



# Main Bayfield WATERSHED REPORT CARD

## Forest Conditions



Grade:



## Wetland Cover



Grade:



## Surface Water Quality



Grade:



## Grading

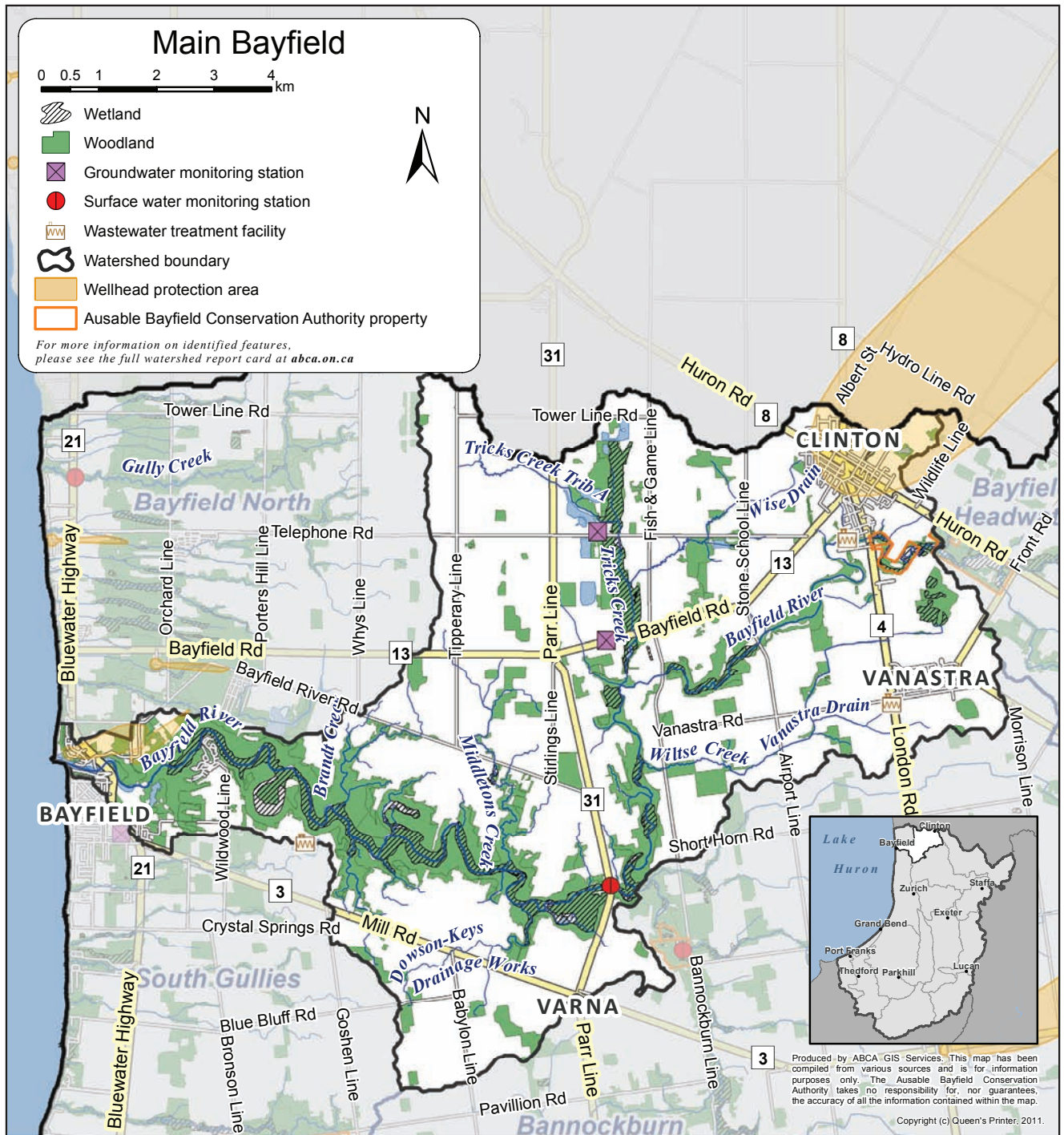
A Excellent

B Good

C Fair

D Poor

F Very Poor



## Top action needed to enhance this watershed:

Identify and implement tree planting projects, and wetland and stream restoration projects, in the Trick's Creek watershed.

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

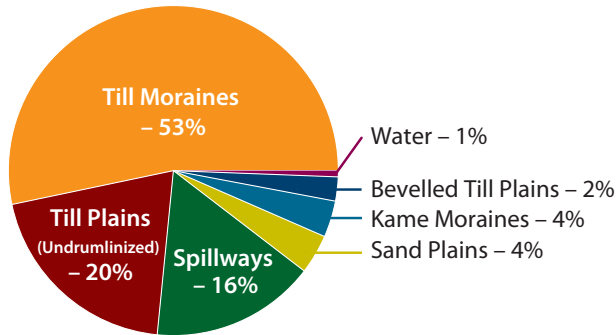
**Area:** 92 km<sup>2</sup>

**Municipalities:** Bluewater, Central Huron, Huron East

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

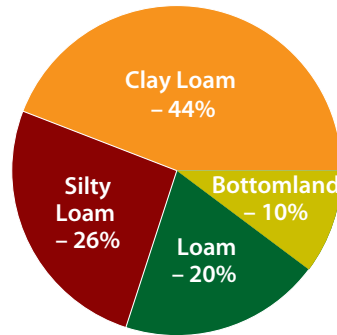
## Geology

Chapman and Putnam  
1984



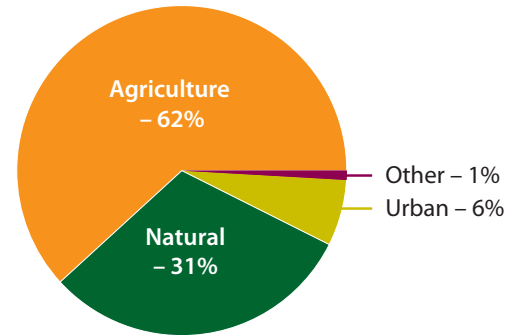
## Soils

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:

- Two bird, three reptile, one fish, two mussel, and three plant species at risk in this watershed.\*



Photo by Shawn Staton  
Courtesy of  
Fisheries and Oceans Canada

## Other Watershed Residents

The number of mayflies living in stream sediments reflects water quality conditions. They emerge from streams for an adult life-stage (shown here) that lasts less than 24 hours.

# 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 chloride are better than the drinking water guideline; however, nitrate concentrations are not as good, and exceed the standard at the shallow provincial monitoring well (the more southerly of two monitoring wells in this watershed, located east of the intersection of highways 13 and 31).
- 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.\*

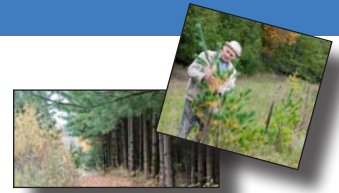
\* See the complete *Watershed Report Card* at [abca.on.ca](http://abca.on.ca) for more information.



# Forest Conditions and Water Quality



## Forest Conditions



| Indicator               | Description   | Result |       | 2012 Grade    |                  |
|-------------------------|---|--------|-------|---------------|------------------|
|                         |   | 2007   | 2012  | Main Bayfield | 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 <b>A</b> grade is forest covering more than 35% of a watershed.</li> </ul>   | 19.9%  | 22.6% | 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 <b>A</b> grade is forest interior covering more than 11.5% of a watershed.</li> </ul> | 4.4%   | 4.4%  | D             | 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 <b>A</b> grade is forest covering more than 57.5% of this streamside area.</li> </ul>  | N/A    | 57.1% | B             | C (32.7%)        |



## Wetland Cover



| Indicator   | Description | Result |      | 2012 Grade    |                  |
|---|-------------|--------|------|---------------|------------------|
|   |             | 2007   | 2012 | Main Bayfield | 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 <b>A</b> grade is wetlands covering over 11.5% of a watershed.</li> </ul> | N/A         | 5.5%   | D    | F (2.4%)      |                  |



## Surface Water Quality



| Indicator                         | Description   | Result         |               | 2012 Grade    |                  |
|-----------------------------------|---|----------------|---------------|---------------|------------------|
|                                   |   | 2007           | 2012          | Main Bayfield | 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 <b>A</b> grade is a 75th-percentile* total phosphorus concentration of less than 0.020 mg/L.</li> </ul>   | 0.043 mg/L     | 0.021 mg/L    | B             | 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 <b>A</b> grade is a geometric-mean* E. coli concentration of no more than 30 colony forming units (cfu) per 100 mL.</li> </ul>   | 191 cfu/100 mL | 68 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 <b>A</b> grade is an average FBI value of no more than 4.25.</li> </ul> | 5.04           | 4.55          | 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 Fred A. and Barbara M. Erb Family Foundation and the Bayfield River Valley Trail Association have supported local actions, such as watershed planning, tree planting, and erosion control projects, in the Bayfield River Watershed.

*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 ...

- Connect small woodlots to the forest in the Bayfield River valley.
- Create wetlands to hold water during rain events and release water during dry periods.
- Plant cover crops and maintain residue cover to protect soil.



### Your community can ...

- Spread the word about actions being taken by local community groups through the Bayfield Watershed Plan.
- Watch for and support local events, such as work to protect water quality and to grow the Bayfield River Valley Trail.
- Support work to earn and maintain a Blue Flag designation for the Bayfield Beach and Marina.

### Local agencies can ...

- Share aggregate monitoring data so that decisions related to aggregate extraction can improve resource management.
- Strengthen existing land use policies within Official Plan documents.
- Look into wetland enhancement opportunities at the Seaforth wastewater treatment facility.

**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.



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](mailto:info@abca.on.ca)  
 Website: [abca.on.ca](http://abca.on.ca)



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