

**PELICAN BAY SERVICES DIVISION
CLAM BAY COMMITTEE MEETING
DECEMBER 19, 2016**

The Clam Bay Committee of the Pelican Bay Services Division met on Monday, December 19 at 1:00 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
Gary Ventress

Pelican Bay Services Division Staff
Neil Dorrill, Administrator
Marion Bolick, Operations Manager

Mary McCaughtry, Operations Analyst
Lisa Jacob, Associate Project Manager
Barbara Shea, Recording Secretary

Also Present

Mohamed Dabees, Humiston & Moore
Tim Hall, Turrell, Hall, & Associates
Mary Johnson, Pelican Bay Foundation

Mike Shepherd, PBSB Board
Jeremy Sterk, Earth Tech

APPROVED AGENDA (AS PRESENTED)

1. Roll call
2. Agenda approval
3. Approval of 11/09/16 meeting minutes
4. Audience comments
5. 2016 annual reports
6. Mangrove die-off
 - a. THA November report and December observations
 - b. H & M November tidal ratio data
 - c. Water level logger data
 - d. Elevation of surface water in Clam Bay
 - e. Exhibits of hand-dug channels
 - f. Conservation easement near the Strand and property line, set-back and as built plans for Bay Colony Drive and retaining wall
 - g. Minutes from April 2002 committee meeting re: original mangrove die-off
 - h. Intervention strategies
7. Clam Bay monitoring in 2017
 - a. Recommended changes to 2016 monitoring
 - b. Additional monitoring of mangrove plots in die-off area
 - c. Bathymetric survey of interconnecting waterway between Inner and Upper Bays
 - d. Water quality monitoring

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- i. Two or four reports on TN & TP
 - ii. Using Dr. Tomasko for TN & TP reporting
 - iii. Soliciting quotes for WQ monitoring
8. Next meeting: February 2, 2017
9. Adjournment

ROLL CALL

All members were present and a quorum was established

AGENDA APPROVAL

Mr. Ventress motioned, Ms. O'Brien seconded to approve the agenda as presented. The motion carried unanimously.

APPROVAL OF 11/09/16 MEETING MINUTES

Mr. Hirniak motioned, Mr. Ventress seconded to approve the 11/09/16 meeting minutes as presented. The motion carried unanimously.

AUDIENCE COMMENTS

None

2016 ANNUAL REPORTS

Ms. O'Brien reported that the Clam Bay Annual Monitoring Report (completed by Earth Tech) and the Clam Pass Annual Physical & Tidal Monitoring Report (completed by Humiston & Moore) have been submitted to the PBSB and included in the agenda packet. The Clam Bay Annual Water Quality Report (subcontracted by Turrell Hall to Dr. David Tomasko of E.S.A.) is expected to be received within the next week. The committee agreed that these three reports would be provided to the PBSB full board at the January 2017 board meeting.

Ms. O'Brien highlighted good news in the Clam Bay monitoring report including, (1) archeological sites are undisturbed, (2) canoe trail markers are in good condition, (3) the locations of exotics have been mapped, providing the ability to target these areas, (4) the population of gopher tortoises has increased, (5) the acreage of sea grasses has increased to 5.5 acres from 4.7 acres, (6) a comprehensive list of protected species in Clam Bay has been compiled, and (7) eight new monitoring plots have been added in the mangrove die-off area.

Mr. Jeremy Sterk commented that the mangrove die-off area appears stable at 11.5 acres. He has observed some additional areas of "stressed mangroves" which cannot be detected in the aerial photos. Despite zero rain during the past two months, water levels have not receded.

Dr. Mohamed Dabees commented that Clam Pass is healthy and in good condition from a hydraulic standpoint. Mr. Dorrill asked for comments on the current existing beach escarpment. Dr. Dabees commented that his observations show that the escarpment is currently self-correcting and does not meet the turtle nesting corrective action requirements. He concluded that no action should be taken at this time.

MANGROVE DIE-OFF

THA NOVEMBER REPORTS AND DECEMBER OBSERVATIONS

Mr. Tim Hall reported that the original mangrove die-off area remains steady at 11½ acres, with one additional small stressed area just south of Marker 36. He recommended obtaining an elevation survey to include the die-off areas and the area adjacent to the wall along the Strand. Committee members endorsed the recommendation for the elevation survey. Subsequent to Mr. Hall's review of an elevation survey, he will re-evaluate the need for additional hand-dug channels. Ms. O'Brien suggested that staff obtain a rough estimate for the elevation survey to provide to the full board for discussion.

Ms. O'Brien commented on ABB's recent reporting that water is draining from Bay Colony into the conservation area. She suggested that staff meet with Bay Colony management staff to address this issue.

WATER LEVEL LOGGER DATA

Mr. Sterk commented that the loggers have indicated high water levels since July.

EXHIBITS OF HAND-DUG CHANNELS

Mr. Hall commented that he has observed no blockages in the hand-dug channels and believes the channels are functioning properly. He believes the mangrove die-off is a result of last year's constriction of Clam Pass, and that it will take time for the recruitment of red mangroves into the die-off area.

CONSERVATION EASEMENT NEAR THE STRAND AND PROPERTY LINE

No further discussion. Discussed under agenda item #6a.

APRIL 2002 COMMITTEE MEETING MINUTES

Ms. O'Brien commented that the minutes from the April 2002 committee meeting were included in the agenda packet as background information. These minutes included committee discussion points on the original mangrove die-off. Ms. O'Brien highlighted (1) our current drainage issues are similar to those in 2002, and (2) these minutes specifically state that "mangroves cannot tolerate standing water over a long period of time."

Ms. Mary Johnson expressed concerns regarding sea level rise and possible effects on Clam Bay.

Mr. Shepherd commented on the possibility of straightening water flow by "cutting" the oxbows. Mr. Hall commented that this strategy would require permitting and proof that such a project would directly solve the mangrove die-off.

INTERVENTION STRATEGIES

Ms. O'Brien recapped the intervention strategies agreed upon by the committee as (1) PBSB staff will meet with Bay Colony management staff to address their clogged drainage systems, and (2) staff will obtain a rough estimate of an elevation study of the die-off areas and the area adjacent to the wall along the Strand.

CLAM BAY MONITORING IN 2017

RECOMMENDED CHANGES TO 2016 MONITORING

Mr. Sterk recommended the following changes to the 2017 Clam Bay monitoring: (1) increase monitoring of the mangrove plots in the die-off area to semiannually, (2) discontinue monitoring the remaining Lewis plots, (3) add tortoise population monitoring, (4) add scaevola

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(type of exotic plant) monitoring in order to target removal, and (5) add additional mapping of hand-dug channels.

ADDITIONAL MONITORING OF MANGROVE PLOTS IN DIE-OFF AREA

Mr. Sterk recommended semiannual monitoring of mangrove plots in the die-off area.

**BATHYMETRIC SURVEY OF INTERCONNECTING WATERWAY BETWEEN
INNER AND UPPER BAYS**

Dr. Dabees suggested the cost effectiveness of obtaining a bathymetric survey of Clam Bay to include areas of Inner Clam Bay and Upper Clam Bay, to be completed simultaneously with the elevation survey, by the same surveying crew.

WATER QUALITY MONITORING

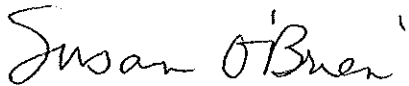
After discussion, the committee decided to delay a decision on change in frequency (from quarterly reporting to semiannual reporting) of water quality monitoring by Dr. Tomasko until after the 2016 Annual Report is received and reviewed.

NEXT MEETING: FEBRUARY 2, 2017

By consensus, the committee agreed that the next meeting of the committee would be held on February 2 at 1:00 p.m.

ADJOURNMENT

The meeting was adjourned at 2:49 p.m.



Susan O'Brien, Chairman

Minutes approved [] as presented OR [] as amended ON [2-2-17] date