

Follow up: Links for How Do We Know Our Estuaries are at a Tipping Point?

Anecdotal Evidence

Dr. Aaron Adams, Director of Science and Conservation at the Bonefish Tarpon Trust, describes the changes he noticed after being away from Charlotte Harbor for several years. “What used to be an expansive seagrass flat, is now a mix of open sand and thick algae. The cancer of too many nutrients is spreading throughout Charlotte Harbor. This does not bode well for the long-term future of its legendary fisheries. Without healthy habitats – and water is the most important habitat of all – our fisheries will continue to decline. The maximum amount of fisheries management won’t be enough to make up for continuing habitat declines. As in the Indian River Lagoon, Charlotte Harbor’s decline is from too many nutrients: leaky septic systems, fertilizer, outdated sewage infrastructure, stormwater runoff, industry effluent... the list goes on. That wasn’t the trip I was hoping for. I’m devastated. You should be too.” ([Adams, 2021](#))

Empirical Evidence

Four detailed reports describe the nature of the impairments (damages) in our estuaries:

1. In 2017, the Conservancy of Southwest Florida’s Estuary Report Card gave Charlotte Harbor a C+ grade. The Estuary Report Card concluded that 54% of the Charlotte Harbor watershed waters (both estuary and fresh) are impaired for at least one parameter – the most pervasive being dissolved oxygen, nutrients, and metals ([Conservancy of SW Florida, 2017](#)).
2. In 2018, the Coastal and Heartland National Estuary Partnership (CHNEP) Water Quality Status Reports for our estuaries showed many waters impaired for nutrients, chlorophyll, dissolved oxygen and fecal coliform bacteria in the Tidal Myakka River, Tippecanoe Bay, greater Charlotte Harbor and Lemon Bay ([CHNEP, 2018](#)).
3. Using 2018-2020 water quality data, the Calusa WaterKeeper reported that Charlotte County had the fastest increasing rate of water quality impairments throughout southwest FL ([Calusa Waterkeeper, 2021](#)).
4. In 2022, Florida’s Impaired Waters Rule Assessment listed many areas of our estuaries have sub-standard water quality conditions, including:
 - Lower Peace River – impaired for nitrogen, phosphorus, chlorophyll and macrophytes.
 - Lower Myakka – impaired for dissolved oxygen and nitrogen.
 - Charlotte Harbor Proper – impaired for nitrogen, phosphorus, and chlorophyll.
 - Lemon Bay – impaired for nitrogen, macrophytes, chlorophyll, and dissolved oxygen based on failing linear vegetation survey results. ([FDEP, 2022](#))

How we can commit to and begin restoring our estuaries is detailed in the full report: [Managing Nutrients to Save Charlotte County’s Estuaries and Economy](#).