

**PELICAN BAY SERVICES DIVISION  
CLAM BAY COMMITTEE MEETING  
NOVEMBER 8, 2018**

The Clam Bay Committee of the Pelican Bay Services Division met on Thursday, November 8 at 1:30 p.m. at the SunTrust Bank Building, 801 Laurel Oak Drive, Suite 302, Naples, Florida 34108. In attendance were:

**Clam Bay Committee**

Susan O'Brien, Chairman

Bohdan Hirniak (*absent*)

Rick Swider

**Pelican Bay Services Division Staff**

Neil Dorrill, Administrator

Marion Bolick, Operations Manager (*absent*)

Mary McCaughtry, Ops. Analyst (*absent*)

Lisa Jacob, Assoc. Project Manager

Barbara Shea, Recording Secretary

**Also Present**

Jennifer Bobka, Earth Tech

Mohamed Dabees, Humiston & Moore

Tim Hall, Turrell, Hall & Assoc.

Jeremy Sterk, Earth Tech

Kathy Worley, Conservancy of SW Florida

**APPROVED AGENDA (AS AMENDED)**

1. Roll call
2. Agenda approval
3. Approval of 09/06/18 meeting minutes
4. Audience comments
5. Clam Bay
  - a. Update on monitoring
  - b. Update on stressed mangroves near PBF north boardwalk
  - c. THA assessment of debris removal and hand-dug channel maintenance
  - d. Suggested changes to Scope of work for Clam Bay monitoring
  - e. Canoe trail marker 12
6. Clam Pass
  - a. H&M October tidal ratio report
  - b. October aerial photos
  - c. Impact of Hurricane Michael on Clam Pass
  - d. Upgraded modems for tidal gauges
7. Water quality
  - a. 3<sup>rd</sup> Quarter Clam Bay WQ results
  - b. TP exceedances in 2<sup>nd</sup> Quarter report
  - c. Copper results
  - d. August WQ results from County Lab
  - e. Changes in upland pond WQ testing and reporting
  - f. Analyzing TP results from past decades
  - g. Documenting rookery activity in annual WQ report
8. Review/update of the Clam Bay Management Plan

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- 8.5 New Business (*add-on*)
- 9. Annual Reports
  - a. Clam Bay Tidal Analysis and Bathymetric reports due December 21, 2018
  - b. Water Quality report due February 15, 2019
- 10. Next meeting: January 3, 2019
- 11. Adjournment

**ROLL CALL**

Mr. Hirniak was absent and a quorum was established

**AGENDA APPROVAL**

**Ms. O'Brien motioned, Mr. Swider seconded to approve the agenda as amended, with the addition of item #8.5. The motion carried unanimously.**

**APPROVAL OF 09/06/18 MEETING MINUTES**

**Ms. O'Brien motioned, Mr. Swider seconded to approve the 09/06/18 meeting minutes as amended. The motion carried unanimously.**

**AUDIENCE COMMENTS**

Ms. Kathy Worley, Conservancy of SW Florida, asked what the protocol would be to obtain permission to permanently install two "sediment elevation tables" in Clam Bay, which are stainless steel pipe instruments monitored over time to measure sediment accretion or erosion. This is one of the ways sea level rise can be monitored, and it can be determined whether the mangrove forest will "keep up" with sea level rise. Ms. Worley is working with U.S.G.S. (U.S. Geological Survey) and Rookery Bay on this project. The project would require no funding or action by the PBSB. The two instruments would be installed deep within the mangrove forest and would not be visible.

Mr. Dorrill suggested that Ms. Worley submit an e-mailed request for a license agreement including a sketch of the device, with a copy to Mr. Frank Laney, PBF Covenant Enforcement. The PBSB would then either include the request as an item on the consent agenda of a future Board of County Commissioners' meeting or follow any other direction given by the County Manager's Office.

**CLAM BAY**

**UPDATE ON MONITORING**

Mr. Sterk, Environmental Consultant with Earth Tech, provided data on his recent gopher tortoise survey which shows a stable tortoise population. He commented that his coastal scrub monitoring showed comparable data from 2017 to 2018, noting some increase in sea grape growth.

**UPDATE ON STRESSED MANGROVES NEAR PBF NORTH BOARDWALK**

Mr. Sterk provided an update on an area of stressed mangroves, located just south of the north boardwalk. He commented that he has added a few connections between hand-dug channels (in this area) to improve drainage which will hopefully reduce stress to these mangroves.

**THA ASSESSMENT OF DEBRIS REMOVAL AND HAND-DUG CHANNEL MAINTENANCE**

Mr. Hall, Environmental Consultant with Turrell, Hall and Assoc., provided his assessment/inspection report on the channel maintenance work conducted this year. He observed that a significant amount of vegetative debris was removed, and that the work completed was more comprehensive than in prior years.

**SUGGESTED CHANGES TO SCOPE OF WORK FOR CLAM BAY MONITORING**

Last year's scope of work for Clam Bay monitoring was included in the agenda packet. The committee and staff discussed possible changes to the scope of work for the next contract, as Earth Tech's contract expires in March 2019. Ms. Jacob suggested the following changes to the scope of work: (1) add additional mapping of hand-dug channels as part of Task 8 and (2) add "provide an infrared aerial photo and an RGB aerial photo" to Task 1. The committee discussed adding shorebird monitoring as additional monitoring of flora and fauna monitoring to Task 5.

Ms. Jacob suggested and the committee agreed that she would prepare a solicitation package for an RFP (request for proposal) for Clam Bay monitoring and environmental consulting services to meet our specific needs, for 3-5 years.

**CANOE TRAIL MARKER 12**

Mr. Sterk reported that he was informed by County staff that canoe trail marker 12 will be removed and disposed of next week.

**CLAM PASS**

**H&M OCTOBER TIDAL RATIO RESULTS**

Dr. Dabees commented that October tidal flow looks good, ratios are in the "safe range," and inlet conditions look stable. He noted that tide gauge #4 is not working. Ms. Jacob commented that she has ordered a replacement sensor probe. Ms. O'Brien and Mr. Sterk suggested that the PBSB purchase two new sensors (one to store as a backup).

**OCTOBER AERIAL PHOTOS & IMPACTS OF HURRICANE MICHAEL ON CLAM PASS**

Dr. Dabees provided aerial photos of Clam Pass (taken at the end of October after Hurricane Michael) and commented that there is a lot of sand near shore and within the inlet mouth. He commented that (1) the inlet looks stable, (2) the channel is now "Y" shaped, and (3) he will continue to perform spot checks for annual monitoring.

Ms. Mary McClean Johnson asked about any escarpment on the beach. Dr. Dabees commented that Hurricane Irma caused a significant overwash of sand into the dune. A combination of this event along with the recent king tide and Hurricane Michael caused a super-elevation of sand on the PB South Beach. Dr. Dabees recommended no action be taken unless the escarpment becomes a public safety issue. He commented that if the escarpment is "knocked down," then sand would be lost by moving it from the high berm into the water.

Mr. Hall commented that he is working on obtaining a DEP field permit which would allow for a PBF contractor to remove sand from under the PBF South Beach facility and place it in front of the escarpment.

**UPGRADED MODEMS FOR TIDAL GAUGES**

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Ms. Jacob commented that the PBSB is purchasing new modems for the tide gauges. The activation by Locher Environmental will be delayed until the new modems and the new sensor probe are received and ready for installation (by ETE).

**WATER QUALITY**

**3<sup>RD</sup> QUARTER CLAM BAY WQ RESULTS INCLUDING TP EXCEEDANCES**

Dr. Tomasko, Environmental Consultant with ESA, provided the 3rd quarter Clam Bay water quality report (included in the agenda packet). Mr. Hall commented on the elevated phosphorus levels as well as higher nitrogen concentrations throughout the system. He suggested that this may be a result of the degradation of Hurricane Irma material and improvement in canal flow. He reported that Dr. Tomasko is working on a more detailed analysis.

**COPPER RESULTS**

Not discussed

**AUGUST WQ RESULTS FROM COUNTY LAB**

Not discussed.

**CHANGES IN UPLAND POND WQ TESTING AND REPORTING**

Mr. Hall commented that Dr. Tomasko does not think water quality data from the upland ponds is needed to monitor water quality in Clam Bay. He noted that we are currently monitoring water quality at berm sites, and the input to Clam Bay is from the berm.

**ANALYZING TP RESULTS FROM PAST DECADES**

Mr. Hall commented that he will take a look at some historical data on Clam Bay phosphorus levels, to determine whether any trend exists.

**DOCUMENTING ROOKERY ACTIVITY IN ANNUAL WQ REPORT**

Mr. Hall suggested obtaining monthly drone photos of the rookery in Upper Clam Bay, from November to May, for documentation purposes.

Ms. Worley commented that the use of a drone above a rookery during bird breeding season is frowned upon by the environmental community. The birds see the drone as a predator and the noise disturbs them. She also commented that the rookery has existed for years, and therefore, could not be a new source of phosphorus.

Mr. Hall suggested getting a count of the birds roosting in the rookery for documentation purposes.

**BLUE TILAPIA EFFECTS ON WATER QUALITY**

Mr. Hall commented that he would seek Dr. Tomasko's opinion on possible negative ecological impacts from installing blue tilapia in our lakes as a method to reduce algae.

**REVIEW/UPDATE OF THE CLAM BAY MANAGEMENT PLAN**

Mr. Dorrell commented on recent communications with Mr. Nick Casalanguida, Deputy County Manager, relating to perception issues pertaining to Clam Pass inlet dredging and the frequency of dredging over the past three years. He reported that the County Manager and Deputy

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County Manager would like the PBSB to do an assessment/evaluation of whether alternative design templates could increase or sustain the intervals of dredging events.

Mr. Dorrill suggested that our response include a discussion that Clam Pass is influenced by wave energy and heights above three feet and that we have good science and weather data to support the system that we have. He suggested that we request a meeting with Mr. Casalanguida and/or Mr. Callahan, County Executive Director of Corp. Business Ops., to elaborate on the type of analysis/report being requested.

Ms. O'Brien suggested that the committee spend time to gather the appropriate documentation to share with the County Manager's Office.

Dr. Dabees suggested that we provide (1) a 5-year evaluation of how the implementation compared to the design goals, and (2) provide data on the unusually inactive storm seasons from 2007 to 2012, followed by the active seasons from 2012 to 2018.

Mr. Dorrill suggested that Dr. Dabees develop a scope and sequence or outline as to what an appropriate response (and any necessary exhibits) should include, to be brought back for evaluation by the Clam Bay Committee. He also suggested that we talk to Commissioner Solis, show him our intentions for a Clam Bay Management Plan update, and obtain his ideas on how to proceed.

Ms. O'Brien suggested that the committee review a draft of Dr. Dabees' analysis report at the next Clam Bay Committee meeting on Jan. 3.

Ms. Johnson commented on the frequent dredging events at Wiggins Pass and Doctors Pass.

Dr. Dabees commented on the series of events which lead up to a "trigger" of a dredging event. Once tidal ratios are sustained below .5, a bathymetric survey is completed to determine whether critical shoaling exists. If the survey indicates that physical conditions have become restrictive, then a dredging event is triggered.

Ms. Worley commented that Wiggins Pass and Doctors Pass are dredged for navigational purposes, while the goal of dredging Clam Pass is to keep the habitat healthy and minimize any environmental impacts.

**NEW BUSINESS (ADD-ON)**

Ms. Johnson asked whether the blue tilapia installed by the PBSB in PB lakes are genetically modified.

**ANNUAL REPORTS**

**CLAM BAY TIDAL ANALYSIS AND BATHYMETRIC REPORTS DUE  
DECEMBER 21, 2018**

Not discussed

**WATER QUALITY REPORT DUE FEBRUARY 15, 2019**

Not discussed

**NEXT MEETING:**

By consensus, the committee agreed that the next meeting of the committee would be held on January 3, 2019 at 1:30 p.m.

**ADJOURNMENT**

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**The meeting was adjourned at 3:25 p.m.**

*Susan O'Brien*

Susan O'Brien, Chairman

Minutes approved [  ] *as presented* OR [  ] *as amended* ON [ 01-03-2019 ] *date*