

An aerial photograph of a residential area. A creek flows through the center, surrounded by green trees and grass. In the foreground, there are several houses with different roof colors (grey, brown, red) and a large lake with a wooden dock extending into the water. The background shows more houses and open fields under a clear sky.

# WATERSHED Report Card

# Wood Creek



Raisin Region  
Conservation Authority

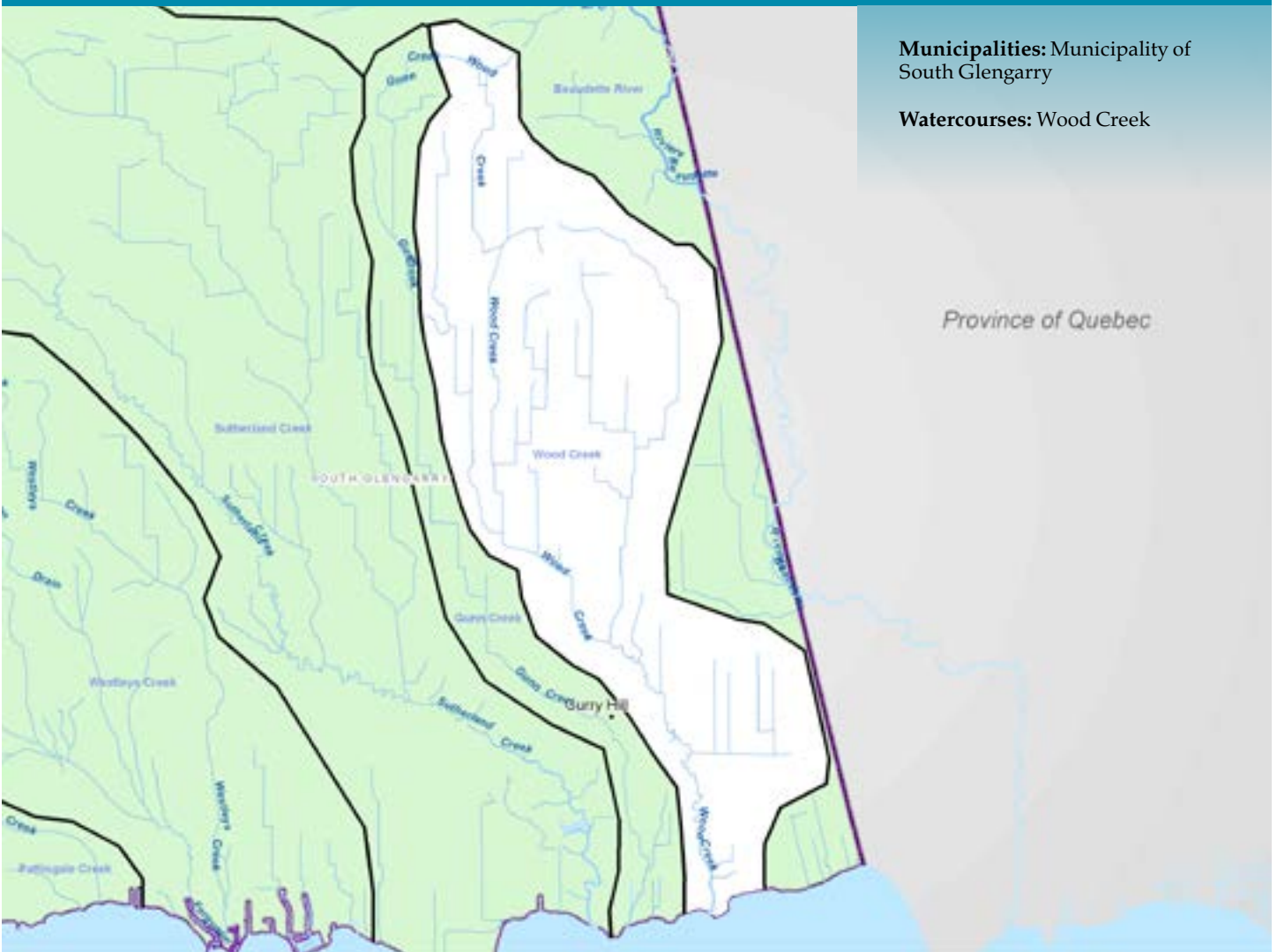


## Grades

- F+** Forest Conditions
- F** Wetland Conditions
- F** Surface Water Quality

**T**his Watershed Report Card outlines the environmental information for the Wood Creek watershed as of 2017. The information provides a description of forest, wetland and water parameters and ideas for local action to assist agency staff, municipalities and interested parties working for the protection of local forest, wetland and water resources.

## Westley Creek Watershed



**Municipalities:** Municipality of South Glengarry

**Watercourses:** Wood Creek

*Province of Quebec*

### F+ Forest Conditions

Overall, forest conditions in the Wood Creek watershed rank an F+ grade. The amount of forest cover (13%) is not considered high enough to sustain native plants and animals. There is no forest interior present meaning the existing woodlots are not large and wide enough to support sensitive species that need to live in large protective forests.

The Remedial Action Plan delisting criteria is five percent forest interior habitat in the Area of Concern tributary watershed. Forest interior habitat consists of forest cover in which the forest extends 200 metres from forest edge and has a minimum core area size of 40 hectares.

Indicators	Wood Creek Results		Raisin Region Watershed Average		Indicator Description
Forest Cover	13%	D-	36%	B	Forest cover is the percentage of the watershed that is forested. It is believed there should be at least 25-30% natural cover to sustain native plants and animals.
Forest Interior	0%	F	4%	D	Forest interior refers to the protected area inside a woodlot that some species require to survive. The outer 200 metre perimeter is 'edge' habitat and prone to stresses from predators, alien species and the elements.

### Local Actions Needed for Improvement:

- Protection of all woodlands and Locally Significant Wetlands at the municipal planning level is a very important and effective method of preserving local forest cover.
- Forest interior can be increased by “bulking up” woodlots to make them larger and rounder by planting native trees and shrubs around existing woodlots or allowing the edges to naturalize on their own (e.g., retire land near woodlot edges).
- Connections can be made between woodlots and other habitat types by planting hedgerows or windbreaks along fields, waterways and roads.
- To improve the health of individual woodlots, owners should prepare and follow Woodlot Management Plans.



## F Wetland Conditions

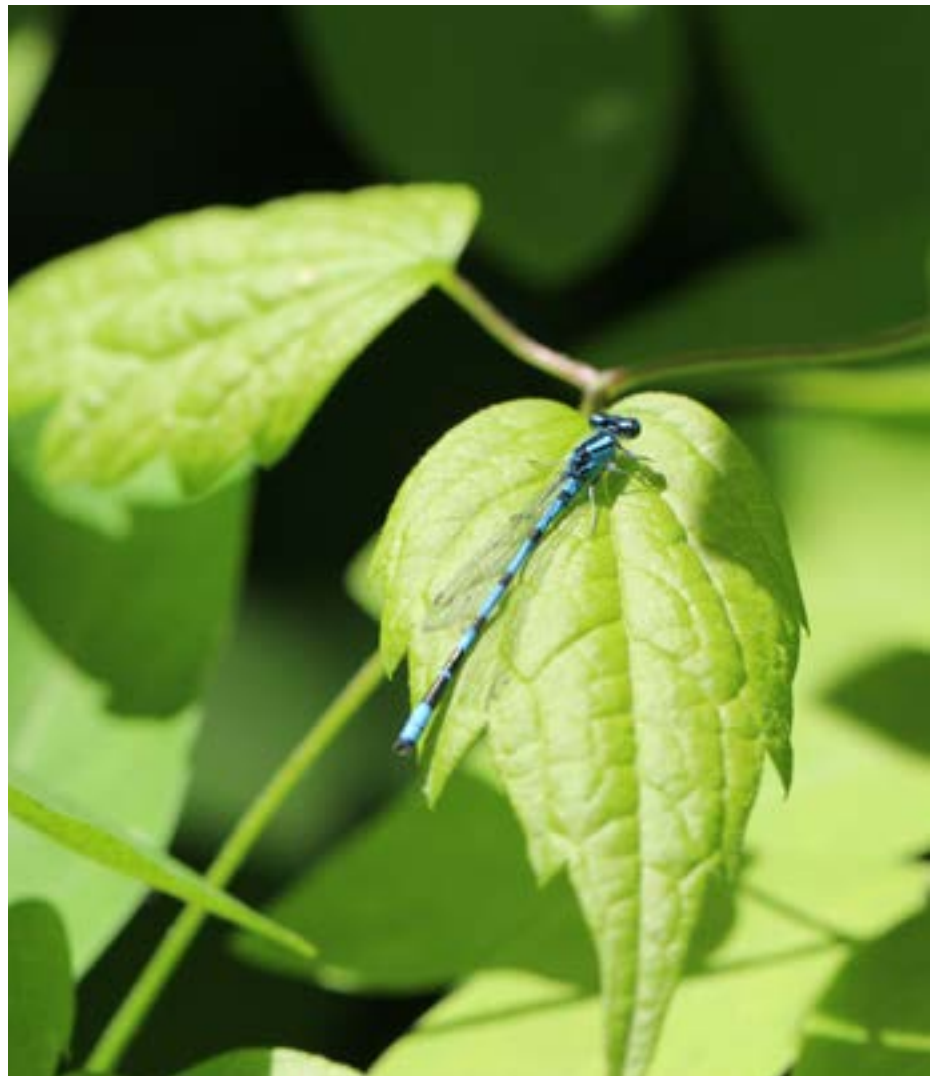
Overall, wetland conditions in the Wood Creek watershed rank an F grade. There is 6 ha of wetland cover, which represents 0.2 percent of the sub-watershed area. The wetland cover for the Wood Creek sub-watershed falls substantially short of the Remedial Action Plan delisting criteria, that highlights that sub-watersheds should contain seven to 10 percent wetland cover.

Wetlands are an important source of habitat for fish and wildlife species. Wetlands serve as flood control areas by holding water and reducing flow. Wetlands act as holding areas for the local water table and play a very important role in water quality improvement.

Indicators	Wood Creek Results	Raisin Region Watershed Average	Indicator Description
Wetland Cover	0.2% F	8% C	Wetland cover is the percentage of the watershed that is wetland (swamp and/or marsh). It is believed there should be at least 10% natural wetland cover to sustain biodiversity and wetland functioning.

### Local Actions Needed for Improvement:

- Protection of all Provincially and Locally Significant Wetlands at the municipal planning level is a very important and effective method of preserving wetland cover.
- Wetland biodiversity can be increased by planting native trees and shrubs around existing wetlands or allowing the edges to naturalize on their own (e.g., retire land near woodlot edges). This will provide essential habitat for many wetland species.
- Connections can be made between wetlands and other habitat types, such as forests, by planting hedgerows or windbreaks along fields, waterways and roads to support the movement of native species.
- To improve the health of individual wetlands (swamp), owners should prepare and follow Woodlot Management Plans.
- To create or improve the size of individual wetlands, owners should contact the Conservation Authority for assistance in designing a wetland project.



### F+ Surface Water Quality

The Westley Creek watershed ranks a F with respect to overall water quality based on benthic, phosphorus and bacteria scores.

A Hilsenhoff Index score of higher than 5.00 indicates that organic pollution is likely and water quality deteriorates.

Indicators	Wood Creek Results		Raisin Region Watershed Average		Indicator Description	
Benthic Score (H.I)	7.19	F	6.30	F	5.00	Benthic organisms are the aquatic invertebrates that live in stream sediments and are a good indicator of water quality and stream health. The Hilsenhoff Index assigns a weighting for each taxon of invertebrate based on its tolerance of organic pollution. The sum of the weighted scores gives an indication of the degree of organic pollution in the stream.
Phosphorus (mg/L)	0.098	D	0.134	D	0.06	Phosphorus is found in such products as soaps, detergents, fertilizers and pesticides and contributes to excess algae and low oxygen in streams and lakes
Bacteria (per 100 ml)	419	F	180	F	100	<i>E. Coli</i> bacteria are found in human and animal waste and their presence in water indicates fecal contamination. <i>E. Coli</i> bacteria are a strong indicator for the potential to have other disease-causing organisms in the water

#### Local Actions Needed for Improvement:

- Plant buffers (grassed or treed) along creeks, rivers and open drains to filter runoff and provide shade.
- Implement protection of identified groundwater infiltration zones and conduct groundwater research and monitoring.
- Target soil erosion measures to areas of high erodibility.
- Encourage landowners to repair or replace faulty septic systems.
- Encourage agricultural Best Management Practices in the areas of manure storage and spreading, soil conservation practices, fertilizer and pesticide application, milkhouse washwater disposal and cattle access restriction.
- Promote the completion of Environmental Farm Plans and Nutrient Management Plans
- Protection of Provincially and locally significant wetlands in Official Plan



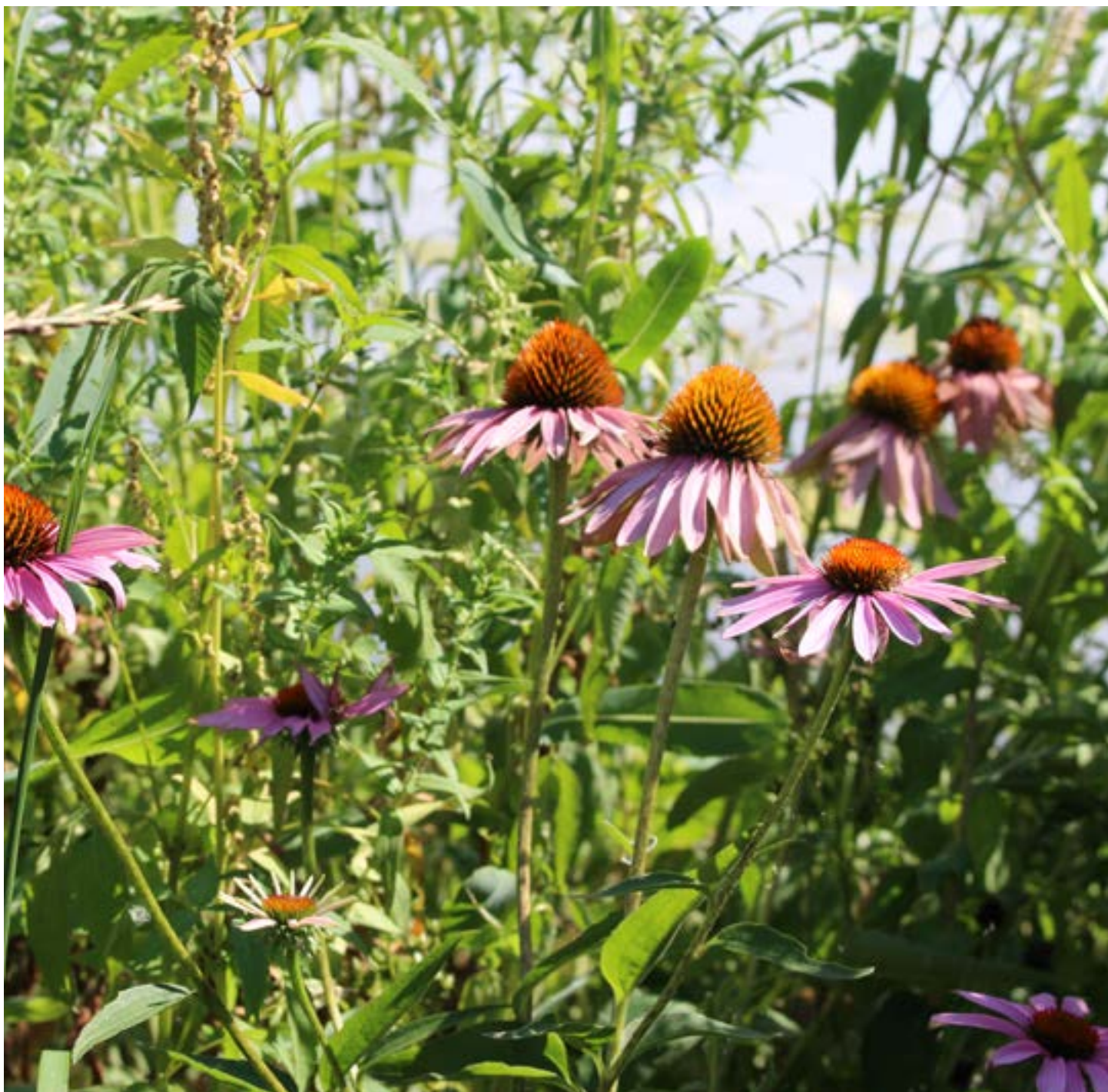
<b>Area</b>	The total area of Wood Creek sub-watershed 3086 ha (1.8% of Raisin Region Watershed).
<b>Land Use</b>	The major land use within Wood Creek is agricultural with an emphasis on cash cropping.
<b>Soil Type</b>	Soil type is mostly silt loam with some clay and sandy loam. Northern reaches exhibit some loam with good drainage characteristics.
<b>Stream Flow</b>	The Wood Creek is a 3rd order stream system with an overall stream length of 57 km (< 20m width), located entirely on private land.
<b>Fishery Resources</b>	Warm water forage and sport-fish community of 21 species, With one provincially vulnerable species: the pugnose minnow ( <i>Opsopoeodus emiliae</i> ).
<b>Woodlot Size</b>	Wood Creek sub-watershed has 84 stands with an average size of 6.08 ha. The largest stand is 88.7 ha.
<b>Riparian Forest</b>	Wood Creek has 57 km of streams (< 20m width) located entirely on private land. 2 km (3.5 %) of the watercourse has riparian vegetation.
<b>Rare Species</b>	Fish –Pugnose Minnow
<b>Significant Natural Sites</b>	Provincially Significant Wetlands — Bainsville Bay Marsh Locally Significant Wetlands — None Significant Natural Areas — None Areas of Natural and Scientific Interest — Bainsville Forest



# Wood Creek

**WATERSHED**  
Report Card





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Conservation Authority

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P.O. Box 429, 18045 County Road 2

Cornwall, Ontario K6H 5T2

T (613) 938-3611 F (613) 938-3221

info@rrca.on.ca

www.rrca.on.ca