

South Maitland River Sub-basin

WATERSHED

Report Card 2013



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

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.

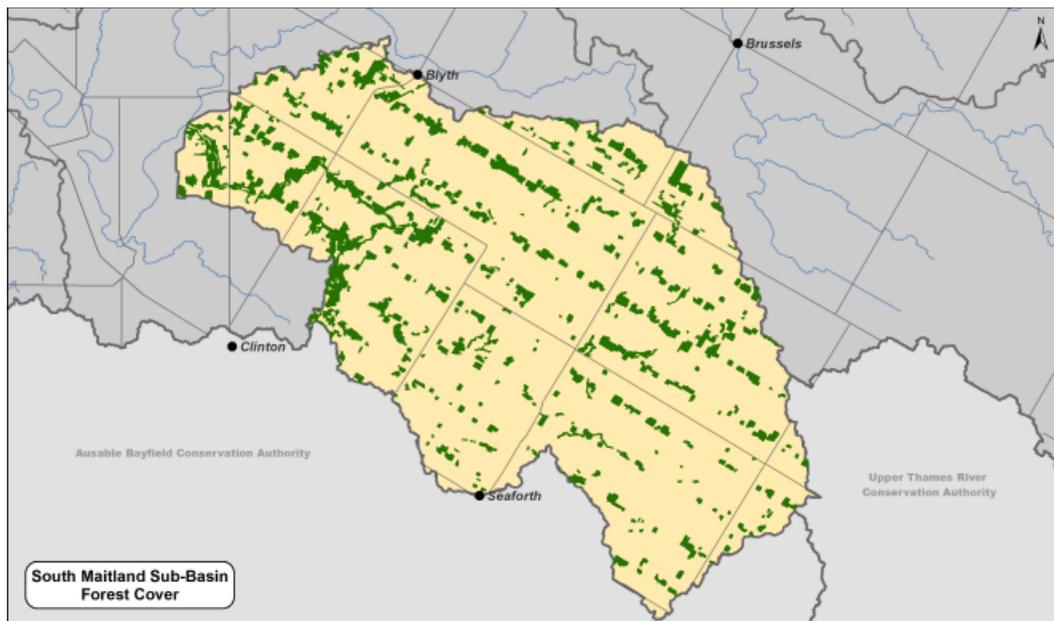
Water Quality Results

Surface Water Indicators	South Maitland 2007-2011 Results	South Maitland Grade 2007-2011	Overall MVCA Grade 2007-2011
Phosphorus	.027 mg/L	B	B
Benthics	5.73	C	B
E.coli	93.337 cfu/100ml	B	C

Note - There are no groundwater sampling sites located in the South Maitland River watershed.



Forest and Wetland Results



Forest Condition Indicators	South Maitland 2007-2011 Results	South Maitland Grades 2007-2011	Overall MVCA Grades 2007-2011
Forest Cover	7.99 %	D	C
Forest Interior	0.85 %	F	D
Riparian Cover	16.25 %	D	C

Wetland Indicator	South Maitland Grade 2007-2011	Overall MVCA Grade 2007-2011
% of area identified as wetland	D	C

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 soil, elevation
- Drainage modifications
- Land use/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 MVCA's report card process is on monitoring trends over time to determine if conditions within the sub-basin are improving

Improving Watershed Health

The health of the South Maitland watershed will be improved by:

- Creating more natural infrastructure including forested areas, buffer strips, windbreaks and wetlands to protect the land from extremes of heat, wind and runoff.
- Planting trees. This sub-basin continues to have the lowest scores for both forest cover and forest interior. There is a significant need to plant trees throughout the sub-basin and to extend forest edges to create more interior areas.
- Protecting existing forest cover and wetlands. Wetlands are regulated areas. Landowners should contact the MVCA before undertaking any projects near a wetland or watercourse.
- The high number of permanently flowing streams indicates that there is the potential to undertake stream enhancement work including buffer strips and habitat improvements.
- Increase residue cover and organic matter on fields.
- Ensure proper applications of manure, fertilizers and pesticides.

Notes on Report Card Scores

Due to financial and staffing constraints comprehensive sampling is not done for every indicator in every sub-basin. In some cases only base information is collected. As a result the indicators and grades generalize watershed conditions. Local conditions may be worse or better than the grades suggest. There are some regional concerns that are not factored into the report card including:

- High nitrate and nitrite levels in surface water
- Algal fouling of beaches
- Poorly managed forests
- Soil erosion

The report card information gives us a glimpse of current watershed conditions. The real value of the report cards will come in the future as we look for trends in indicator scores. This information will help the MVCA to target services in priority areas and be more proactive in addressing emerging trends. The next edition of the report card will cover the period from 2012 to 2016 and it will be released in 2017.

More information on the report card sampling and data analysis is available on the MVCA website



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