



# Upper Parkhill WATERSHED REPORT CARD

**Forest Conditions**

**Grade: D**

**Wetland Cover**

**Grade: F**

**Surface Water Quality**

**Grade: C**

**Grading**

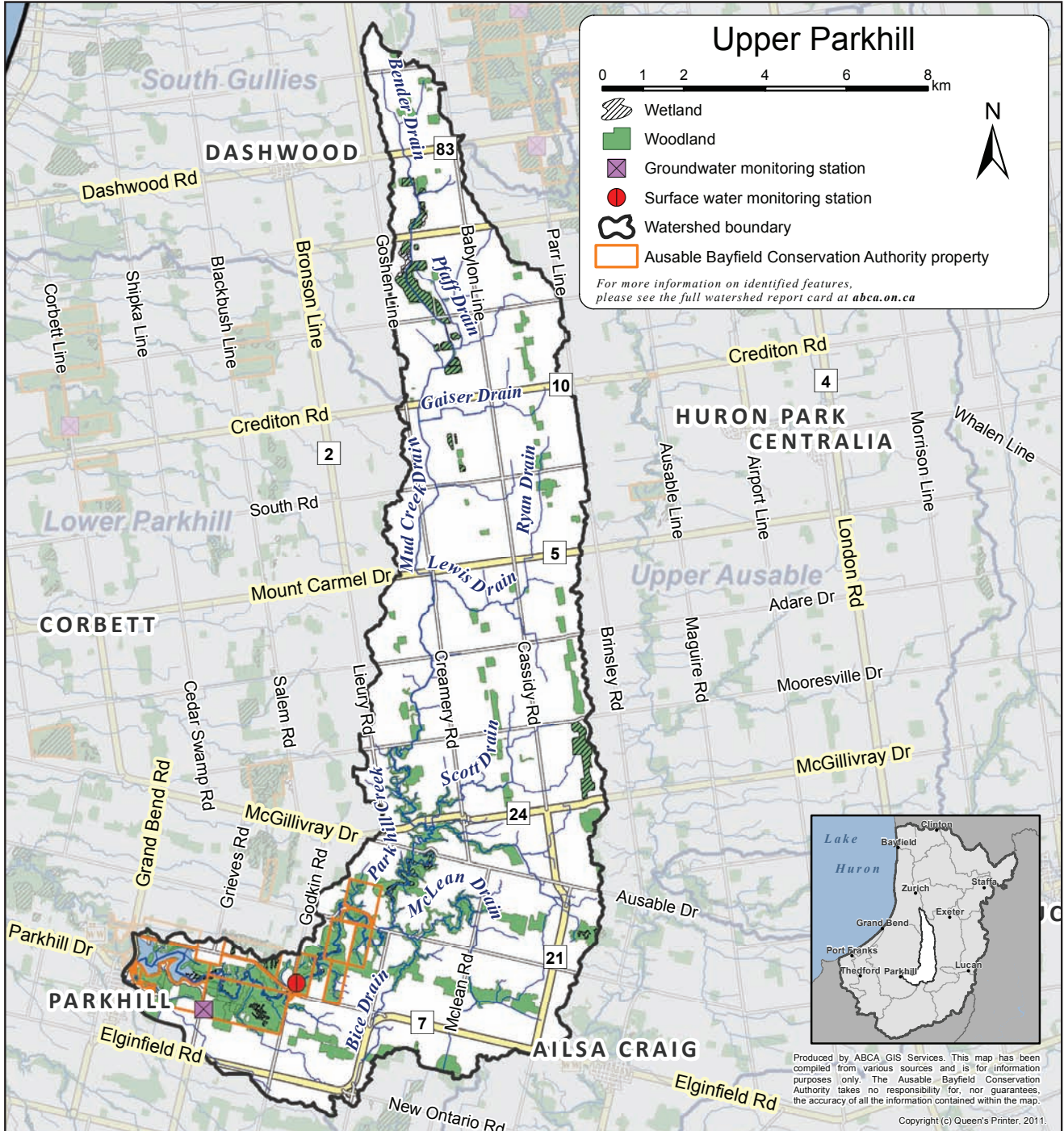
**A** Excellent

**B** Good

**C** Fair

**D** Poor

**F** Very Poor



## Upper Parkhill

0 1 2 4 6 8 km

- Wetland
- Woodland
- Groundwater monitoring station
- Surface water monitoring station
- Watershed boundary
- Ausable Bayfield Conservation Authority property

For more information on identified features, please see the full watershed report card at [abca.on.ca](http://abca.on.ca)

## Top action needed to enhance this watershed:

Practise conservation tillage on erosion-prone soils, particularly on cropped, sloped lands upstream of the Parkhill Reservoir.

For other recommended actions, see back page.

The standards used in this report card were developed by conservation authorities to ensure consistent reporting across the province of Ontario and are intended to provide watershed residents with information to protect, enhance, and improve the precious resources that surround us.



# Watershed Features

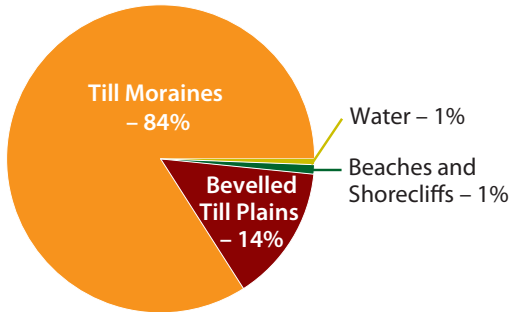
**Area:** 127 km<sup>2</sup>

**Municipalities:** Bluewater, North Middlesex, South Huron

Watershed features, such as geology, soil type, and land use, help explain forest conditions and the quality of groundwater and surface water.\*

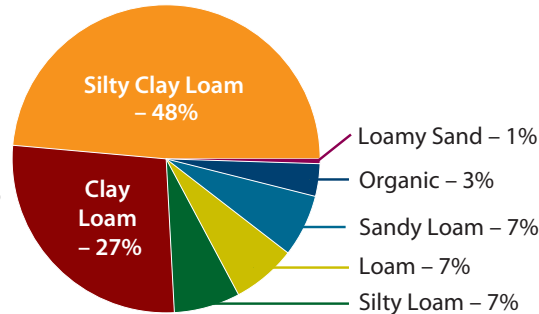
## Geology

*Chapman and Putnam  
1984*



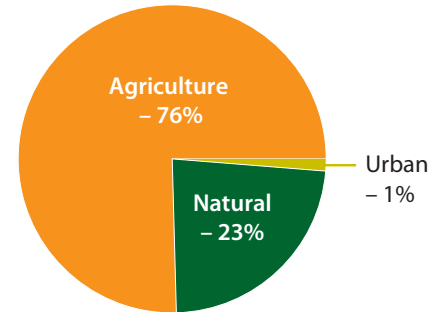
## Soils

*County Soils Maps  
1951–1991*



## Land Use

*Ontario Ministry of Agriculture,  
Food and Rural Affairs 2010*



### Fish:

- There is a warm-water fishery in the main channel.
- The tributaries have baitfish.

### Species at Risk:

- One bird, two reptile, and six plant species at risk in the Upper Parkhill watershed.\*

### Other Watershed Residents

Bees are extremely important pollinators for many of the foods that we consume. Wild bees can make their homes in trees and branches, such as those seen here. Bee-friendly plants are easy to grow and will provide lots of pollen during the summer months.



## Watershed Monitoring

Ausable Bayfield Conservation monitors watershed conditions. Look for a dial graphic like this one at [abca.on.ca](http://abca.on.ca) for low-water advisories and flood messages.



For some data collection needs, especially rainfall amounts, local residents are encouraged to help monitor the watershed.

Other monitoring opportunities may exist. Call us if you're interested at **519-235-2610** or toll-free at **1-888-286-2610**.

## Groundwater Quality



- Concentrations of nitrate and chloride are better than the drinking water standard for nitrate and guideline for chloride at the shallow provincial monitoring well in this watershed.
- No grade was assigned at the watershed level because groundwater boundaries differ from surface water boundaries.
- Different types of aquifers exist throughout the region and the quality of your well water may vary from that of the provincial monitoring wells.\*

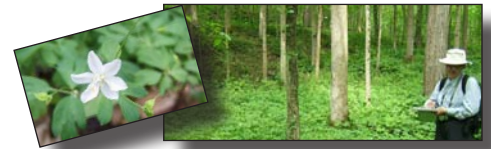
\* See the complete *Watershed Report Card* at [abca.on.ca](http://abca.on.ca) for more information.



# Forest Conditions and Water Quality



## Forest Conditions



Indicator	Description	Result		2012 Grade	
		2007	2012	Upper Parkhill	Entire ABCA Area
<b>Forest cover</b>	<ul style="list-style-type: none"> <li>Forest cover is the percentage of a watershed that is forested.</li> <li>An A grade is forest covering more than 35% of a watershed.</li> </ul>	13.3%	13.9%	D	D (14.1%)
<b>Forest interior</b>	<ul style="list-style-type: none"> <li>Forest interior is the percentage of a watershed with forest cover that is at least 100 metres from the forest's edge.</li> <li>Some birds need this area to nest and breed.</li> <li>An A grade is forest interior covering more than 11.5% of a watershed.</li> </ul>	2.6%	2.3%	F	D (3.2%)
<b>Streamside cover</b>	<ul style="list-style-type: none"> <li>Streamside cover is the percentage of the 30-metre area on both sides of open streams that is forested.</li> <li>An A grade is forest covering more than 57.5% of this streamside area.</li> </ul>	N/A	39.4%	C	C (32.7%)



## Wetland Cover



Indicator	Description	Result		2012 Grade	
		2007	2012	Upper Parkhill	Entire ABCA Area
<ul style="list-style-type: none"> <li>Wetland cover is the percentage of a watershed that is covered by wetlands.*</li> <li>An A grade is wetlands covering over 11.5% of a watershed.</li> </ul>	N/A	2.2%	F	F (2.4%)	



## Surface Water Quality



Indicator	Description	Result		2012 Grade	
		2007	2012	Upper Parkhill	Entire ABCA Area
<b>Total phosphorus</b>	<ul style="list-style-type: none"> <li>Total phosphorus is a nutrient that enhances plant growth and contributes to excess algae and low oxygen in streams.</li> <li>An A grade is a 75th-percentile* total phosphorus concentration of less than 0.020 mg/L.</li> </ul>	0.112 mg/L	0.117 mg/L	D	D (0.073)
<b>E. coli (Escherichia coli)</b>	<ul style="list-style-type: none"> <li>E. coli are bacteria found in human and animal waste. Their presence indicates water may contain other disease-causing organisms.</li> <li>An A grade is a geometric-mean* E. coli concentration of no more than 30 colony forming units (cfu) per 100 mL.</li> </ul>	171 cfu/100 mL	100 cfu/100 mL	B	C (113)
<b>Benthic invertebrates</b>	<ul style="list-style-type: none"> <li>Benthic invertebrates are small animals, without backbones, that live in stream sediments.</li> <li>A Family Biotic Index (FBI) summarizes the numbers and types of these animals in a sediment sample. Values reflect stream health, ranging from 1 (healthy) to 10 (degraded).</li> <li>An A grade is an average FBI value of no more than 4.25.</li> </ul>	4.72	5.17	C	C (5.51)

\* See the complete *Watershed Report Card* at [abca.on.ca](http://abca.on.ca) for definitions of wetlands, 75th percentile, and geometric mean.



# Next Steps



## Thumbs up!

The Ontario Ministry of the Environment has installed a climate change monitoring station in the watershed.



*This is just one example. Let us know about projects you and your community are doing.*

## Grants

*Funding may be available to help you plant trees, control erosion, and improve water quality.*



## How can you help between now and the next Watershed Report Card?

### You can ...

- Plant windbreaks and cover crops, and maintain residue cover, to protect soil.
- Continue implementing fencing projects to restrict livestock access to watercourses. This has many benefits such as improved water quality, reduced bank erosion, and improved habitat for riparian and aquatic species.

### Your community can ...

- Continue to attend local events and talks, such as local library programs.
- Support local initiatives to monitor water quality and quantity in the headwaters.

### Local agencies can ...

- Encourage the regeneration of woodlots that have been affected by the Hickory Bark Beetle and other pests.
- Develop a healthy forest management strategy for remediating the impacts of invasive pests.



**Take Action!** Develop an individual action plan for your property – call us to find out how.

## Links to the Great Lakes

No matter where you live in the watershed, you are linked to the Great Lakes.

The local actions you take make a difference for Lake Huron.

Visit [lakehuroncommunityaction.ca](http://lakehuroncommunityaction.ca)

Visit [abca.on.ca](http://abca.on.ca) for the complete **Watershed Report Card** for all Ausable Bayfield watersheds.



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