

## **Water Quality and Riparian Restoration in the Jijuktu'kwejk Watershed**

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The Jijuktu'kwejk River (formerly Cornwallis) and total watershed are considered highly disturbed. In 2003 the Acadia Centre for Estuarine Research (ACER) identified fecal coliform levels as a significant contributor to poor water quality in the Jijuktu'kwejk. The Jijuktu'kwejk Watershed Alliance (JWA) monitored three main indicators of water quality in the 2024 field season. The first, *Escherichia coli*, is a bacterium that is used as an indicator for fecal matter in waterways. The second are general water quality parameters, which include water temperature, conductivity, pH, dissolved oxygen, and total dissolved solids which gives more fine-tuned information on habitat quality for species of interest. The third is a measure of pesticides in surface water. We collected samples from various sites at different flow levels on the mainstem and tributaries to investigate if the Jijuktu'kwejk is safe for recreation, produce irrigation, and other ecosystem services. Findings were in line with past field seasons indicating that the Jijuktu'kwejk River continues to be unsafe for these uses and has not significantly improved since the assessment by ACER in 2003. JWA engaged with community members to restore riparian zones in the watershed area to improve the water quality, and documented landowner perspectives on riparian restoration. JWA hopes to consider these perspectives to use more mutually beneficial restoration measures in the future.

Keywords: riparian restoration, water quality, freshwater, community engagement, ecosystem services