

The Bonnechere River Watershed Project

RiverWatch Report 2010: Executive Summary

The Status of the Bonnechere River and its Tributaries



Bonnechere River
Watershed
Project

"Helping Ourselves to a Healthy Environment"

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Executive Summary

The Bonnechere River Watershed Project (BRWP) is a volunteer-based organization established in 1998 and incorporated as a registered charity in 2006. Its mission is to inform and influence environmental stewardship and enhancement throughout the Bonnechere watershed by taking a leadership role to leverage, facilitate and coordinate program delivery and to cultivate public debate and discussion on community values and concerns, major threats to river health, and the potential future of the watershed so that the information comes to the attention of key decision makers, residents and other stakeholders.

The BRWP has just completed a two year RiverWatch Program to assess the health of the Bonnechere watershed (the area drained by the river and its tributaries). Stream assessments were conducted during the summer months of 2009 and 2010 on 29 sites on tributaries throughout the watershed. Benthic macro-invertebrates (spineless animals that live in stream beds) were collected and identified by the RiverWatch team and volunteer assistants, and then released. Analysis of the composition and abundance of pollution tolerant or intolerant species was used to classify site condition. While 11 sites (38% of the 29 sites surveyed) were classified as Good, 15 sites (52%) were only Fair and 3 sites (10%) were Poor. The result for each site was profiled, mapped by location and in relation to its catchment (i.e., the surface drainage area for the water running through the site) and tabled according to the local government(s) within its catchment (see following page). Ten of 13 local governments within the watershed had at least one site rated Good, eleven had at least one site rated Fair and four had one site rated Poor.

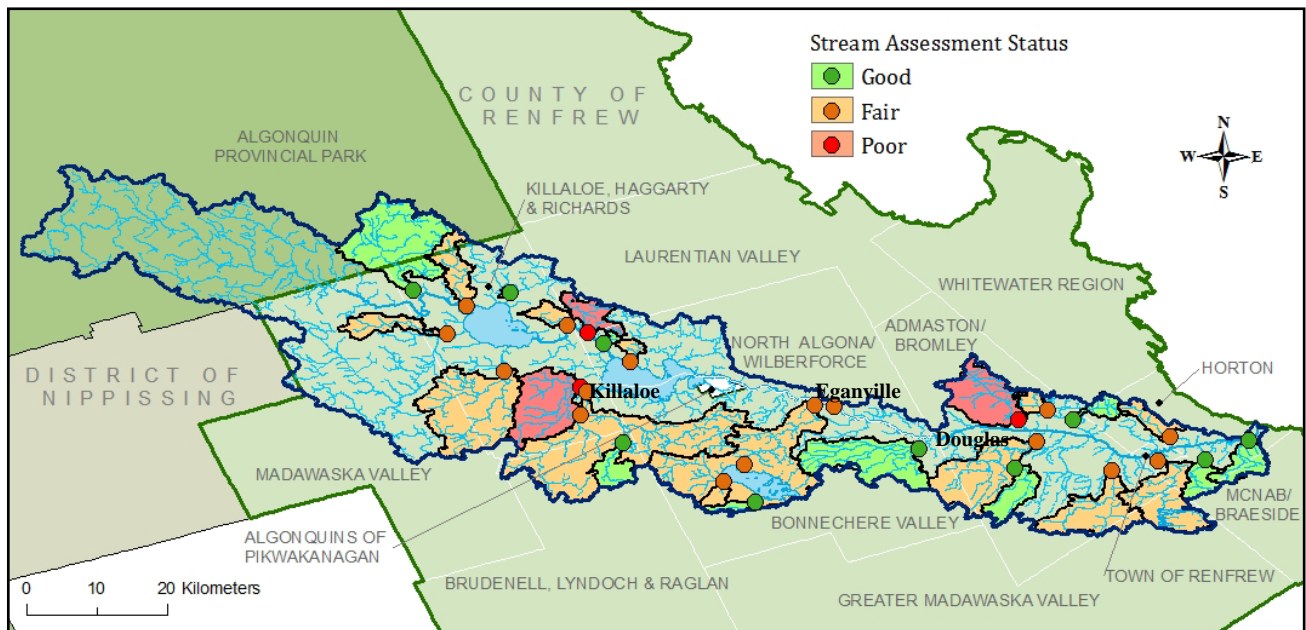
In addition to bio-monitoring, water quality testing was done at nine sites along the main stem of the Bonnechere River in May, June, August and October in 2010. Parameters included temperature, pH, dissolved oxygen, nitrates, and conductivity (total dissolved solids). Results indicated that water quality in the main stem generally meets environmental guidelines but degrades from the headwaters at the edge of Algonquin Park to the outflow at the Ottawa River, in all seasons but particularly during the summer.

Potential influences of natural and human factors on stream condition and water quality are briefly discussed but require further analysis. This report highlights the need for municipalities to work together to continue to monitor the health of the Bonnechere River watershed and with resource users and residents to employ stewardship best practices (such as those included in the report) to restore and protect its water quality. The need for collaborative governance within the watershed is particularly pressing now given impending effects of a changing climate.

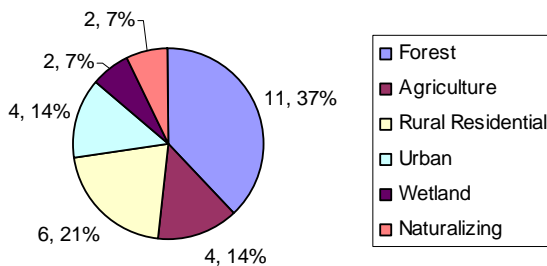
An interactive map of the results and the report (including the raw data) are available on the BRWP website at BonnechereRiver.ca.

The BRWP would like to thank the Ontario Trillium Foundation for providing the bulk of the funding for this work and the Science Horizons program of Environment Canada for funding support for the RiverWatch coordinator in 2009.

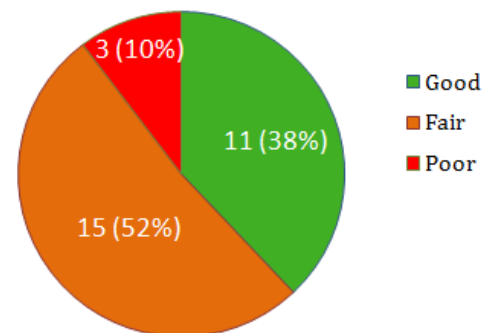
Results by Stream Site and Catchment



Landuse type for Stream Sites



Health Status Comparison of all Stream Assessment Sites in the BRW



Results by Municipality within Stream Site Catchments

These results emphasize the need for a collaborative effort on watershed management.

Municipality	Number of sites	Good	Fair	Poor
Madawaska Valley	4	1	3	0
Killaloe, Haggarty & Richards	9	2	6	1
Brudenell, Lyndoch & Raglan	3	1	2	0
Laurentian Valley	2	0	1	1
North Algona/Wilberforce	4	1	2	1
Algonquins of Pikwakanagan First Nation	1	0	1	0
Bonnechere Valley	8	2	6	0
Admaston/Bromley	7	2	4	1
Whitewater Region	1	1	0	0
Town of Renfrew	1	0	1	0
Horton	5	3	2	0
Greater Madawaska Valley	3	1	2	0
McNab/Braeside	2	2	0	0