

# Mud Creek WATERSHED REPORT CARD

## Forest Conditions



### Grade:

C

## Wetland Cover



### Grade:

D

## Surface Water Quality



### Grade:

D

## Grading

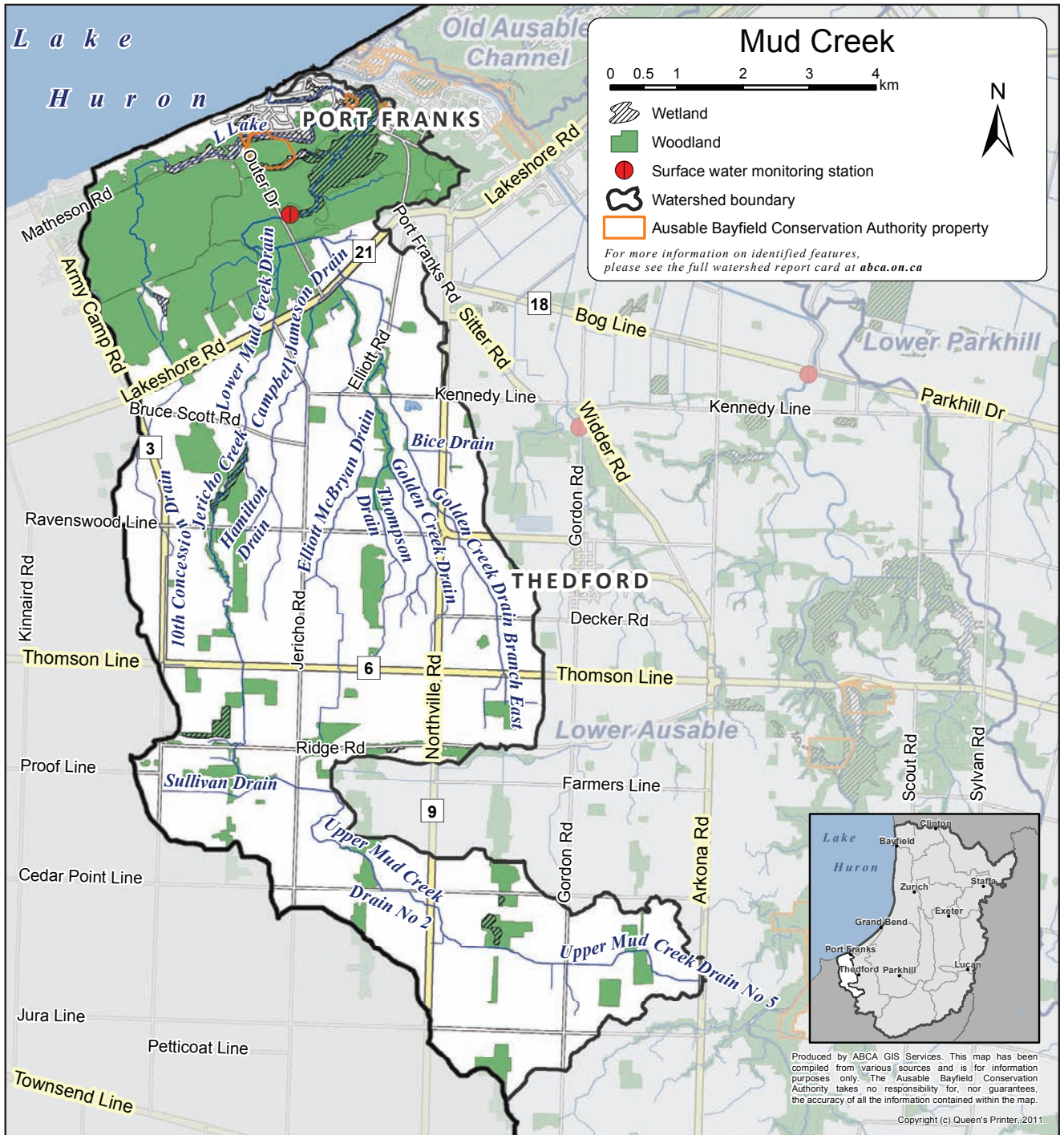
A Excellent

B Good

C Fair

D Poor

F Very Poor



## Top action needed to enhance this watershed:

Plant trees and shrubs along the headwaters of Mud Creek.

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

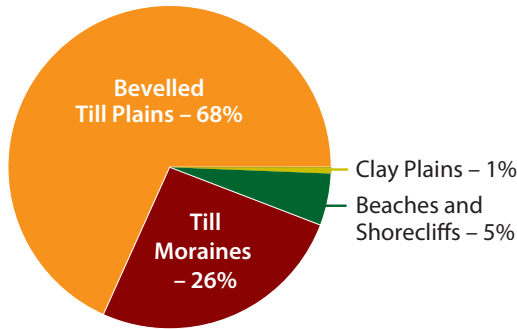
**Area:** 69 km<sup>2</sup>

**Municipalities:** Lambton Shores

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

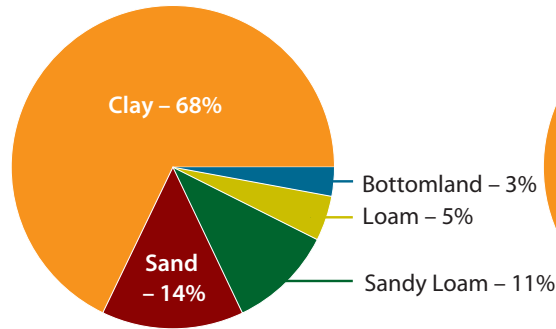
## Geology

Chapman and Putnam  
1984



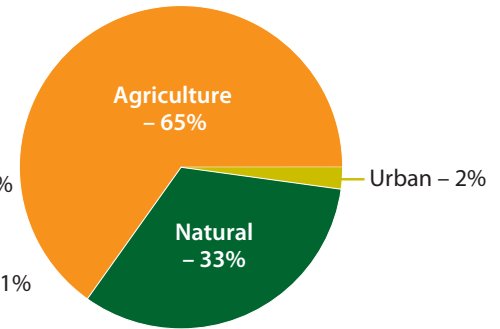
## Soils

County Soils Maps  
1951–1991



## Land Use

Ontario Ministry of Agriculture,  
Food and Rural Affairs 2010



## Fish:

- The fish community in the Mud Creek watershed is dominated by warm-water baitfish.

## Species at Risk:

- Five bird, eight reptile, three fish, and 12 plant species at risk in this watershed.\*

## Other Watershed Residents

The Bladderwort is a carnivorous aquatic plant that prefers clean, nutrient-poor waters, and provides food and habitat for fish. The tiny 'bladders' on its leaves are small vacuum traps that catch tiny aquatic insects.



Photo by  
Johan Wiklund

# 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 Lower Ausable watershed. Concentrations of nitrate and chloride are better than the drinking water standard for nitrate and guideline for chloride at the two shallow provincial monitoring wells in that 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  | Mud Creek  | 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>   | 23.7%  | 24.4% | C          | 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> | 9.4%   | 10.7% | B          | 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    | 33.8% | C          | C (32.7%)        |



## Wetland Cover



| Indicator  | Description | Result |      | 2012 Grade |                  |
|--|-------------|--------|------|------------|------------------|
|  |             | 2007   | 2012 | Mud Creek  | 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         | 3.1%   | D    | F (2.4%)   |                  |



## Surface Water Quality



| Indicator                         | Description  | Result         |               | 2012 Grade |                  |
|-----------------------------------|--|----------------|---------------|------------|------------------|
|                                   |  | 2007           | 2012          | Mud Creek  | 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     | 0.074 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>   | 117 cfu/100 mL | 73 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> | 7.67           | 6.65          | F          | 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!

Residents are active in the Lambton Shores Phragmites Control community group and in monitoring local turtles. Their work on these two issues is helping to get rid of the invasive *Phragmites* and to protect turtles.

*These are just two examples in the watershed. 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 Carolinian species for landscaping. See the *Living with Nature* guidebook at [abca.on.ca](http://abca.on.ca) for recommended species.
- Take part in our community-based turtle monitoring program or the Volunteer Rain Gauge Network.
- Create and enhance wetlands, and complete manure storage and erosion control projects.



### Your community can ...

- Appreciate that sand may build up along the shore when lake levels are low. These dunes can protect your homes and cottages if lake levels rise. Work around dunes may require a permit – check with Ausable Bayfield Conservation for more information.
- Link the natural areas of the Ausable Gorge with Pinery Provincial Park and Port Franks.

### Local agencies can ...

- Analyze data and report on the results of water quality monitoring that was done to ensure that increased domestic water supply does not result in private septic system over-usage and water contamination.
- Monitor water quality at local beaches.



**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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**AUSABLE BAYFIELD CONSERVATION**

CREATING AWARENESS | TAKING ACTION



Conservation ONTARIO  
Natural Champions