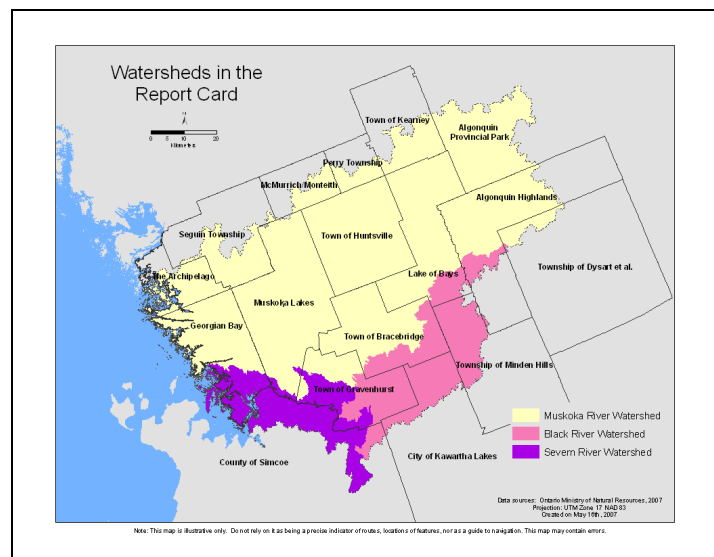


INTRODUCTION

The Muskoka Watershed Council has an interest in the health of all the watersheds totally or partially within the District of Muskoka. A [watershed](#) is defined as the land area that drains into a particular body of water, such as a lake or river, and includes all the natural and human communities found there.

The Watersheds Report Card will report on the health of The Muskoka River Watershed, the Black/Severn River Watershed and includes smaller river such as the Moon River and Musquash River among others (See Map 1).

The municipalities that make up this watershed region include all six Area Municipalities within the District of Muskoka plus the southern portion of the Township of the Archipelago, Seguin Township, McMurrich/Monteith Township, Perry Township and the Town of Kearney in the District of Parry Sound. In the County of Haliburton the eastern portion of the Townships of Algonquin Highlands, Dysart et al, and Minden Hills fall within this watershed region. The northern portion of the City of Kawartha Lakes the northern portion of the County of Simcoe and the western portion of Algonquin Park make up the remainder of the land area within the watershed.



Map 1: Location Map

Background

The watersheds of Muskoka are underlain by granite-gneisses bedrock that was formed during the Precambrian age (3.7 billion to 570 million years ago). During the Pleistocene epoch (1.8 million to 10,000 years ago), the advances and retreats of the Laurentian ice sheet have since worn them down. This process has resulted in the many lakes that dot the landscape.

The terrain is generally characterized by rough relief with rounded ridges and knobs varying from 15 to 60m in height and numerous wetlands in low-lying areas. Soils vary considerably over short distances from outwash sands and gravels to glacio-lacustrine fine grained silts and clay deposits formed while much of the area was submerged under Lake Algonquin following the retreat of the glaciers approximately 10,400 years ago¹.

¹ Chapman, LJ & DF Putman. 1984. The physiography of southern Ontario. 3rd edition. Government of Ontario, Toronto, Ontario, Canada.

INTRODUCTION

The chemistry and general characteristics of lakes and other surface water is determined by the geology and watershed parameters that are unique to each lake. However, generally in Muskoka/Haliburton/Parry Sound, lakes tend to be clear, low in nutrients, and have low [alkalinity](#), because of the granite bedrock. It is these characteristics that make this area a desirable cottage and tourist destination. In order to maintain this economic base, along with the ecological significance of the lakes, maintaining the health of the natural systems of the watershed is important.

Watershed Health

For over two decades, watershed health has been narrowly defined as the [trophic status](#), or nutrient enrichment, of the lakes within the watershed. More recently, a broader view of watershed health has been embraced that considers not only the nutrient enrichment of waterbodies but also the quality of surrounding terrestrial and aquatic habitat, forest health, changes in fish populations and bacteria levels in lakes, amongst other matters.

Recent ecological thought challenges us to broaden our understanding of nature and recognize that natural processes are complicated and interconnected. [Ecosystems](#) are changing but not all change is bad and not all change can be controlled at a local level. Change is occurring on three different levels:

1. Natural evolutionary change that would occur regardless of human activity.
2. Global change such as climate change, [acid deposition](#) and invasive species.
3. Local change such as development pressure, forestry practices and structural alteration to fish habitat.

In order to understand the stresses, changes and strengths of the lakes within our watersheds a variety of factors have been considered and reported on through the Muskoka Watersheds Report Card.

In general, the best insurance against loss of the natural, scenic, economic and intrinsic watershed values is to maintain our watersheds in as natural a condition as possible. In this way, the strengths of the intact natural system will be able to buffer whatever stress occurs.

The objective of the Watersheds Report Card is to evaluate changes in ecosystem condition and the impact of human actions against a standard of a healthy functioning [ecosystem](#). A review of existing data on the health of our water, air and land forms the basis upon which the Watersheds Report Card was developed.

The section on climate change examines the potential and current impact of this very real stress on our natural systems and explores what it might mean for the future ecological, social and economic health of the watersheds.

In summary there is a review of the strengths, weaknesses, opportunities and threats to the watershed that highlight areas and programs that can address some of the identified threats, build on the strengths and take advantage of the opportunities to ensure the long-term health of the area.