

# Watershed Report Card



## South Maitland River Sub-Basin

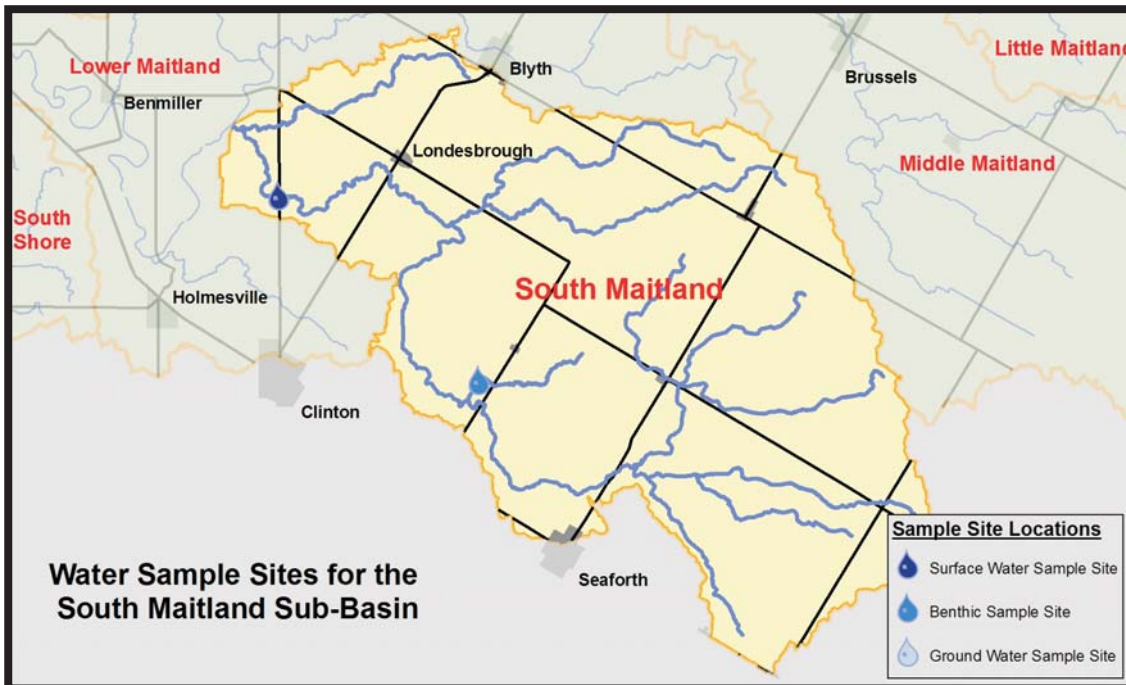
This report describes the conditions of the river and forests in the South Maitland River watershed. It is one component of the Maitland Valley Conservation Authority's (MVCA) overall watershed report card that assesses surface and groundwater quality and forest conditions across the Maitland valley.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



**WATER QUALITY B**

**FOREST CONDITIONS C**

Basin Ranking **4 out of 7**



## Watershed Description

Headwater areas of the South Maitland River are located at the western edge of the Municipality of West Perth as well as the southern half of the Municipality of Huron East and the south east corner of the Municipality of Morris-Turnberry. The river flows west through the Municipality of Central Huron and meets the Lower Maitland River west of Londesborough. This sub-basin encompasses the communities of Walton, Winthrop, Kinburn, Londesborough and the north edge of Seaforth.

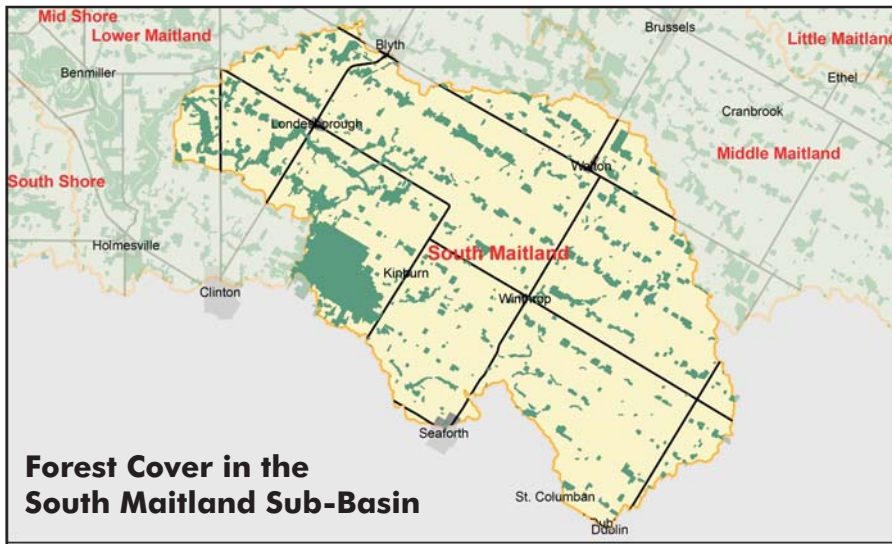
The southeast portion of the sub-basin is predominantly agricultural land and is highly drained. Cash cropping and livestock operations dominate the area. The northwest section of the sub-basin has gravel soils with more forest cover. The South Maitland River watershed has a higher number of permanently flowing streams as compared to the Middle Maitland and Little Maitland River sub-basins.

A key feature of this sub-basin is Hullett Provincial Wildlife Area located on the South Maitland River near Kinburn. The site is 2200 hectares in size and extensive wetland restoration and enhancement has been undertaken on the property. The total wetland area at the site is 706 hectares and over half of this is marsh habitat. Given its size the site is a significant water storage area.

## Surface Water Quality Indicators

Indicator	Result	Grade	Overall MVCA	Overall MVCA
Phosphorus	.032 mg/L	<b>B</b>	.0317 mg/L	<b>B</b>
Nitrate	6.59 mg/L	<b>B</b>	5.76 mg/L	<b>B</b>
Benthics	6.3	<b>C</b>	5.218	<b>B</b>
E. coli	133.5 cfu/100ml	<b>C</b>	133.1 cfu/100ml	<b>C</b>

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



## Forest Condition Indicators

Indicator	Result	Grade	Overall MVCA	Overall MVCA
Forest Cover	9.11 %	<b>D</b>	16.72 %	<b>C</b>
Forest Interior	1.0 %	<b>D</b>	3.06 %	<b>D</b>
Marginal Land in Production	1.186 %	<b>A</b>	18.39 %	<b>A</b>

## 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 South 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.
- This sub-basin has the lowest scores for both forest cover and forest interior. There is a significant need for trees to be planted throughout the sub-basin.
- The high number of permanently flowing streams indicates that there is the potential to undertake stream enhancement work including buffer strips and habitat improvements.
- 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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