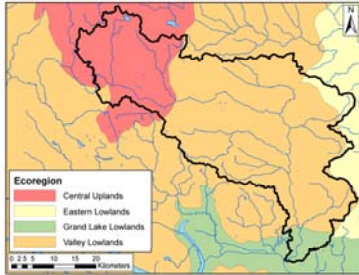


Location

The Nashwaak River is located within York and Carleton Counties of New Brunswick. It begins its journey from Nashwaak Lake and flows in a southeasterly direction where it meets the Saint John River in Fredericton. The total drainage area is 1707 km².



Physical Setting and Climate



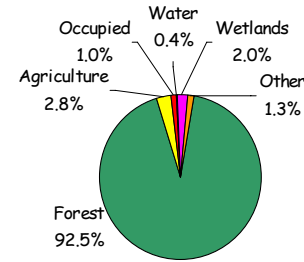
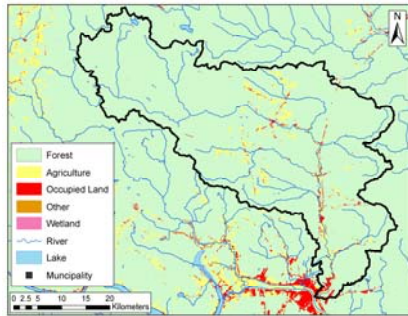
The average summer temperatures range from 16 - 18° C and average winter temperatures range from -6 to -9 ° C. The Nashwaak watershed receives about 1100-1200 mm of precipitation annually.

Fish Community

Brook trout, striped bass, smallmouth bass, fallfish, yellow perch and chain pickerel all occur in the Nashwaak. Historically known for its Atlantic salmon, the Nashwaak now only has a small population and angling for this fish has been banned since the early 1990s (Nashwaak Watershed Association).

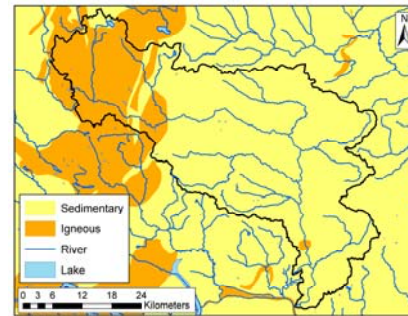
New Brunswick Watersheds

Land Use



Land use in the Nashwaak watershed is predominantly forest with a small percentage of agriculture.

Geology



Nashwaak River

Environmental Reporting Series 2007

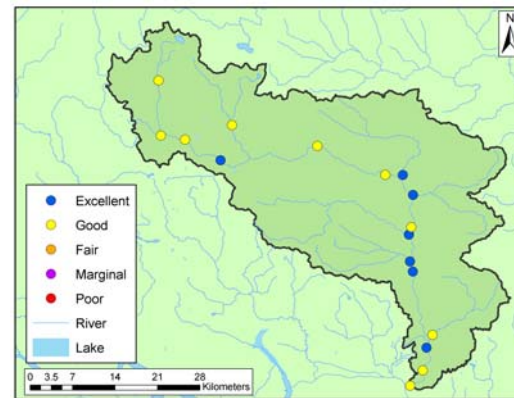
Water Quality Survey (1996-2006)

The Water Quality Index (WQI) is a tool that allows water to be classified into different categories based on the CCME Guidelines for Freshwater Aquatic Life. The index is a number between 0 and 100, with zero representing poor water quality and 100 representing excellent water quality. The categories for the index are as follows:

Excellent: 95-100 Marginal: 45-64
 Good: 80-94 Poor: 0-44
 Fair: 65-79

The following parameters are included in the Water Quality Index: Aluminum, ammonia, arsenic, chloride, copper, dissolved oxygen, iron, lead, nickel, nitrate, pH, sulphate, total phosphorus, and zinc.

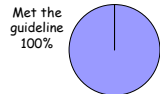
The map (right) depicts the location of the sample sites within the Nashwaak watershed and indicates the calculated WQI rating for each site.



Key Indicators

In addition to using the CCME Water Quality Index, four key indicators of water quality were evaluated against available guidelines. E. coli is compared to recreational use guidelines, while the other indicators are compared with freshwater aquatic life guidelines.

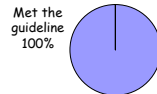
Dissolved Oxygen



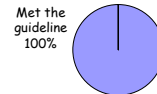
E.coli



Nitrate



pH



Community Involvement

The Nashwaak Watershed Association is composed of members from many organizations, including industry, government and local communities. Its mission is to manage the watershed to ensure it remains a healthy ecosystem.

The Nashwaak River is used for recreational activities such as camping, canoeing, swimming, sight-seeing, hunting and fishing.



Summary

- Based on the WQI, 8 sites had excellent water quality and 9 sites were good.

- Variability in water quality identified at stations along the Nashwaak could be a result of land use practices such as the removal of riparian vegetation which results in increased erosion.

- Of the four key indicators, E.coli did not meet the guideline in 4% of the samples.

Additional Information

This watershed summary was based on data from the Nashwaak Watershed Association's Water Classification report submitted to the Department of Environment in 2003 as well as water quality data collected by the Department of Environment.

For additional information concerning this watershed, please contact the Department of Environment, Sciences and Reporting Branch, at (506) 457 4844.

Photos and maps by: Department of Environment