

EXECUTIVE SUMMARY

Have Your Say About the Bay

Bay of Quinte is one of the most beautiful places in Lake Ontario.

The environmental challenge related to aesthetics has met all the scientific criteria outlined in the Bay of Quinte Remedial Action Plan.

A public comment period is being held from Monday, November 9 - Tuesday, December 8, 2020

Do you think this environmental challenge is ready to be re-classified as restored?

View the final report and criteria at - www.bqrap.ca



In partnership locally with Lower Trent Conservation and Quinte Conservation

**Tell us what you think!
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The Bay of Quinte was designated as an Area of Concern (AOC) in 1985 by the International Joint Commission (a Canadian-United States Great Lakes watchdog) under the Great Lakes Water Quality Agreement between Canada and the United States. Areas of Concern are communities, bays and rivers on the Great Lakes system where human activities have severely damaged the quality of the environment.

The Bay of Quinte Area of Concern Degradation of Aesthetics Beneficial Use Impairment (BUI) was identified as being under 'assessment' in the 1990 Bay of Quinte Remedial Action Plan (RAP) Stage 1 Report – Environmental Settings and Problem Definition (prepared by the Bay of

Quinte Remedial Action Plan Coordinating Committee). In 1993, the status was changed to 'impaired'. This 'impaired' status was supported by additional scientific evidence presented in the subsequent Stage 2 Report – Time to Act (Bay of Quinte Remedial Action Plan Coordinating Committee).

The listing guidance provided by the International Joint Commission in 1991 for this BUI is as follows:

Waters are considered impacted based on the identification of substances that produce a persistent deposit on the waterfront or along the watercourses, that is (typically) man-made and non-natural, objectionable, and appears in sufficient amounts to interfere with, or impair, the aesthetic quality and use by the public (IJC, 1991).

The restoration goal and associated targets for this BUI, as described in 1991 by the International Joint Commission, are when:

Waters are free of any substance that produces a persistent objectionable deposit, unnatural colour or turbidity, or unnatural odour (for instance, oil slick or surface scum) (IJC, 1991).

Water clarity measurements in the upper bay, as well as sampling data collected from both the lower portions of the tributaries flowing into the Bay of Quinte and nearshore surface waters of the Bay of Quinte have been used for the purpose of assessing the current status of this beneficial use impairment.

Two Targets (and one criterion) were established to assess the status of the Bay of Quinte AOC Degradation of Aesthetics BUI:

1. *Nearshore surface waters of the Bay of Quinte are free of any substance due to human activity that produces a persistent objectionable deposit, unnatural colour or turbidity or unnatural odour (for instance, oil slick or surface scum).*

Criterion 1-1. Based on an assessment using an established "Aesthetics Quality Index (AQI)" process, there are to be acceptable aesthetic conditions reported for the majority (at least 80%) of observations from both the lower portions (i.e. south of Hwy 401) of the tributaries flowing in to the Bay of Quinte and nearshore surface waters of the Bay of Quinte.

a. The AQI methodology is to follow the method used in the Toronto and Region AOC, as documented in "Method to Assess Beneficial Use Impairment (BUI) Degradation of Aesthetics (Toronto) (Mutton, 2012)".

b. The monitoring locations will be limited to tributary sites south of Highway 401 and draining to Bay of Quinte (tributary sites draining to Lake Ontario will not be considered for monitoring) and nearshore surface waters of the Bay of Quinte.

2. *Based on an assessment of data from publicly available surface water quality data sets for the Bay of Quinte, demonstrate that the upper and middle Bay of Quinte waters meets the recreational aesthetic related water quality guideline values for clarity and turbidity given in Chapter 2 (Table 2-2) of Canadian Water Quality Guidelines (CWQG; CCME).*

The assessment of the status of the BUI by technical experts of the Biomonitoring and Water Quality Technical Work Group indicates that the redesignation targets and criteria related to the Degradation of Aesthetics BUI have been met.

- In 2018, data was collected at 78 monitoring sites throughout the Bay of Quinte and the final AQI score was 9.5 (Excellent). In 2019, data was collected at 137 monitoring sites resulting in a final AQI score of 9.8 (Excellent), meeting criterion 1-1.
- Based on an assessment of publicly available surface water quality data sets for the Bay of Quinte, the upper and middle Bay of Quinte waters are meeting the recreational aesthetic related water quality guideline values for clarity and turbidity given in the Canadian Water Quality Guidelines, meeting criterion 1-2.

Based on these findings, the Degradation of Aesthetics beneficial use should be considered to be restored and the status of this beneficial use should be changed from 'impaired' to 'not impaired' for the Bay of Quinte Area of Concern.

The recommendation based on this assessment report is that the restoration targets and criteria for the Degradation of Aesthetics beneficial use impairment have been met in the Bay of Quinte AOC and the BUI should be redesignated to 'not impaired'.