

# RESTORATION PLAN



The Hillman Marsh Conservation Area is classified as an Environmentally Significant Area, Provincially Significant Wetland, and an Area of Natural and Scientific Interest. As a part of Carolinian Canada, Hillman Marsh helps to preserve hundreds of rare and endangered species that are seldom seen in Ontario. Before breaching, this extensive, shallow marsh was separated from Lake Erie by Hillman Beach, a 1.5 km long, eastern facing barrier beach. Hillman Marsh has been under ecological threat since the 1960's, as a result of rising water levels, increased contaminant and nutrient runoff, and a decrease in the natural sediment supply that nourishes and maintains the barrier beach.

## How does climate change affect Hillman Marsh?

The breach has resulted in permanent alterations to the marsh. Changes in temperatures, water levels, and storm events all result in increased rates of erosion and contaminant runoff; subsequently leading to a loss of biodiversity



Increase in water level variabilities - more extreme highs and lows.



Increased frequency and intensity of storm events.



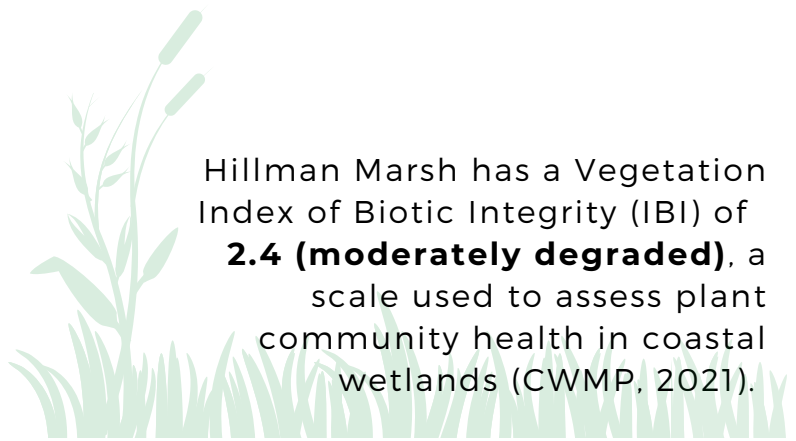
Decrease in protective winter lake ice cover.



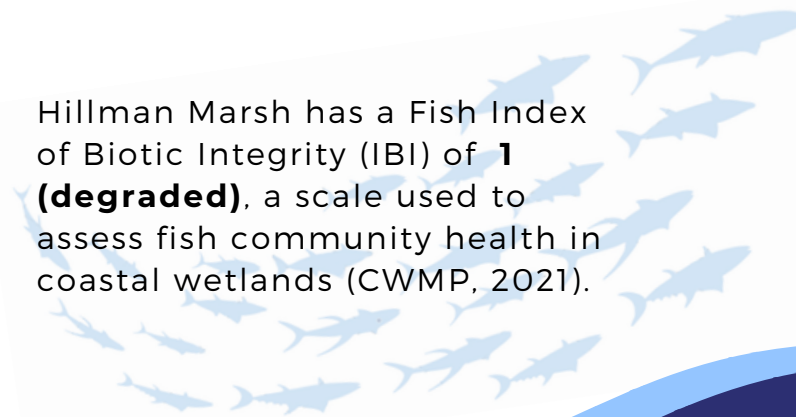
Loss of wetland area resulting in a decrease in biodiversity.

## What are the current conditions at Hillman Marsh?

- Starved of sediment as a result of excessive shoreline armoring;
- Most vegetation has been dislodged and is floating where the barrier beach used to be;
- Almost 70% of all provincially rare/tracked species are listed under the Species at Risk Ontario (SARO) list;
- 500 metres of the original barrier has been breached and eroded.



Hillman Marsh has a Vegetation Index of Biotic Integrity (IBI) of **2.4 (moderately degraded)**, a scale used to assess plant community health in coastal wetlands (CWMP, 2021).



Hillman Marsh has a Fish Index of Biotic Integrity (IBI) of **1 (degraded)**, a scale used to assess fish community health in coastal wetlands (CWMP, 2021).



## What's the plan?

The goal of this project is to enhance and restore the resilience of the Hillman Marsh barrier beach, and the wetland plant community it protects. A restoration and climate adaptation strategy will be co-developed with rightsholders and stakeholders.