



STAFF REPORT

Date: December 17, 2015
To: Restoration Council, BQRAP
RE: Approval of BUI #4 Fish Tumours or Other Deformities redesignation report and recommendation that the report be submitted to the governments of Canada and Ontario to formally change the beneficial use status from 'impaired' to 'not impaired'.

Background

In the Bay of Quinte Stage 1 Report (Bay of Quinte Remedial Action Plan Coordinating Committee 1990) it was stated that "On the basis of professional observations and public anecdotal reports, tumors or other deformities have not been identified as an impaired beneficial use in the Bay of Quinte."

However, in the Bay of Quinte Stage 2 Report (Bay of Quinte Remedial Action Plan Coordinating Committee 1993) uncertainty had developed, and the beneficial use was identified as requiring further assessment. Subsequently, delisting criteria was developed, against which this BUI would be assessed:

Demonstrate no environmental significant difference between the type, frequency and occurrence of tumours in Bay of Quinte Brown Bullheads and an unimpaired Great Lakes site with similar physical and chemical characteristics as the Bay of Quinte OR an unimpaired site outside the Great Lakes basin with similar population characteristics as the Bay of Quinte.

The criteria for assessment focused on whether there were a significant number of tumours in fish (Brown Bullhead) liver in the Bay of Quinte at Trenton compared to reference sites. Fish were collected between 2001 and 2008 from suitable reference sites. A database of information from 1150 fish was created and used to determine that this combined group had a 2% prevalence of tumours. This 2% value is called the 'Impairment Criteria'.

Brown Bullhead were collected from the Bay of Quinte in 2004 and 2005 from the Trenton, Belleville and Deseronto waterfronts and analyzed for liver tumours. It was determined that the 4% liver tumour prevalence in Brown Bullhead collected in the Bay of Quinte at Trenton is not significantly different than the 2% Impairment Criteria derived from the reference sites located throughout the Lower Great Lakes. Thus this beneficial use should be considered to be 'not impaired' for the Bay of Quinte Area of Concern.

Staff Recommendation

That the BUI #4 Fish Tumours or Other Deformities redesignation report be approved for public input.