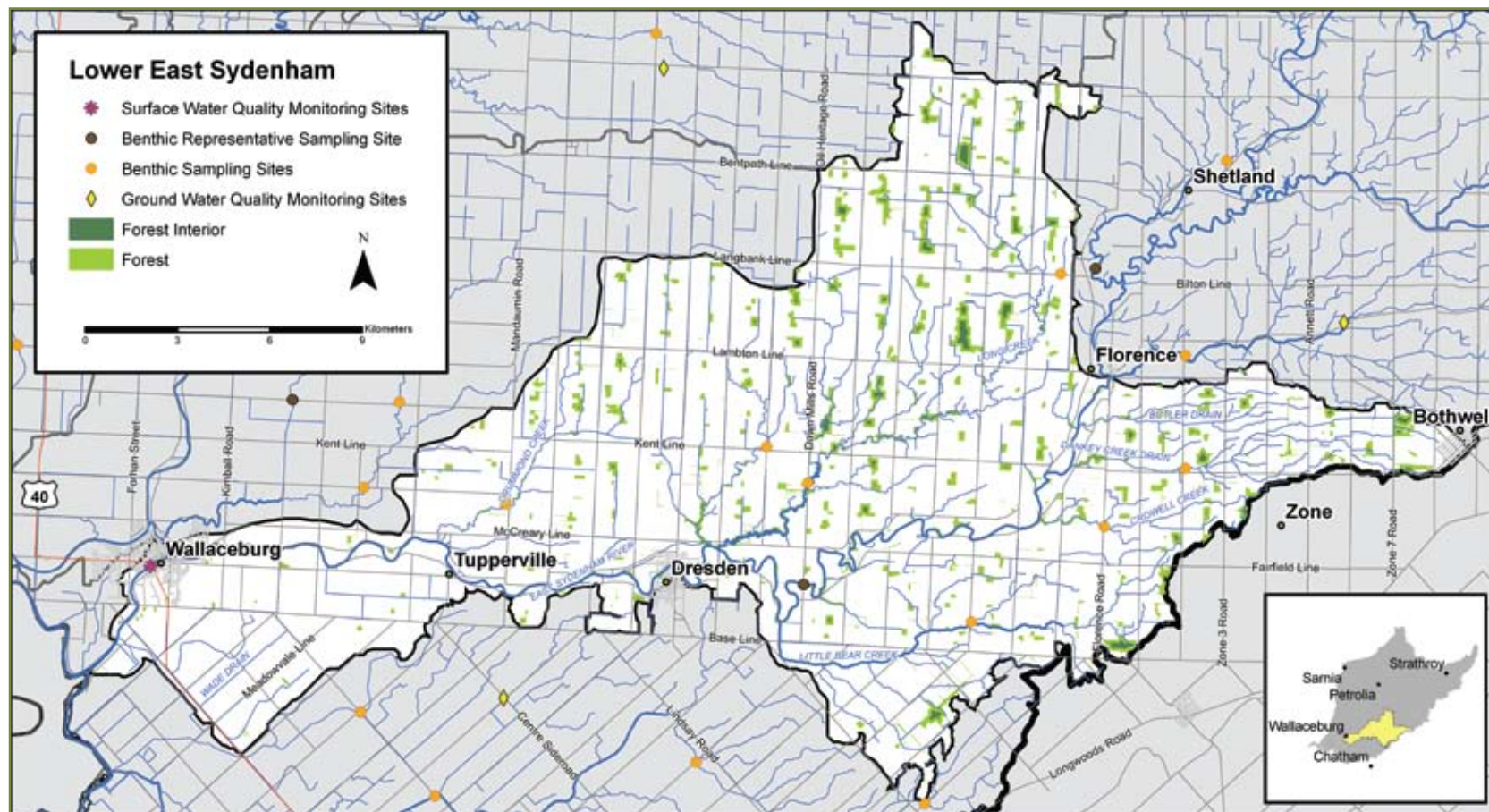




Lower East Sydenham Watershed Report Card



This report card summarizes water quality and forest conditions for the Lower East Sydenham watershed within the St. Clair Region Conservation Authority jurisdiction. 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 - B





Lower East Sydenham

Watershed Features

Area	397 sq km or 98 030 acres or 153 square miles
Municipalities	Chatham-Kent, Dawn-Euphemia, St. Clair
First Nations	none
Watercourses	East Sydenham River (in part), Butler Drain, Dankey Creek Drain, Crowell Creek, Little Bear Creek, Drummond Creek, Long Creek
Land Use	91% agriculture; 6% woodlot; 2% urban/industrial; 1% other (OMAFRA 1983)
Geology	42% bevelled till plains; 37% sand plains; 21% clay plains (GIS derived from physiographic maps)(Chapman and Putnam 1984)
Soils	63% silt and clay; 18% sand loams; 7% loam; 6% silt and clay loams; 3% bottom land and beach; 2% not mapped; 1% water
Streamside Cover	11% of the 15 metre area on both sides of open streams is vegetated (SOLRIS Woodlands OMNR 2005, SCRCA 2007)
Wetlands	0% (SOLRIS Wetlands OMNR 2005)
Groundwater	The groundwater which occurs at the bedrock interface is very patchy in distribution and has elevated sodium levels. There are some shallow wells in the scattered sand pockets. Most of the area is serviced by municipal piped water from intakes on the Great Lakes or connecting channels, with agricultural water taken from surface water.
Natural Areas	Provincially Significant Wetlands: Deyo's or Dare's Woods Significant Natural Areas: Langbank Woods, Huff's Corners Woods, Rutherford Woods
Fishes	Warm water fish community with 49 species including Northern Pike, Largemouth Bass, Smallmouth Bass, Rock Bass and sunfish. Important habitat for fish species at risk
Waste Water Treatment Plants	Dresden WWTP; Wallaceburg WWTP
Species at Risk Sources: NHIC, 2007; SCRCA, 2007	Vegetation: Colicroot, Kentucky Coffee-tree, Butternut, Dense Blazingstar, Purple Twayblade Reptiles: Spiny Softshell Turtle, Eastern Foxsnake, Common Map Turtle Birds: Northern Bobwhite Fishes: Eastern Sand Darter, Greenside Darter, Blackstripe Topminnow, Spotted Gar, Spotted Sucker Mussels: Northern Riffleshell, Snuffbox, Mudpuppy Mussel, Kidneyshell, Round Pigtoe, Round Hickorynut, Wavyrayed Lampmussel, Rayed Bean Mammals: None known at this time



Lower East Sydenham

Forest Condition and Water Quality

Indicator and Description

FOREST CONDITIONS	Lower East Sydenham Result Grade	SCRCA Area Result Grade
<p>Forest Cover is the percentage of the watershed that is forested. Environment Canada recommends 30% of a watershed should be in forest cover.</p>	5.9% D	11.5% D
<p>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.</p>	0.4% F	1.8% D
SURFACE WATER QUALITY	Lower East Sydenham Result Grade	SCRCA Area Result Grade
<p>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.</p>	0.13 mg/1 C	0.14 mg/1 C
<p>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.</p>	86 cfu B	181 cfu C
<p>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).</p>	5.5 FBI B	6.1 FBI C

Data collected 2001 - 2005, printed 2008

Lower East Sydenham

Local Solutions



Local Solutions to Improve Forest Conditions:

- Plant trees
- Conserve woodlands through supporting tree conservation bylaws, designating woodlands in Official Plans and providing landowner incentives and education
- Use local resources like the Lambton Woodlot Owners Association to help you properly manage your woodlot

Thumbs Up!

- Sydenham Field Naturalists for fundraising and campaigning to protect Wallaceburg Sycamore Woods, which is now in public ownership
- Landowners who have Environmental Farm Plans
- Chatham-Kent for continuing to separate combined sewer outfalls in Wallaceburg and Dresden

Local Solutions to Improve Water Quality:

- Encourage municipalities to follow Best Management Practices on municipal drains including buffer strips to stabilize the banks
- Complete and implement Environmental Farm Plans and Nutrient Management Plans, especially for fertilizer, pesticide and fuel storage; manure storage and spreading and livestock access restriction



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