

Mud Creek Watershed Report Card 2018



Grades:

- A – Excellent
- B – Good
- C – Fair
- D – Poor
- F – Very Poor

Forest Conditions



Grade:

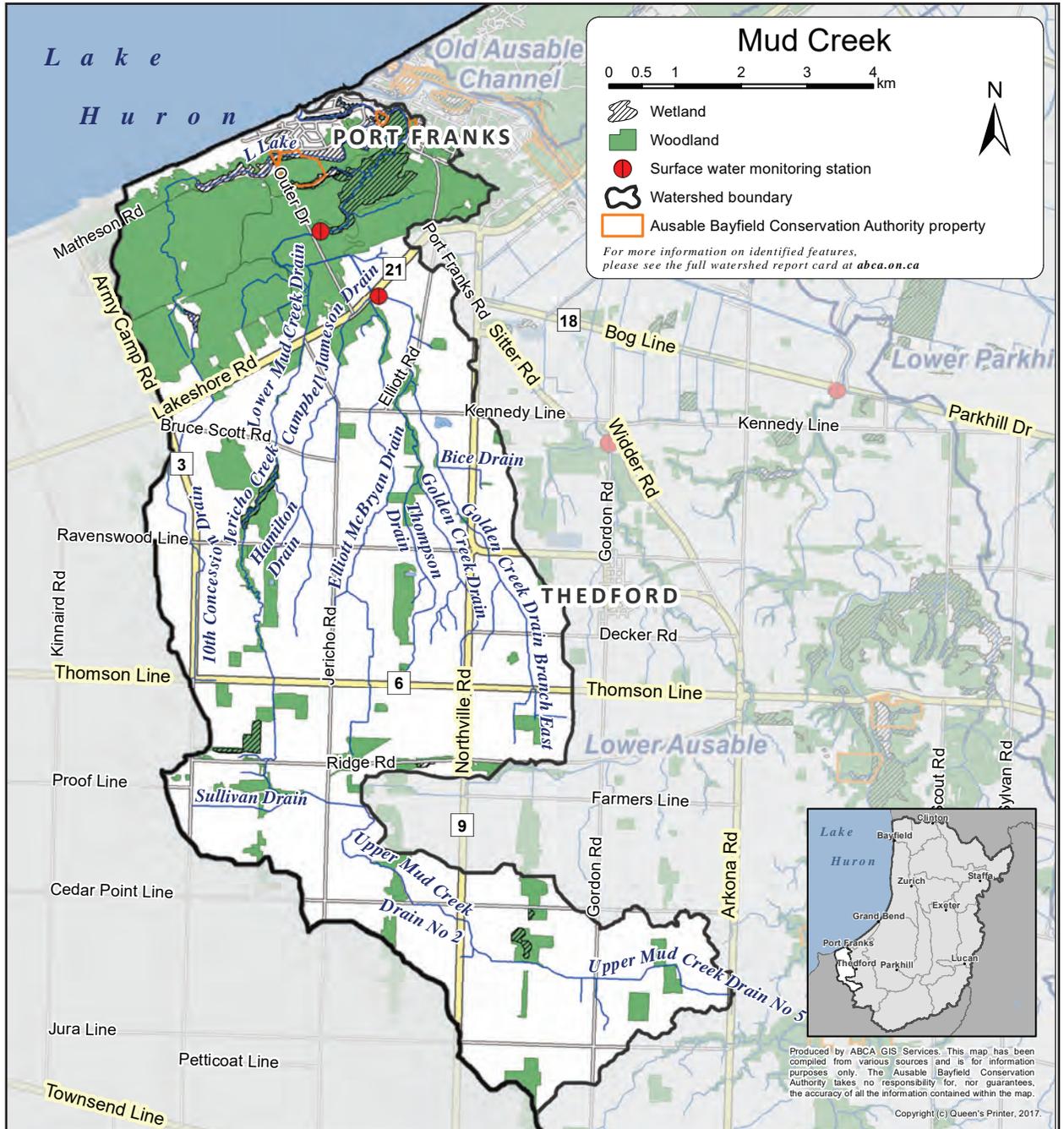
C

Surface Water Quality



Grade:

D



Report cards give residents information to protect and enhance watershed resources.

Report card standards were developed for consistent reporting across Ontario.

Top action needed to enhance this watershed:

- Plant trees and shrubs along the headwaters of Mud Creek to increase streamside vegetative buffers and reduce erosion.

Visit back page for more actions.



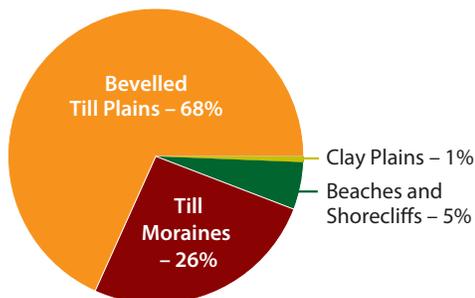
Watershed Features



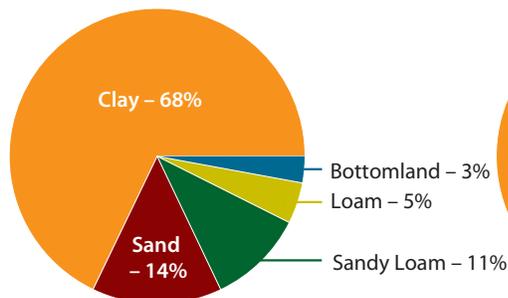
Area: 69 km²

Municipalities: Lambton Shores

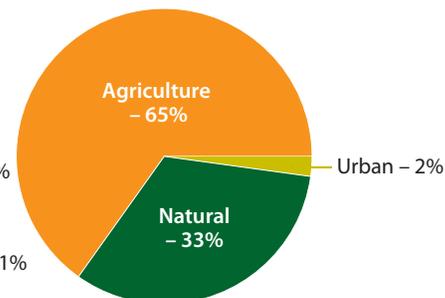
Geology, soil type, and land use help explain surface water and groundwater quality and forest conditions.*



Geology (Chapman and Putnam 1984)



Soils (County Soils Maps 1951-1991)



Land Use (OMAFRA 2015)

Fishable

Fish:

- The fish community is dominated by warmwater species such as Largemouth Bass, White Crappie, Black Crappie, Sunfish, and Bowfin.
- Tributaries are warmwater with baitfish communities.

Species at Risk:

- Five birds; six reptiles; three fishes; and twelve plants.*

Did you know?

The harmless Eastern Hognosed Snake is a great pretender. When threatened they flatten their neck like a cobra, hiss, and lunge at the threat. If this doesn't work, they play dead.



Quenneville Photo

Swimmable at Local Lake Huron Beaches



- To reduce the risk of illness, refrain from swimming for 48 hours after heavy rainfall, especially when you can't see your feet in waist-deep water.
- Water quality at public beaches is monitored from June to Labour Day.
- Find results from your local public health unit and theswimguide.org

Drinkable

Municipal Drinking Water Sources

- Lake Huron (surface water) is the source of raw water for municipal drinking water for many local towns.
- Groundwater from wells is the municipal drinking water source in Brucefield, Clinton, Seaforth, Zurich, and Varna.
- Learn about your municipal well or intake at this link: sourcewaterinfo.on.ca

Private Wells

- Test your well water in spring and autumn.
- Visit ogwa.ca/Well-Wise-Testing for well protection tips.

Groundwater Conditions



- A provincial monitoring well does not exist in this watershed, but groundwater may be similar to wells near Arkona and Pinery Provincial Park. Nitrate concentrations are better than the drinking water standard at these wells, but chloride concentrations are not as good and approach the guideline at the well near Arkona.
- Your well water quality may differ from that of provincial monitoring wells.

* Go to abca.ca for the complete Watershed Report Card to learn more.

Watershed Grades



Forest Conditions



Indicator	Description	Result		2017 Grade	
		2012	2017	Mud Creek	Entire ABCA
Forest cover	<ul style="list-style-type: none"> Forest cover is a percentage of a watershed that is forested. An A grade is forest covering more than 35% of a watershed. 	24.4%	24.3%	C	D (14.2%)
Forest interior	<ul style="list-style-type: none"> Forest interior is the percentage of a watershed with forest cover that is at least 100 metres from the forest's edge. Some birds need this area to nest and breed. An A grade is forest interior covering more than 11.5%. 	10.7%	10.7%	B	D (3.3%)
Streamside cover	<ul style="list-style-type: none"> Streamside cover is the percentage of the 30-metre area on both sides of open streams that is forested. An A grade is forest covering more than 57.5% of this streamside area. 	33.8%	33.8%	C	C (32.6%)



Overwinter Vegetative Cover on Agricultural Lands

- Agriculture comprises 65 per cent of the land use in this watershed.
- A minimum of 30 per cent of overwinter vegetative cover on agricultural lands might be expected if fields were in a corn-soybean-wheat rotation.
- Overwinter vegetative cover on agricultural lands, in this watershed, ranged from 13 to 19 per cent in recent aerial photography.*



Surface Water Quality



Indicator	Description	Result		2017 Grade	
		2012	2017	Mud Creek	Entire ABCA
Total phosphorus	<ul style="list-style-type: none"> Total phosphorus is a nutrient. It enhances plant growth. It contributes to excess algae and low oxygen in streams. An A grade is a 75th-percentile* total phosphorus concentration of less than 0.020 mg/L. 	0.074 mg/L	0.091 mg/L	D	D (0.073)
E. coli (Escherichia coli)	<ul style="list-style-type: none"> <i>E. coli</i> are bacteria found in human and animal waste. Their presence indicates water may contain other disease-causing organisms. An A grade is a geometric-mean* <i>E. coli</i> concentration of no more than 30 colony forming units (cfu) per 100 mL. 	73 cfu/100 mL	138 cfu/100 mL	C	C (104)
Benthic invertebrates	<ul style="list-style-type: none"> Benthic invertebrates are small animals, without backbones, that live in stream sediments. Family Biotic Index (FBI) summarizes the numbers and types of these animals in a sediment sample. Values, from 1 (healthy) to 10 (degraded), reflect stream health. An A grade is an average FBI value of no more than 4.25. 	NA	6.50	D	C (5.59)

* The complete *Ausable Bayfield Watershed Report Card* at abca.ca has information on 2007 grades, definitions (such as 75th percentile and geometric mean), methods, and results.

Next Steps

How can you help?

You can:

- Take part in the community-based turtle monitoring program or the Volunteer Rain Gauge Network.

Your community can:

- Appreciate that sand may build up along the shore when lake levels are low. These dunes protect your homes and cottages if lake levels rise. Work around dunes may require a permit – check with Ausable Bayfield Conservation for more information.

Local agencies can:

- Support water quality monitoring at local beaches.

Take action!

We can help you to develop an individual action plan for your property. Interested in monitoring your watershed? Call us to find out how.



Thumbs up!

Environment and Climate Change Canada and Municipality of Lambton Shores funding has supported a turtle monitoring program and exclusion fencing along Outer Drive to provide turtles with a safe road crossing.

Grants

Funding may be available to help you plant trees, control erosion, and improve water quality. Call us to find out more.



Links to the Great Lakes

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

We rely on the lake as a source of drinking water, economic activity, and recreation.

Your personal action can make a difference for Lake Huron.

Visit lakehuroncommunityaction.ca



Ausable Bayfield Conservation Authority (ABCA), 71108 Morrison Line, RR 3 Exeter, ON • N0M 1S5 • Phone: 519-235-2610 • Toll-free: 1-888-286-2610 Facsimile: 519-235-1963 • E-mail: info@abca.ca • Website: abca.ca

Visit abca.ca for the complete *Watershed Report Card* for all Ausable Bayfield watersheds.