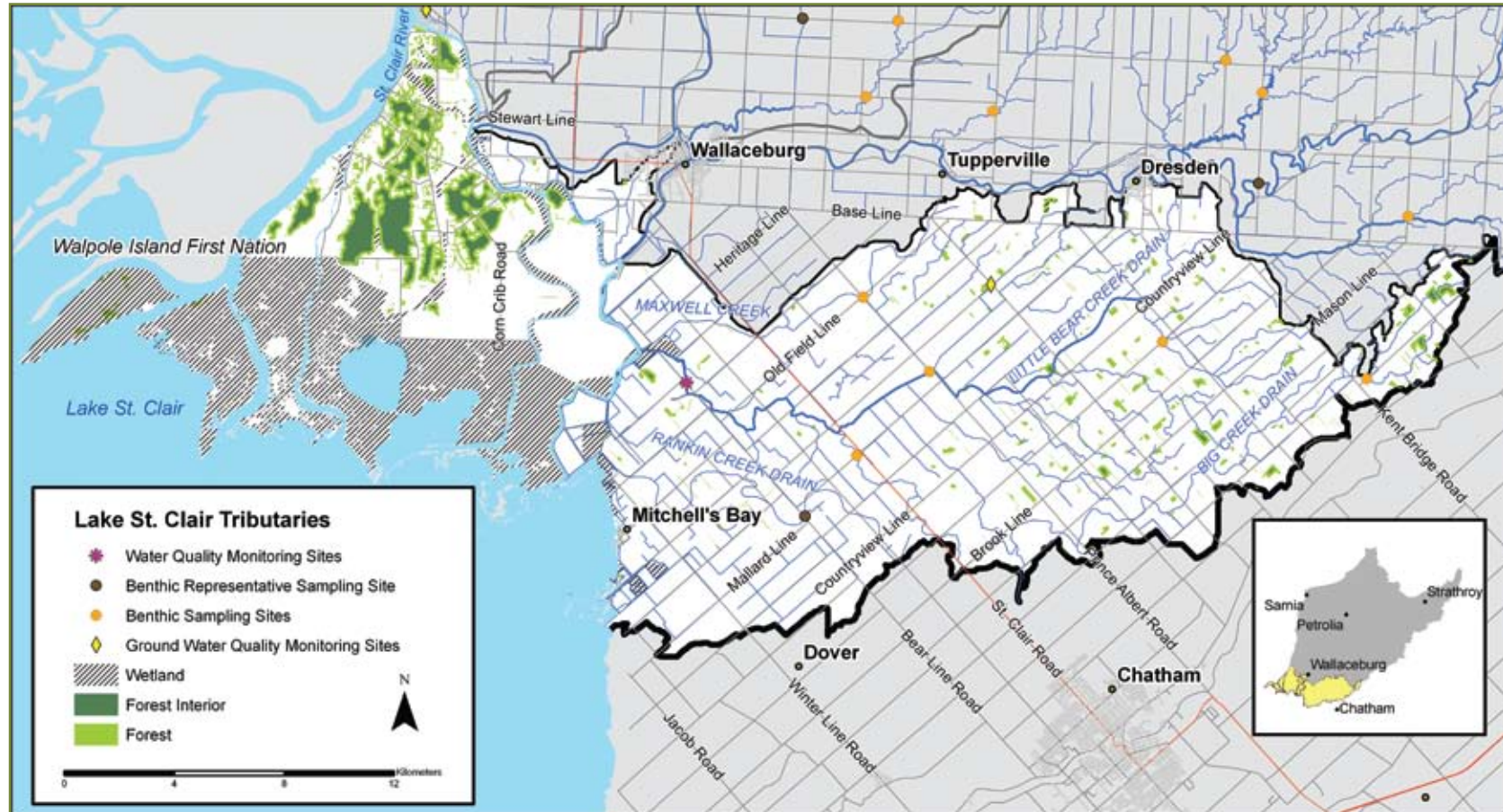




Lake St. Clair Tributaries

Watershed Report Card



This report card summarizes water quality and forest conditions for these watersheds within the St. Clair Region. The summary is intended to provide landowners, groups, municipalities and agencies with information to protect, enhance and improve natural features of the watershed. The ongoing monitoring will be reported on a five-year cycle which will help local people manage their natural features.

This report card is part of a larger report entitled The St. Clair Region Conservation Authority Watershed Report Card available at: www.scrca.on.ca. Further information, including methodology, comparisons to the other 13 St. Clair Region watersheds, and references are also found in the report.

Grades:
Forest Conditions - D
Surface Water Quality - C





Lake St. Clair Tributaries

Watershed Features

Area	484 sq km or 120 000 acres or 187 square miles
Municipalities	Chatham-Kent
First Nations	Walpole Island First Nation
Watercourses	Maxwell Creek, Little Bear Creek Drain, Rankin Creek Drain
Land Use	67% agriculture; 31% other; 1% woodlot; 1% urban/industrial (OMAFRA 1983)
Geology	62% sand plains; 36% clay plains; 2% peat and muck (GIS derived from physiographic maps) (Chapman and Putnam 1984)
Soils	35% sand loams; 31% silt and clay; 17% organic; 7% silt and clay loams; 6% loam; 4% not mapped
Streamside Cover	3% of the 15 metre area on both sides of open stream is vegetated (SOLRIS Woodlands OMNR 2005, SCRCA 2007)
Wetlands	13.2% (SOLRIS Wetlands OMNR 2005)
Groundwater	Both deep (bedrock) and shallow (overburden) aquifers are found in this watershed. The bedrock formation water has elevated levels of salt (sodium) and often has natural gas deposits which can be dangerous in wells. The shallow aquifers which are found here are vulnerable to above-ground activities and to drought. Most of the area has piped water from the Chatham-Kent Intake on Lake Erie near Wheatley.
Natural Areas	Provincially Significant Wetlands: Lake St. Clair Marshes and Area of Natural and Scientific Interest, Chenal Ecarte Marshes Significant Natural Areas: Walpole Island First Nation, Chenal Ecarte Prairie
Fishes	Warm water fish communities with 19 species including Northern Pike, Largemouth Bass, Rock Bass and sunfish. Important habitat for fish species at risk
Waste Water Treatment Plants	Mitchell's Bay Lagoons
Species at Risk Sources: NHIC, 2007; SCRCA, 2007	Vegetation: Colicroot, Small White Lady's-slipper, Hill's Thistle, Swamp Rosemallow, White Prairie Gentian, American Chestnut, Dense Blazingstar, Kentucky Coffee-tree, Purple Twayblade, Riddell's Goldenrod, Eastern Prairie White-fringed Orchid, Pink Milkwort, Common Hoptree, Prairie Rose, Willow Aster Reptiles: Spiny Softshell Turtle, Northern Map Turtle, Eastern Foxsnake, Milksnake, Blanding's Turtle, Queen Snake, Butler's Gartersnake Birds: Northern Bobwhite, Least Bittern, Black Tern, Yellow-breasted Chat, Cerulean Warbler, King Rail, Forster's Tern Fishes: Eastern Sand Darter, Greenside Darter, Blackstripe Topminnow, Grass Pickerel, Lake Chubsucker, Spotted Sucker, Channel Darter, Pugnose Shiner Mussels: Round Pigtoe, Kidneyshell Mammals: None known at this time



Lake St. Clair Tributaries

Forest Condition and Water Quality

Indicator and Description

FOREST CONDITIONS	Lake St. Clair Tributaries Result Grade	SCRCA Area Result Grade
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Forest Cover is the percentage of the watershed that is forested. Environment Canada recommends 30% of a watershed should be in forest cover.

5.8% D

11.5% D

Forest Interior is the area inside a woodlot that some bird species need for breeding. Environment Canada recommends 10% of a watershed should be in forest cover that is at least 100 m from the forest edge.

1.7% D

1.8% D

SURFACE WATER QUALITY	Lake St. Clair Tributaries Result Grade	SCRCA Area Result Grade
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Total Phosphorus is an element that enhances plant growth and contributes to excess algae and low oxygen in streams and lakes. The Ministry of the Environment has established an environmental health objective concentration of 0.03 mg/L.

0.08 mg/l B

0.14 mg/l C

E. coli (Escherichia coli) are bacteria found in human and animal waste. Their presence in water indicates the potential for water to have other disease-causing organisms. The Ministry of Health has established a guideline of 100 cfu (colony forming units)/100 mL in recreational waters.

No Data

181 cfu C

Benthic Invertebrates are small animals without backbones that live in stream or lake sediments. The Family Biotic Index (FBI) summarizes the information about the numbers and types of these animals in a sediment sample. FBI values provide stream health information and values range from 1 (healthy) to 10 (degraded).

7.2 FBI D

6.1 FBI C

Data collected 2001 - 2005, printed 2008

Lake St. Clair Tributaries

Local Solutions



Local Solutions to Improve Forest Conditions:

- Plant trees
- Educate watershed residents about natural area protection
- Conserve natural areas including wetlands, woodlands and prairie remnants, through designations in Official Plans, tree conservation bylaws, landowner incentives and education

Thumbs Up!

- All those landowners who have Environmental Farm Plans
- Landowners who have planted trees
- Landowners who have retained and managed their woodlands under a Forest Management Plan
- Chatham-Kent for setting a goal of 10% tree cover, and financing Greening Partnerships to work toward this goal

Local Solutions to Improve Water Quality:

- Enhance cover along watercourses by planting, protecting or enhancing buffers along open watercourses to filter runoff and shade the water
- Encourage Environmental Farm Plans
- Implement Best Management Practices for spreading and storage of fertilizer, pesticide and manure



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