



Nairn Creek WATERSHED REPORT CARD

Forest Conditions

Grade: D

Wetland Cover

Grade: F

Surface Water Quality

Grade: C

Grading

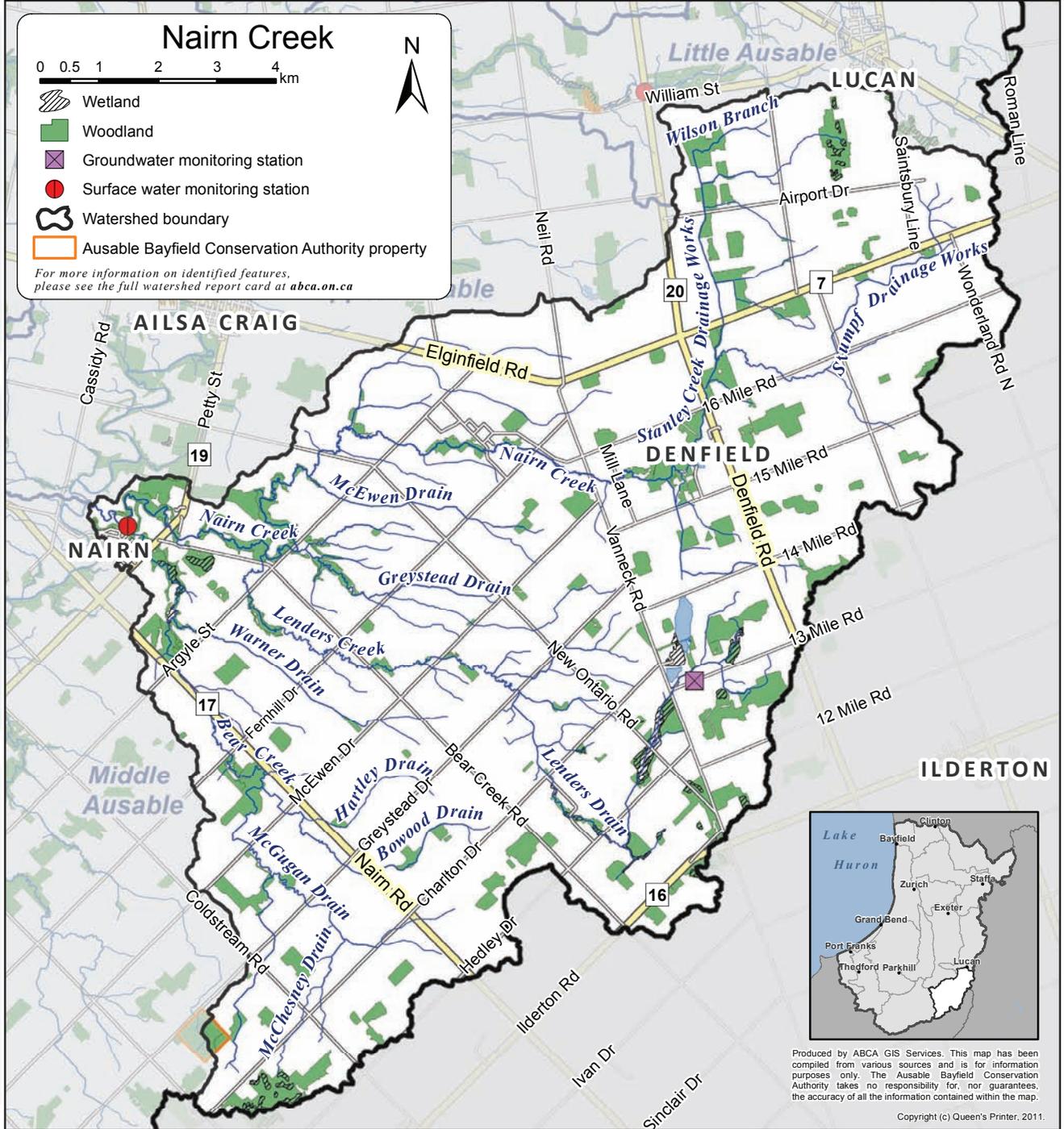
A Excellent

B Good

C Fair

D Poor

F Very Poor



Produced by ABCA GIS Services. This map has been compiled from various sources and is for information purposes only. The Ausable Bayfield Conservation Authority takes no responsibility for, nor guarantees, the accuracy of all the information contained within the map.
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Top action needed to enhance this watershed:

Create wetlands to hold water during rain events and release water during dry periods.

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

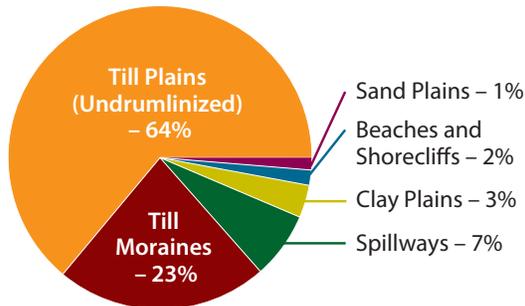
Area: 139 km²

Municipalities: Lucan Biddulph, 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.*

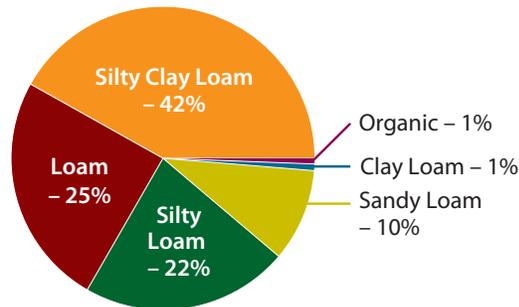
Geology

Chapman and Putnam
1984



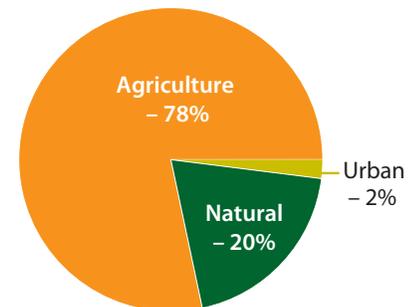
Soils

County Soils Maps
1951-1991



Land Use

Ontario Ministry of Agriculture,
Food and Rural Affairs 2010



Fish:

- There is a migratory trout fishery in the main channel.
- There is a cold-water fishery in the tributaries.

Species at Risk:

- Four bird, one reptile, two mussel, and two plant species at risk in this watershed.*

Other Watershed Residents

Brook Trout are dependent on clear, cold, well-oxygenated waters. As such, they serve as an indicator for this rare habitat type within the Ausable River watershed.



Watershed Monitoring

Ausable Bayfield Conservation monitors watershed conditions. Look for a dial graphic like this one at 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 for more information.

Forest Conditions and Water Quality



Forest Conditions



Indicator	Description	Result		2012 Grade	
		2007	2012	Nairn Creek	Entire ABCA Area
Forest cover	<ul style="list-style-type: none"> Forest cover is the percentage of a watershed that is forested. An A grade is forest covering more than 35% of a watershed. 	8.7%	9.6%	D	D (14.1%)
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% of a watershed. 	0.8%	1.0%	F	D (3.2%)
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. 	N/A	27.6%	C	C (32.7%)



Wetland Cover



Indicator	Description	Result		2012 Grade	
		2007	2012	Nairn Creek	Entire ABCA Area
<ul style="list-style-type: none"> Wetland cover is the percentage of a watershed that is covered by wetlands.* An A grade is wetlands covering over 11.5% of a watershed. 	N/A	0.8%	F	F (2.4%)	



Surface Water Quality



Indicator	Description	Result		2012 Grade	
		2007	2012	Nairn Creek	Entire ABCA Area
Total phosphorus	<ul style="list-style-type: none"> Total phosphorus is a nutrient that enhances plant growth and 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. 	0.028 mg/L	0.031 mg/L	C	D (0.073)
E. coli (Escherichia coli)	<ul style="list-style-type: none"> E. coli 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* E. coli concentration of no more than 30 colony forming units (cfu) per 100 mL. 	130 cfu/100 mL	104 cfu/100 mL	C	C (113)
Benthic invertebrates	<ul style="list-style-type: none"> Benthic invertebrates are small animals, without backbones, that live in stream sediments. 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). An A grade is an average FBI value of no more than 4.25. 	4.56	4.96	B	C (5.51)

* See the complete *Watershed Report Card* at abca.on.ca for definitions of wetlands, 75th percentile, and geometric mean.



Next Steps



Thumbs up!

More than 15,000 trees have been planted and the Quinn family has created 7.5 acres of wetlands. This project will enhance the headwaters of Bear Creek – a tributary of Nairn Creek.

This is just one example 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 streamside vegetation.
- Plant windbreaks and connect woodlots on less agriculturally productive land.
- Restrict livestock access from waterways by installing livestock fencing.

Your community can ...

- Protect and enhance natural heritage features (woodlots, meadows, and streamside vegetation).
- Enhance small creeks through streamside planting and erosion control projects.

Local agencies can ...

- Develop conservation communication tools for the rural, non-farm communities northwest of London.
- Protect wetlands and investigate the purchase of key wetlands that preserve cold water flow.

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



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



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.on.ca
 Website: abca.on.ca



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