



# Tigertail/ Sand Dollar Island 2023 Annual Biological Monitoring Summary

# BERM

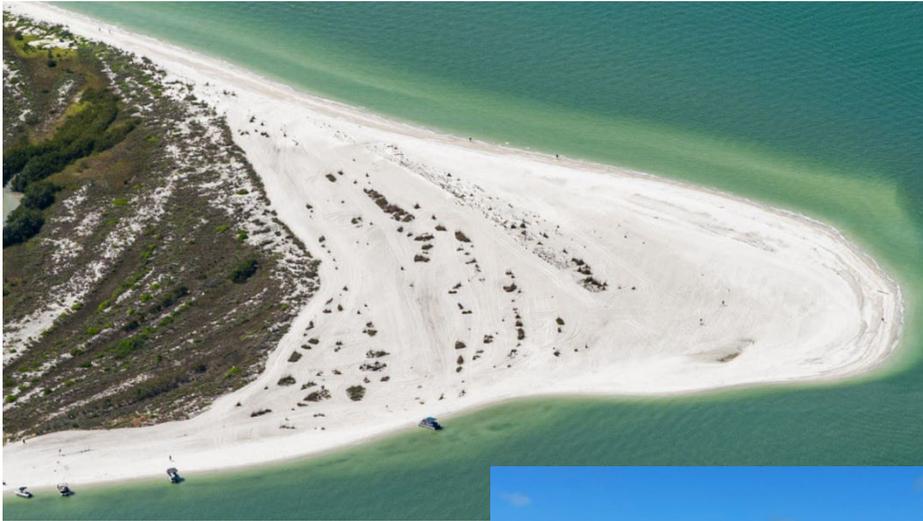


Immediately following construction



2024 aerial of the berm

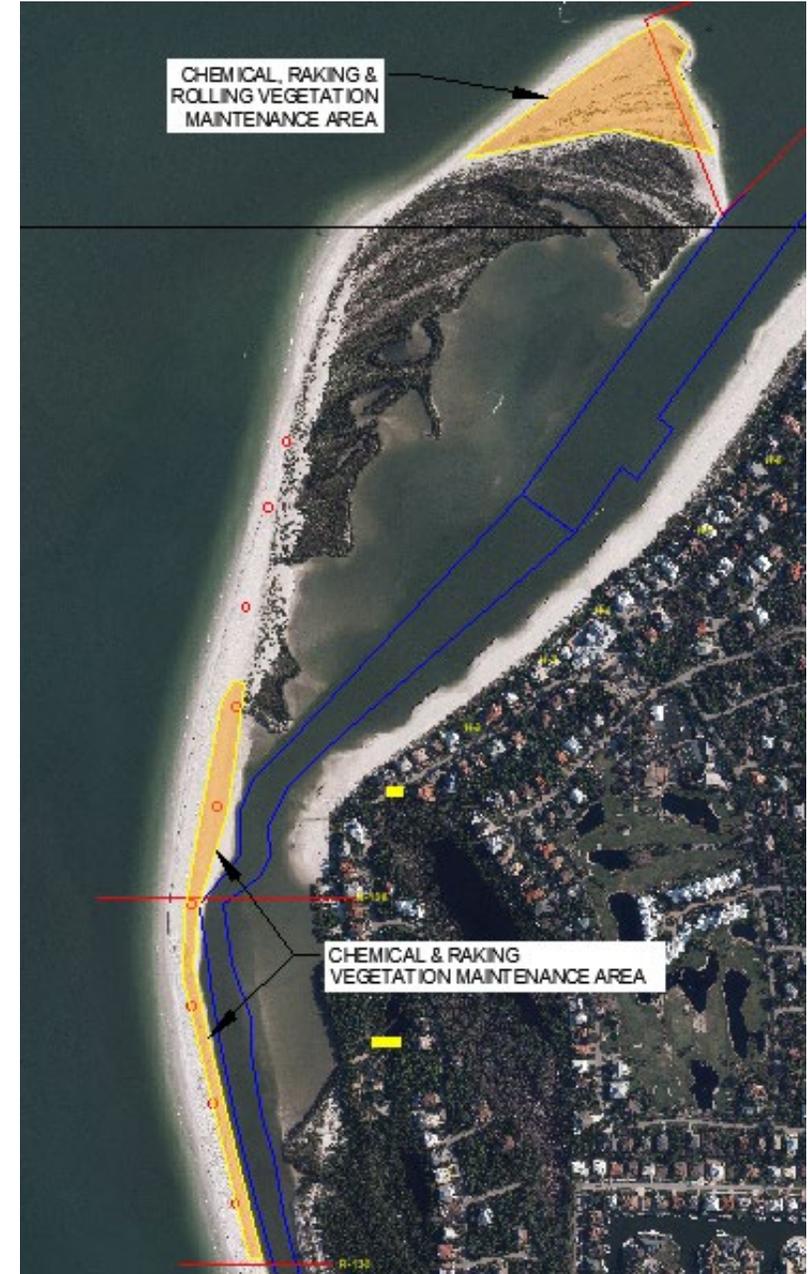
# BERM VEGETATION MAINTENANCE



Sand spit post-maintenance (above)  
Mechanical raking of spit (right)



Hand-rolling sandburs



# SEA TURTLES

Date	Total on Island	Total on Berm	% of all on Berm
2015	81	27	33
2016	52	21	40
2017	84	21	25
2018	41	11	27
2019	62	11	18
2020	65	13	20
2021	84	8	10
2022	85	6	7
2023	87	38	44

A total of 3,133 sea turtles emerged from the nests in 2023, which is a 78% emergent success rate.

# BIRD SURVEYS

- There was 10.68 acres of suitable black skimmer (*Rynchops niger*) nesting habitat available.
- No black skimmer nests hatched in 2023.
- 3 least terns (*Sternula antillarum*) hatched in 2023, but 2 of the chicks were predated.
- There were some storm inundation events during nesting season affecting nests.
- Predation was a significant issue this year on the island with nests and chicks predated by coyotes, fish crows, rats, and other unknown predators.
- The project created an estimated 6.6 acres of shallow water foraging area for reddish egrets and other wading birds in the southern lagoon. Reddish egrets were observed foraging across all 6.6 acres of opened shallow water.

# 2022 -vs- 2023 SAV COVER

ORANGE- 2023  
BLUE- 2022



# PERSISTENT SEAGRASSES IN ZONE 3

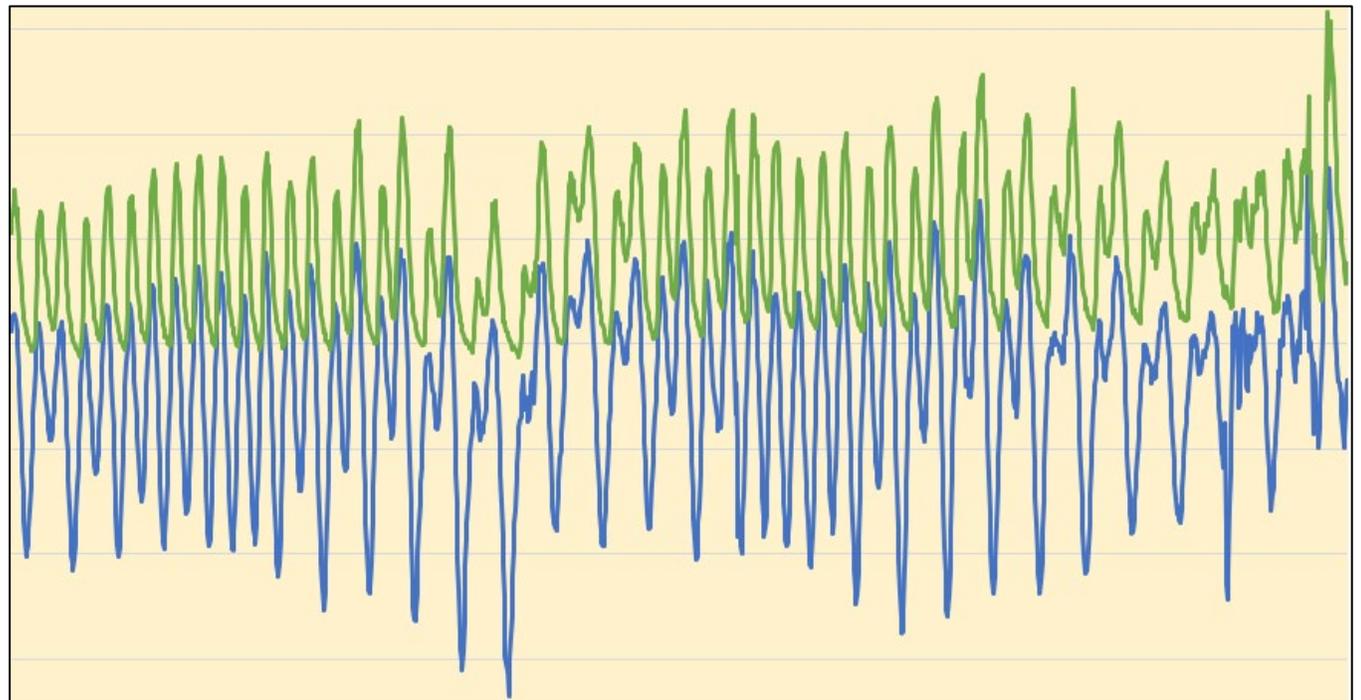


# MANGROVES

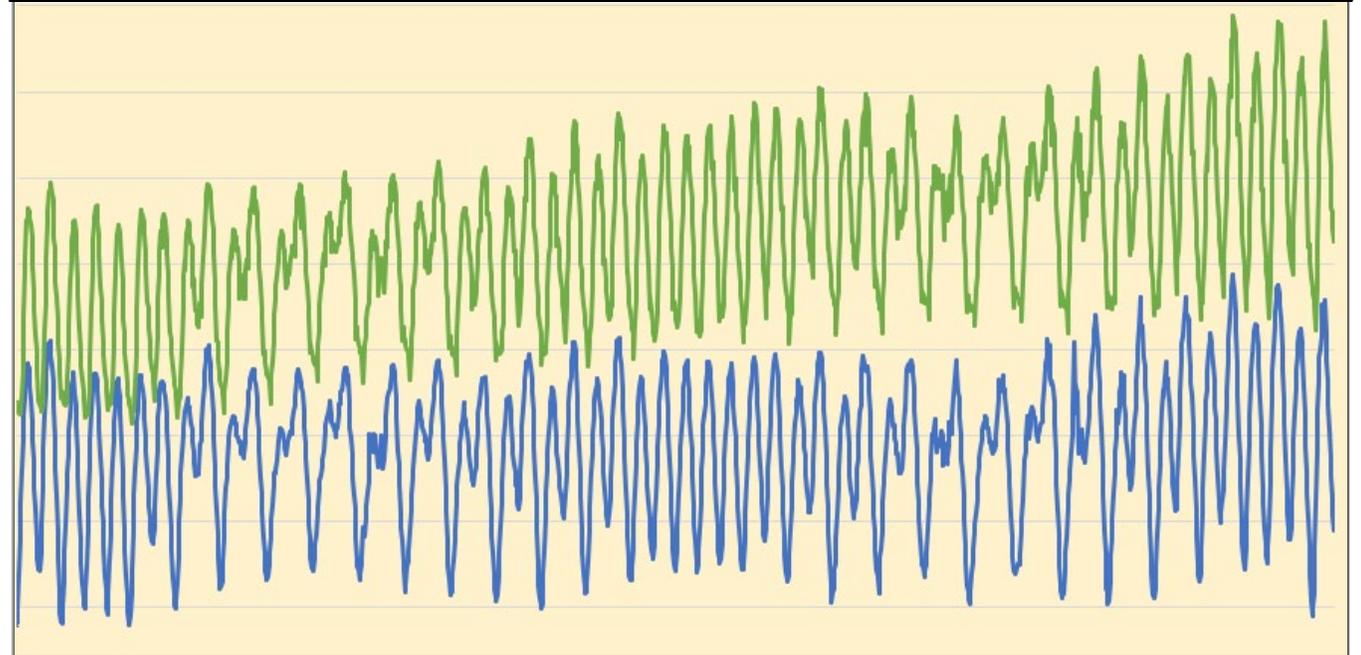


# FLUSHING

PRE-DREDGE LAGOON TIDAL PRISM

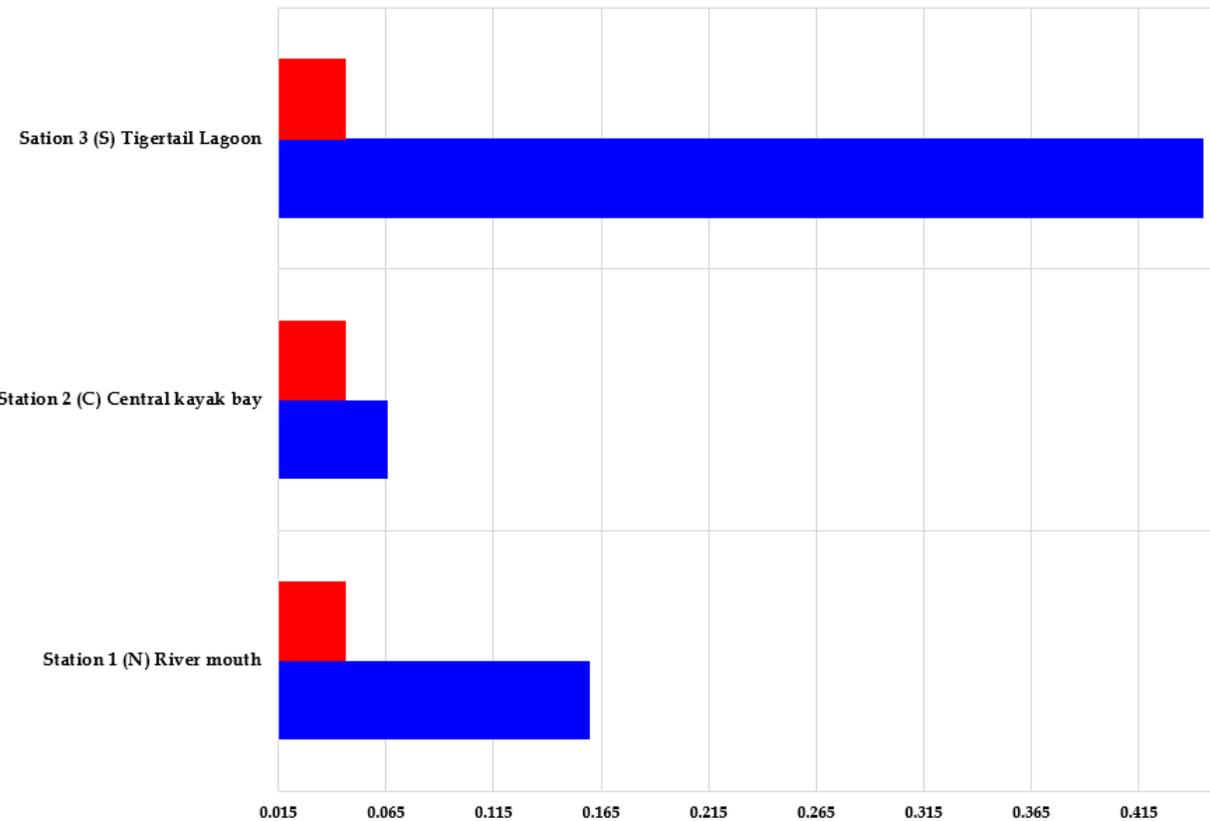


POST-DREDGE LAGOON TIDAL PRISM



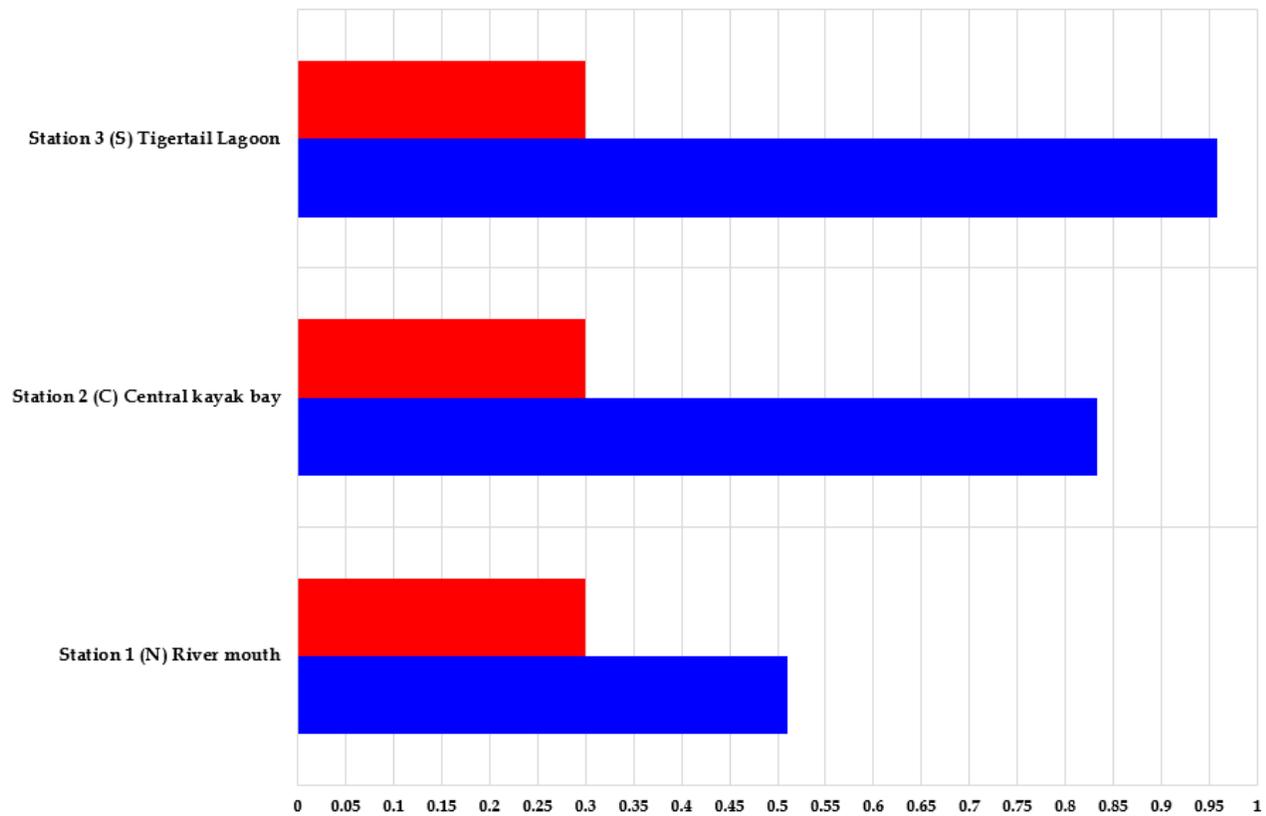
ANNUAL AVERAGE OF TOTAL PHOSPHORUS

■ Nutrient Criteria Limit mg/L ■ Average mg/L



ANNUAL AVERAGE OF TOTAL NITROGEN

■ Nutrient Criteria Limit mg/L ■ Average mg/L



# WATER QUALITY

Dissolved oxygen (in red) improved quite a bit consistently post dredge in the lagoon.

Water temperatures varied from 58°F to 100 °F in the lagoon.

Salinity in the lagoon is more aligned with sea water levels than a brackish estuary.