

Date: May 25, 2026



Dear Mayor Freaney, Dunedin City Commissioners, and City Staff:

Summary

This memo provides a Suncoast Sierra Club assessment and reasons to support policy changes in favor of a non-motorized watercraft launch zone on the south shoreline of the Dunedin Causeway. In summary, we agree that prohibiting motorized launches there will protect the shoreline renourishment investment Dunedin and Pinellas County are making on the south shoreline of the Causeway. Since the October 2024 hurricanes when motorized vessel launches were prohibited, the policy has aided in restoring critical seagrass habitats and marine biodiversity in the area. It turns out that prohibition of motorized vessel launches has also minimized vessel related safety liabilities on the Causeway shoreline. There are also opportunities to create a model living shoreline on certain sections that would protect the beach renourishment investment and enhance shoreline resiliency.

For the reasons detailed below, It's believed a policy for a non-motorized vessel launch zone would reinforce the City's leadership in implementing best practices for resilient coastal shoreline management and conservation of natural resources.

Shoreline Ecology at the Causeway

The shallow intertidal flats directly flanking the Dunedin Causeway at the southern shoreline are sensitive aquatic ecosystems that are geographically and ecologically connected to Honeymoon Island and Caladesi Island. The GIS map shows dedicated easements at the Causeway shoreline and shallow intertidal zone along with submerged lands and seagrass that need to be protected.



There has been a demonstrable improvement to the aquatic habitat along the Causeway since the prohibition of motorized vessels and personal watercraft (PWC). The reintroduction of such large motorized vessels and watercrafts would reverse habitat improvements and adversely impact the sensitive aquatic ecosystem there.

Benthic and Seagrass Protection

St. Joseph Sound relies heavily on Shoal-grass and Turtle-grass to bind sediments and maintain water clarity. As seen in the [Florida Fish & Wildlife map](#) below, there is a large section of continuous seagrass just offshore from the south side of the Dunedin Causeway:



The sections surrounding the seagrass are not contiguous, but it's believed that a policy that would prohibit motorized vessel launches on the Causeway shoreline would increase seagrass expansion, in addition to water quality improvements that support healthy benthics and marine animal diversity.

Other impacts from motorized vessel launches and traffic on the Causeway

- Users of motorized vessels operating in the Causeway's shallow draft cause extensive "propeller scarring" in seagrass. Propellers slice the root rhizomes, causing sediment destabilization that allows tidal currents to scoop out the seafloor into barren blowouts ([Sargent et al., 1995](#)).
- Users of PWC impellers with high-velocity downward thrust churn up fine organic silt, increasing turbidity and blocking the sunlight necessary for seagrass survival.
- Swimmers and users of non-motorized watercraft are intimidated by motorized launches on busy days. Dedicated kayak/paddleboard launch sites would aid with navigation during low tide and minimize foot traffic that tramples the area's seagrass flats.

Wildlife Vulnerabilities

The inner-coastal margins of the Dunedin Causeway are prime foraging habitats for the Florida manatee. Research shows manatees spend 78% of their time within "striking depth" in the top 1.09 meters of the water column. In waters less than 0.91 meters deep, similar to the Causeway shoreline, the probability of a manatee being positioned within a vessel's direct strike draft increases to 96% ([Edwards et al., 2016](#)). In addition, low-frequency engine noise from motorized watercraft creates an acoustic mask, preventing manatees from accurately localizing and avoiding rapidly approaching watercraft ([Rycyk et al., 2022](#)).

Public Safety

A safety assessment of traffic on the narrow Causeway beach on busy days makes the shoreline and its shallow channel an unsafe multi-use zone for vessels. It becomes dangerous when the beach is crowded and high-velocity motorized vessels are mixed with swimmers and passive recreational crafts. High speed launches by motorized crafts in close proximity to swimmers and passive crafts causes swimmers to feel unsafe and kayakers and paddleboarders to capsize.

Protecting Renourished Shorelines

Freshly renourished sand on the Causeway shoreline will take years to compact naturally. Propellers of motorized boats and jet-skis acts as an underwater excavator, eroding renourished shorelines and may also undermine the geotextile bags and rock revetments installed during post-hurricane repairs.

Matrix of Comparative Uses

Management Metric	Current Policy: Mixed Use Motorized Launch Zone	Proposed Policy: Passive / No-Motor Launch Zone
Erosion & Maintenance	High scouring, erosion requires frequent maintenance.	Low scouring, erosion mostly weather related. minimum maintenance.
Manatee Strike Risk	High risk; concentrated motorized traffic in shallows.	Low/near zero risk from passive crafts in the shallows.
Seagrass Conservation	High risk of damage to seagrass from prop-scarring and turbidity that inhibits seagrass growth.	Minimal scarring, less turbidity; protects seagrass meadows enhances growth of seagrass meadows.
Liability Exposure	High risk in the launch zone; collisions between motorized vessels, non-motorized and swimmers.	Low risk; little risk of collisions between swimmers, kayakers and paddleboarders.
Noise Pollution	High ambient noises on shore disturbs passive recreation, shorebirds and marine life.	Natural soundscape on shore supports passive recreation, shorebirds and marine wildlife.

Sierra Club Conclusion and Recommendation

This assessment concludes that a launch zone for motorized vessels on the newly renourished southern shoreline of the Dunedin Causeway poses untenable risks to public safety and to environmental conservation of the shoreline and the seagrasses and marine wildlife in its shallows, especially on days with high beach traffic. Utilizing an uncompacted, open sandy beach as a motorized launch zone directly contradicts best practices for resilient coastal engineering and preservation of aquatic preserves, especially being in such close proximity to Honeymoon and Caladesi State Parks.

We recommend that the City of Dunedin take this opportunity to advance its commitment to shoreline resiliency and environmental conservation by making the southern Dunedin Causeway shoreline exclusively a non-motorized vessel launch zone. In addition, Dunedin also has an opportunity to establish a long-term plan for a model living shoreline at this location by planting mangroves, seagrasses and more native trees that further advances shoreline resiliency and conservation. We believe this can be achieved by working with the Environmental Management Division of the Pinellas County Public Works Department on this policy recommendation and a long-term plan that protects and advances this public investment for many years to come.

Thank you for considering the reasons for this recommendation.

Prepared by Tim Hughes and the Suncoast Sierra Club Conservation Committee. Approved by the Suncoast Sierra Club Executive Committee

Suncoast Group of Sierra Club Florida - Executive Committee

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