

Watershed Report Card



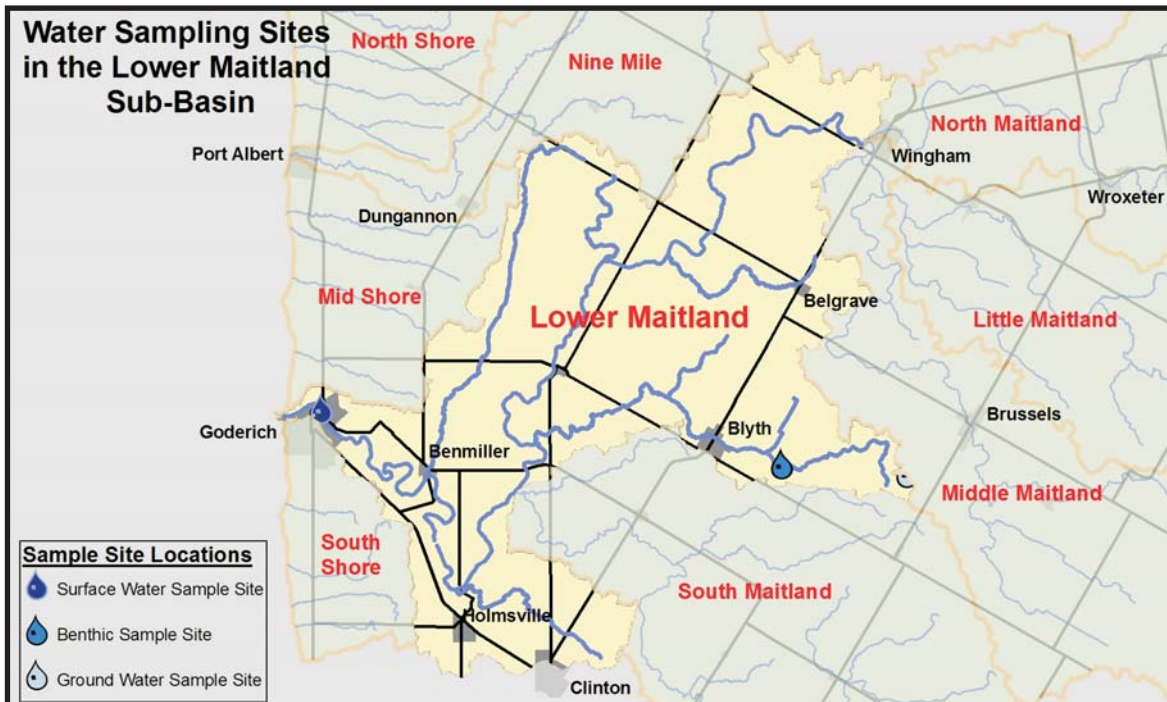
Lower Maitland River Sub-Basin

This report describes the conditions of the river and forests in the Lower Maitland River watershed. It is one component of the Maitland Valley Conservation Authority's (MVCA) overall watershed report card that assesses surface and groundwater quality and forest conditions across the Maitland valley. The Lower Maitland River is one of seven major sub-basins that comprise the Maitland watershed.



WATER QUALITY A
FOREST CONDITIONS B
 Basin Ranking **1 out of 7**

Water Sampling Sites in the Lower Maitland Sub-Basin



Watershed Description

The Lower Maitland River sub-basin stretches from Wingham in the north to Goderich where the river outlets into Lake Huron. There are several significant tributaries of the Lower Maitland River. A branch flows from the Clinton area and joins the main branch north of Holmesville. In addition, Sharpes Creek and the Blyth Brook empty into the Lower Maitland River. Both of these tributaries are cold water streams that support good fish populations. The Wyoming moraine, a significant groundwater recharge resource, extends through this sub-basin.

The Saratoga Swamp complex is located in the Lower Maitland River sub-basin. It is a designated Area of Natural and Scientific Interest with a variety of vegetation types including deciduous swamp and extensive areas of red and silver maple forests.

The Lower Maitland River hosts runs of migratory trout and salmon, which spawn both in the main river and in tributary streams as far as 75 km up-river.

This sub-basin is a complex ecosystem that provides habitat for a number of Species at Risk including the Queensnake, Wavy-rayed Lampmussel and Butternut tree. The steep slopes of the river valley, particularly from Auburn to Goderich, are well vegetated and provide important wildlife habitat. Some of the Eastern White Cedar trees that cling to the exposed limestone cliffs in the lower river valley are more than 300 years old. The Eastern White Cedar cliff communities are probably the only old growth forest that remains in the Lower Maitland Valley.

The Lower Maitland valley is also home to a number of species typically found in the more southern Carolinian Zone. Some of these species include Bitternut Hickory, Sycamore, Summer Grape and Green Dragon.

Surface Water Quality Indicators

Indicator	Result	Grade	Over MVCA Result	Over MVCA Grade
Phosphorus	.022 mg/L	A	.0317 mg/L	B
Nitrate	5.82 mg/L	B	5.76 mg/L	B
Benthics	4.681	A	5.218	B
E. coli	46.22 cfu/100ml	B	133.1 cfu/100ml	C

Groundwater summary results for the watershed are included in the overall MVCA report card.



Forest Condition Indicators

Indicator	Result	Grade	Over MVCA Result	Over MVCA Grade
Forest Cover	24.37 %	B	16.72 %	C
Forest Interior	6.9 %	B	3.06 %	D
Marginal Land in Production	8.819 %	A	18.39 %	A

Sub-basins are Unique

There are several sub-basin characteristics that have an impact on the health of a given area. These include:

- geology and landform - permeability of the soil, slope, geology below the soil, elevation
- drainage modifications
- land use and land management - activities occurring on the land
- sensitive areas - areas with highly erodible soils, steep slopes, high water tables are more likely to contribute sediments and nutrients to watercourses

There are significant differences between the sub-basins that make up the Maitland watershed. The unique nature of each sub-basin means that comparing report card results is not particularly useful. Instead the focus of the report card process is on monitoring trends over time to determine if conditions within a sub-basin are improving.



Improving Watershed Health

Suggested actions to improve the health of the Lower Maitland watershed:

- Create more natural infrastructure such as forested areas, buffer strips, windbreaks and wetlands to help protect the landscape from the extremes of heat, wind and runoff.
- Maintain vegetation along the river banks and work to keep the valley ecosystem intact.
- The retirement of marginal land to trees and shrubs or permanent pasture will help to protect water and soil resources in the sub-basin.
- Protect the habitat of Species at Risk.
- Protect existing forest cover and wetlands.
- Increase residue cover and organic matter on fields.
- Ensure proper storage and applications of manure, fertilizers and pesticides.

More information on activities to improve watershed health are available on the My Land, Our Water website (<http://myland.mvca.on.ca>)



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