





# Watershed Features

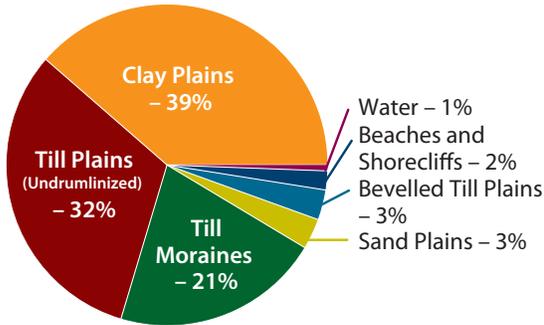
**Area:** 231 km<sup>2</sup>

**Municipalities:** Adelaide Metcalfe, Middlesex Centre, North Middlesex

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

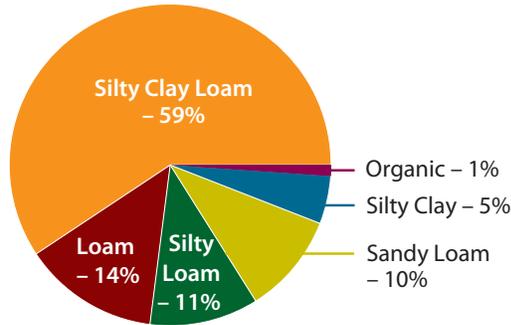
## Geology

Chapman and Putnam  
1984



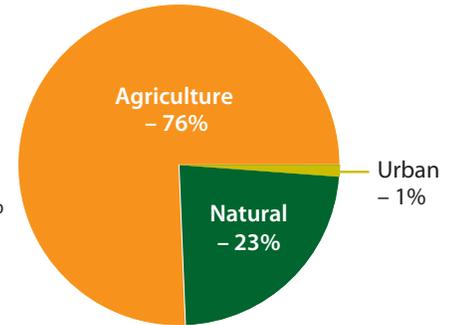
## Soils

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.
- This watershed has potential habitat for fish species at risk.

## Species at Risk:

- One mammal, two bird, four reptile, six mussel, and three plant species at risk in this watershed.\*

## Other Watershed Residents

Freshwater mussels, like this young Fatmucket, can filter 40 litres of water a day. This unique process contributes to the health of the entire watershed.



# 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



- Although a provincial water quality monitoring well does not exist in this watershed, water quality may be similar to water in the aquifers found in the Upper Parkhill, Lower Parkhill, and Lower Ausable watersheds. Concentrations of nitrate and chloride are better than the drinking water standard for nitrate and guideline for chloride at the shallow and deep provincial monitoring wells in those watersheds.
- 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	Middle Ausable	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>	12.2%	13.6%	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>	1.6%	1.9%	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	43.2%	B	C (32.7%)



## Wetland Cover



Indicator	Description	Result		2012 Grade	
		2007	2012	Middle Ausable	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	0.9%	F	F (2.4%)	



## Surface Water Quality



Indicator	Description	Result		2012 Grade	
		2007	2012	Middle Ausable	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>	0.095 mg/L	0.094 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>	138 cfu/100 mL	70 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>	3.90	4.47	B	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 Ailsa Craig Lions Club has hosted fish and turtle awareness events.

*This is just one example in the watershed. Let us know about projects you or 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 ...

- Enhance small tributaries of the Ausable River by protecting existing wetlands; establishing vegetation such as grasses, shrubs, and trees strategically along municipal drains; and enhancing closed drains with grassed waterways.
- Reforest less agriculturally productive land and extend forests along fencerows.
- Use soil conservation practices to protect valuable topsoil from erosion on intensively cropped lands.

### Your community can ...

- Attend and participate in local events, such as the Ailsa Craig fishing derby, Ailsa Craig Gala Days, and fish talks.
- Learn more about the fascinating freshwater mussels that live in your watershed.



### Local agencies can ...

- Continue to support buffer and wetland restoration projects (Ausable River Recovery Team and Habitat Stewardship Program).
- Promote forest management practices that combat destruction from invasive species.



**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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