



Bio-Tech Consulting  
3025 East South Street  
Orlando, FL 32803

Date: May 6, 2026

From: William F. Precht, Bio-Tech Consulting

Re: Coral Community Viability in Key West Harbor – May 1, 2026 Site Visit

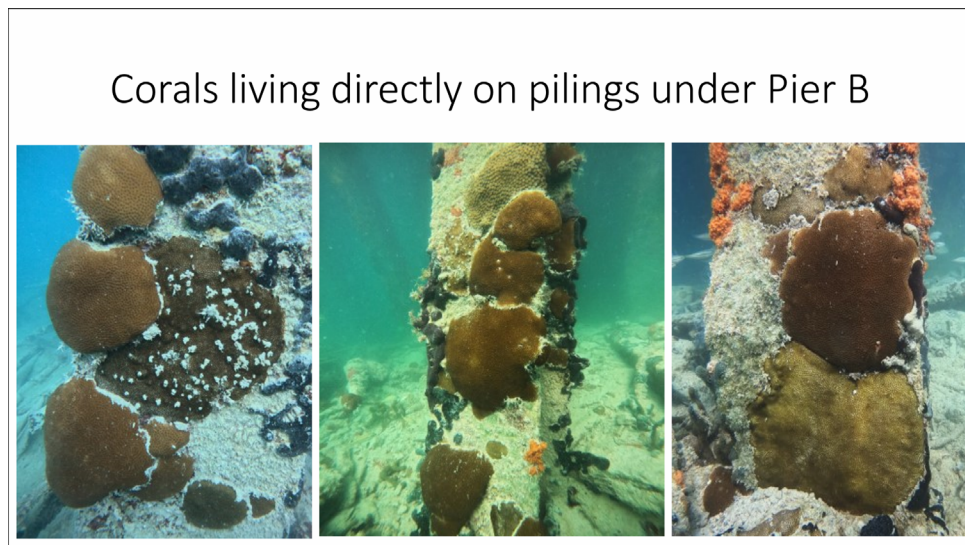
Dear Mayor and City Commissioners,

My name is William F. Precht, I am a marine scientist by academic training and have devoted my career to the study, preservation, protection, and restoration of coral reefs around the globe. I first started working on coral reefs at Discovery Bay Marine Laboratory in Jamaica back in 1978 and have been researching and working on coral reefs of the Florida Keys since 1987. In the past 40 years, I have performed more than 3,000 scientific scuba dives on reefs in Florida.

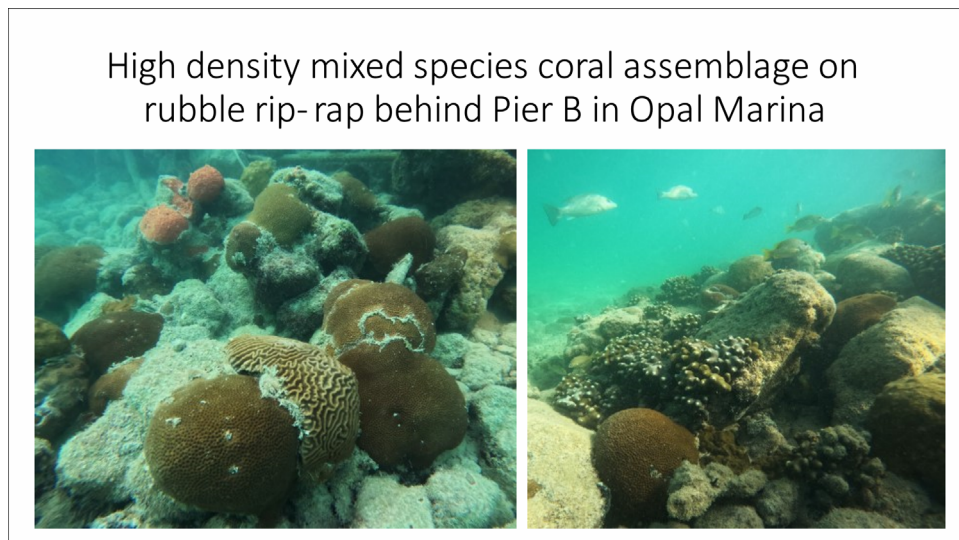
Since 2020, my team I have performed 75+ dives in Key West Harbor where we have observed and documented an extraordinary coral assemblage with thousands of healthy colonies of some 24 different species living on the bulkheads, wharfs, pilings, and rubble rip-rap fronting both Mallory Square, the Opal Resort, and Pier B. On Friday May 1, 2026, we revisited many of these sites and dove under the piers and pilings at Pier B, the Opal Resort, and the southern end of Mallory Square. In addition to this letter, I have provided to you a separate PowerPoint showing representative underwater photographs of the robust coral community that is found in this unique, man-made habitat. As in past surveys, we noted a vibrant and diverse coral assemblage with large coral colonies colonizing most surfaces (Figures 1 & 2), including three of the federally ESA-listed coral species (Figure 3). In recent years, the major brain coral species have been especially devastated by disease (SCTLD) throughout the Florida Keys. However, these man-made habitats in Key West Harbor presently house some of the last remaining significant healthy populations of these species in all of the Florida reef tract (Figure 4). In addition to corals, there are numerous resident Goliath Grouper (Figure 5), sharks, large snapper, and dozens of other species of reef fish living on and around this man-made habitat. In fact, on any given dive under the docks and cruise ship piers in Key West Harbor you will see a larger reef fish (Figure 6) than on most natural reefs within the FKNMS.

In addition to the observations, we have made at Mallory and Pier B, similar observations have been recently made of exceptional, healthy, and robust coral communities at the Navy Mole Pier by Terramar, and at the USCG Station Key West by AECOM. Please also remember that since at least 2007, the city has been documenting and protecting the coral community at Mallory Square. We now have almost 20 years of survey data and underwater photographs that reveal the remarkable stability of these Key West Harbor corals, while concomitantly, the natural reef offshore has suffered catastrophic declines due to multiple disturbances including coral disease outbreaks and catastrophic warm-water coral bleaching events.

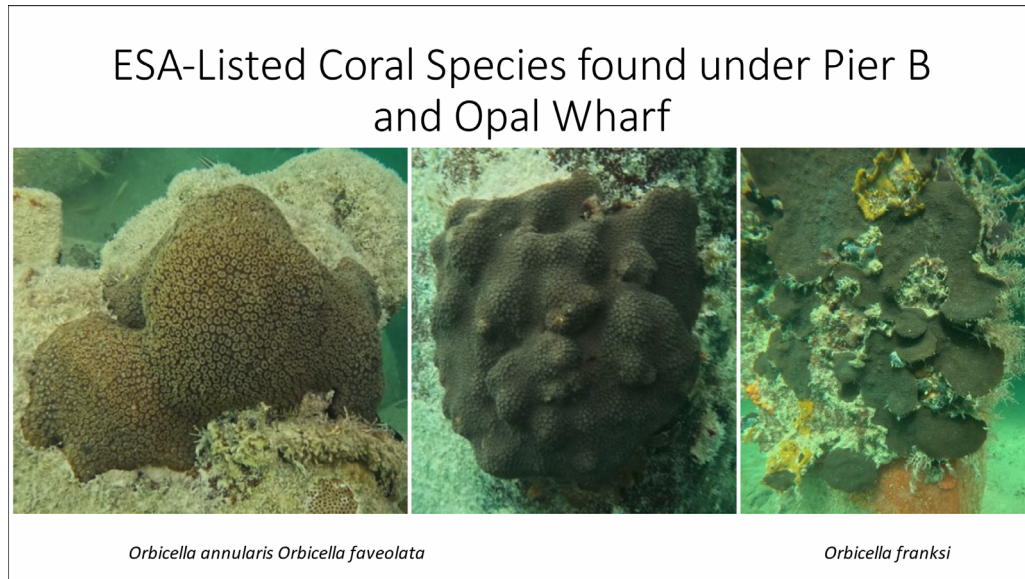
Recently, a project performed at Mallory in 2025 by the city, resulted in some 245 large coral colonies being relocated to the offshore reefs where they have been incorporated into the “Mission Iconic Reefs Program” established by the FKNMS and the State of Florida to restore Florida’s coral reef ecosystem.



**Figure 1.** Diverse assemblage of corals found living on pilings under Pier B.



**Figure 2.** Diverse assemblage of corals found living on rock rubble (rip-rap) under Pier B and against bulkhead wall in Opal Key Marina.

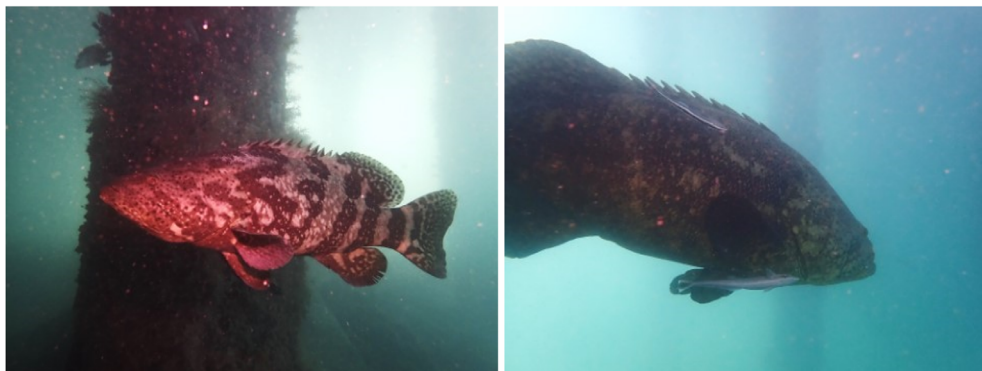


**Figure 3.** Underwater photographs of the three large and healthy ESA-Listed species of star coral *Orbicella* spp. (A) *Orbicella annularis*, (B) *Orbicella faveolata*, and (C) *Orbicella franksi*. All photos taken under Pier B or Opal Resort on May 6, 2026.



**Figure 4.** Underwater photographs of major brain coral species *Colpophyllia natans*, *Diploria labyrinthiformis*, and *Pseudodiploria strigosa*. These corals are common in Key West Harbor and today are extremely rare on the Florida Reef Tract. All photos taken under Mallory Pier or Pier B on May 1, 2026.

## Giant Goliath Groupers under Opal



**Figure 5.** Underwater photographs of a Goliath Grouper (*Epinephelus itajara*), living under the wharf at Opal Resort and Mallory Square. These photos were taken on Friday May 1, 2026.

## Large Hogfish under Pier B



**Figure 6.** Underwater photograph of a large Hogfish, *Lachnolaimus maximus*, living under the wharf at Pier B. This photo was taken on Friday May 1, 2026.

## Summary

While corals throughout the Florida Keys have seen catastrophic declines in coral cover and species diversity over the past five decades, the coral community living within Key West Harbor has been shown to be one of the most resilient to various coral stressors and most importantly, to the impacts associated with regional coral bleaching and disease outbreaks. Because of this, the corals living on the wharfs, piers, and pilings fronting the cruise ship docks in Key West are some of the most diverse and vibrant coral assemblages remaining within the FKNMS. In addition to corals, this biological community is replete with a plethora of other marine organisms making it one of the most unique habitats in all the Florida Keys (Precht et al. 2023). Why is this important? It is prima facie evidence that the water quality within Key West Harbor is not detrimental to the wellbeing of the

organisms living there, but likely advantageous to their survival, growth, and longevity. As we have over the past five years, we will continue to keep the city apprised of the results of our continued monitoring of Key West Harbor and these extraordinary resources living at our doorstep. We look forward to collaborating with the city in the future. Thank you!

## **References**

Precht, W.F., Fura, R., and Modys, A.B. (2023) Surprisingly diverse and healthy coral assemblage found in an unlikely location in the Florida Keys. Reef Encounter 38(2): 56-57.  
[https://coralreefs.org/wp-content/uploads/2024/01/REEF\\_ENCOUNTER\\_DEC2023\\_HRv8.pdf](https://coralreefs.org/wp-content/uploads/2024/01/REEF_ENCOUNTER_DEC2023_HRv8.pdf)

Respectfully yours,

William F. Precht

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