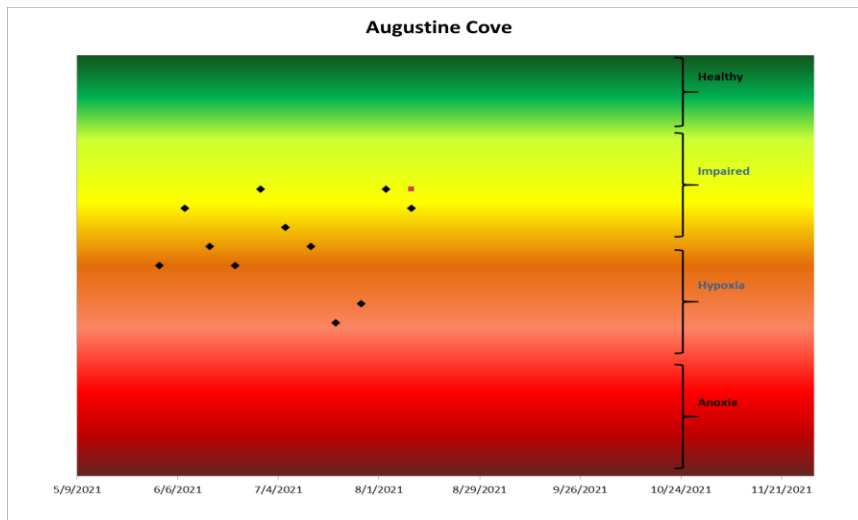


Augustine Cove - 2021.



This chart shows estuary conditions in Augustine Cove (Cape Traverse River) in 2021.

This was the first time an Estuary Watch record was submitted for Augustine Cove.

Records were kept on a weekly basis between June 1st and August 10th, 2021. During this time, the upper portion of the estuary was mostly in an impaired state with

four days of hypoxic conditions mixed in.

The Augustine Cove estuary is not known to experience anoxia. Unlike some other estuaries in the area, no odor issues related to dead and dying aquatic vegetation have been reported. A freshwater pond, located near the head of tide (Cape Traverse Landing), was reported to be anoxic in both 2005 and 2009. No anoxic conditions were reported to the PEI Department of Environment, Energy and Climate Action in the Augustine Cove area in 2021.

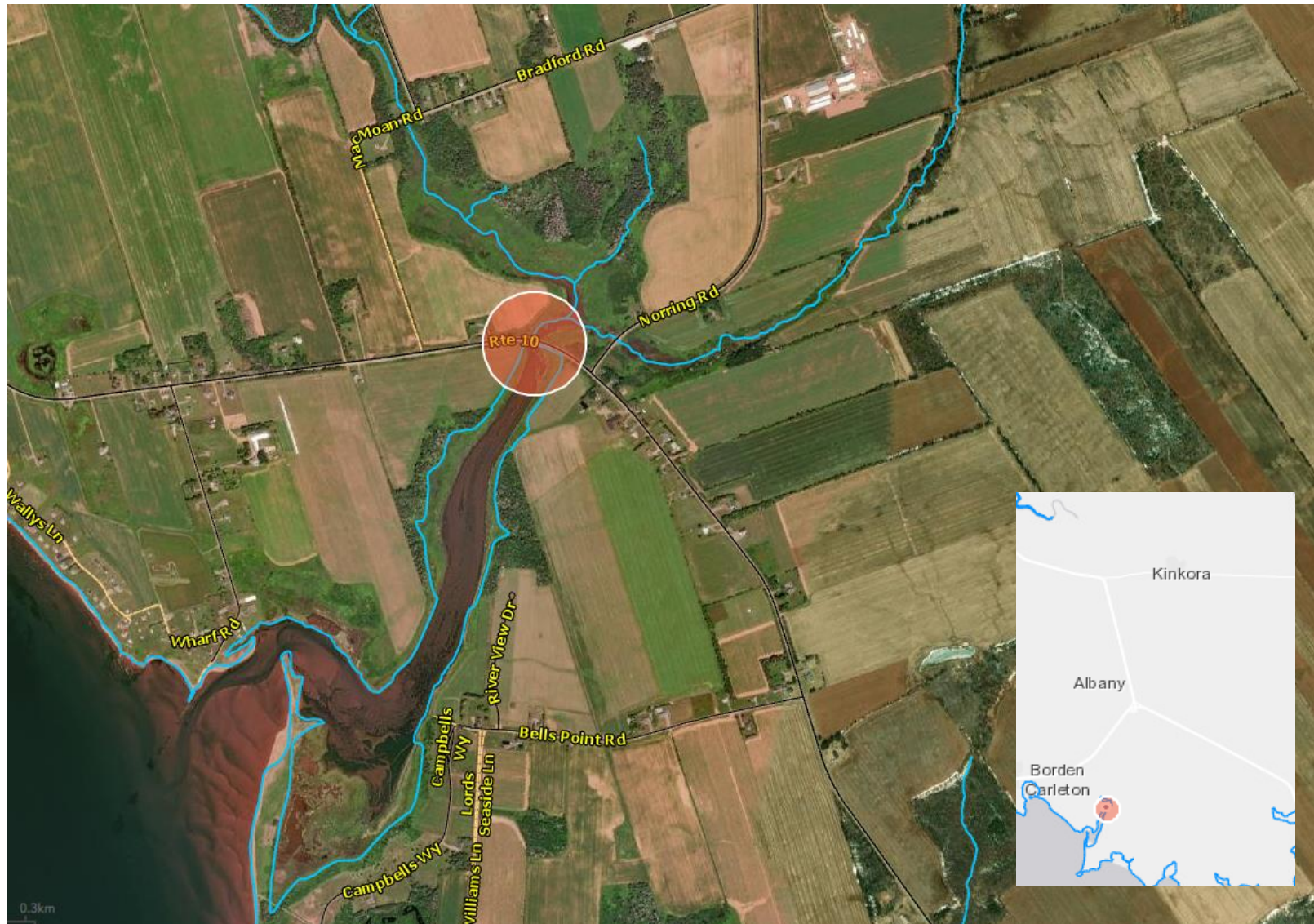
The following table is a summary of these Estuary Watch results for 2021:

Period	# Days Recorded	Days Healthy	Days Impaired	Days Hypoxic	Days Anoxic
June 1 - Aug. 10, 2021	11 of 70 days	0	7	4	0
July 1 - Aug. 31, 2021	6 of 62 days	0	4	2	0

Sea lettuce coverage in the upper Augustine Cove estuary was less than 5% for all observations. The lettuce that was present generally had some die-off. Overall, the risk to water quality represented by sea lettuce growth and die-off was low. Abundant algal growth and die-off can contribute to variable dissolved oxygen levels in water, including periods of hypoxia and anoxia. The reported growth in the Augustine Cove estuary did not seem to be great enough that it could result in dissolved oxygen issues. Phytoplankton blooms can also contribute to variable dissolved oxygen however the conditions reported here (occasional cloudy, green water) are more consistent with an estuary experiencing hypoxia/anoxia than they are with one experiencing a phytoplankton bloom.

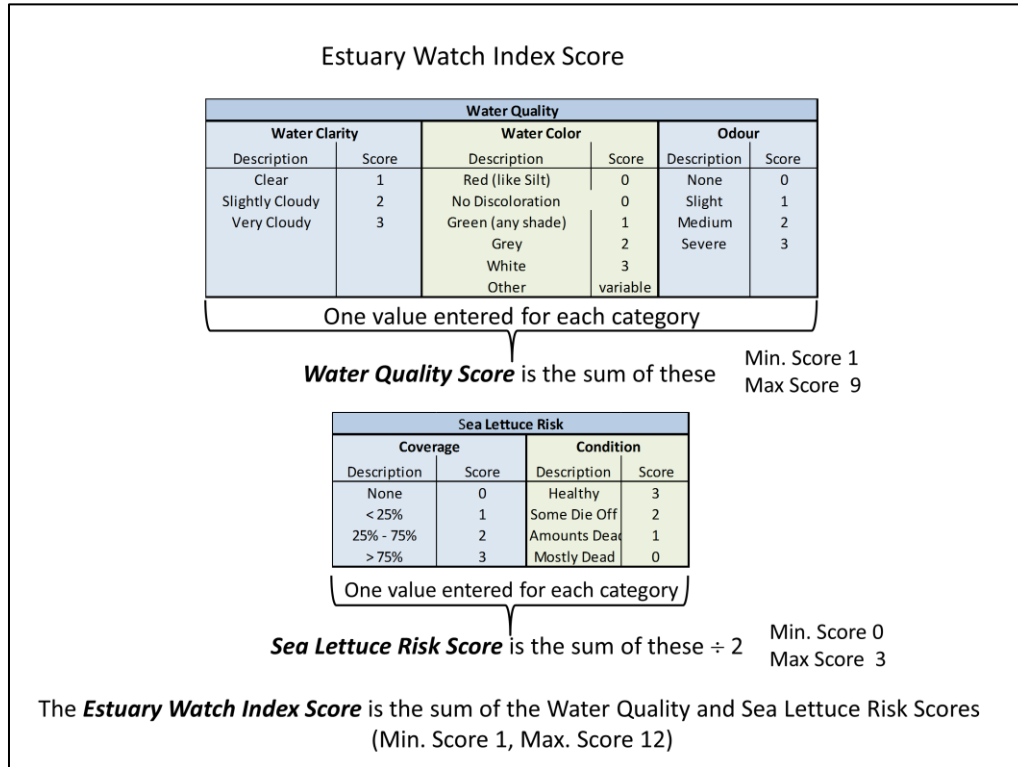
These observations were made by Estuary Watchers with the South Shore Watershed Association. The data was categorized following the Estuary Watch Index developed by the PEI Dept. Environment, Energy and Climate Action. Please see the following pages for the site location, a description of the index calculation, the water quality categories represented by the index and the data collected by the Estuary Watcher. Please contact Cindy Crane at cscrane@gov.pe.ca if you would like more information about Estuary Watch or if you are interested in becoming an Estuary Watch volunteer.

Location of the Augustine Cove Estuary Watch Record



Estuary Watch Index

Estuary Watchers record their daily observations in a log by making a check mark in the most appropriate box for each of 5 types or categories of observations. The check marks for each observation are converted to scores and the **Estuary Watch Index Score** is calculated as shown in the diagram below.



Estuary Condition Categories

The Estuary Watch Index Score corresponds to four Estuary Condition Categories; **Healthy** (score 1-2.5), **Impaired** (score 2.6 – 5.5), **Hypoxia** (score 5.6 -8.5) and **Anoxia** (score 8.6 -12). The diagram below, describes the conditions that are typically observed in each of these four water quality categories.

