



# Bio-Tech Consulting

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January 5, 2026

Dear Mayor and City Commission,

My name is William F. Precht. I am a Marine Scientist by degree and training and I have presented numerous studies to the City of Key West pertaining to the purported impacts of cruise ships on the marine life from Key West Harbor out to the Florida reef tract. This includes performing coral, fish, and seagrass surveys as well as collecting periodic water quality (turbidity) monitoring data of both inbound and outbound commercial vessels including cruise ships from Key West Harbor. My team has also performed water quality assessments during the passage of both winter storms and hurricanes.

The reason for this correspondence is in light of the soon to be implemented City of Key West water quality monitoring program. I believe this program is an important tool that will help the city to make more informed decisions that will ultimately improve water quality in and around the City of Key West. To that end, I wanted to make sure that this water quality monitoring program focuses on (1) those parameters that specifically protect public health, safety, and welfare, (2) safeguard against pollutant discharges into the marine environment, (3) ensure compliance with federal laws (Clean Water Act), and (4) keep nutrient discharges to a minimum to safeguard the local marine ecosystems. Ultimately, the collection of specific water quality parameters such as the detection of harmful bacteria, chemical pollutants, nutrients, etc. will assist the city in meeting federal water quality standards, assist in developing and implementing best management practices for coastal construction projects and stormwater runoff, help alert residents and tourists to current risks such as beach closures or no swim areas, and through public outreach to help build community engagement and consensus in water protection efforts.

At tomorrow's Commission meeting, you will discuss Item 32 pertaining to the Scope of Work setting parameters for Stantec Consulting in their water quality monitoring program. Specifically, the Scope of Work refers to monitoring turbidity in Key West Harbor in conjunction with Chapter 80 of the City of Key West Code of Ordinances. Exhibit A, para. 1.3 in the Scope, lists turbidity as a "pollutant." In most cases it is not. Therefore, the notion proffered by some, that turbidity is a pollutant and at elevated levels may be in violation with EPA established standards and therefore should be included as a standard monitoring parameter in the City's water quality monitoring program is misguided. Clearly, turbidity caused by a point-source discharge from a

stormwater outfall, dredging operation, or coastal construction project are considered pollutants and are regulated by the Clean Water Act and therefore should be monitored. However, monitoring turbidity in the waters surrounding Key West such as the temporary prop-wash from any ship while underway or docking within a federal navigation channel does not violate state or federal laws or Chapter 80 as they are authorized activities. For instance, FKNMS regulations, 15 CFR § 922.162 specifically defines 'prop dredging' as "the use of a vessel's propulsion wash to dredge or otherwise alter the seabed of the Sanctuary. Prop dredging includes, but is not limited to, the use of propulsion wash deflectors or similar means of dredging or otherwise altering the seabed of the Sanctuary." The definition also carefully notes "prop dredging does not include the disturbance to bottom sediments resulting from normal vessel propulsion."

The State of Florida and EPA standard set for turbidity in and around coral reef environments are specifically designed to protect these important resources during activities associated with marine construction projects, especially dredging. There is no language in the regulations pertaining to temporary turbidity created by the prop-wash of vessels in a dredged navigation channel or port. If this were the case, then all commercial and military vessels, transiting marked navigation channels or docking in a port would be subject to these rules. This would not only apply to Key West, but all ports in Florida including Port Miami and Port Everglades. As well, turbidity caused by the propulsion of a commercial vessel stirring up bottom sediments is also not a pollutant nor is it considered a discharge. The standards regulating commercial vessels were developed by the USEPA in coordination with The United States Coast Guard (USCG) (USEPA 40 CFR Part 139). Through this Act, the Coast Guard is responsible for monitoring and enforcement of discharge of pollutants from all vessels greater than 79' in length (Vessel General Permit for vessels operating in waters of the United States as defined by 40 CFR 122.2). The Coast Guard regulations do not consider prop-wash associated with normal vessel operation to be a violation.

Please look at the facts as you have scientific reports for decades showing some of the healthiest coral in the Florida Keys. In fact, at Mallory Square the City has just moved approximately 240 healthy corals to support coral restoration efforts at the reef.

Temporary turbidity from prop wash is not having a negative effect on the environment. It is not a pollutant. It is not a violation of Chapter 80, State or Federal laws. Testing for temporary turbidity from prop wash is unnecessary and a distraction from meaningful and purposeful water quality testing.

Again, my most recent study submitted to you on January 5, 2025 detailed the coral and environmental conditions in the vicinity of the cruise ship piers within the harbor. My conclusion to that report is outlined below:

"In summary, there have been many unscientific claims about the purported impacts of the turbid prop-wash generated by cruise ships arriving and departing from Key West on the biological resources of the area. Those claims are false. From the City's 2007 environmental study up to my December 20, 2024 analysis of the biological communities living within Key West Harbor tells us it has been a thriving environment over decades. 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)."

These studies conducted by myself and my team are based on observations made by multiple trained scientific divers while performing > 75 dives in Key West Harbor and vicinity over the past five years. Contrary to our findings, there have been claims laying blame on temporary turbidity from cruise ships for wrecking the reefs of the region. However, these claims are not science-based. There has been no data tendered as evidence showing this linkage, nor has it been shown that the measured levels of turbidity generated by cruise ship prop wash cause any direct harm to benthic resources in Key West Harbor - never mind the reef tract that is eight miles away. In fact, the observations made by my team stand in stark contrast to the numerous unsubstantiated, false, and exaggerated claims that are based on anecdote, supposition, and weak inference – not science. In addition, recently the City of Key West has spent significant funds to relocate over 200 healthy coral colonies fronting Mallory Pier and moving them to safe harbor. The decision to move the corals was due to imminent harm from construction activities and not from turbidity created by vessel prop-wash.

I would respectfully submit that the temporary prop-wash turbidity created by cruise ships, while it has garnered some media attention and unscientific hype has taken away the focus from the real water quality concerns for the Key West community which I believe better serve the tax payers. These include the following:

1. Public beaches where fecal coliform readings are at safe levels.
2. Mooring fields where boats lie on anchorage without following pump out protocols required of the FKNMS causing diminished water quality.
3. Stormwater run-off issues.
4. Accidental municipal sanitary sewage overflows or other unauthorized discharges.

It is in the best interest of the public to follow the above parameters and to follow the science, as that is where the City's water quality issues will be confirmed and addressed.

Respectfully yours,

*William F. Precht*

William F. Precht

Director of Coastal and Marine Sciences

Bio-Tech Consulting, Miami, FL

## PRECHT BIO

Since completing his graduate degree from the University of Miami's Rosenstiel School of Marine, Atmospheric, and Earth Science - Mr. Precht has specialized in the assessment, monitoring, restoration, and rehabilitation of various coastal resources, especially coral reef, seagrass, and mangrove systems. His contributions to the professional and academic ecological sciences community are nationally and internationally recognized, particularly in regard to historical ecology, disturbance ecology, ecological monitoring, and the application of ecological principals to coastal restoration. Bill's work draws upon significant, state-of-the-art research experience in field studies and theoretical analysis.

Mr. Precht is currently the Director of Coastal and Marine Science Programs for the environmental consulting company Bio-Tech Consulting and is based in Miami, Florida. In addition, he is presently the Specialty Chief Editor, Coral Reef Section for the scientific journal *Frontiers in Marine Science*. Bill also serves on the Board of Director's for the 501(C)(3) organization SCUBAnauts International and is a member of the Science Advisory Committee for the non-profit Reef Renewal, USA in Tavernier, FL.

With 40+ years of professional experience, Mr. Precht has developed strong technical and project management skills and has provided expert witness testimony for both the US Gov't and the private sector. In addition, he has vast expertise in environmental resource management and marine and estuarine research, mitigation planning, the ecological impact of marine disease epizootics, habitat restoration, and environmental regulation. He has been involved in scientific support for port expansion projects, large-scale fiber optic cable deployments, ship grounding response, Natural Resource Damage Assessments (NRDA), and restoration scaling, planning, and implementation. Mr. Precht has demonstrated success in creating long-term partnerships, team building, and coordinating multidisciplinary scientific programs. Bill is also a trained scientific diver and has performed over 5,500 scientific dives in his career.

From 2008 – 2012 he worked for National Oceanic and Atmospheric Administration (NOAA) in the Florida Keys National Marine Sanctuary (FKNMS) where he was the Program Manager and Team Lead of the Damage Assessment, Restoration, and Resource Protection Program where he provided scientific support for natural resource damage assessments, ship grounding response, restoration scaling, planning and implementation, and coral reef and seagrass monitoring. His work was focused on protecting, conserving, and restoring trust resources of the FKNMS.

In his spare time, Bill is a Lecturer in Columbia University's Climate School where he teaches a field class on 'Tropical Marine Ecology' in the Cayman Islands. He is also an Adjunct Faculty in the Department of Marine Science at Nova Southeastern University. Bill was formerly a Visiting Faculty in Northeastern University's Three Seas Marine Biology Program where he taught 'Coral Reef Ecology' from 1988 and 2020. Through this program, Bill trained over 600 students many of whom have become world renowned researchers and leaders in the fields of coral reef ecology, tropical marine ecology, global change biology, and marine conservation.

In 2006 he published the first book on coral reef restoration entitled "The Coral Reef Restoration Handbook" published by CRC Press in Boca Raton, FL. The late Senator Bob Graham (FL) wrote the foreword for this volume.

Bill is a Fellow of the International Coral Reef Society (ICRS).