: St. Clair County.

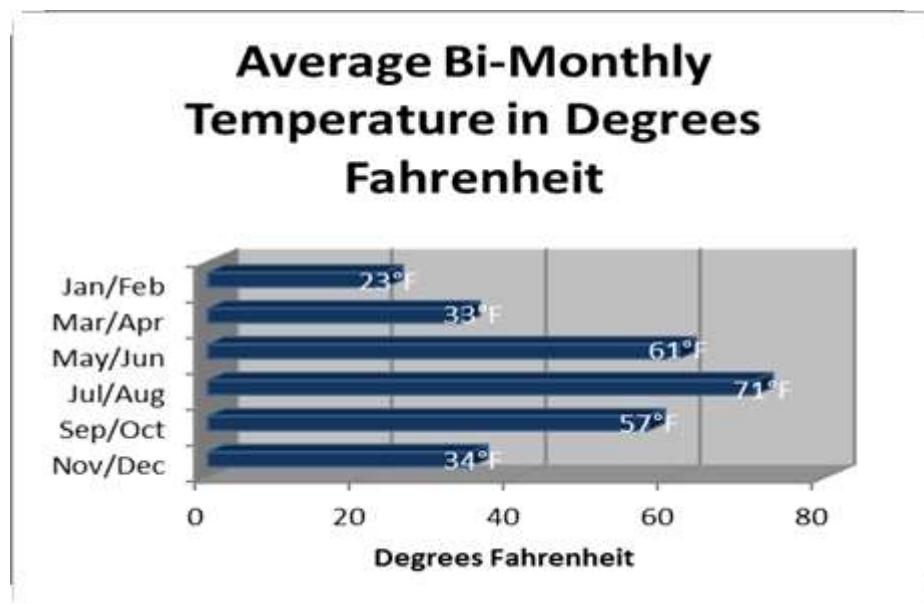
## Woodlands

Woodlands refer to land covered with woods or trees. The majority of woodlands in St. Clair County are along the inland banks of the Black, Pine, and Belle rivers. Other smaller patches of central hardwoods, lowland hardwoods and conifers are scattered throughout the county. Woodlands cover roughly 113 square miles, or 15% of the county; two thirds of that land is managed by the Michigan Department of Natural Resources. Mature trees represent a valuable resource in maintaining the aesthetic character of the area, not to mention their overall importance to wildlife and the natural environment.

## **Climate**

Climate refers to the weather pattern that can be expected in a geographical region, based on the average weather for a month or season in previous years. Weather conditions affect the community's economic base. Variations in average conditions, especially during the summer months, can cause fluctuations in tourism and outdoor recreation activities, upon which the local economy is dependent. Prevailing winds determine lakeshore and sand dune erosion patterns, which impose limitations on development along the Lake Huron shore. The Great Lakes are a major control factor on the climate for the Midwest; however, St. Clair County is less strongly influenced by climate because of its southeastern location in the State. The most obvious effect of the lakes on the county is the increased percentage of cloudiness in late fall and early winter, when prevailing westerly winds move cold air across the warmer lake water. In addition, the county's southeastern location provides it with five to ten percent more sunshine than those counties at the same latitude on the western side of the State.

**Figure 2.1 Average Bi-Monthly Temperatures in Degrees Fahrenheit**



Source: N.O.A.A., Port Huron Sewage Plant Readings

Because the day-to-day weather is controlled by the movement of pressure systems across the U.S., the county rarely experiences prolonged periods of hot, humid weather in the summer or extreme cold during the winter. July and August are the warmest months in St. Clair County, with an average bi-monthly temperature of 71 degrees Fahrenheit. In contrast, temperatures average near 23 degrees Fahrenheit in January and February. See Figure 2-1.

The growing season in St. Clair County ranges from 150 to 180 days, with the greater number of days along the shoreline of Lake St. Clair and Lake Huron. The county receives an average of 30 to 32 inches of rain annually, primarily during April through September. Average snowfall is 38.4 inches annually, but this varies considerably from year to year. Precipitation in the summer comes primarily in the form of afternoon showers and thunderstorms. Figure 2-2 depicts the average bi-monthly precipitation in St. Clair County.

**Figure 2.2 Average Bi-Monthly Precipitation in Inches**

The county receives an average of 30 to 32 inches of rain annually, primarily during April through September: Average snowfall is 38.4 inches annually, but this varies considerably from year to year.

### Average Bi-Monthly Precipitation in Inches



Source: N.O.A.A., Port Huron Sewage Plant Readings

Severe weather can have a significant impact on a community. Thunderstorms are particularly dangerous since they can produce occurrences of other hazards, such as strong winds, lightening, flash floods, hail, and tornadoes. Nationwide, tornadoes cause an average of 70 fatalities and 1500 injuries per year, as well as winds that reach speeds of up to 250 miles per hour. Strong winds can reach up to 100 miles per hour and cause damage equal to a tornado.

According to the National Weather Service, in 2010, an EF1 tornado hit the Fort Trodd Campground resulting in one death, four injuries, and ten campers being destroyed or damaged. In May of 2004 an F1 tornado hit St. Clair County resulting in \$10,000 worth of damages. The largest tornado to hit the Port Huron area was in 1964, classified as an F4, causing 224 injuries and 11 deaths. Since 1950 St. Clair County has experienced 21 tornadoes ranging in size from F1 to F4.

### **Land Use/Land Cover**

Hazard mitigation is primarily concerned with development: where are the people, buildings that they live and work in, and the infrastructure that serves them?

### **Land Cover in St. Clair County**

Agriculture is by far the most prevalent land use/cover type in St. Clair County. Land cover refers to undeveloped land and identifies if the land is barren or vegetated and, if vegetated, the type of vegetation.

Besides agricultural farmland, the county's primary land cover includes woodlands, wetlands, and grassland and shrubs. Land cover that is designated as wetlands, floodplains, steep slopes, and certain soils are not suitable for land development because of extra development costs, risk of structural damage, regulatory restrictions, or a combination of these factors. Likewise, retaining



A farm in Greenwood Township. Source: St. Clair County.

such land cover is beneficial because the features in this terrain provide landscape variations and beneficial biological functions.

According to SEMCOG, St. Clair County had 242, 034 acres of active agricultural land in 2000. In 2010, the county had 218,808 acres of active agricultural land, which means between 2000 and 2010, the county lost 23, 226 acres, of its agricultural land.

Woodlands and wetlands covered 82,714 acres of the county in 2000. Wetlands are scattered throughout the county, but are most prevalent along the eastern and southern coastline and along inland rivers. They are covered with lowland hardwoods, lowland conifers, shrub or scrub growth, or aquatic beds. Wetlands are essential to St. Clair County communities as they help to maintain the delicate balance of the ecosystem. Wetlands serve as sponges, absorbing excess runoff during rain events. As the water infiltrates, it is cleansed using the natural filtration capability of the plants and soils. Wetlands also retain moisture for much of the growing season, endowing nearby plant communities with water and recharging underlying groundwater supplies.

Residential land covers nearly 178,000 acres of St. Clair County, while grassland and shrubs cover 50,882 acres.

### Land Use in St. Clair County

While land cover describes the presence or absence of different types of vegetation, land use describes the type of use of the land, such as residential, commercial, industrial, and agricultural. Table 2.2 presents the changes in land use between 2000 and 2010.



A barn in Clyde Township.

Source: St. Clair County.



A barn in Grant Township. Source: St. Clair County.

Table 2.2 Land Use 2000-2010 SEMCOG Land Use

Land Use	Acres 2000	Acres 2010	Percentage	Change 2000-2010
<b>Agricultural</b>	242,034	218,808	46.90%	Decreased 46,000
<b>Single Family Residential</b>	61,868	179,825	34.40%	Increased 117,957
<b>Multiple Family Residential</b>	659	580	0.10%	Decreased 79
<b>Commercial</b>	3072	7,273	1.60%	Increased 4,201
<b>Industrial</b>	4,276	5,790	1.20%	Increased 1,514
<b>Governmental/Institutional</b>	2,026	9,647	2.10%	Increased 7,621
<b>Park, Recreation, and open space</b>	4,458	22,731	4.90%	Increased 18,273
<b>Airport</b>		1,069	0.20%	
<b>Transportation, Communication, and Utility</b>	7,102	17,840	3.80%	Increased 10,738
<b>Water</b>	1,835	2,578	0.60%	Increased 743
<b>Total Acres</b>	327,330	466,140	100%	Increase 138,810

Source: SEMCOG 2010

## Future Land Use

### Legend

- Recreation, Open & Public Spaces
- Institutional
- Commercial/Office
- Industrial & Light Manufacturing

### Development Districts

- Urban Areas
- Rural Residential
- Agriculture/Rural Preservation

### Map Citation

Data obtained from MPC projections

This map was created as part of the St. Clair County Master Plan process; for county-wide reference purposes. No site-specific decisions should be made without independent field verification of the information presented.





A housing development in St. Clair Township. Source: St. Clair County

There are several types of developmental patterns within St. Clair County: urban centers, small cities, villages, hamlets and suburban and rural areas. Each type is unique and separate, offering its own composition of land uses, and land use intensities and densities. The city of Port Huron is the county's primary urban area. Port Huron is characterized by medium to high density residential development, neighborhood parks and centers of commercial activity. Generally, smaller urban and suburban cities within the county are located along the eastern and southern coastlines. These include Marysville, Marine City, and Algonac, all of which are also characterized by medium to high density residential development, surrounded by lower density residential and rural residential development that transitions into agriculture.

St. Clair County sits upon very flat terrain, which has been beneficial to farming activities in the area. Agriculture declined between 2000 and 2010, yet it consumed the greatest amount of county land. This is due in part to development pressure, although economic factors are also responsible for the loss of the lands in agriculture production. Many of the rural communities have made provisions in the master plans to guide residential development so that rural character is preserved while development occurs. Such goals, objectives and policies and pursuit of farmland preservation programs such as the Farmland Preservation Act (PA 116) or Purchase of Development Rights programs speak to the importance residents place on agriculture lands and open spaces.

With 218,808 acres of agriculture land, agriculture is the most prevalent land use in St. Clair County. There is approximately 38,403 acres more of agriculture land than residential which accounts for 180,405 acres. Most of the prime farmland is located primarily north and west of a line from Port Huron to Memphis. Soils in this part of the county are highly productive for agriculture and crops grown on those soils will produce the highest yields with the smallest amount of energy and economic resources. Land in the southern portion of the county is comprised of hydric soils. These areas, along with the wetlands, and woodland areas along the inland banks of the Black Pine and Belle Rivers, hinder agriculture activities to an extent.

A small number of commercial and office uses exist in St. Clair County, occupying 7,273 acres in 2010, a 4,201 increase in acres from 2000. The majority of commercial and office uses are located in the urbanized area in and around the city of Port Huron. However; smaller pockets of commercial and office developments are scattered throughout the county in Marysville, St. Clair, Marine City, Yale, and, Capac.

Industrial uses increased 1,514 acres between 2000 and 2010 within the county. In 2010 there was 5,790 acres of land being utilized for industrial purposes. Geographically, industrial activities are not concentrated in one particular area, but rather are dispersed throughout the eastern and central portions of the county, in Port Huron, Marysville, and Marine City, and in East China, Columbus, Port Huron and Casco Township

Institutional land uses serve a public purpose and include both public and private organizations. All buildings that are owned and operated by the county or by cities, villages, townships, school districts, or other public organizations are part of institutional activities. The county is home to 13 school districts and houses 14 high schools, 13 middle schools, and 30 Elementary Schools. Churches and cemeteries are also institutional land uses that play an important role in the lives of county residents.



Yale High School in the City of Yale.  
Source: St. Clair County Emergency Management

In keeping with the St. Clair County Master Plan goals and objectives, single-family residential growth will most likely move from coastline to inland areas. Rural villages and towns, attempting to maintain their character and development should remain concentrated along village and town borders.

The future land use map identifies areas planned for urban development, high density residential, residential with no services, recreation and open space, commercial, and industrial uses. Future land use generally represents a planning period of 25 years. Much of the eastern coastline of the county is planned as an urban area and pockets of high density residential development are found within those urban area. Smaller pockets of commercial and industrial developments are dispersed throughout the county. The area north and northwest of a line from Port Huron to Memphis is planned for agriculture preservation. Recreational open spaces and public spaces will be linked through a system of greenways and environmental corridors.

## ***Transportation***

Transportation refers to the various ways—navigable rivers, roads, railroads, airways, pathways, and trails—that people transport themselves and their supplies and products from one place or community to another. The purpose of a transportation network is to move people and goods safely and efficiently. In St. Clair County, roadway, rail, and air transportation options are available. Motor vehicles are the primary means of transportation in the county. The network services those with destinations in the county, as well as those needing to pass through the county to get to a final destination point. The county's system are used by people and businesses throughout the Midwest as the county is in close proximity to major cities and serves as an international gateway to trade and commerce between the United States and Canada.

The major overland transportation corridors in St. Clair County are Interstate 94 and Interstate 69, which parallel Gratiot Avenue and Lapeer Road, respectively.

Transportation planning requires a comprehensive study of existing and anticipated traffic volumes, safety, roadway improvements, and non-motorized means of transportation. The public's accessibility to transportation systems and mobility within those transportation systems are key considerations. It is also imperative to consider how, when, and where people travel and to examine potential impacts on community character; the environment, air quality, noise, pollution, taxation, and fiscal expenditures. The biggest transportation impact is on land use and community development.

The major overland transportation corridors in St. Clair County are Interstate 94 and Interstate 69, which parallel Gratiot Avenue and Lapeer Road, respectively. While these highways do not create new formally organized communities, the interstates do attract development in the form of motorist service facilities, such as gas stations, fast food restaurants, and overnight accommodations.

**Table 2.3 Transportation Access in St. Clair County**

Types	Availability in St. Clair County
<b>Main Highways</b>	I-94, I-69, M-136, M-29, M-25, M-154, M-19
<b>Rail Lines</b>	CSX, CN North America
<b>Ferries</b>	Harsens Island, Marine City, Algonac/Walpole Island
<b>Ports</b>	Port Huron, Marine City, Marysville, St. Clair
<b>Airports</b>	St. Clair County International, Marine City Airport
<b>Public Transportation</b>	Blue Water Transit

Source: Michigan State Transportation Commission, 2010;  
St. Clair County 2030 Long Range Transportation Plan, 2012

## Why People Travel

Knowing why, when, and how people travel helps transportation planners examine existing traffic volumes, safe or unsafe conditions, required roadways improvements and alternative or non-motorized means of transportation.

Most people travel on a daily basis to and from work. Non-work travel is for shopping, social, or recreational purposes. Over 63% of St. Clair County workers who live within the county also work in St. Clair County. See table 2-4. The percentage – over 37% - of labor force that travel to jobs outside of St. Clair County is higher than the state average of people who work outside their home county. Throughout Michigan, roughly 83% of the labor force work in their county of residence. Most of the St. Clair County residents who are leaving the county to work are commuting to jobs in Macomb, Oakland, and Wayne counties.

**Table 2.4 Where People Work**

	St. Clair County	State of Michigan
<b>Total Workers</b>	68,406	4,245,156
<b>Worked in Michigan</b>	99.6%	98.6%
<b>Work in County or residence</b>	63.7%	83.8%
<b>Worked outside of county of residence</b>	37.5%	26.8%

Source: US Census 2010

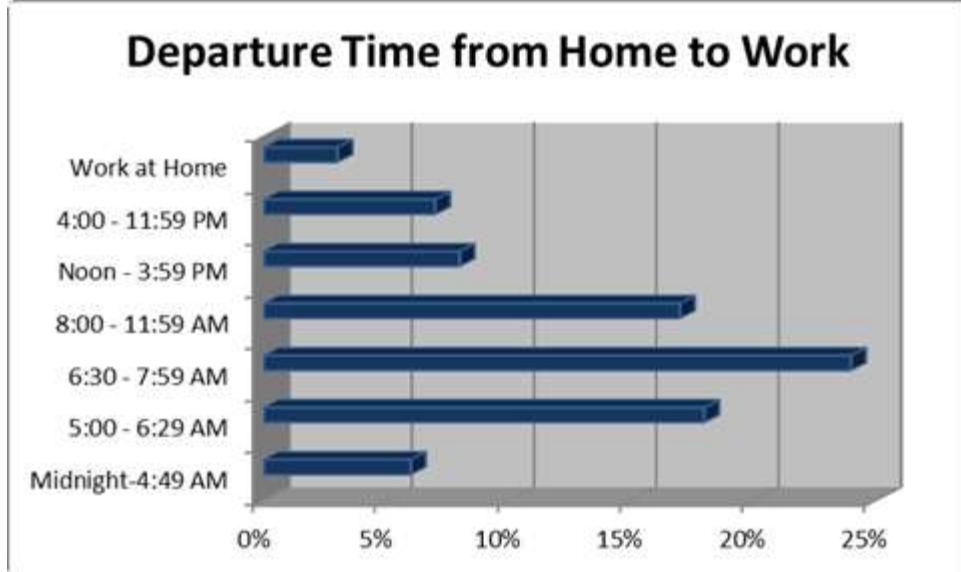


City of St. Clair – Intersection of Range Road and C & O Railroad. Source: St. Clair County

## When People Travel

Residents of St. Clair County tend to leave for work earlier than the state average, which means that the morning peak hours are earlier than in most counties. See figure 2.3. The departure time from work is more evenly distributed than the state average. Therefore, roads are generally more congested in the morning rush hours than the evening rush hours.

**Figure 2.3 Departure time from home to work**



Source: US Census 2010

Workers living in St. Clair County do not have to travel very far to find employment. For residents who work within the county, the amount of time it takes to get to work is less than the state average. This is due to the relative compactness of employment centers in Port Huron, Marysville, and St. Clair. Metropolitan areas with high job compactness have lower commuting times because it is difficult to design a high-speed transportation network for dispersed jobs. Nearly 45% of the workers who live in the county do not work at home, travel twenty minutes or less to get to work. See table 2.5. Over 60% travel one half hour or less to get to work. Nationally, according to the US Census 2010 data, Americans spent nearly 27.5 minutes commuting to their jobs in 2010, up 1.5 minutes from 2000. Nearly 92% of all Michigan residents commute alone to work. Urban sprawl is contributing to longer commute times and increasingly congested road networks. This is attributed to a large number of users trying to utilize the same transportation network in dense areas, slowing everyone down. However, sprawl is not the only cause of congestion. Commuters in rural, low-density communities have more empty space to traverse to reach their destinations. The Texas Transportation Institute estimates the cost of congestion to be around \$63 billion from time delay and wasted fuel.

**Table 2.5 Average Commute for Workers in St. Clair County, 2012**

Place	Total workers who did not work at home	Travel Time in Minutes							
		Less than 10 minutes	10 to 19 minutes	20 to 29 minutes	30 to 44 minutes	45 to 59 minutes	60 to 89 minutes	90 or more minutes	
St. Clair County	69,706	63.20%	23.50%	5.30%	4.60%	1.20%	1.80%	0.40%	
State of Michigan	4,306,814	85.30%	5.20%	4.60%	2.30%	1.50%	0.70%	0.40%	

Source: US Census & SEMCOG 2010

## How People Travel

Ninety four percent of St. Clair County workers commute via private automobile. This is comparable to the state average. Nearly 84% of county commuters travel alone to and from work. Just over 10% carpool, most of these with only one other person. Six percent of the workers either get to work by some other means or work at home.

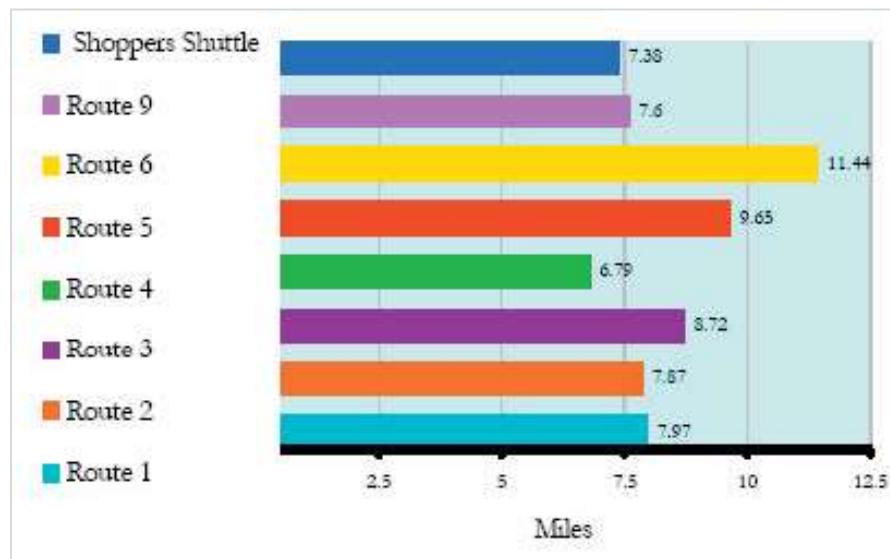
## Public Transit

Blue Water Area Transportation Commission (BWATC) provides transit services to several communities within St. Clair County including the cities of Port Huron and Marysville and the townships of Port Huron, Fort Gratiot and Burtchville. BWATC operates a mixture of fixed route, demand response and contract services. The base fare for all services is 75 cents and transfers to other BWATC buses are free.

Public transportation has been a critical part of the city of Port Huron since 1866. Beginning in the 1880's, Port Huron was one of the first communities to operate an electrified transit system and during the 1930's was one of the first communities to operate motor coaches. With the exception of a brief period from 1968 to 1976, Port Huron has operated some form of public transportation for over 130 years. Since 1976, BWATC has continued this tradition by providing over 26 million directly operated unlinked passenger trips in its nearly 70 mile square area.



Source: Blue Water Area Transit Commission



BWATC currently operates eight fixed routes primarily providing service within the city of Port Huron and Fort Gratiot. Although there are fixed stops along each route, the service does operate a flag system where necessary. Due to the rural nature of the majority of the county, fixed route public transit is confined to the most heavily populated portion of the urbanized area along the St. Clair River. Headways are generally 45 minutes and all vehicles for the fixed route service are Americans with Disabilities Act (ADA) accessible via a lift or ramp.

BWATC also operates two Commuter Routes to Macomb County. These Commuter Routes link up with the urban SMART bus system at 23 Mile Rd. and Gratiot in Macomb County. One Commuter Route, the M – 29, operates beside the St. Clair River on M – 29 and stops at various locations along the route. The other Commuter Route, the 94 Express, operates along I – 94 and does not stop once it has reached I – 94.

On demand complimentary para-transit services are available for Americans with Disabilities Act (ADA) eligible riders as well as limited mobility passengers. Reservations can be made as early as two weeks in advance and as late as the day prior to scheduled pick – up. All vehicles available for this service are lift or ramp equipped.

Demand response services are available to residents living in Burtchville, Port Huron, Fort Gratiot and Marysville. Bus service may be dispatched within the hour, depending on when a customer reserves a ride. Reservations made 24 hours in advance can best provide a trip that conforms to a customer's schedule.

BWATC provides contract services for eleven non – profit organizations within the county including:

- St. Clair County Community Mental Health
- Council on Aging
- YMCA
- City of St. Clair
- Community Enterprises of St. Clair County
- Innovative Housing Development Corporation
- Blue Water Developmental Housing
- I.M.P.A.C.T.
- Blue Water Community Action Agency
- Touchstone Services
- Life Skills Incorporated



Source: [www.bwbus.com/images](http://www.bwbus.com/images)

BWATC provides multiple contract services for agencies within their service area. These contract services include direct operating, funding, vehicle maintenance, and bus procurement. As part of its coordinated and consolidated public transportation service, BWATC has access to place demand response riders on contracted non-profit organization vehicles when appropriate. This allows riders access to a much larger service area than the greater Port Huron service area.

**Table 2.6 BWATC Ridership by Service Type**

Service Type	2011	2012	2013
<b>Fixed &amp; Commuter Routes</b>	826,372	918,263	939,488
<b>Demand Response</b>	335,170	358,908	333,814
<b>Contract Services</b>	232,697	252,779	243,013
<b>Total</b>	1,394,239	1,259,950	1,516,315

Source: National Transit Data Base

During the summer tourist season, BWATC operates a narrated trolley tour that highlights the historic and scenic sites of the downtown area. The tour lasts approximately an hour and includes several points of interest, historic sites and panoramic views of the Blue Water Bridge and the St. Clair River. The fare for the Blue Water Trolley is ten cents.

## County Road System

The St. Clair County street network is comprised of 495 miles of county primary roads, 1,057 miles of county local roads, 260 miles of city streets and over 180 miles of state trunk lines. Principal arterials consist of Interstate Highways 69 and 94, which traverse the county from the west and south merging in Port Huron before joining Canada's highway 402. MDOT estimated 1,234 million vehicle miles were traveled in St. Clair County in 2010, compared to 1,574 million traveled in 2001, and 1,590 million in 2000. The interstates carry the largest volume of traffic on the network with Annual Average Daily Traffic counts ranging from 20,000 to 50,000 vehicles. Another principle arterial, Highway M-25, continually experiences AADT's of 26,000 vehicles or more. The interstate/state highways in St. Clair County, including M-19, M-29, M-136, a portion of old M-21, and two highway rest stops are under the jurisdiction of the Michigan Department of Transportation (MDOT). The St. Clair County Road Commission (SCCRC) has a maintenance contract with MDOT to maintain all state facilities within the county.



Burtsville Township – Intersection of State Road and Harris Road.

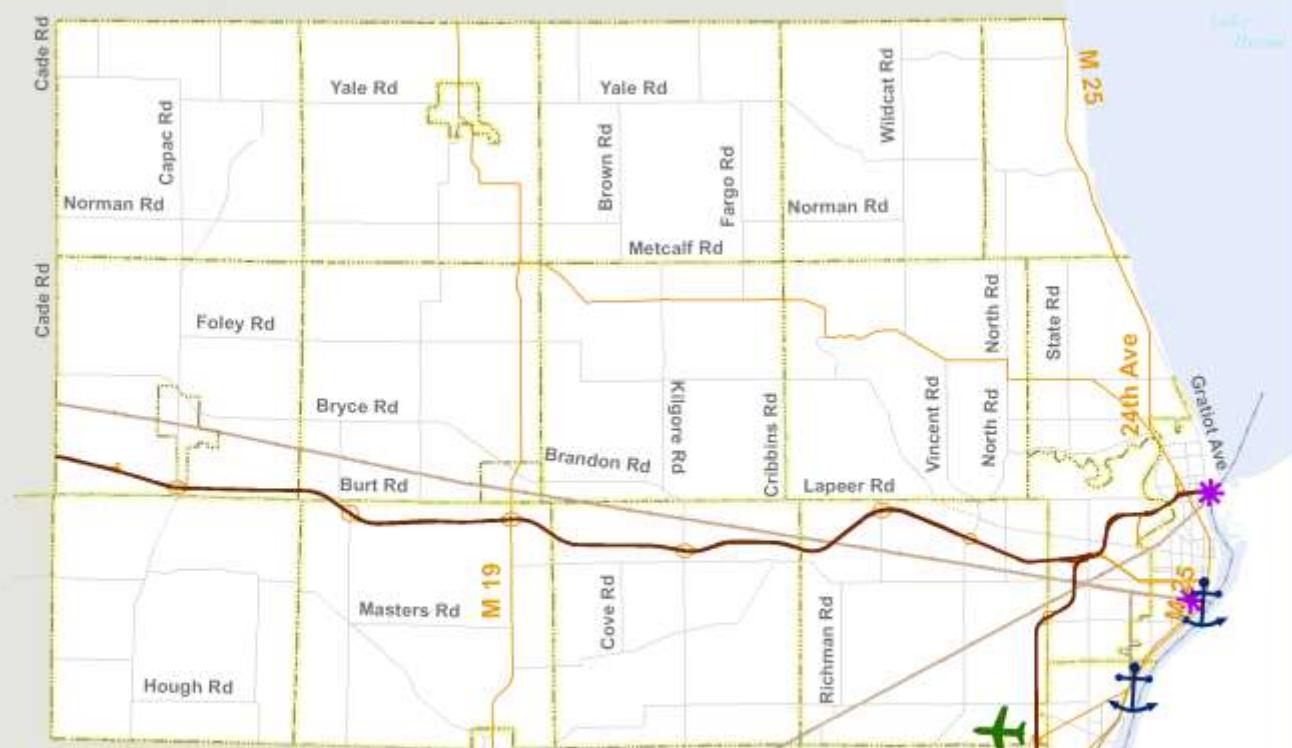
Source: St. Clair County

MDOT, the St. Clair County Road Commission, and various municipal departments are responsible for different portions of the road system. In cities and villages, the local community is entirely responsible for maintenance and improvement of these roads, including the cost. Township roads are maintained by the County Road Commission. The cost of improving roads is normally split between the County Road Commission and township, although the local share can come from sources other than the township. Local road construction projects require a 50/50 local/county split. Primary county roads require no local match; however, townships may provide from zero to 100 percent of project costs. Local taxes must be generated to fund local road projects, while county taxes may have to be increased to fund primary road projects.

## Bridges

St. Clair County encompasses 378 bridges — the majority which are owned and maintained by the county. More than 300 bridges cross lakes, rivers and streams with one-to-two lanes. Recent projects undertaken to improve mobility across the Black River include the I-94/Black River Bridge Project as well as other studies initiated to identify a new Black River Bridge crossing location. Four bridges in St. Clair County on I-94 were under construction in 2003.

St. Clair County owns and is responsible for the maintenance of 63% of the bridges in the county. This includes roads of the county primary (89) and county local (133) legal classification, as defined in Public Act 51 of 1951. The majority (82.7%) of all 378 bridges in the county traverse water and 83.5% are rated in fair to excellent condition. Bridges were rated against several criteria, including the condition of the decks, deck wearing surfaces, superstructures, substructures, channel and channel protection, and culverts. Of the counties within the SEMCOG region, St. Clair County has the lowest percentage (19%) of bridges warranting a rating of Poor to Serious. A rating such as this indicates that structural deterioration has reached an advanced stage. A rating of Critical or Worse indicates that deterioration of primary structural elements has reached an advanced stage and that closing the bridge may be necessary. Seven bridges within the county warrant this rating, though none require closure. Only one bridge in St. Clair County was rated as "Failed." This bridge is located on Webb Road where it crosses the Riley-Wales Drain in Wales Township.



## Transportation

### Legend

- AIRPORT
- DEEPWATER PORT
- \* BorderCross
- Major Roads
- Local Highways & Ramps
- Interstate
- Active Rail
- Village Highlight
- Township Highlight
- International Boundary

### Map Citation

This map was created as part of the St. Clair County Master Plan process; for county-wide reference purposes. No site-specific decisions should be made without independent field verification of the information presented.



## Crash Assessment

In 2013, 3,666 reports of traffic crashes were documented for St. Clair County. This is a 9.6% decrease from reported crashes in 2009 and a 7.9% decrease in crashes from 2005. Safety issues rank as one of the highest concerns St. Clair County residents have with the transportation system, despite a measured decrease in vehicle crashes within the county.

Traffic crash frequency is commonly used as a measure in determining existing safety issues. The crash rate is an indication of how well the physical roadway characteristics accommodate traffic. Specifically, it is a statistical measure comparing the frequency of crashes based on exposure. Exposure is the number of vehicles using a mile of roadway, expressed in millions. SEMCOG summarizes detailed intersection crash data compiled by the Michigan Department of State Police – Criminal Justice Information Center (CJC). A review of the 2010 crash datasets, as well as an historical data review between the years 2010 - 2013, was used as references. Table 2-7 lists intersections with the highest annual crash average.



Traffic crashes can cause major disruptions to the transportation network; can lead to major injuries, and even fatalities.

Crash severity is also used to present crash statistics. This method involves listing each crash occurring at a site under one of SEMCOG's five severity classes: Fatal (F), incapacitation personal injury (A-Level), non-incapacitating personal injury (B-level), possible personal injury (C-level), and property damage only (POD). Fatal crashes result in at least one death. Crashes that result in injuries but no deaths are classified as personal injury crashes to different degrees. Crashes that result in neither death nor injuries but do involve damage to property are classified as property damage crashes. Crashes have a cost to both the individuals involved and the driving public. SEMCOG's relative severity index allocates a monetary weight to each crash based on severity class. Table 2-8 lists the intersections with the highest severity values for 2009 – 2013.

**Table 2.7 Intersection Crash Averages**

Intersection	Annual Crash Average 2009 - 2013
M 25 @ Kraft Rd.	30.4
Pine Grove Ave @ Holland Ave	21.6
M 25 @ Keewahdin Rd	21.2
10th St. @ Lapeer Ave	17.8
Pine Grove Ave @ Sanborn St.	17.6
Hancock St @ Pine Grove Ave	17.4
Gratiot Blvd @ Range Rd	14.4
Pine Grove Ave @ 10th Ave	12.6
Pine Grove Ave @ River Rd N	12.6
I 69 BL @ 24th St	12.4

Crash Average is the total number of vehicle crashes at that intersection. Source: SEMCOG and (CJC)

**Table 2.8 Intersection Severity Rating**

Intersection	Severity Rating 2009 - 2013
<b>Gratiot Blvd. @ Range Rd.</b>	\$1,231,149,489.87
<b>M 25 @ Keewahdin Rd.</b>	\$1,229,882,034.12
<b>M 25 @ Kraft Rd.</b>	\$48,528,366.50
<b>Hancock St. @ Pine Grove Ave.</b>	\$28,010,927.48
<b>10th St. @ Lapeer Ave.</b>	\$24,874,327.37
<b>Pine Grove @ River Rd. N</b>	\$19,097,752.33
<b>I - 69 BL @ 24th St.</b>	\$6,752,177.42
<b>Pine Grove Ave. @ Sanborn St.</b>	\$6,010,278.64
<b>Pine Grove Ave. @ Holland Ave.</b>	\$5,822,969.11
<b>Pine Grove @ 10th Ave.</b>	\$385,469.84

Severity Rating = \$3,961,000 x Fatal + \$278,000 x A-Level  
 +\$66,000 x B-Level + \$38,000 x C-Level + \$2,700 x  
 PDO)/Total Crashes. Source: SEMCOG 2010 - 2012

### Non-Motorized Facilities

Recreational trails are facilities designed to accommodate bicycles as well as pedestrian traffic. St. Clair County is currently constructing two regional trail systems. The county, as well as the communities along the shoreline of Lake Huron, the St. Clair River and Lake St. Clair have envisioned a trail across the Urban and General Services District of the St. Clair County Master Plan. The 54-mile paved Bridge-to-Bay Trail connects the communities of Port Huron, Marysville, St. Clair, Marine City and Algonac. Portions of the trail already connect neighborhoods and activity centers within the local communities. A connection to the Wadhams-to-Avoca Trail is planned for the future.

The other major bike trail in St. Clair County, the Wadhams-to-Avoca Trail, extends through Kenockee, Clyde, and Kimball Townships. The St. Clair County Parks and Recreation Commission (SCCPARC), through the SCCRC, has applied for funding to purchase abandoned CSX railway that will extend the Wadhams-to-Avoca Trail southeast.

### Railroad Transportation

CSX Transportation and CN North America Railroad provide Class I rail service to the county. The Class I rail routes in St. Clair County provide U.S. freight connections to Canada through the International Railroad Tunnel in Port Huron, as well as service to industrial sites throughout Michigan.

The CN North America's primary line runs east to west through the communities of Port Huron, Emmett, and Capac. CN North America also has a route through the communities of Columbus and Smiths Creek on a SW-NE Detroit line. Year 2000 estimates indicated that CN North America transported over 40,000 Gross Ton Miles (GTMs) per route mile along the Chicago-Port Huron route and over 55,000 GTMs per route mile from Port Huron-Toronto. The CSX line runs from Marine City through St. Clair, Marysville and Port Huron.

In addition to freight, the CN east-west route provides passage for Amtrak passenger rail service. The Port Huron depot station is the only scheduled stop in the county for the daily roundtrip service between Toronto and Chicago. In April 2004 the route changed to provide service between Port Huron to Chicago only, which will potentially minimize the delays that plagued the service when it crossed the US-Canada border.

The Paul M. Tellier Tunnel, which was rebuilt in 1995, runs under the St. Clair River between Sarnia, Ontario and Port Huron, accommodates double-stacked container trains, multi-level auto carriers and other large rail cars and payloads. The St. Clair River Railroad Tunnel is the world's largest underwater rail tunnel and represents one of the largest construction projects of the 1990's in North America. The tunnel significantly reduces transit times for rail traffic that previously had to be barged across the river, as well as for container traffic between Halifax and Chicago, and the U.S. industrial heartland.

## Port Facilities

There are five private commercial ports within St. Clair County. The public Seaway terminal in Port Huron no longer functions as a cargo terminal but is used primarily by cruise liners and other recreational ships. With increased pressure within the freight industry to find adequate facilities to accommodate projected increases in freight transport between the US and Canada, the Seaway terminal may convert back to a cargo terminal providing some commercial cargo services in the future.

The county is also served by ferry service in multiple locations. The Marine City Ferry operates year-round between Marine City and Sombra, Ontario. The Walpole Island Ferry provides year-round transport between Algonac and Wallaceburg, Ontario. The ferry service from Algonac to Russell and Harsens Islands is the only access to the island outside private boat and aircraft.

## Trucking/Freight Traffic

According to the Federal Highway Administration, international trade was projected to increase at an annual rate of almost three percent between 2003 and 2020— faster than the domestic growth of the industry and nearly double its volume. MDOT has documented an increase in truck traffic on the Blue Water Bridge from 2.1 million crossings in 2009 to 2.6 million in 2010. St. Clair County is likely to experience further increases in truck volume due to its status as a U.S. port/border gateway.

The additional volume will place greater pressure on the county's transportation network by trying to balance the concerns of freight companies with local commuters and tourists.



Paul M. Tellier Tunnel that connects Port Huron, MI with Sarnia, Ontario.

Source: Rail Fame Images

## Aviation/Air Travel

The St. Clair County International Airport (SCCIA) primarily functions as a cargo airport providing twenty four hour customs/immigration services. The SCCIA's primary runway is 5,103 feet long by 100 feet wide and the secondary runway is 4,100 feet long by 75 feet wide. Major roadways that serve the airport include I-94, I-69, and Gratiot Avenue. The SCCIA has developed the Ten-Year Capital Improvements Program:

- 2013: Reconstruction of the south hanger area taxi streets
- 2014: Design rehabilitation of taxiways J, K, and P.
- 2015: Rehabilitation of taxiways J, K, and P.
- 2016: Runway justification user survey
- 2017: Runway 4/22 lighting and vault rehabilitation
- 2018: Taxiway B and C lighting rehabilitation
- 2019: Rehabilitation of runway 4/22
- 2020: Reconstruction of terminal apron



St. Clair County International Airport. Source: St. Clair County International Airport

The Marine City airport is a privately owned airport. The airport is classified as a general-utility airport. The I-94/Marine City interchange is the closest major access point to serve this airport. Table 2.9 summarizes the service and operations provided by the two local airports.

**Table 2.9: Air Traffic Volumes**

Airport	Based Aircraft (2010)	Operations (2010)
St. Clair County International	89	25,051
Marine City	26	7,200

Source: MDOT, St. Clair County International Airport & Marine City Airport



Flight Training Center at St. Clair County International Airport. Source: <http://aviationexpressinc.com/st-clair-county/flight-training/>

**Table 2.11: St. Clair County Public and Private Airports, Michigan**

Airport or Landing	Facility Usage	Address	Phone Number
<b>Avoca Airport</b>	Public	8323 Imlay City Rd. Avoca, MI 48006	(810) 324 - 2352
<b>Fasel Field Airport</b>	Private	8636 Beard Rd. Avoca, MI 48006	(810) 324 - 2282
<b>Tackaberry Airport</b>	Public	9730 Avoca Rd. Avoca, MI 48006	(810) 324 - 2431
<b>Sharpes Strip Airport</b>	Public	9730 Avoca Rd. Avoca, MI 48006	(810) 384 - 6668
<b>Wards Long Acres Airport</b>	Private	5743 Meldrum Rd. Anchorville, MI 48004	(313) 725 - 7132
<b>Harsens Island Airport</b>	Public	2238 Columbine Rd. Harsens Island, MI 48028	(810) 748 - 0000
<b>Hawks Landing Heliport</b>	Private	6455 Starville Rd. Marine City, MI 48039	(810) 334 - 8980
<b>Janski Heliport</b>	Private	6360 Broad Bridge Marine City, MI 48039	(810) 765 - 1865
<b>Marine City Airport</b>	Public	7115 Marine City Hwy. Marine City, MI 48039	(810) 765 - 8289
<b>Wenning Landing Area Airport</b>	Private	6195 Meisner Rd. China, MI 48054	(810) 765 - 5728
<b>Port Huron Hospital Heliport</b>	Private	1221 Pine Grove Ave. Port Huron, MI 48060	(810) 989 - 3320
<b>St. Clair County Intl Airport</b>	Public	201 Mc Morran Blvd. Port Huron, MI 48060	(810) 364 - 6890
<b>Robertson Field Airport</b>	Private	3390 Hessen Rd. Casco, MI 48064	(586) 727 - 7984
<b>Norton Field Airport</b>	Private	13114 Dunn Rd. Memphis, MI 48044	(810) 751 - 0319
<b>Bps Heliport</b>	Private	6690 Rynn Rd. Clyde, MI 48049	NA
<b>Johnson Field Airport</b>	Public	693 Sturdevant Rd. Smithscreek, MI 48074	(810) 434 - 6201
<b>Davids Landing Airport</b>	Public	5599 St. Clair Highway China Township, MI 48054	(810) 326 - 2989
<b>Crystal Airport</b>	Private	1409 F W Moore St. Clair, MI 48079	(313) 329 - 6681
<b>Gavagan Fld Airport</b>	Public	13989 Fulton Rd. Lynn, MI 48097	(586) 776 - 6038
<b>Yale Airport</b>	Public	7387 Brockway Rd. Yale, MI 48097	(810) 387 - 2173

## **Population**

### **Population Characteristics**

St. Clair County is the 13<sup>th</sup> largest county in the State of Michigan. Between 2000 and 2010, St. Clair County ranked 13<sup>th</sup> of the 83 Michigan counties in the most populated county. Between 2000 and 2010, the population of St. Clair County is estimated to have decreased by almost by 1,195 people for a total of -1.2% growth rates during this ten year period. Over the last one hundred years, Southeast Michigan has considerable growth. In 1900 the seven member counties of the Southeast Michigan Council of Governments (hereafter referred to as SEMCOG) had a population base of approximately 600,000 persons, of which about 55,000 resided in St. Clair County. By 2000, the population base of SEMCOG had grown over 800% to approximately 4.8 million persons. During the same 100 year period, St. Clair County grew lower, only tripling its population base to just below 165,000 persons.

According to the results of the 2010 census of population and housing, the population of St. Clair County is 163,040 persons – a 1.2% decrease from 2000, when the population of the county was 164,235. The county's population has been increasing steadily since at least 1960, however with recent economic struggles the population rate has decreased as many are looking for work in other counties and states. Communities throughout the county are expected to have population increases as the economy starts to increase from the previous recession.

Emmett Township, currently a small population center in the county, is expected to experience the largest increase in population by 2030 – an increase of 97%. The city of Port Huron, which currently accounts for 20% of the total county population, is the only community projected to experience a decrease in population – a decrease of 9%. If current trends continue, Port Huron will account for 15% of the total county population. However, it will still be largest population center within St. Clair County. See Table 2.10.

From 2000 to 2010, the population declined by 1,195 individuals; although it is expected to grow modestly in the next 20 years. Over the next 10 years, in the largest communities; Port Huron's population is expected to decline slightly, Fort Gratiot is projected to increase at a modest level while Port Huron Township will see a modest increase. Those communities expected to experience the largest gain will be Ira Township, Algonac and East China Township. Those communities expected to experience the largest decline are Emmett, Memphis and Mussey Township.

### **Age and Sex**

In 2010, the percentage of males and females within the county in nearly equal, with 49.51% male and 50.49% females. This is almost balanced as it was in 2000 with males at 49.27% and females at 50.73%, a -0.23% in males and -1.21% in females.

From 2000 to 2010, the largest growth occurred in the 45 to 64 age category, while the greatest decline occurred in the 25 to 44 age category. The projections indicate that the older adult population is expected to grow at a considerable pace. Not only were there more deaths in 2010 than there were in 2001, but births while steadily declining since 2001, fell lower than deaths. This trend explains why the population trend has declined. The greatest percentage of the current population, 62% is within the 18 to 64 age group. The next largest percentage of the population, 18% is persons 5 to 17 years of age. See figure 2.5.



## Population Density 2010 Census

### Legend

#### Density

- 0 - 26
- 27 - 81
- 82 - 184
- 185 - 386
- 387 - 964
- Local Highways & Ramps
- Interstate
- Active Rail
- Village Highlight
- Township Highlight
- International Boundary

#### Map Citation

This map was created as part of the St. Clair County Master Plan process; for county-wide reference purposes. No site-specific decisions should be made without independent field verification of the information presented.



**Table 2.11 Population Development, St. Clair County**

Jurisdiction	2010 Census	2030 Forecast	% Total Population	Growth Rate by 2030
<b>St. Clair County</b>	163,040	164,656	100%	16%
Algonac City	4,110	4,528	4%	4.2%
Berlin Twp.	3,285	3,145	3%	1.4%
Brockway Twp.	2,022	1,941	2%	0.8%
Burtchville Twp.	4,008	4,627	4%	6.2%
Capac Village	4,107	3,915	2%	2%
Casco Twp.	4,105	3,915	4%	2%
China Twp.	3,551	3,583	4%	3.2%
Clay Twp.	9,066	8,883	9%	2%
Clyde Twp.	5,579	5,367	6%	2.1%
Columbus Twp.	4,070	3,813	4%	3%
Cottrellville Twp.	3,559	3,723	4%	2%
East China Twp.	3,788	4,289	4%	5%
Emmett Village	269	382	0%	1.1%
Emmett Twp.	2,385	2,199	2%	2%
Fort Gratiot Twp.	11,108	12,110	11%	10%
Grant Twp.	1,891	1,796	2%	1.0%
Greenwood Twp.	1,538	1,479	2%	6%
Ira Twp.	5,178	5,760	5%	6%
Kenockee Twp.	2,470	2,417	2%	5%
Kimball Twp.	9,358	9,620	9%	3%
Lynn Twp.	1,229	1,136	1%	1%
Marine City	4,248	4,530	4%	3%
Marysville City	9,959	10,214	10%	3%
Memphis City	360	330	0%	0.3%
Mussey Twp.	2,316	2,047	2%	3%
Port Huron City	30,184	29,332	31%	9%
Port Huron Twp.	10,654	10,985	11%	3%
Riley Twp.	3,353	3,147	3%	2%
St. Clair City	5,485	5,640	6%	2%
St. Clair Twp.	6,817	6,951	7%	1%
Wales Twp.	3,248	2,945	3%	3%
Yale City	1,955	2,003	2%	0.5%

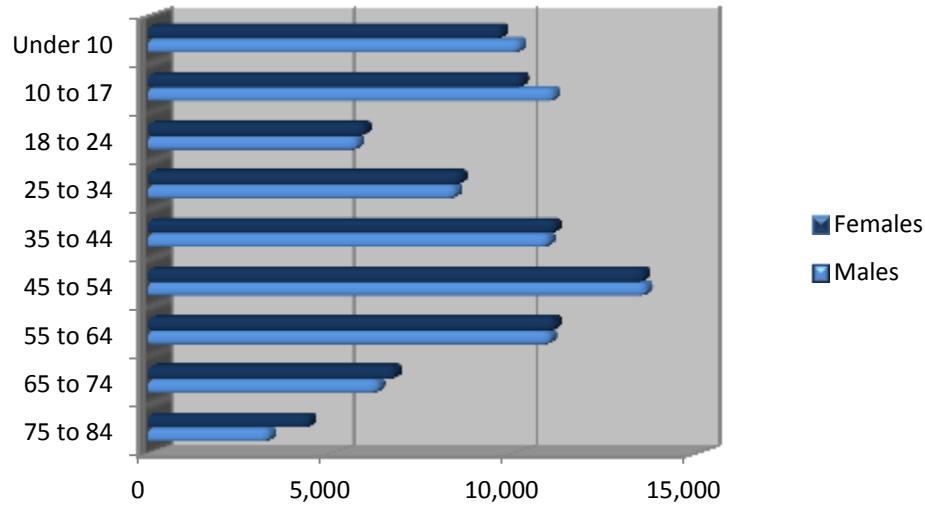
Source: SEMCOG, 2010

The aging of the “Baby Boom” generation is changing the age structure of communities across the state of Michigan. Those born during the baby boom of 1946 to 1964 created a bulge of persons in their thirties and forties. In the 2010 census, the largest age group was persons in their 18 to 64 age group. As the largest cohort moves into their fifties and sixties in the next decade, there will be significant increase in young adults. In 2010, St. Clair County had 51,590 persons between the ages of 18 to 24. Since 1990 that number has increased by 37,500. The increase in young adults is to continue into the present decade.

More than half of St. Clair County residents are at least 18 to 35 years old. Over the next 20 years, the county will continue to see its residents age, which has numerous implications for planning and hazard mitigation strategies. The most obvious include improved emergency services and availability of health facilities, especially

in rural areas. Equally important will be a wide expansion in the number and type of housing options for the elderly including everything from retirement communities to assisted living and nursing homes. Moreover, housing for senior citizens will have to be integrated into the community transportation system, which encompasses a whole other set of planning implications.

**Figure 2.5 St. Clair County Age-Sex Chart**



Source: US Census Bureau 2010

### Sensitive Population

The young, elderly and impoverished persons are sensitive populations and as such will require special consideration during hazard events. As table 2.11 indicates these groups are present in St. Clair County and will continue to increase over the coming decades in terms of percentage of the total population. Mitigation strategies should reflect any special needs of sensitive populations.

Poverty has an impact on all of the county's citizens. The U.S. Census defines poverty as families or unrelated individuals with incomes below the relevant poverty threshold are classified as below poverty level. According to the 2010 U.S. Census, approximately 8% of the county lives in poverty (see table 2-12). Most of the impoverished persons in the county live in and around more urban area, such as Port Huron and Capac.

**Table 2.12 Population with Disabilities**

Jurisdictions	Total Population (2010)	% of 2010 Population Older than 5 years with One or More Disabilities
<b>St. Clair County</b>	163,040	31%
Algonac City	4,110	31%
Berlin Township	3,285	27%
Brockway Township	2,022	20%
<b>Burtchville Township</b>	4,008	30%
Capac Village	1,890	16%
Casco Township	4,105	29%
China Township	3,551	27%
Clay Township	9,066	30%
Clyde Township	5,579	29%
Columbus Township	4,070	23%
Cottrellville Township	3,559	25%
<b>East China Township</b>	3,788	32%
Emmett Township	269	28%
Emmett Village	2,385	15%
<b>Fort Gratiot Township</b>	11,108	31%
Grant Township	1,891	22%
<b>Greenwood Township</b>	1,538	27%
Ira Township	5,178	29%
Kenockee Township	2,470	25%
<b>Kimball Township</b>	9,358	33%
Lynn Township	1,229	31%
Marine City	4,248	25%
Marysville City	9,959	22%
Memphis City	360	39%
Mussey Township	2,316	51%
<b>Port Huron City</b>	30,184	41%
<b>Port Huron Township</b>	10,654	22%
Riley Township	3,353	29%
St. Clair City	5,485	22%
<b>St. Clair Township</b>	6,817	26%
Wales Township	3,248	35%
<b>Yale City</b>	1,955	25%

Source: U.S. Census

There are also a significant number of disabled persons residing in St. Clair County, accounting for 31% of the total county population. The Census defines disability categories as sensory, physical, mental, self-care, go-outside-home and employment disability. Disabled persons are not located in specific areas, but live in all areas of the county. Knowing the location of disabled persons in our community is important for ensuring that such persons receive the assistance they need during an emergency.

**Table 2.13 Sensitive Populations in St. Clair County**

<b>Population</b>	Total Population	<b>Under 5 years old</b>		<b>65 years Old and Older</b>		Population in Poverty 2010
		Population	2040 Forecast	Population	2040 Forecast	
<b>St. Clair County</b>	163,040	9,288 (5.5%)	9,070	23,671 (18.4%)	42,022	20,356 (12.4%)
Algonac	4,110	210 (1.6%)	240	637 (2.1%)	1,297	341 (8.2%)
Berlin Twp.	3,285	182 (1.5%)	169	365 (2.9%)	648	112 (3.4%)
Brockway Twp.	2,022	90 (5%)	85	233 (3.6%)	402	365 (18.1%)
Burtsville Twp.	4,008	244 (5.8%)	286	639 (17.4%)	1,181	356 (8.8%)
Capac Village	1,890	133 (7.6%)	96	199 (13.1%)	379	319 (16.2%)
Casco Twp.	4,107	208 (4.7%)	176	542 (21.5%)	930	466 (10.9%)
China Twp.	3,551	132 (3.9%)	154	443 (31%)	726	124 (3.5%)
Clay Twp.	9,066	373 (3.7%)	448	1,825 (19.6%)	2,369	761 (8.1%)
Clyde Twp.	5,579	263 (4.6%)	253	709 (12%)	1,143	297 (5.3%)
Columbus Twp.	4,070	207 (4.1%)	150	482 (14%)	862	349 (8.4%)
East China Twp.	3,788	155 (4.4%)	243	991 (36.5%)	1,400	137 (4.6%)
Emmett Twp.	2,385	112 (5.1%)	95	264 (9.4%)	476	167 (7.1%)
Emmett Village	269	23 (9.2%)	39	41 (23%)	144	51 (15.5%)
Fort Gratiot Twp.	11,108	567 (5.4%)	615	2,138 (25.6%)	3,455	817 (7.5%)
Grant Twp.	1,891	95 (5.7%)	84	223 (10.4%)	358	241 (12.8%)
Greenwood Twp.	1,538	90 (6.2%)	91	182 (14.1%)	350	125 (7.3%)
Ira Twp.	5,178	277 (4.3%)	361	665 (9.6%)	1,458	747 (13.4%)
Kenockee Twp.	2,470	147 (6.3%)	170	314 (12%)	563	138 (5.7%)
Kimball Twp.	9,358	563 (6.7%)	574	1,217 (13%)	2,415	1,181 (12.9%)
Lynn Twp.	1,229	54 (4.6%)	53	134 (19.6%)	268	133 (11.5%)
Marine City	4,248	216 (4.4%)	186	649 (12%)	1,487	503 (11.5%)
Marysville	9,959	553 (5.9%)	555	1,742 (11.7%)	2,792	616 (6.2%)
Memphis	360	15 (4.8%)	8	66 (19.5%)	137	115 (27.8%)
Mussey Twp.	2,316	128 (6.5%)	113	264 (18%)	414	303 (13.9%)
Port Huron	30,184	2,372 (7.6%)	2,002	3,961 (12.8%)	7,726	8,081 (26.3%)
Port Huron Twp.	10,654	644 (7.8%)	595	1,384 (16.7%)	2,940	1,547 (14.9%)
Riley Twp.	3,353	168 (5.9%)	214	376 (12%)	605	174 (5.2%)
St. Clair	5,485	281 (4.8%)	246	832 (13%)	1,474	283 (5.1%)
St. Clair Twp.	6,817	324 (4.8%)	360	960 (27.7%)	1,540	399 (5.8%)
Wales Twp.	3,248	176 (6%)	142	383 (15%)	654	250 (7.7%)
Yale	1,955	129 (5.9%)	87	339 (14.1%)	624	239 (12.5%)

Source: SEMCOG Community Profiles, 2010

According to the results of the 2010 Census of Population and Housing, the population base of St. Clair County is predominately Caucasian (94.5%) whose ancestry originated in Western Europe, most likely from a Germanic area (28%). St. Clair County residents are a homogeneous group exhibiting minimal cultural diversity.

The agriculture nature of the county and its early settlement offered little opportunity to the waves of emigrants entering this county over the past 150 years. The fact that the population base was declining about 5% between 1900 and 1910 indicates that residents of the county were, to a certain degree, leaving to seek opportunities elsewhere. The influx of immigrants during the past century, who contributed to the diverse identity of our country, provided minimal alteration to the makeup of St. Clair County. The redistribution of the black population after the Civil War and their migration north seeking work provided by the industrial revolution, as well as the production increases necessary during WWII, also did not significantly alter the makeup of St. Clair County. Consequently, while Michigan as a whole exceeds the national percentage of 12.3% black residents, St. Clair County, with only 2.1% black residents, does not.

In common with most of the Midwestern United States, the typical St. Clair County resident is aware of their ethnic origin but not inclined to exhibit strong loyalties to their ancestors' country of birth. In fact, 36.2% of the residents of St. Clair County indicated that they had multiple ancestries. This figure is significantly higher than the national figure of 22%. Prior to the advent of air travel, the further a person traveled from the coastal ports of entry (with their permanent immigrant communities), the more likely that their ancestry would be a mix of several origins. St. Clair County is an area primarily settled by persons of northern European ethnicity. According to the results of the 2010 census, German was identified as the most common, with Irish following a distant second.

## ***Housing***

### **Housing Units**

The 2010 Census indicates 71,822 housing units available in St. Clair County, of which 88.9% are occupied and 11.1% are vacant. These units are spread throughout the county; however, similar to the population, most are located in the urban centers and surrounding townships. See table 2.13. Over 65% are located inside urbanized areas. A majority of those who live in St. Clair County own their primary residence. In 2000, 80% of the homes within the county were owner occupied with a median housing value of over \$125,000 (in 2000 dollars). By 2010, this figure decreased to 77% with a median housing value of over \$125,000 (in 2000 dollars). The St. Clair County Master Plan, projects that residential development patterns of growth will continue along the coast and inland.



A historic house in the City of Yale.

Source: St. Clair County

**Table 2.14 Occupied Housing Units, 2010**

Jurisdiction	Total Occupied Housing Units	Owner Occupied Units	% Owner Occupied	Renter Occupied Units	% Renter Occupied
	63,841	49,356	77%	14,485	23%
<b>St. Clair County</b>					
<b>Algonac</b>	1,756	1,277	63%	479	23%
<b>Berlin Twp.</b>	1,152	1,053	86%	99	8%
<b>Brockway Twp.</b>	705	621	82%	84	11%
<b>Burtchville Twp.</b>	1,646	1,390	69%	256	13%
<b>Capac Village</b>	704	497	62%	207	26%
<b>Casco Twp.</b>	1,503	1,380	87%	123	8%
<b>China Twp.</b>	1,271	1,210	91%	61	5%
<b>Clay Twp.</b>	3,947	3,528	63%	419	7%
<b>Clyde Twp.</b>	2,060	1,849	85%	211	10%
<b>Columbus Twp.</b>	1,459	1,315	85%	144	9%
<b>Cottrellville Twp.</b>	1,389	1,272	83%	117	8%
<b>East China Twp.</b>	1,603	1,265	72%	338	19%
<b>Emmett Twp.</b>	837	778	88%	59	7%
<b>Emmett Village</b>	91	80	83%	11	11%
<b>Fort Gratiot Twp.</b>	4,563	3,375	66%	1,188	23%
<b>Grant Twp.</b>	675	618	85%	57	8%
<b>Greenwood Twp.</b>	535	498	84%	37	6%
<b>Ira Twp.</b>	2,068	1,667	73%	401	18%
<b>Kenockee Twp.</b>	903	828	84%	75	8%
<b>Kimball Twp.</b>	3,559	3,079	80%	480	12%
<b>Lynn Twp.</b>	426	382	80%	44	9%
<b>Marine City</b>	1,765	1,203	60%	562	28%
<b>Marysville</b>	4,160	3,397	75%	763	17%
<b>Memphis</b>	146	90	58%	56	36%
<b>Mussey Twp.</b>	808	712	81%	96	11%
<b>Port Huron</b>	12,177	6,594	48%	5,583	40%
<b>Port Huron Twp.</b>	4,044	2,785	64%	1,259	29%
<b>Riley Twp.</b>	1,184	1,106	88%	78	6%
<b>St. Clair</b>	2,306	1,661	66%	645	26%
<b>St. Clair Twp.</b>	2,543	2,310	84%	223	8%
<b>Wales Twp.</b>	1,144	1,051	84%	93	7%
<b>Yale</b>	722	485	56%	237	28%

Source: SEMCOG Community Profiles, 2010

The increase of residential building permits issued in St. Clair County helps to illustrate the growth of residential development in an area. St. Clair County's annual average residential building permits from 2005 to 2012 was 98 permits per 10,000 residents, with a majority of those permits for single-family residential units. With an average of 324 units demolished per year, the net total gained, on average, is over 422 housing units.

Higher percentages of renter-occupied units are found in the urban and suburban centers of the county. The city of Port Huron had the highest percentage, nearly 40%, of renter-occupied housing units. The cities of Memphis, Yale, St. Clair, Marine City, and Algonac, along with Port Huron and East China Townships and Emmett

Village all had higher renter-occupancy rates than the county as a whole. Most communities within the county have a higher percentage of owner-occupied housing.

There are 32 manufactured home parks located within St. Clair County, with 5,989 total sites within all the parks combined. See Table 2.15. Residents living in manufactured home parks are at a great risk during many natural hazard events, especially during tornadoes, thunderstorms and high winds.

**Table 2.15 Manufactured Home Parks, St. Clair County**

**Number of Sites in Manufactured Home Parks**

Community	Manufactured Home Parks 2010	2005	2010	% Change in # of sites 05-10
St. Clair County	32	5960	5989	0.5%
Burtchville Twp.	1	496	496	0%
Capac	1	114	114	0%
Casco Twp.	1	562	562	0%
Clay Twp.	4	393	393	0%
Columbus Twp.	1	380	380	0%
Cottrellville Twp.	1	271	271	0%
East China Twp.	1	51	51	0%
Fort Gratiot Twp.	3	454	483	6.4%
Grant Twp.	1	48	48	0%
Ira Twp.	3	1,428	1,428	0%
Kimball Twp.	3	484	484	0%
Marine City	1	38	38	0%
Marysville	2	388	388	0%
Port Huron	0	10	0	100%
Port Huron Twp.	6	696	696	0%
St. Clair Twp.	1	100	100	0%
Yale	2	57	57	0%

Source: SEMCOG, “Manufactured Housing Parks and Sites in Southeast Michigan, 2005-2010” April 2013.



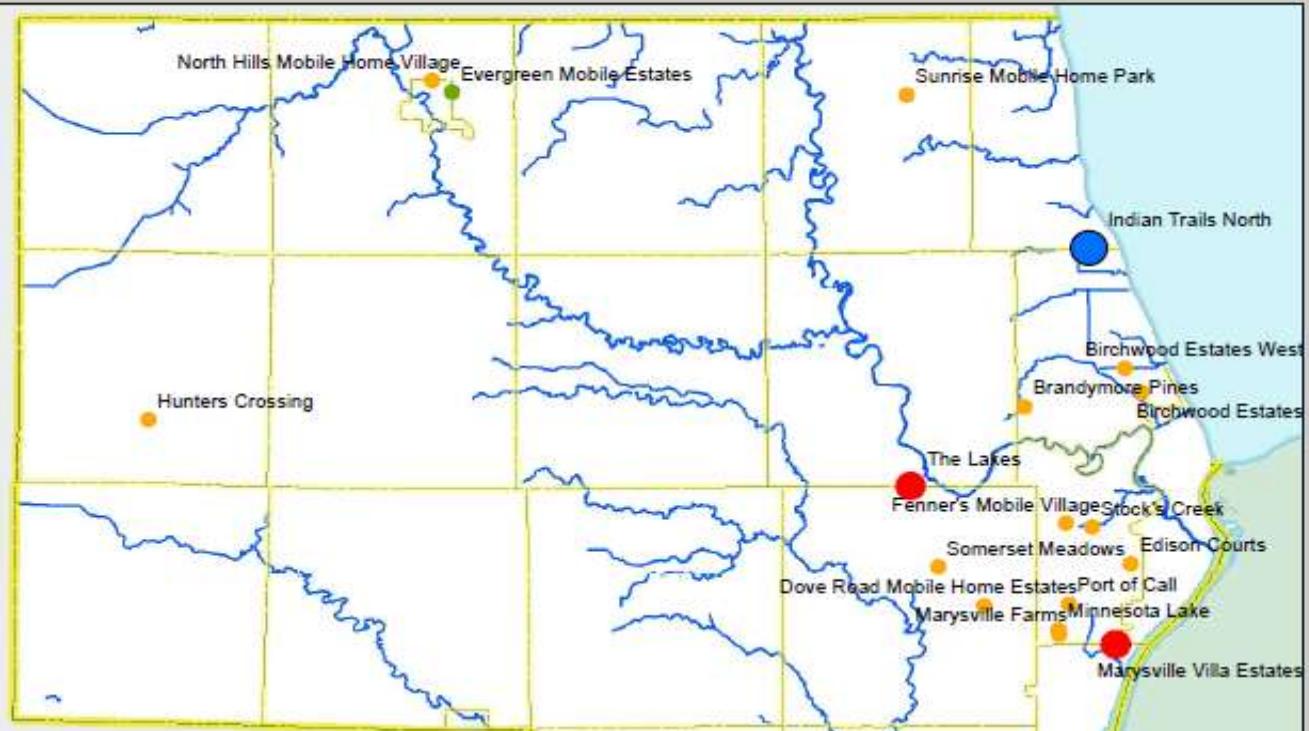
Manufactured Home Park located off of Lapeer Rd. in Kimball, MI Source: Home Park located off of Lapeer Rd. in Kimball, MI Source: <https://www.mhvillage.com>



Manufactured Home Park located off of Lapeer Rd. in Port Huron. Source: <http://www.parklandventuresinc.com/properties/mi/stocks-creek/>

**Table 2.16 Names and Location of Manufactured Home Parks in St. Clair County**

Community	Name of Park	Location of Park
Burtchville Twp.	Indian Trail North	3650 Metcalf Rd. Burtchville, MI 48059
Capac Twp.	Hunters Crossing	150 Hunters Crossing Blvd, Capac, MI 48014
Casco Twp.	Americana Estates	5407 Aloha Ln, Casco, MI 48064
Clay Twp.	Channelview Mobile Home Park	9530 Seaway Dr. Clay, MI 48001
Clay Twp.	Thorn Hollow Mobile Home Park	9600 Nook Rd. Algonac, MI 48001
Clay Twp.	Algonac Mobile Home Park	3812 Pointe Tremble Rd. Algonac, MI 48001
Clay Twp.	Seaway Trailer Court	9698 River Rd. Clay, MI 48001
Columbus Twp.	Pinewood on the Lake	2109 Redwood Ave. Columbus, MI 48063
Cottrellville Twp.	Shangri La Village Homes	6900 River Rd. Cottrellville, MI 48039
East China Twp.	Sharrnel Mobile Home Park	60 Hathaway St. East China, MI 48054
Fort Gratiot Twp.	Birchwood Estates & Birchwood Estates West	4335 24th Ave. Fort Gratiot, MI 48059
Fort Gratiot Twp.	Brandymoore Pines	4400 Craft Rd. Fort Gratiot, MI 48059
Grant Twp.	Sunrise Mobile Home Park	5690 Harris Rd. Jedd, MI, 48032
Ira Twp.	Chateau Estates Anchor Bay	10902 Le Grande Blvd. Ira, MI 48023
Ira Twp.	Anchor Bay Trailer Park	10470 Dixie Hwy, Fair Haven, MI 48023
Ira Twp.	North Pointe Shores	10431 Dixie Hwy, Fair Haven, MI 48023
Kimball Twp.	Somerset Meadows	5655 Blueridge Ave. Kimball, MI 48074
Kimball Twp.	Dove Rd. MHPLLC	5148 Dove Rd. Kimball, MI 48074
Kimball Twp.	The Lakes LLC	5901 Lapeer Rd. Kimball, MI 48074
Marine City	Tag-A-Long Mobile Court	6609 River Rd. Marine City, MI 48039
Marysville	Seaway Mobile Home Ranch	50 Mack Ave. Marysville, MI 48040
Marysville	Marysville Villa Estates Inc.	3605 32nd St. Port Huron, MI 48060
Port Huron Twp.	Minnesota Lake	1219 Minnesota Rd. Port Huron MI, 48060
Port Huron Twp.	Port of Call	4125 Dove Rd. Port Huron, MI 48060
Port Huron Twp.	Marysville Farms Manufactured	4269 Dove Rd. Port Huron Twp., MI 48060
Port Huron Twp.	Fenners Mobile Village	4172 Lapeer Rd. Port Huron MI, 48060
Port Huron Twp.	Stocks Creek	3730 Lapeer Rd. Port Huron MI, 48060
Port Huron Twp.	Edison Mobile Home Court	2801 Griswold St. Port Huron MI, 48060
St. Clair Twp.	St. Clair Place	2700 Cox Rd. St. Clair, MI 48079
Yale Twp.	North Hill Mobile Home Village	504 N. Main St. Yale, MI 48097



## Legend

### Manufactured Homes

- 12 - 20
- 21 - 200
- 201 - 400
- 401 - 600
- 601 - 1380
- CSS County Boundary
- CSS Community Boundary
- Canada
- United States
- Major Watercourses
- Water
- Canada
- St. Clair County
- United States



**FOR REVIEW ONLY**

Map provided by  
St. Clair County: IT  
Geographic Information Systems  
COUNTY OF ST. CLAIR

## Economic Characteristics

### Education

Education refers to formal schooling, either through private academies, public schools, colleges and universities, or technical or trade schools. Knowing the educational level of St. Clair County residents helps determine the educational facilities and training required to both meet current economic conditions and desired economic growth.

St. Clair County citizens are a fairly educated population. See Table 2-15. Of people 25 years and over, 88% have graduated from high school or have a high school equivalency and nearly 16% have a college education or at least some college. Compared to the average for the whole state of Michigan, the St. Clair County had a slightly larger percentage with less than a high school education in 2010, and slightly lower percentages with college degrees.

St. Clair County Community College offers four-year degree programs through a number of colleges and universities. St. Clair County Community College is also a member of a state-side articulation agreement that enables students to transfer their first two years of class work toward a four-year degree.

Baker College and Walsh College offer business programs at their facilities in Port Huron. Baker College continues to expand into many other areas. In addition to its Port Huron campus, Baker College has an extension in Sanilac County, as well as many other campuses located throughout the state of Michigan.

**Table 2.17 Educational Attainment in St. Clair County**

Place	Percentage Of Population 25 Years and Over					
	Less than High School	High School (Inc. HS equiv.)	Some College, No Degree	Associate's Degree	Bachelor's Degree	Graduate/Professional Degree
St. Clair County	2.9%	45.6%	26.5%	9.4%	9.5%	6.0%
State Of Michigan	3.5%	39.2%	23.8%	8.2%	15.6%	9.7%

Source: U.S. Census 2010

### Income

The median household income in St. Clair County was \$48,869 in 2010. This was close to the Michigan median household income of \$48,669. See Table 2.18 for the percent of households with income at different levels in St. Clair County and Michigan in 2010.

According to 2010 Census data, there are 15.4% of families with children under 18 years old below the poverty level in St. Clair County. Compared to the State of Michigan as a whole, the county has a lower percentage of families with children under 18 years old, below the poverty level. See table 2.17. Moreover 30.1% of families are headed by a female with no husband present and with related children under 18 years below the poverty level.

### Workforce

The annual workforce participation in St. Clair County has declined by 33,926 from 83,383 in 2000 to 65,873 in 2012. In 2000, there were 3,688 unemployed individuals. The unemployed reached its highest level in 2009 at 14,434. In 2012, there were 9,155 unemployed. In 2011, there were 51,345 individuals considered not in the labor force, compared to 45,359 in 2005. It is anticipated that by 2040, the Private Education and Healthcare sectors will grow significantly while there will also be gains in the Services to Households and Firms and

Knowledge-Based Services sectors. It is anticipated that by 2040, there will continue to be a steady decline in Manufacturing and a modest decline in Retail Trade. Private Education and Healthcare continues to be the largest sector growing from 9,667 in 2010, to a projected 14,404 by 2040.

## Labor Force

As can be seen in Table 2.20, St. Clair County's unemployment rate is higher than that of the State of Michigan. Much like many communities across the state and across the nation since 9/11, the country has been struggling to stay robust in a weak economy. In 2009 the average unemployment rate in the county was 19.5%. Through 2010, the average unemployment rate in the county is 4.3% higher than the statewide average. Although unemployment rates dropped steadily in the region through the 1990's, St. Clair County's has continually been higher than the state average and the averages of both Macomb and Oakland counties.

Table 2.21 shows employment figures organized by sector for St. Clair County as a whole. Construction, manufacturing, retail trade, and government employment increased jobs between 2004 and 2010, and will likely continue to modestly increase those numbers. St. Clair County's top service sector employer has consistently been the health services industry, which is also the top paying service sector employer.

The county is not alone in its struggle to maintain manufacturers. Since 2004, the State of Michigan as a whole has lost 128,543 manufacturing jobs – especially problematic since manufacturing represents 17.3% of all jobs in Michigan, compared to 11.8% nationally. Moreover, advances in innovative technologies are allowing companies to be more productive with fewer employees.

## Major Employers in St. Clair County

Major employers operating within St. Clair County include manufacturers, utility providers, governmental agencies, and educational institutions. The largest employer within the county is DTE Energy with a total of 5,001 employees. The next largest employers are Port Huron Hospital with 1,453 employees, and Port Huron area school district with 1,384 employees. Employment figures for the largest employers in St. Clair County are shown in Table 2-20.

**Table 2.19 Income Distribution in St. Clair County, 2010**

Place	Percent of Households									
	less than \$10,000	\$10,000 to \$14,999	\$15,000 to \$24,999	\$25,000 to \$34,999	\$35,000 to \$49,999	\$50,000 to \$74,999	\$75,000 to \$99,999	\$100,000 to \$149,000	\$150,000 to \$199,999	\$200,000
St. Clair County	6.0%	5.40%	12.30%	12.00%	15.10%	20.40%	13.50%	10.60%	3.10%	1.70%
Michigan State	7.9%	5.70%	11.60%	11.10%	14.80%	18.70%	12.10%	11.50%	3.70%	2.90%

Source: U.S. Census 2010

**Table 2.19 Poverty Levels in St. Clair County, 2010**

Families with children under 18		Families with female householder, no husbands present, with children under 18	
Places	Below poverty level	% Below poverty level	Below Poverty Level
St. Clair County	49,119	15.4%	33,731
State of Michigan	2,926,876	18.2%	2,100,467

Source: U.S. Census 2010

**Table 2.20 St. Clair County Labor Force, Employment and Unemployment, 2009-2010**

Place	2009 Labor force 2009 Annual Average employment	2009 Annual Average Unemployment 2009 Annual Average Unemployment Rate	2010 YTD Labor Force 2010 YTD Average employment	2010 YTD Average Unemployment 2010 YTD Average Unemployment Rate
St. Clair County	83,568	67,287	16,281	19.5%
Macomb County	420,641	342,244	78,397	18.6%
Oakland County	597,158	504,111	93,047	15.6%
Sanilac County	20,167	16,754	3,413	16.9%
State of Michigan	4,648,000	4,175,000	473,000	10.2%

Source: Michigan Department of Labor and Economic Growth, 2010

**Table 2.21 Employment by Industrial Class, 2004-2010**

	2004	2010	Total Change 2007-2010	% Change 2004-2010
<b>Civilian employed population 16 and over</b>	83,568	69,706	13,862	19.2%
<b>Ag. Forestry, fishing and hunting, and mining</b>	865	658	207	0.9%
<b>Construction</b>	4230	4,883	653	7.0%
<b>Manufacturing</b>	12,505	14,377	1,872	20.6%
<b>Wholesale Trade</b>	2165	1,190	975	1.7%
<b>Retail Trade</b>	13,354	8,830	4,524	12.7%
<b>Transportation and Warehousing, and utilities</b>	1,870	3,598	1,728	5.2%
<b>Information</b>	198	1,166	968	1.7%
<b>Finance and insurance, and real estate, and rental and leasing</b>	3,997	2,847	1,150	4.1%
<b>Professional, scientific, and management, and administrative and waste management services</b>	2,664	4,298	1,634	6.2%
<b>Educational services, and health care and social assistance</b>	16,774	15,818	956	22.7%
<b>Arts, entertainment, and recreation, and accommodation and food services</b>	3,470	6,319	2,849	9.1%
<b>Other services, except public administration</b>	6,421	3,037	3,384	4.4%
<b>Public administration</b>	104	2,685	2,581	3.9%
<b>Government</b>	7,610	7,882	272	11.3%

Source: US Census, Michigan Economic Department Corporation, Economic Profiler 2004-2010

**Table 2.22 Major Private Employers Operating within St. Clair County**

Largest Private Employers		
Organization Name	Number of Employees	Industry
Port Huron Hospital	1,500	Healthcare
St. Joseph Mercy Hospital	802	Healthcare
Meijer	630	Retail/ Big Box
SMR	502	Manufacturing
Engineered Plastic Components (EPC)	485	Manufacturing
IAC (Port Huron & St. Clair)	461	Manufacturing
John A. Biewer Company, Inc.	450	Manufacturing
Magna	450	Manufacturing
Marshall J. Campbell	428	Manufacturing
St. John River District Hospital	425	Healthcare
Chassix	400	Manufacturing
Semco Energy Gas Company	381	Utility
Mueller Brass	320	Manufacturing
ZF Marysville	306	Manufacturing
Walmart	300	Retail/ Big Box
Chrysler Group LLC (Mopar)	300	Manufacturing
US Farathane	300	Manufacturing
HP Pelzer	264	Manufacturing
Cargill Salt	250	Manufacturing
Intertape Polymer Group	240	Manufacturing
Domtar	239	Manufacturing
Keihin Michigan Manufacturing	194	Manufacturing
Talmer Bank	183	Financial

**Table 2.23 Major Public Employers in St. Clair County**

Largest Public Employers		
Organization Name	Number of Employees	Industry
Port Huron Area School District	1,065	Education
St. Clair County	872	Government
DTE Energy	850	Utility
East China School District	550	Education
St. Clair County RESA	254	Education
City of Port Huron	254	Government
Marysville Public School District	235	Education
St. Clair County Community College	195	Education

## **Key Facilities**

Public services refer to services provided by agencies. Common public services are schools, community water supplies, sewage disposal, roadway systems, utilities, and police and fire protection.

Public facilities refer to the structures, equipment, or improvements needed to support delivery of public services. These include physical properties such as school buildings, roads and bridges, water and sewer pipes, water filtration plants, wastewater treatment plants, utility poles and lines, and police and fire vehicles.

Collectively, public facilities and services also refer to the governmental systems that are established, either through public vote or administrative decision, to staff, operate, and maintain public operations. Most importantly, public facilities and services refer to the people – both government personnel and private employers and employees – who perform daily public service jobs.



The St. Clair County Administration Building located downtown Port Huron. Source: St. Clair County.



The City of Marysville Water Filtration Plant  
Source: St. Clair County

Infrastructure refers to the fundamental facilities that serve a county, community, or area. Infrastructure facilities include such items as transportation systems, power plants, water and sewer systems, and schools. The word infrastructure is commonly used to mean all public facilities and services. Infrastructure also refers to the collective services needed to support businesses within a particular industry. For example, the agriculture industry requires an infrastructure of farm implement dealers, grain elevators, veterinarians, etc.

Significant issues have begun to surface in the form of serious concerns on our environment, our economy, and our health. A growing lack of safe, potable water is a problem, and inadequate water supplies are a way of life for many rural St. Clair County residents. Proper disposal and treatment of sewage is another problem. Serious surface water contamination, caused by untreated sewage running directly into county drains, is also occurring within the county.

## **Water, Sewer and Solid Waste Disposal**

Water systems refer to both private wells that pump water directly from groundwater sources and public lines that convey water from public water treatment and purifying facilities. Water drawn from Lake Huron, the St. Clair River, and Lake St. Clair is part of the water system within St. Clair County. Lake Huron water is also pumped to Detroit, Flint, and other metropolitan centers outside St. Clair County.

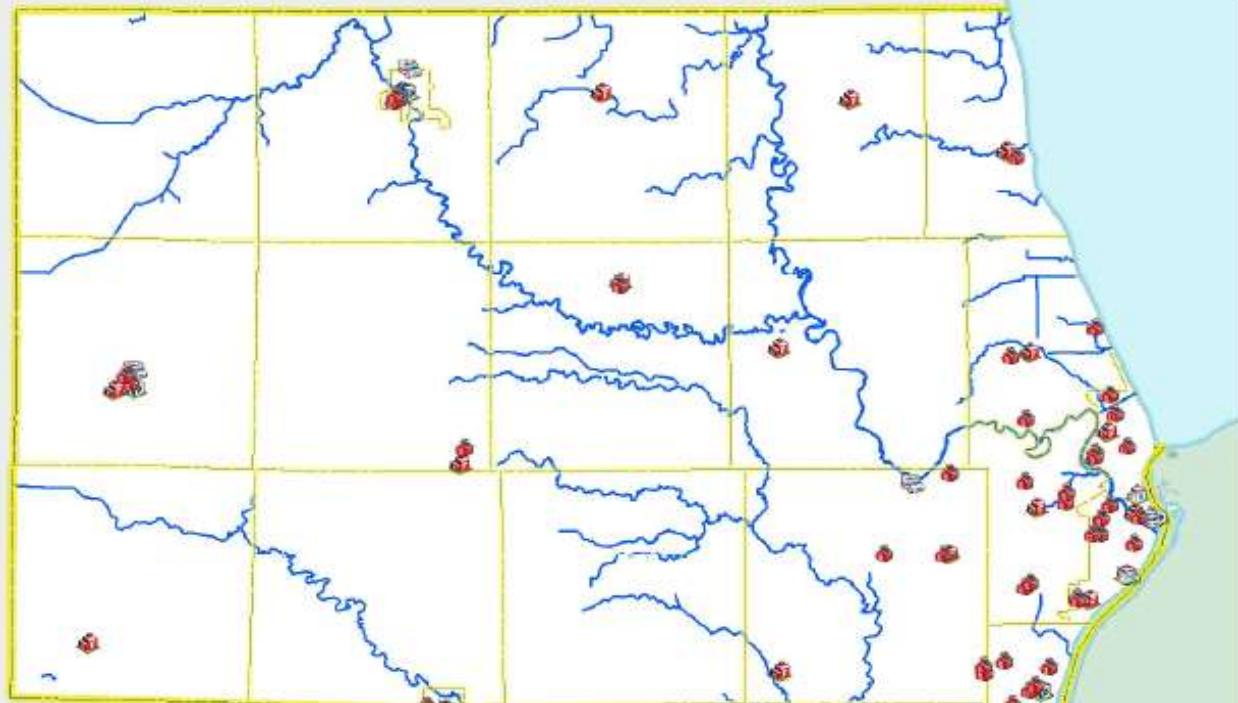
Water treatment and purifying facilities refer to a community structure for mechanically filtering and chemically treating water, then testing it for harmful biological organisms before pumping that water to citizens' homes. Pure drinking water is vital to life. Yet, water available to county residents is inadequate. Specifically, many wells in St. Clair County are either unproductive because of insufficient groundwater supplies or have poor quality because of brine or methane gas contamination.

The islands at the southern end of the county have very limited access to public water, and island residents make special provisions to attain potable water. Sewage refers to unwanted liquid waste, which can be human waste, household drain water, industrial sludge, or storm water runoff.



Above: Stag Island located in the St. Clair River. Below: Harsens Island located in the St. Clair River  
Source: [www.aerialpics.com](http://www.aerialpics.com)





## Legend

- School Buildings
- Emergency Facility**
- EMS
- Fire
- Hospital
- Police
- CSS County Boundary
- CSS Community Boundary
- Canada
- United States
- Major Watercourses
- Water
- Canada
- St. Clair County
- United States



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City of St. Clair Wastewater Treatment Plant. Source: St. Clair County

Sanitary sewer system refers to the method of disposing of sewage. Sanitary sewer systems can either be private on-site septic systems or public facilities that include drainage tubes and a wastewater treatment plant or open pit lagoon.

### Public Utility System Survey

The county conducted a Utilities System Inventory survey in 2001 to assess water and wastewater capacity and demand throughout the county. Table 2.24 displays the results of the survey.

The city of Algonac provides water and sewer service to Clay Township. While public water is available to areas on Harsens Island, no public sewer system is in place. For residents of Harsens Island, potable water is available via a small service line and public tap near the ferry landing. Other water needs on the island are met by personal wells. No public service is available for Dickinson Island.

The Algonac Regional Facility is a wastewater treatment facility owned and operated by the county. It is the only public utility operation that is owned by St. Clair County. The facility provides services to the City of Algonac and the Township of Clay and Ira. In January 2002, discussions were held regarding increasing the daily capacity of this facility from 2.7 million to 4 million gallons.

Burtchville Township owns a distribution system which began operation in late 1997. In 2001, they extended their system by six and one half miles to serve residents to the north and west of their preexisting service area. This community receives its water from the Detroit Water Board, and is the only community in the county to achieve a successful negotiation with that organization. (The Detroit Water Board operates a treatment facility within the county. Water is pumped from Lake Huron via its Fort Gratiot facility and distributed throughout metropolitan Detroit, including locations as far away as Flint.)

Water treatment and purifying facilities refer to a community structure for mechanically filtering and chemically treating water, then testing it for harmful biological organisms before pumping that water to citizen's homes.

The Village of Capac currently has three lagoons with a capacity of 73.8 million gallons. They intend to expand their wastewater treatment capacity when demand exists by constructing a fourth lagoon. Land for this lagoon is owned by the village. The village has also secured land for the siting of another municipal well. This well will also be installed as the demand increases. Once operational, it will bring the total number of municipal wells in the village to six. The townships of China and East China jointly own a water treatment facility which opened in 1999. China Township owns 32% of the facility, with the remaining 68% owned by East China Township.

Ira Township operates a fairly new water treatment facility. The plant began operations in 1996. Future system investments include installation of approximately five miles of distribution mains to growth areas of the township.

Kimball Township is in the process of expanding their sewer and water lines which already are in a position to serve the airport. Marine City increased its storage capacity by constructing a 750,000 gallon water tower in late 1999. St. Clair Township receives its water from the cities of St. Clair and Marysville. Sewer service is contracted solely with the city of St. Clair.

The city of St. Clair receives is anticipating expansion of its wastewater treatment capacity in approximately five years. At that time it is expected that demand will equal treatment capacity.

Improvements are planned for Yale's water distribution system. These changes will increase storage capacity and distribution.

**Table 2.24 St. Clair County Public Utility System Survey**

System	Water (mg/d)		Wastewater (mg/d)	
	Capacity	Demand	Capacity	Demand
Community				
Algonac City	2.75	1.3	-	-
Algonac	1.0	0.46	-	-
Clay Twp.	1.75	0.84	-	-
St. Clair County	-	-	2.7	1.9
Algonac	-	-	0.82	0.63
Clay Twp.	-	-	0.94	0.63
Ira Twp.	-	-	0.94	0.63
Burtchville	1.0	0.22	None	None
Capac	0.4	0.2	0.24	0.21
East China	2.7	0.6	3.35	0.85
China Township	0.27	0.06	0.34	0.08
East China Twp.	2.43	0.54	3.01	0.77
Ira	2.25	0.7	-	-
Marine City	2.0	0.80	7.0	0.80
Cottrellville Twp.	0.05	0.02	0.175	0.02
Marine City	1.95	0.78	6.825	0.78
Marysville	7.5	2.2	6.1	2.22
Memphis	0.39	0.09	None	None
Port Huron	30.0	7.7	20.0	11.3
Clyde Twp.	0.69	0.2	None	None
Ft. Gratiot Twp.	5.7	1.5	3.8	1.28
Kimball Twp.	2.01	0.4	1.4	0.34
Port Huron City	15.9	4.1	10.8	5.74
Port Huron Twp.	5.7	1.5	4.0	2.1
St. Clair	3.0	1.4	1.6	1.4
St. Clair City	2.42	1.15	1.28	1.12
St. Clair Twp.	0.58	0.25	0.32	0.28
Yale	1.65	0.23	1.8	0.35

Source: St. Clair County Metropolitan Planning  
Commission

Local units of government and utility authorities.  
Peak demand for Port Huron system in red.

Solid waste materials include household garbage, construction and demolition debris, manufacturing scrap, packaging materials, junk mail and office paper, newspapers, plastic, tires, and so on.

### **Solid Waste Facilities and Landfills**

Solid waste refers to non-liquid waste materials generated by residents, businesses, and public agencies. Solid waste materials include household garbage, construction and demolition debris, manufacturing scrap, packaging materials, junk mail and office paper, newspapers, plastics, tires, and so on.

A sanitary landfill is a tract of land developed, designed and operated for the disposal of solid waste in a manner consistent with governmentally established criteria. Sanitary landfills are classified as either Type II or Type III. There are three licensed waste facilities located within St. Clair County: one Type II landfill, one Type III landfill, and one transfer station. One of these landfills is operated by

the county. There are also twenty five known closed landfills, dumps, processing facilities, and contaminated sites being monitored by the State of Michigan. These facilities are cause for concern because of the potential for leachate pollution into drains and streams, generation of methane gas from buried materials, or the unearthing of undesirable substances now known to be hazardous.

### **Electrical, Gas, and Communications Utilities**

Electrical and telephone service exists everywhere in the county. Natural gas is available via underground pipe in the more developed areas. Propane gas tanks also are readily available. Additionally, cable television is provided in more developed areas.

### ***Additional Facilities/Services***

#### **Police**

St. Clair County covers a wide area with many townships, however not every township has their own police department. Within St. Clair County 9 townships have their own police department. Refer to table 2.25 for local police departments within St. Clair County.

In 2006, St. Clair County opened a new facility located on Michigan Rd, which includes beds for inmates, dispatch center, offices and related operations. The sheriff's office provides law enforcement and other services to over 720 square miles of land, along with more than 110 miles of shoreline. The sheriff also provides the constitutionally mandated services of the jail. The intervention and detention center also houses the St. Clair County Central Dispatch Center and Juvenile Intervention Center. Along with the new jail, St. Clair County has opened a Juvenile Day Treatment Night Watch Facility that has an overall capacity of 30 children (20 boys and 10 girls), ages 12-17.

St. Clair County Sheriff's Department also has a Marine Division with six boats, 50 marine deputies under the command of the division lieutenant, a sergeant and five corporals serving as platoon leaders. An Administrative assistant is assigned secretarial and clerical duties. The Marine Division also houses a dive rescue/recovery unit staffed by 20 dive/rescue specialists who are on a 24 hour call – available for immediate response to any situation requiring the need for underwater/sub-surface rescue, ice rescue and/or recovery of persons and/or property.

#### **Fire**

Within St. Clair County there are many fire departments located across the county. All total there are twenty two fire departments out of the thirty two townships. Refer to table 2.26 for fire departments located in St. Clair County.

**Table 2.25 Local Communities with Police Departments**

Departments Located in St. Clair County	Location
<b>Capac Police Department</b>	103 E. Church St.
<b>Clay Township Police Department</b>	4710 Pointe Tremble Rd.
<b>Port Huron Police Department</b>	100 McMorran Blvd.
<b>Marine City Police Department</b>	375 S. Parker St.
<b>Marysville Police Department</b>	1355 Delaware St.
<b>Memphis Police Department</b>	80688 Union St.
<b>St. Clair City Police Department</b>	547 N. Carney Dr.
<b>Yale Police Department</b>	111 W. Mechanic St.



St. Clair County Jail located on Michigan Rd. Source: St. Clair County



Day Treatment Night Watch Facility located on Michigan Rd. Source: St. Clair County



The St. Clair County Sheriff's Department Marine Division patrols the entire county waterway system from the eastern portion of Lake St. Clair to the southern tip of Lake Huron. Source: St. Clair County



Burtchville Township Fire Department,  
Source: St. Clair County  
Source: [www.stclaircounty.org](http://www.stclaircounty.org)



Marine City Fire Station. Source: St. Clair County

**Table 2.26 Fire Departments in St. Clair County**

Fire Departments in St. Clair County	Contact Info	Address
<b>Algonac Fire Department</b>	(810) 794-3431	805 Saint Clair River Dr.
<b>Berlin Fire Department</b>	(810) 395-4518	740 Capac Rd
<b>Brockway Fire Department</b>	(810) 387-3662	7643 Brockway Rd.
<b>Brown City Fire Department</b>	(810) 346-2255	4186 Main St.
<b>Burtchville Fire Department</b>	(810) 385-5577	4000 Burtch Rd
<b>Capac/Mussey Fire Department</b>	(810) 395-4915	550 West Mill ST.
<b>Clay Fire Department</b>	(810) 794-9347	9620 Ainsworth St.
<b>Clyde Fire Department</b>	(810) 324-2380	4545 Brott Rd
<b>Emmett Fire Department</b>	(810) 384-6991	3109 Main St.
<b>Fort Gratiot Fire Department</b>	(810) 385-5666	3720 Keewahdin Rd
<b>Grant Township Fire Department</b>	(810) 327-1122	7942 Wildcat Rd
<b>Harsens Island Mainland Fire Department</b>	(810) 748-3046	254 Lacroix Rd.
<b>Ira Twp. Fire Department</b>	(586) 725-7771	7065 Meldrum Rd
<b>Kenockee Twp. Fire Department</b>	(810) 324-2305	8815 Main St.
<b>Kimball Twp. Fire Department</b>	(810) 982-9461	1970 N Allen Rd
<b>Marine City Fire Department</b>	(810) 765-8840	200 S Parker Rd
<b>Marysville Fire Department</b>	(810) 364-6611	1355 Delaware Rd
<b>Memphis Fire Department</b>	(810) 392-2185	35095 Potter St
<b>Port Huron Central Station</b>	(810) 984-9750	515 River St
<b>Port Huron Twp. Fire Department</b>	(810) 984-4381	3848 Lapeer Rd
<b>St Clair Fire Department</b>	(810) 329-7121	547 N Carney Dr.
<b>Yale Fire Department</b>	(810) 387-3662	7644 S Brockway Rd

### **Emergency Medical Services**

Located within St. Clair County are 3 Emergency Medical Services, Tri-Hospital EMS, Richmond Lenox EMS, and City of Marysville EMS. The list of services includes Ambulance Transportation, Assisted Transportation, Education Services, and a Call Center – Physician/Health Care Answering Service.

### **Ambulance Transportation**

The ambulance transportation is 24 hours a day, 7 days a week which include Emergent, Non Urgent and Specialty Care Transportation (SCT) transportation. Tri – Hospital EMS provides emergent and non-emergent ambulance transportation and is an owner/member of Mobile Health Resources, LLC, a network of ambulance companies created to provide medically – related transportation and other large purchasers in Michigan.

### **Assisted Transportation**

The assisted transportation is a door – to – door transport Monday through Friday 7 am to 6 pm and Saturdays 10 am to 4 pm. Tri – Hospital EMS also offers Assisted Transportation, an ambulatory and wheelchair accessible service that allows the public mobility that is dependable and secure. The CPR Certified Staff provide door – to – door service for rehabilitation appointments, outpatient testing, physician appointments, or visits with family and friends. Assisted Transportation Services are available in and around the St. Clair area.

## **Education Services**

Education services include: Community Programs (CPR and 1<sup>st</sup> Aid), Professional Programs (Medical First Responder, EMT and Paramedic, as well as enhancement programs) and Continuing Education (licensing requirements for EMS Professional including for IC's and AHA providers). Tri – Hospital EMS is proud to acknowledge that many of their current employees have started or advanced their training with the Education Services. One of the newest educational components is that of the Critical Care Paramedic. This education experience, as well as the addition of state of the art equipment with advanced technology, is just one more step Tri – Hospital EMS is taking to ensure the community receives the best possible care.

## **Call Center – Physician/Health Care Answering Service**

The call center services include: After hour services, Switchboard Services, Voicemail, Paging, Physician Referral, and Classroom/Event Registration, these services are provided by Med – Connection, a division of Tri – Hospital EMS. Med – Connection offers 24 hour a day communication for physicians and other Healthcare Professionals, their clients, patients or staff. A protocol based system, offering services in a fashion that best meets the needs of a practice or agency.

Refer to table 2.28 for Tri-Hospitals EMS Stations and Locations.



**Table 2.27 St. Clair County EMS Stations**

Tri-Hospital EMS Stations	Location
<b>Central</b>	309 Grand River Ave. Port Huron, MI 48060
<b>Station 2</b>	1345 Catherine McCauley Dr. Port Huron, MI 48060
<b>Station 3</b>	4140 S. Hospital Dr. East China, MI 48054
<b>Station 4</b>	9624 Ainsworth Algonac, MI 48074
<b>Station 5</b>	5394 Lapeer Rd. Kimball, MI 48074
<b>Station 6</b>	7470 Brockway Twp., MI 48097
<b>Station 7</b>	197 E. Park St. Capac, MI 48014
<b>Station 8</b>	7085 Meldrum Rd. Ira Twp., MI
<b>Station 9</b>	3010 North River Rd. Fort Gratiot MI, 48059

## **Hazmat**

The transportation of hazardous chemicals has been identified as the most serious threat to the residents and guests of St. Clair County. Based on a 1997 transportation study conducted by the Office of Emergency Management, results show over 37 million pounds a day of these hazardous chemicals traveling across our road and railways.

The St. Clair County Board of Commissioners and every community within the county have partnered to fund a hazardous materials response team, which became operational in 1999. The structure of the team is completely volunteer, with approximately 40 members from all different fields of expertise. Each team member has received over 80 hours of advanced hazardous materials training which additional monthly team training supports. In addition, members attend special training both within the state and out of state to enhance their response abilities.

The team is administered by the Office of Homeland Security and Emergency Management and has a command staff in place for team operations. The command staff insures that one officer is available at all times to respond and assist the incident commander with technical information in the event a full team response is not needed.

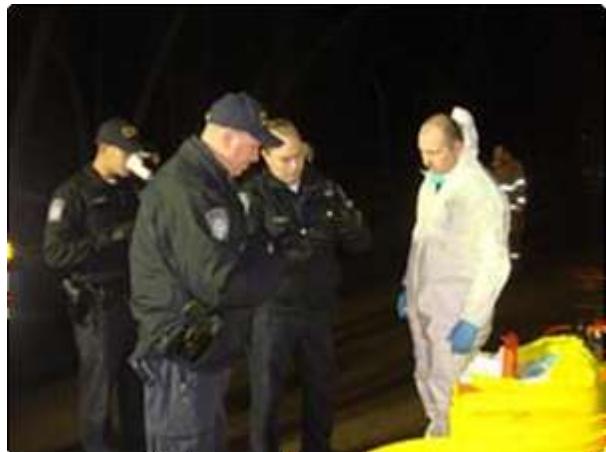
The team has also been designed by the State of Michigan as a Regional Response Team for Weapons of Mass Destruction incidents within the state. The team has sophisticated detection and response equipment for chemical and biological incidents and recently was the first regional response team in the state to be sent to a potential WMD incident.

With the support of the county and our communities, this exceptional response team will continue to grow and maintain the training and equipment to protect the residents and guests of St. Clair County.

## **Hospitals and Health Care**

St. Clair County is served by three medical hospitals: McLaren Port Huron Hospital in Port Huron, Mercy Community Healthcare System in Port Huron, and River District Hospital in East China Township. All three hospitals participate in joint Tri-Hospital services and provide health care at satellite facilities. Combined, they have more than 350 beds and provide a range of services, including emergency treatment, wound treatment, cardiac care, sports medicine, business health services, cancer care, obstetrics care, pediatrics, various therapies, and senior programs. River District Hospital also offers substance abuse and psychiatric services.

St. Clair County Community Mental Health provides program services for children and adults at locations in Port Huron, Algonac, Capac, Fort Gratiot, Marine City, and Yale.



St. Clair County Hazardous Operations Team  
above and below is the St. Clair County  
Hazardous Operations Vehicle.  
Source: St. Clair County HSEM



## Educational Facilities

Approximately 34,000 persons go to school in St. Clair County. Educational facilities include the St. Clair County Regional Educational Service Agency (RESA), public school systems, private and parochial schools, St. Clair County Community College, and two private colleges. Grade levels extend from pre-school and kindergarten through two and four-year programs at the community college. The St. Clair County Library System is also included as an educational institution.

Of the thirteen public school districts located within the county, eight have at least one school building within St. Clair County. See Table 2.28. No school buildings are located within nine St. Clair County townships. RESA provides training for both student and teachers. Its facilities are adequate because programs are being offered in alternative locations.

Private and parochial schools educate about 1,500 St. Clair County students. The number of students attending these schools declined in the 1990's.

Approximately 29,230 persons go to school in St. Clair County. Educational facilities include the St. Clair County Regional Educational Service Agency (RESA), public school systems, private and parochial schools, St. Clair County Community College, and two private colleges.

**Table 2.28 Enrollment for School Districts with Schools Located within St. Clair County 2013.**

District	Enrollment
Algonac Public Schools	1,819
Anchor Bay Schools	6,651
Capac Community Schools	1,209
East China School District	4,450
Marysville Public Schools	2,737
Memphis Community Schools	967
Port Huron Area School District	9,332
Yale Public Schools	2,065

Source: Standard & Poor Evaluation Services



St. Clair County Community College (SC4) in Port Huron. Source: St. Clair County.



The Farm Museum at Goodells County Park. Source: St. Clair County.



Columbus Twp. Park, Belle River  
Source: [www.cis.stclaircounty.org](http://www.cis.stclaircounty.org)

St. Clair County Community College (SC4), located in Port Huron, is regarded as either a two-year step on the way to a four-year degree at another college or university, or a place to receive a complete education or training program in a specialized field. A variety of Bachelor and Master's degree programs are offered on the SC4 campus through partnerships with Davenport University, Saginaw Valley State University, Siena Heights University, Walsh College, Franklin University, and Capella University.

More than 6,000 credit-seeking students are served annually at SC4. Approximately 50% pursue majors that will transfer to four-year colleges and/or universities. Nearly 62% attend part-time. 49% of SC4 students are adults returning to school. The average student age is 27 years old.

Baker College and Walsh College offer business programs at their facilities in Port Huron.

### Recreational Facilities

State recreational facilities account for 11,000 acres, or 2.5% of the land area in St. Clair County. These facilities include:

- Two State Parks, in Algonac, and Lakeport
- Twelve public boat launch sites, with 517 parking spaces
- Three wildlife and game areas – Port Huron State Game Area, St. Clair Flats Wildlife Area, and St. John's Marsh.

St. Clair County recreational facilities include inland parks, waterfront parks, and linear trails, which include Goodells County Park, Columbus Twp. Park, Fort Gratiot Park, and Wadhams to Avoca Trail and the Bridge to Bay Trail.

The St. Clair County Library System serves the entire county with 11 branches. The main branch in Port Huron houses over 100,000 volumes.

The Goodells County Park is 327 acres near the center of the county. Its facilities include air-conditioned, handicapped-accessible building for meetings and receptions, open-air buildings for shows, an airfield for radio controlled model airplanes, a bicycle motocross track, equestrian arenas, a butterfly garden, a garden center at which Earth keepers and Junior Master Gardeners meet a playground, a farm museum, and historical buildings.

The St. Clair County Parks and Recreation Commission (PARC) has recently purchased 291 acres of the Bauman Road Farms property in Columbus Township from the trust for public land (TPL), a national non-profit organization, using \$1.4 million Michigan Natural Resources Trust Fund grant. The park



The memorial at the Fort Gratiot Park.

Source: St. Clair County



St. Clair River shoreline, over one mile long that is in process of being restored as a river walk. Source: SEMCOG 2012

is located in the southwest part of the county, two miles north of Gratiot Road on Bauman Road north of the railroad tracks. A rustic 2 mile looped trail is located on the north side of the Belle River and consists of mowed grass, farm lanes, and 2 tracks. A separate looped equestrian trail provides opportunities for horseback riders. A park lodge with modern restrooms, rental facilities, and a picnic pavilion is located near the main parking lot and sledding hill. The 385-acre park is open to the public daily from 8 am to 9 pm May through September and 8 am to 8 pm October through April.

The Fort Gratiot County Park is located in the northern part of St. Clair County, just off M-25 on Metcalf Rd. This 30 acre park offers breathtaking views of Lake Huron and 852 feet of Lake shoreline/beach. Current facilities at the park include beach access, restrooms, picnic areas as well as a children's playground and .85 miles of paved walking trails.

Fort Gratiot Park is also home to the 1971 tunnel explosion memorial which commemorates the construction accident that took the lives of 22 men working on the water intake tunnel located beneath the park. In early 2010 the picnic pavilions were completed, an overflow parking area was constructed and additional sections of boardwalk were installed on the beach. Fort Gratiot Park is open daily from 8 am to 9 pm from Memorial Day to Labor Day and 8 am to 8 pm during the winter. Life guards are not on duty, so take caution and swim at your own risk.

The Wadham's to Avoca Trail is nearly 10 miles of unused railroad bed that runs through the center part of the county and includes a large iron trestle across a picturesque part of Mill Creek.

The Bridge to Bay Trail is 50 miles of linear pathway that runs along much of the St. Clair River shore from Anchor Bay to beyond the Blue Water Bridge.

During the fall of 2010 the Community Foundation convened a series of focus groups to re-envision what the stretch along St. Clair River shoreline could become. The goal is to have a river walk that stretches for over one mile of the St. Clair River. In September 2012 work began on the River walk in Port Huron to restore and naturalize almost one mile of the shoreline.

Other major components of the River Walk include: a multi-purpose pedestrian trail that will run the entire length of the shoreline, restoration and re-purposing of a historic railroad ferry dock that will re-open in 2013, and construction of a fishing pier, utilizing a restored and re-purposed railroad bridge to enhance public access for fishing and ship-watching on the river.

Private recreational facilities consist primarily of ten golf courses and seven campgrounds. These are located throughout the county, with most of them in the eastern half of the county.

Boating is a major recreational activity for residents and guests of St. Clair County, especially on Lake Huron and Lake St. Clair, which claims the largest fleet of pleasure boats on the entire Great Lakes. In addition to public marinas mentioned above, there are 26 private marinas and 11 state-operated launch sites. Private marinas in the Port Huron area are located on the Black River. As populations continue to grow, there may be a need for additional marinas in the coming years. Refer to table 2.29 for launch sites and locations.



Boats docked for the Mackinaw Race in Port Huron Michigan. One of the biggest events of the summer is Boat Night. Source: [www.linguistlist.org](http://www.linguistlist.org)

## Activities along the Water Front

Along the Blue Waters of St. Clair County there are many festive activities during the spring and summer season which include Off Shore Racing and Summer Festivals.

### Offshore Racing

Located within St. Clair County is the Blue Water Offshore Racing Association, Inc. which is a non – profit membership organization founded in 1994 to promote and produce offshore racing on the St. Clair River; and has been successfully producing races since 1995. The corporation has a 9 member Executive Board elected from the membership. Each board member serves for 3 years. In 2004, Blue Water Offshore Racing Association, Inc. was granted “public charity” status by the Internal Revenue Service; and now functions as a tax exempt 501(c)(3) Corporations. The association works throughout the year to raise money for the annual St. Clair River Classic Offshore Powerboat race. This race is



2013 St. Clair River Classic Offshore Powerboat Race, Source: [www.freighterfrank.com](http://www.freighterfrank.com)

part of the Great Lakes Silver Cup Series, which is a series of races throughout the Great Lakes. Many of the fund raising activities proceeds go to the Port Huron U.S. Naval Sea Cadets and other community oriented organization.

### Festivals along the Water Front in St. Clair County

During the Summer Season there are many Festivals along the water front.

These festivals include –

- Blue Water Fest/Mackinac Race
- Blue Water Sand Fest
- Rock the Dock
- Yale Bologna Festival
- Pickerel Tournament
- Jazz and Art on the River (Various Communities)
- St. Clair County 4-H Fair
- Offshore Powerboat Racing
- Our Lady of the Lake Huron Summer Festival
- Antique Boat and Vintage Show
- Various Cruise Nights (Antique Car Show)
- Blue Water Sturgeon Festival
- Whistle on the Water



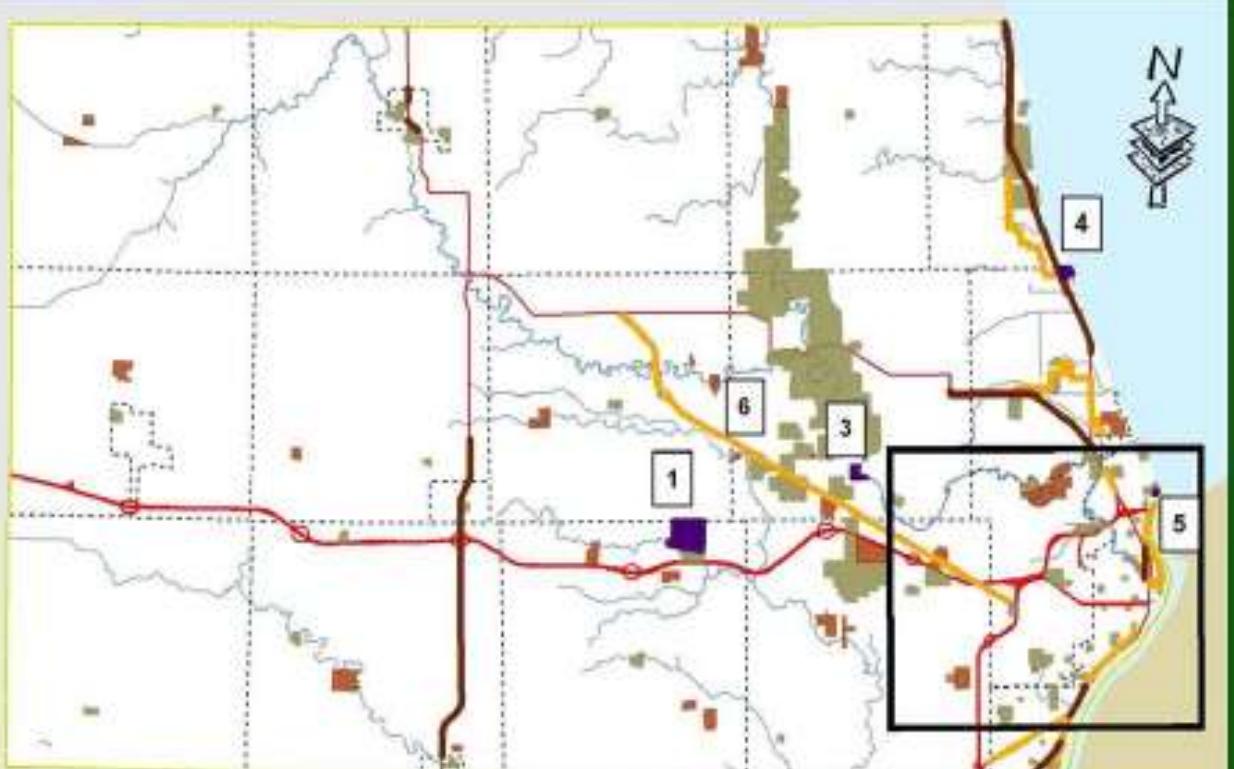
Friday Night at the Blue Water Fest 2014, Source: [www.thetimesherald.com](http://www.thetimesherald.com)

All of these events and more are held during the summer months and is along the St. Clair County Rivers and Lakes. Summertime festivals, celebrations and performances bring laughter and entertainment to the blue shores, and a crowd of people from all over the state and country.

Because of the number of people that attend these events the police force and other security officials are brought in in large numbers to manage the event. During the Blue Water Fest officers used the Michigan State Police mobile command post to coordinate coverage. As well as having one hundred officers on duty for the event for citizen safety.



Carnival during the Blue Water Fest which brought hundreds of people out to celebrate, Source: <http://thebluewaterfest.com/>



## Recreation Inventory

### Legend

- Bike Lane, Shoulder of Road
- Designated Trail
- St. Clair County Owned Parks
- Private Recreation
- Township, City, State Owned Lands
- Interstate Highway

### Port Huron/Marysville Detail



CANADA

- 1. Goodells County Park
- 2. Columbus County Park
- 3. Woodsong County Park
- 4. Pt. Gratiot County Park
- 5. Pt. Gratiot Light Station
- 6. Wadham's to Avoca Trail
- 7. Bridge to Bay Trail

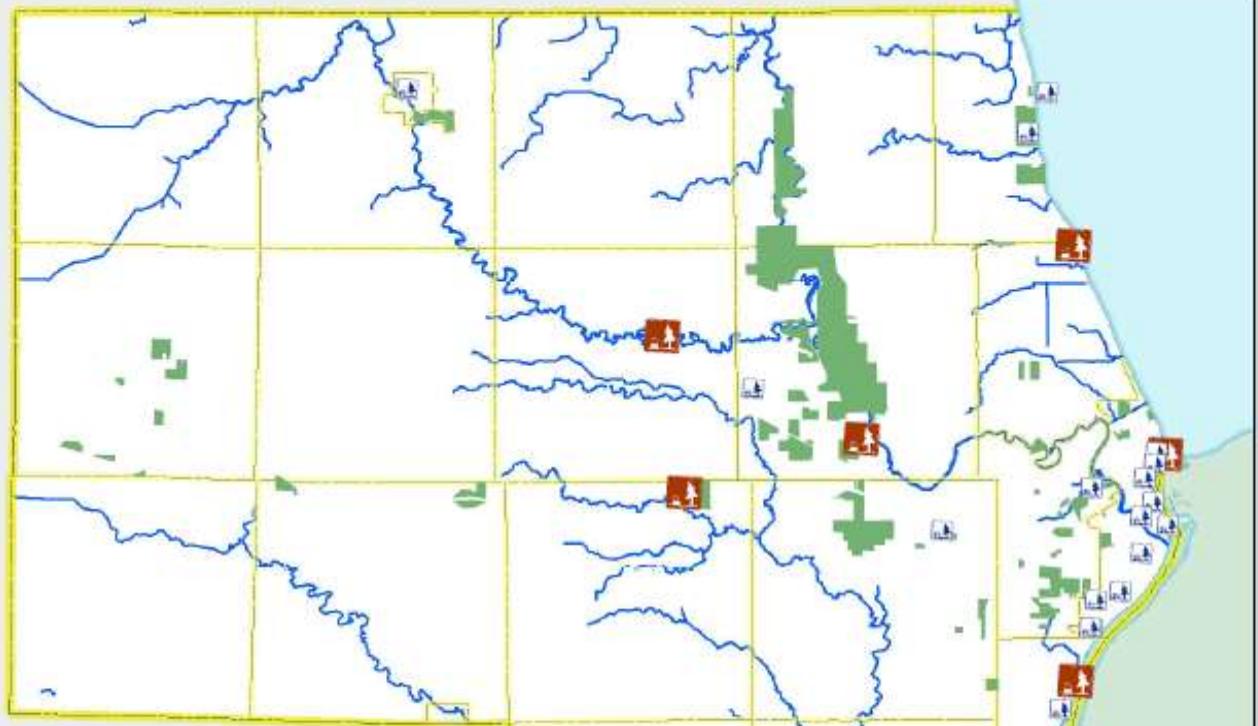
Source:  
Small Business Michigan C overall of  
Governors (SBMCO), The  
University Collaborative, Inc.,  
St. Clair County GIS

**Table 2.29 Launch Sites and Locations**

Site No.	Site Name	Body of Water	Location of Site	Courtesy Pier	Toilets	Parking
74-2	Fair Haven	Lake St. Clair	1 mi E of Fair Haven	Yes	YES	47
74-3	Deckers Landing	N. Channel, St. Clair R. (Lake St. Clair Access)	3 mi S of Fair Haven	Yes	YES	35
74-6	Algonac State Park	St. Clair River	Roberts Landing	No	YES	12
74-9	Walker Flats Impoundment	Black River (Port Huron)	4 mi S of Blaine	No	NO	10
74-11	Ames	M. Channel, St. Clair R. (Lake St. Clair Access)	3 mi SW of Pearl Beach	NO	YES	35
74-12	Snooks	M. Channel, St. Clair R. (Lake St. Clair Access)	2 mi S of Pearl Beach	NO	YES	15
74-14	St. Clair Municipal Ramp	Pine River (Lake St. Clair Access)	St. Clair	YES	YES	80
74-15	Algonac Municipal Ramp	N. Channel, St. Clair R.	Algonac	YES	NO	40
74-16	I-94 Bridge Munic. Ramp	Black River (St. Clair River Access)	Port Huron	YES	YES	49
74-17	12th St. Municipal Ramp	Black River (St. Clair River Access)	Port Huron	YES	YES	65
74-18	Marine City	St. Clair River	1 mi S of Marine City	YES	YES	89
74-19	Marysville	St. Clair River	Marysville	YES	YES	40

Location of Ramps, site numbers, parking spots and public utility access.

Source: [www.michigan.gov/btaccess](http://www.michigan.gov/btaccess)



## Legend

- park
- County Parks
- Public Lands
- CSS County Boundary
- CSS Community Boundary
- Canada
- United States
- Major Watercourses
- Water
- Canada
- St. Clair County
- United States

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