



Black Creek Watershed Features

Area	324 sq km or 80 140 acres or 125 square miles
Municipalities	Enniskillen, Dawn-Euphemia, St. Clair, Brooke-Alvinston, Oil Springs
First Nations	none
Watercourses	Black Creek, Fox Creek, Currie Creek, Booth Creek, Plum Creek.
Land Use	84% agriculture; 13% woodlot; 2% urban/industrial; 1% other (OMAFRA 1983)
Geology	100% bevelled till plains (GIS derived from physiographic maps)(Chapman and Putnam 1984)
Soils	96% silt and clay; 3% bottom land and beach; 1% silt and clay loams
Streamside Cover	21% of the 15 metre area on both sides of open streams is vegetated (SOLRIS Woodlands OMNR 2005, SCRCA 2007)
Wetlands	0.3% (SOLRIS Wetlands OMNR 2005)
Groundwater	The only aquifer is at the interface between the overburden and the bedrock, and is known as the Fresh Water Aquifer. It has high sodium and chloride, naturally occurring oil and gas, and is of limited quantity. Most of the residents are supplied by municipal piped water from Lake Huron intakes.
Natural Areas	Locally Significant Wetlands: Plum Creek Woods and Wetland, Black Creek Woods #1 (Fox Creek Woods) and Wetland Significant Natural Areas: Plum Creek Upland Woods Area of Natural and Scientific Interest, Bickford Line Woods, Black Creek Natural Area #2
Fishes	Warm water fish community with 33 species including sunfish. Important habitat for fish species at risk.
Waste Water Treatment Plants	Oil City Lagoons, Oil Springs Lagoons
Species at Risk Sources: NHIC, 2007; SCRCA, 2007	Vegetation: Colicroot, Green Dragon, Blue Ash, Kentucky Coffee-tree, Shumard Oak Reptiles: Spiny Softshell Turtle Birds: Northern Bobwhite Fishes: Blackstripe Topminnow, Bigmouth Buffalo, Spotted Sucker Mussels: None known at this time Mammals: None known at this time



Indicator and Description

FOREST CONDITIONS

**Black Creek
Result Grade**

**SCRCA Area
Result Grade**

Forest Cover is the percentage of the watershed that is forested. Environment Canada recommends 30% of a watershed should be in forest cover.

13% C

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.

2.1% D

1.8% D

SURFACE WATER QUALITY

**Black Creek
Result Grade**

**SCRCA Area
Result Grade**

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.

0.21 mg/1 D

0.14 mg/1 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.

219 cfu C

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).

6.1 FBI C

6.1 FBI C

Data collected 2001 - 2005, printed 2008



Local Solutions to Improve Forest Conditions:

- Encourage new tree plantings in headwater areas and along watercourses
- Encourage woodlot owners to prepare and follow Woodlot Management Plans
- Plant trees to increase the size of existing woodlots, using a range of native species to protect against diseases and aggressive pests such as the Emerald Ash Borer and Hickory Bark Beetle

Local Solutions to Improve Water Quality:

- Implement Environmental Farm Plans especially for fuel storage, pesticide, fertilizer and manure storage and spreading and livestock access restriction
- Repair or replace faulty septic systems and ensure proper maintenance
- Encourage municipalities to follow Best Management Practices on municipal drains including buffer strips to stabilize the banks

Thumbs Up!

- All those landowners who have Environmental Farm Plans
- Lance Evoy and Dale Evoy for donating a 36 hectare woodland for conservation and public appreciation as the Evoy Woodland
- Landowners who develop and implement Forest Management Plans on their woodlands



St. Clair Region Conservation Authority
205 Mill Pond Crescent, Strathroy ON N7G 3P9
E-mail: scrca@scrca.on.ca
Web site: www.scrca.on.ca
Phone (519) 245-3710