

**PELICAN BAY SERVICES DIVISION
WATER MANAGEMENT COMMITTEE MEETING
JUNE 30, 2016**

The Water Management Committee of the Pelican Bay Services Division met on Thursday, June 30 at 3:00 p.m. at the SunTrust Bank Building, 801 Laurel Oak Drive, Suite 302, Naples, Florida 34108. The following members attended.

Water Management Committee
Tom Cravens, Chairman

Scott Streckenbein (*absent*)
Dave Trecker

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

Mike Shepherd, PBSB Board
Jeremy Sterk, Earth Tech

APPROVED AGENDA (AS AMENDED)

1. Pledge of Allegiance
2. Roll call
3. Agenda approval
4. Approval of 5/10/16 meeting minutes
5. Audience comments
6. Status of aerator purchase
7. Algae treatments and measures of effectiveness (Report by Marion)
 - a. Lakes selected for treatment with blue tilapia
 - b. Lakes selected for treatment with peroxide
 - c. Lakes selected for treatment with peroxide and bacteria
 - d. Establish dates to begin effectiveness testing
- 7.1 Sediment testing data (*add-on*)
8. Nutrient removal
9. Discussion of banning fertilizer during the rainy season
10. Adjournment

ROLL CALL

Scott Streckenbein was absent and a quorum was established

AGENDA APPROVAL

Dr. Trecker motioned, Mr. Cravens seconded to approve the agenda as amended with the addition of a discussion item "Sediment testing data" as item #7.1 and agenda item #8 was amended to "nutrient removal" from "phosphate removal." The motion carried unanimously.

APPROVAL OF 05/10/16 MEETING MINUTES

Dr. Trecker motioned, Mr. Cravens seconded to approve the 05/10/16 meeting minutes as presented. The motion carried unanimously.

AUDIENCE COMMENTS

Mr. Ray O'Keefe commented on alum and bacteria treatments being tested for algae and phosphate removal in the three lakes at the Breakwater.

STATUS OF AERATOR PURCHASE

Mr. Bolick reported that the approval for the purchase of eight solar aeration systems is included on the July 12 BCC agenda; Aquagenics was the low bidder at \$82,498. A separate solicitation will be issued for installation. A document entitled, "Pelican Bay Lakes" was distributed which identified the lakes which currently contain aerators as well as the eight lakes selected for this project; the document was added to the record.

ALGAE TREATMENTS AND MEASURES OF EFFECTIVENESS

LAKES SELECTED FOR TREATMENT WITH BLUE TILAPIA

Mr. Cravens commented on the high effectiveness of blue tilapia to remove algae, and the low survival rate of the blue tilapia in Pelican Bay lakes as a result of predators.

LAKES SELECTED FOR TREATMENT WITH PEROXIDE

Mr. Bolick commented on the system-wide use of peroxide in PBSB lakes.

LAKES SELECTED FOR TREATMENT WITH PEROXIDE AND BACTERIA

Mr. Bolick commented on his ongoing bacterial treatment in two lakes. He estimated that he would need to study this treatment for at least a year to determine its effectiveness. By consensus, the committee agreed to bacterial treatment in two additional lakes and that "before and after" pictures were to be taken to properly assess the effectiveness of the bacteria.

ESTABLISH DATES TO BEGIN EFFECTIVENESS TESTING

Mr. Cravens discussed the need for better methods to measure and document the effectiveness of each type of algae treatment. He recommended obtaining photographic data ("before and after" photos) for each type of treatment explored in order to draw accurate conclusions on treatment effectiveness. In addition, Mr. Cravens recommended that the PBSB examine the cost effectiveness of each type of treatment.

Mr. Bolick provided a document entitled, "PBSB Aquatic Spraying" which listed the costs of different types of algae treatments; the document was added to the record.

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By consensus, the committee agreed that the agenda for the 7/6/16 PBSB Board meeting should include (1) approval of monitoring algae treatments of 10 PBSB lakes, and (2) approval of bacterial treatment of two additional lakes.

Mr. Ray O'Keefe commented on a new process of lake algae removal utilizing floating rakes and suction.

SEDIMENT TESTING DATA (ADD-ON)

Dr. Trecker received the sediment testing data for 10 lakes from Earth Tech and concluded, (1) nearly all of the lake copper is in the sediment, (2) soluble copper levels in Clam Bay remain low, and (3) sediment levels in most lakes tested are very low, except for lakes 2-9 and 2-12, which warrant future tracking. Documents on the sediment testing provided by Earth Tech were distributed and added to the record.

NUTRIENT REMOVAL

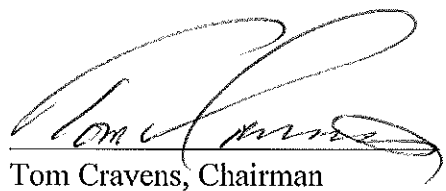
Dr. Trecker reported on a new process developed by Green Technologies to remove phosphate from lake water by pumping the lake water through a column of zirconium ions which attach to the phosphate ions. He suggested revisiting this possible method of phosphate removal after an estimate of cost is received from the company.

DISCUSSION OF BANNING FERTILIZER DURING THE RAINY SEASON

The committee discussed the ban of fertilizer from June 1 to October 1, as included in landscaping best management practices (BMP). Dr. Trecker suggested sending a letter to all Pelican Bay homeowners' associations to remind them of the BMP recommended fertilizer ban during the rainy season.

ADJOURNMENT

The meeting was adjourned at 4:18 p.m.


Tom Cravens, Chairman

Minutes approved [] as presented OR [] as amended ON [9-27-16] date