

# PELICAN BAY SERVICES DIVISION

## Municipal Service Taxing and Benefit Unit

**NOTICE OF PUBLIC MEETING**

**JUNE 1, 2021**

**THE CLAM BAY COMMITTEE OF THE PELICAN BAY SERVICES DIVISION WILL MEET AT 9:00 AM ON TUESDAY, JUNE 1 AT THE COMMUNITY CENTER AT PELICAN BAY, 8960 HAMMOCK OAK DRIVE, NAPLES, FLORIDA 34108.**

### AGENDA

1. Roll call
2. Agenda approval
3. Approval of 03/30/2021 meeting minutes
4. Audience comments
5. Clam Bay
  - a. Update on mangrove monitoring and hand-dug channel maintenance
  - b. Exotic treatment
    - i. Updated proposal for scaevola treatment/removal
    - ii. Treatment in other areas
  - c. Update on osprey platforms
  - d. Canoe trail marker 8
  - e. Expenses in Fund 111 account
6. Clam Pass
  - a. Tidal ratio results for May
  - b. Bathymetric surveys
  - c. Timeline for maintenance
  - d. Options for Pass maintenance
  - e. Maintenance costs in 2020
7. Water Quality
  - a. Results for January-March 2021
  - b. Copper results for January-March 2021
  - c. Draft article for PB Post
8. Beach renourishment
  - a. Timeline for decision-making
  - b. Cost of engineering
9. Boater safety signage
  - a. Update on status of proposed boater safety signs
10. Next meeting
11. Adjournment

ANY PERSON WISHING TO SPEAK ON AN AGENDA ITEM WILL RECEIVE UP TO THREE (3) MINUTES PER ITEM TO ADDRESS THE BOARD. THE BOARD WILL SOLICIT PUBLIC COMMENTS ON SUBJECTS NOT ON THIS AGENDA AND ANY PERSON WISHING TO SPEAK WILL RECEIVE UP TO THREE (3) MINUTES. THE BOARD ENCOURAGES YOU TO SUBMIT YOUR COMMENTS IN WRITING IN ADVANCE OF THE MEETING. ANY PERSON WHO DECIDES TO APPEAL A DECISION OF THIS BOARD WILL NEED A RECORD OF THE PROCEEDING PERTAINING THERETO, AND THEREFORE MAY NEED TO ENSURE THAT A VERBATIM RECORD IS MADE, WHICH INCLUDES THE TESTIMONY AND EVIDENCE UPON WHICH THE APPEAL IS TO BE BASED. IF YOU ARE A PERSON WITH A DISABILITY WHO NEEDS AN ACCOMMODATION IN ORDER TO PARTICIPATE IN THIS MEETING YOU ARE ENTITLED TO THE PROVISION OF CERTAIN ASSISTANCE.

**PELICAN BAY SERVICES DIVISION  
CLAM BAY COMMITTEE MEETING  
MARCH 30, 2021**

The Clam Bay Committee of the Pelican Bay Services Division met on Tuesday, March 30 at 9:00 a.m. at the Community Center, 8960 Hammock Oak Dr., Naples, Florida 34108. In attendance were:

**Clam Bay Committee**

Susan O'Brien, Chairman  
Denise McLaughlin (*absent*)

Rick Swider  
Michael Weir

**Pelican Bay Services Division Staff**

Neil Dorrill, Administrator  
Chad Coleman, Operations Manager  
Darren Duprey, Assoc. Project Manager (*absent*)

Karin Herrmann, Ops. Analyst  
Lisa Jacob, Project Manager  
Barbara Shea, Admin. Assistant

**Also Present**

Mohamed Dabees, Humiston & Moore  
Michael Fogg, PBSB Board

Tim Hall, Turrell, Hall & Assoc.  
Jeremy Sterk, Earth Tech

**APPROVED AGENDA (AS PRESENTED)**

1. Roll call
2. Agenda approval
3. Approval of 01/12/2021 meeting minutes
4. Audience comments
5. Water Quality
  - a. Highlights and recommendations from 2020 annual report
  - b. 2021 reports: Six-month and annual report
  - c. Review and possibly reduce parameters for berm sites
6. Clam Pass
  - a. Highlights and recommendations from 2020 annual report
  - b. 2021 reports: biannual bathymetric surveys
  - c. Tidal ratio results for February
7. Clam Bay
  - a. Proposal for scaevola treatment/removal
  - b. Draft of FY22 budget
  - c. Canoe trail marker 8 and signs needing cleaning
8. Beach renourishment
  - a. Update on engineering work
9. Boater safety signage
  - a. Update on status of ordinance
10. Next meeting
11. Adjournment

**Pelican Bay Services Division Clam Bay Committee Meeting  
March 30, 2021**

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**ROLL CALL**

Ms. McLaughlin was absent and a quorum was established

**AGENDA APPROVAL**

**Mr. Weir motioned, Mr. Swider seconded to approve the agenda as presented. The motion carried unanimously.**

**APPROVAL OF 01/12/2021 MEETING MINUTES**

**Mr. Weir motioned, Mr. Swider seconded to approve the 01/12/2021 meeting minutes as presented. The motion carried unanimously.**

**AUDIENCE COMMENTS**

None

**WATER QUALITY**

**HIGHLIGHTS AND RECOMMENDATIONS FROM 2020 ANNUAL REPORT**

Mr. Hall, Environmental Consultant with Turrell, Hall and Assoc., commented on the 2020 Water Quality Report, prepared by Environmental Science Assocs. (ESA). The report had been provided to the committee and is posted on the County's PBSO webpage. His comments included the following.

- Phosphorus levels have decreased from last year, which may be a result of Hurricane Irma effects waning.
- Copper levels have decreased from last year, which may be a result of the copper in the system from past years leaching out of the system.
- ESA has recommended that we (1) explore whether nutrient levels in the reclaimed irrigation water have changed in recent years, and (2) explore whether the PB community's usage of reclaimed water has increased in recent years.

Ms. O'Brien commented that PB community associations should be reminded that there is no need to fertilize their properties based on the high level of nutrients in the reclaimed water.

**2021 REPORTS: SIX MONTH AND ANNUAL REPORT**

Ms. O'Brien suggested that we eliminate quarterly water quality reports, and continue with six-month and annual water quality reports. Mr. Hall agreed and noted that this change can be included in the new contract for water quality reporting.

**REVIEW AND POSSIBLY REDUCE PARAMETERS FOR BERM SITES**

Ms. O'Brien commented that currently the County Lab is analyzing 13 parameters for berm sites and 8 parameters for Clam Bay sites. Mr. Hall suggested that we could eliminate calcium and magnesium from the list of berm site parameters. Ms. O'Brien suggested that Ms. Jacob contacts the County Lab to reduce the berm site parameters by these two items.

**CLAM PASS**

**HIGHLIGHTS AND RECOMMENDATIONS FROM 2020 ANNUAL REPORT**

**Pelican Bay Services Division Clam Bay Committee Meeting**  
**March 30, 2021**

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Dr. Dabees, Environmental Consultant with Humiston & Moore, commented on his 2020 Clam Pass Physical and Tidal Monitoring Report which had been provided to the committee and is posted on the County's PBSB webpage. Highlights of his comments included the following.

- A bathymetric survey was completed after December's maintenance project which cleared sections "A" and "B" and restored these sections back to design conditions. Section "C" contains some residual material.
- At the end of March, there is a slight narrowing of the inlet mouth.
- Conditions will continue to be monitored.
- There are significantly wide beaches on both sides of the inlet.
- No critical conditions are expected through the spring, and therefore, there is no need to perform another bathymetric survey in April/May. The next survey is recommended to be completed in 2021 after the tropical season, and just prior to the preparation of the annual report.

**2021 REPORTS: BIENNIAL BATHYMETRIC SURVEYS**

Ms. O'Brien suggested that a bathymetric survey of all Clam Pass sections be completed twice per year. Dr. Dabees commented that although the Clam Bay Management Plan provides for an annual survey, he would be in favor of biennial surveys which would provide more data. Ms. O'Brien suggested that we budget for two surveys in FY2022 at a cost of \$7,000 per survey.

Ms. O'Brien provided a document which included a table of total volume of sand for 2018/2019 Clam Pass maintenance dredging projects (which was added to the record) and suggested that a similar table be included in future annual reports. Dr. Dabees agreed.

**TIDAL RATIO RESULTS FOR FEBRUARY**

Dr. Dabees commented that tidal ratios for February were above .70 and he expects March tidal ratios to continue to be above .70.

**CLAM BAY**

**PROPOSAL FOR SCAEVOLA TREATMENT/REMOVAL**

Three options for scaevola treatment/removal with cost estimates were provided in the agenda packet. Mr. Sterk, Environmental Consultant with Earth Tech, recommended Option 3 which provides both the best methodology (materials are ground up in place) and least cost. He noted that a "tortoise agent" (FWC certified) must be onsite at all times during the project. This requirement may be fulfilled either by a FWC certified County employee or provided by the contractor. Mr. Sterk suggested that the project be timed so as to be least impactful to PB residents. He also noted that follow up maintenance work is critical.

Mr. Sterk commented that the cost estimate of \$100,000 for Option 3 is for 2 acres of designated scaevola areas, which is comprised of approximately 1.1 acres of NRPA areas and .9 acres of PBF property. Ms. Jacob and Mr. Sterk will review the Option 3 estimate and NRPA/PBF acreage percentages, and then explore PBF cost sharing for the project. Ms. O'Brien suggested that the committee had expected that the scaevola removal would be a multi-project. Mr. Sterk commented that although he would recommend completing the entire project in a single phase, a phased approach is also possible. Mr. Sterk also confirmed that replanting is a requirement.

Mr. Fogg questioned whether scaevola treatment/removal is required. Mr. Hall responded that the Clam Bay Management Plan states that exotic vegetation will be kept under control. He noted that scaevola currently has about five percent coverage in Clam Bay, and that if unchecked,

**Pelican Bay Services Division Clam Bay Committee Meeting**  
**March 30, 2021**

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it will spread and the removal cost will increase. Ms. O'Brien also noted that scaevola negatively affects the gopher tortoise habitat.

Ms. O'Brien suggested that when the project goes out to bid, we request quotes for the work using the Option 3 methodology and exclude work south of Clam Pass which is Clam Pass Park, the responsibility of another County division.

**DRAFT OF FY22 BUDGET**

Ms. O'Brien provided a draft FY22 Clam Bay budget in the agenda packet. She suggested that staff may need to tweak the estimated cost for scaevola removal and then include this project in the FY22 budget. Mr. Dorrill commented that he will check to determine whether the cost of the replanting (replacement of scaevola) would be eligible for TDC funding. If not, this expense would also need to be included in the FY22 budget.

**CANOE TRAIL MARKER 8 AND SIGNS NEEDING CLEANING**

Mr. Sterk commented that canoe trail marker 8 continues to be on the County's repair list. He also commented that he will work on canoe trail marker cleaning as part of his next project in Clam Bay.

**BEACH NOURISHMENT – UPDATE ON ENGINEERING WORK**

Mr. Dorrill commented that segments of the PB beaches were omitted from the County's RFQ for engineering work for the FY21 beach renourishment truck haul project, which would include the project design, preparation of plans, and estimation of quantities of sand needed. He noted that Deputy County Manager Dan Rodriguez is working with the Procurement Dept. and the Coastal Zone Management (CZM) Dept. to have the PB segments added to the RFQ for the County project.

Dr. Dabees commented that based on the County's 2021 beach width survey, he would recommend nourishment of sections R34.6 to R36.5 in the area of the North Beach facility. The County's renourishment project will end at R30.5 in the Vanderbilt Beach area. He recommended that it would be best to taper sand from the south end of the County project area down to the beginning of the PBSB project area at R34.6.

Mr. Fogg commented that from a budget perspective, we are estimating \$500,000 - \$1,000,000 for this project. However, if we have to include additional segments north of North Beach (area of taper), then the estimate may be \$1.5 - \$2 million. Ms. O'Brien noted that ultimately the PBSB Board will decide which sections to renourish.

**BOATER SAFETY SIGNAGE – UPDATE ON STATUS OF ORDINANCE**

Mr. Hall and Ms. Jacob commented that there is nothing new to report on boater safety signage in Clam Bay. Ms. O'Brien requested that staff requests a copy of the most recent CZM map of signs.

**ALGAE REMOVAL SKIMMER BOAT TEST**

Mr. Dorrill commented that we are in the process of testing a skimmer boat which mechanically skims algae off the surface of a lake. Ms. O'Brien suggested that this would be a topic for the Water Management Committee.

**NEXT MEETING**

**Pelican Bay Services Division Clam Bay Committee Meeting**  
**March 30, 2021**

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Ms. O'Brien commented that the next committee meeting would be scheduled for some time in May.

**ADJOURNMENT**

**The meeting was adjourned at 10:25 a.m.**

\_\_\_\_\_  
Susan O'Brien, Chairman

Minutes approved [ ] *as presented* OR [ ] *as amended* ON [ ] *date*



**REQUEST FOR QUOTATIONS FOR MULTIPLE PROJECTS UNDER  
CONTRACT #18-7459 "Exotic Vegetation Removal"**

**Date:** 5/26/2021

**From:** Lisa Jacob, Project Manager/  
239-438-5239, Mobile Telephone Number  
239-597-4502, Fax Number  
[Lisa.Jacob@colliercountyfl.gov](mailto:Lisa.Jacob@colliercountyfl.gov)

**To:** All Awarded Vendors on Contract #18-7459 – Exotic Vegetation Removal

**Subject:** Phase 1 Scaevola Eradication and Beach Dune Replantings

As provided in the referenced contract, the Pelican Bay Services Division (PBSD) is soliciting quotes for the referenced project.

Quote Due Date:	June 10, 2021 at 3:00 PM
Number of Days to Completion:	Tasks 1-3: 90 days Task 4: 365 days
Tasks and Specs:	Attached "Phase 1 Scaevola Eradication and Beach Dune Replantings" Specifications.

Your quotation response for this project is due no later than the date and time specified above. We will not accept any quotation responses later than the noted time and date. If your firm is unable to respond electronically, your quotation must be received in the office of the PBSD at the below referenced address no later than the time and date specified. We look forward to your participation in this request for information/quotation process.

\_\_\_\_\_  
Firm's Complete Legal Name

\_\_\_\_\_  
Telephone Number / Fax Number

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Date



## Phase 1 Scaevola Eradication and Beach Dune Replantings Specifications

### Purpose:

The purpose of this request for service is to eradicate Scaevola along the Pelican Bay beach. Due to the large project area, the project has been divided into three phases as indicated in the included maps. This request is for Phase 1 Scaevola eradication and beach dune replantings.

### Scope of Service:

#### Task 1

**Contractor shall determine the means and methods used to conduct one (1) exotic eradication event as indicated within the designated Phase 1 Scaevola Areas (NRPA) on the included map.** All vegetation will be cut and stump treated with an appropriate herbicide. All horticultural debris from this task must be removed from the beach dune native vegetation area and properly disposed. This task must be supervised by an FDACS licensed project manager with certifications for Natural Areas Pesticide Applicators and Aquatic Herbicide Applicators. When exotic vegetation is removed, but the base of the vegetation remains, the base shall be treated with a US EPA approved herbicide and a visual tracer dye shall be applied.

#### Assumptions

1. Haul route shall be designated from work area to beach ingress/egress location.
2. Staging area is within close proximity to ingress/egress location for dumpsters, trailers and work vehicle.
3. Approval of mechanical mulching within the beach dunes is approved by all local and state agencies. *\*Use of mechanical mulching for exotic eradication will be conducted under the supervision of a Gopher Tortoise Agent. Agent must be onsite during all mechanical mulching activities to ensure designated contractor adheres to best management practices to avoid impact to surrounding natural beach dune vegetation.*
4. **Contractor is responsible for preparing and obtaining required permit applications prior to starting work; PBSB will assist and pay for permit fees and submit applications for the following:**
  - a. Vehicle on Beach Permits (one for each piece of equipment)
  - b. CCSL Permit
  - c. \*Sea Turtle Permit (if performed during Sea Turtle Nesting Season)
5. \*Shorebird Monitoring required (if performed during Shorebird Monitoring Season)
6. Contractor will be provided with most recent Gopher Tortoise survey
7. Contractor shall coordinate with Project Manager to gain access to properties.
8. All work must be performed under the direct (on-site) supervision of a State licensed pesticide applicator. **EPA approved herbicides must be used! A visual tracer dye (i.e. blazon) should be used. Active ingredient Imazapyr is not permitted!** Extreme care should be taken to avoid impacts to surrounding dunes, mangrove systems, water bodies, and upland areas when performing work.
9. The Contractor must provide copies of all labels for the actual herbicides utilized on this project, prior to commencement of any work conducted within designated areas. The treatment area is subject to inspection following each removal event. **The Contractor will be responsible for maintaining daily treatment reports that correspond with GPS points, of specific treatment areas shown on an aerial map, target species, chemical used, quantities and application method.**
10. Areas utilized for mixing herbicide or filling backpack sprayers will follow best management practices to prevent spills and soil/water contamination. If a spill takes place, the Contractor will be responsible for remediation.
11. All personnel and mechanical equipment shall display the name of selected contractor.



## Phase 1 Scaevola Eradication and Beach Dune Replantings Specifications

### **Task 2 - Follow-up herbicide treatment**

30-45 days after the initial Scaevola eradication, the contractor will perform an herbicide treatment within the designated Phase 1 Scaevola Areas (see map). Any new growth of Scaevola will be cut and stump treated or foliar treated with a US EPA approved herbicide and a visual tracer dye. This task will be supervised by an FDACS licensed project manager with certifications for Natural Areas Pesticide Applicators and Aquatic Herbicide Applicators. This task will be performed prior to any supplemental beach dune plantings.

### **Task 3 - Supplemental beach dune plantings**

Contractor will supply and install plant material indicated below within the Phase 1 Scaevola Area (see map). Plants will be installed in clusters to mimic the natural surroundings. Average spacing for dune plantings will be 2FT centers. At the time of installation all plant material will be initially watered and supplemented with crystalized hydrogel. *It is estimated that approximately  $\pm 7,350$  units will be installed. Quantities are based on 85% coverage of 4" liners of sea oats, 5% coverage of 4" liners of dune sunflowers, 5% coverage of beach elder and 5% coverage of 4" liners of sea purslane.*

### **Task 4 – Year 1 on-going maintenance**

Contractor will perform four (4) quarterly herbicide treatments within the Phase 1 Scaevola Area (see map). This task will consist of selective cutting and spot treatments of new growth Scaevola or any other FLEPPC category I & II exotic vegetation. Maintenance events will be conducted in a manner to ensure that all newly planted vegetation is not damaged during these activities. This task will be supervised by an FDACS licensed project manager with certifications for Natural Areas Pesticide Applicators and Aquatic Herbicide Applicators.

### **Work Schedule**

1. **Exotic eradication event** is expected to be started within 14 days of approval of all necessary permits.
2. **Follow-up herbicide** treatment is expected to be started within 30-45 days of completion of Task 1.
3. **Supplemental Beach Dune Planting** is expected to start within 30 days of completion of Task 2.
4. **Year 1 on-going maintenance** is expected to start within 90 days following supplemental beach dune planting.

Phase 1 Scaevola Eradication and Beach Dune Replantings Specifications

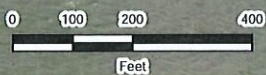
**Bid Schedule**

<b>Task</b>	<b>Description</b>	<b>Unit of Measure</b>	<b>Price</b>
1A	Eradication of Scaevola in Phase 1 (0.45 Ac; 19,657 sq ft)	Lump Sum	
1B	Eradication of Scaevola Mapping PBF NORTH (0.09 Ac; 3,920 sq ft)	Lump Sum	
2A	Follow up herbicide treatment of Scaevola in Phase 1 (0.45 Ac; 19,657 sq ft)	Lump Sum	
2B	Follow up herbicide treatment Scaevola Mapping PBF NORTH (0.09 Ac; 3,920 sq ft)	Lump Sum	
3A	Replanting of Phase 1 areas (0.45 Ac; 19,657 sq ft)	Lump Sum	
3B	Replanting of Scaevola Mapping PBF NORTH (0.09 Ac; 3,920 sq ft)	Lump Sum	
4A	Year one on-going maintenance (four quarterly herbicide treatments for Phase 1 areas (0.45 Ac; 19,657 sq ft)	Lump Sum	
4B	Year one on-going maintenance (four quarterly herbicide treatments for Scaevola Mapping PBF NORTH (0.09 Ac; 3,920 sq ft)	Lump Sum	
<b>TOTAL</b>			





Note:  
2021 Aerials obtained from  
Collier County Property Appraiser



- Phase 1
- Scaevola in Phase 1 (0.45 Ac; 19,657 sq. ft.)
- Scaevola Mapping PBF NORTH (0.09 Ac; 3,920 sq. ft.)

Pelican Bay Services Division  
Collier County, Florida



EARTH TECH ENVIRONMENTAL, LLC  
10600 JOLEA AVENUE  
BONITA SPRINGS, FLORIDA 34135  
PHONE (239) 304-0030 FAX (239) 324-0054  
www.eteflorida.com

2021 Scaevola Areas (NRPA)  
Phase I

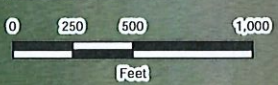
BHEET NO.	DATE	PROJECT NO.	SCALE
		N/A	AS SHOWN





- Clam Bay NRPA (±560 Ac)
- Scaevola in Phase 1 (0.45 Ac; 19,657 sq. ft.)
- Scaevola in Phase 2 (0.48 Ac; 21,011 sq. ft.)
- Scaevola in Phase 3 (0.17 Ac; 7,487 sq. ft.)
- Scaevola Mapping PBF NORTH (0.09 Ac; 3,920 sq. ft.)
- Scaevola Mapping PBF SOUTH (0.01 Ac; 440 sq. ft.)

Note:  
2021 Aerials obtained from  
Collier County Property Appraiser



Pelican Bay Services Division  
Collier County, Florida



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PHONE (239) 304-0030 FAX (239) 324-0054  
www.eteflorida.com

2021 Scaevola Areas (NRPA)  
By Phase

SHEET NO.	DATE	PROJECT NO.	SCALE
		N/A	AS SHOWN



### 8.2.1 Beach Naupaka (*Scaevola taccada*)

Based on mapping conducted in November 2020, approximately 1.11 acres of beach naupaka were identified along/within the dunes from Clam Pass to the Strand. Figure 18 details the areas identified. Beach naupaka is a Category I invasive exotic which has the ability to alter native plant communities, form dense monoculture areas, and create undesirable habitat for gopher tortoise. Management of beach naupaka is difficult as hand pulling can result in re-sprouting if not completely removed. Access for hauling away removed plant material is an added challenge. Maintenance for beach naupaka is tentatively planned for early 2021.



FIGURE 18. 2020 Scaevola Areas Map



Bid Schedule RFQ #18-7459  
Pelican Bay Drainage Easements & Clam Bay Exotic/Nuisance Vegetation Removal 2021

9/28/2020

Task	Description	Unit of measure	Quantity	Price
1.0	Quarterly Treatment Area - East of Berm (11.84 acres) Provide four (4) exotic/nuisance maintenance events (Nov 2020, Feb 2021, May 2021 and Aug 2021).	Lump Sum	1	14,400
2.0	Quarterly Maintenance Area - Bay Colony Beach Dune Swale (3.75 acres) Provide four (4) exotic/nuisance maintenance events (Nov 2020, Feb 2021, May 2021 and Aug 2021).	Lump Sum	1	4000
3.0	Quarterly Maintenance Areas - Bay Colony and Ritz (1.83 acres) Provide four (4) exotic/nuisance maintenance events (Nov 2020, Feb 2021, May 2021 and Aug 2021) with the exception of 0.84 acres area indicated in Task 13.0 whereby there is one initial heavy cleaning event and three maintenance events .	Lump Sum	1	5600
4.0	NRPA Exotic Treatment Area - Quarterly Exotic Maintenance (35.23 acres) Provide four (4) exotic/nuisance maintenance events (Nov 2020, Feb 2021, May 2021 and Aug 2021)	Lump Sum	1	36000
5.0	NRPA Exotic Treatment Area - Bi-Annual Exotic Maintenance (45.9 acres) Provide two (2) exotic/nuisance maintenance events (Nov 2020 and Aug 2021)	Lump Sum	1	38,200
6.0	NRPA Exotic Treatment Area - Initial Exotic Treatment Areas (5.21 acres) One (1) initial event in November 2020 and three (3) maintenance events in February 2021, May 2021, and August 2021.	Lump Sum	1	2400
7.0	Quarterly Maintenance Area - Clam Bay/Dune Swale Flow-way (0.21 acres) Provide four (4) exotic/nuisance maintenance events (Nov 2020, Feb 2021, May 2021 and Aug 2021)	Lump Sum	1	4000
8.0	Quarterly Maintenance Area - Marker 36 Swale (0.16 acres) Provide four (4) exotic/nuisance maintenance events (Nov 2020, Feb 2021, May 2021 and Aug 2021)	Lump Sum	1	1600
9.0	Quarterly Maintenance Area - Lake 2-9 Spillway at St. Thomas/Commons (0.05 acres) Provide four (4) exotic/nuisance maintenance events (Nov 2020, Feb 2021, May 2021 and Aug 2021)	Lump Sum	1	1000
10.0	Quarterly Maintenance Area - Dorchester Stormwater Pipes (0.01 acres) Provide four (4) exotic/nuisance maintenance events (Nov 2020, Feb 2021, May 2021 and Aug 2021)	Lump Sum	1	600
11.0	Quarterly Maintenance Area - Grosvenor/Dorchester Swale (0.06 acres) Provide four (4) exotic/nuisance maintenance events (Nov 2020, Feb 2021, May 2021 and Aug 2021)	Lump Sum	1	800
12.0	Quarterly Maintenance Area - Grosvenor Stormwater Pipes (0.01 acres) Provide four (4) exotic/nuisance maintenance events (Nov 2020, Feb 2021, May 2021 and Aug 2021)	Lump Sum	1	600
13.0	Ritz Carlton Debris Cleanup and Heavy Exotic/Nuisance Vegetation Removal (0.84 acres) - 1 initial event in November 2020; three (3) maintenance events in February 2021, May 2021, and August 2021 are already included in Task 3.0.	Lump Sum	1	6600
14.0	<b>TOTAL</b>			<b>\$ 115,800</b>

Aquagenix/DBI  
 Firm's Complete Legal Name  
239-561-1420 239-561-2883  
 Telephone Number / Fax Number  
[Signature]  
 Signature  
SALAS MANAGER  
 Title  
George Bowling 10-13-20  
 Print Name Date





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**Collier County Government  
Fiscal Year 2022 Requested Budget**

**Office of the County Manager**

**Pelican Bay Services Division**

Division Budgetary Cost Summary	2020 Actual	FY 2021 Adopted	FY 2021 Forecast	FY 2022 Current	FY 2022 Expanded	FY 2022 Requested	FY 2022 Change
Personal Services	1,923,808	2,110,800	2,075,700	2,154,500	-	2,154,500	2.1%
Operating Expense	2,235,365	2,861,200	2,370,300	2,559,200	-	2,559,200	(10.6)%
Indirect Cost Reimburs	129,300	131,400	131,400	145,900	-	145,900	11.0%
Capital Outlay	170,054	162,200	143,600	334,000	-	334,000	105.9%
<b>Net Operating Budget</b>	<b>4,458,527</b>	<b>5,265,600</b>	<b>4,721,000</b>	<b>5,193,600</b>	<b>-</b>	<b>5,193,600</b>	<b>(1.4)%</b>
Trans to Property Appraiser	101,359	97,100	97,100	97,000	-	97,000	(0.1)%
Trans to Tax Collector	84,791	145,600	145,600	147,700	-	147,700	1.4%
Trans to 301 Co Wide Cap Fd	-	-	-	5,900	-	5,900	na
Trans to 322 Pel Bay Irr and Land	-	2,061,800	2,061,800	440,000	-	440,000	(78.7)%
Trans to 408 Water/Sewer Fd	20,800	23,100	23,100	23,100	-	23,100	0.0%
Reserve for Contingencies	-	134,000	-	136,900	-	136,900	2.2%
Reserve for Capital	-	390,000	-	99,700	-	99,700	(74.4)%
Reserve for Disaster Relief	-	680,900	-	680,900	-	680,900	0.0%
Reserve for Cash Flow	-	523,300	-	511,900	-	511,900	(2.2)%
Reserve for Attrition	-	(31,600)	-	(43,900)	-	(43,900)	38.9%
<b>Total Budget</b>	<b>4,665,477</b>	<b>9,289,800</b>	<b>7,048,600</b>	<b>7,292,800</b>	<b>-</b>	<b>7,292,800</b>	<b>(21.5)%</b>

Appropriations by Program	2020 Actual	FY 2021 Adopted	FY 2021 Forecast	FY 2022 Current	FY 2022 Expanded	FY 2022 Requested	FY 2022 Change
Pelican Bay -- Clam Pass Ecosystem Enhancement (111)	133,672	150,000	85,000	150,000	-	150,000	0.0%
Pelican Bay Community Beautification (109)	3,021,149	3,431,500	3,136,500	3,447,400	-	3,447,400	0.5%
Pelican Bay Street Lighting (778)	273,418	397,000	274,800	456,600	-	456,600	15.0%
Pelican Bay Water Management (109)	1,030,287	1,287,100	1,224,700	1,139,600	-	1,139,600	(11.5)%
<b>Total Net Budget</b>	<b>4,458,527</b>	<b>5,265,600</b>	<b>4,721,000</b>	<b>5,193,600</b>	<b>-</b>	<b>5,193,600</b>	<b>(1.4)%</b>
<b>Total Transfers and Reserves</b>	<b>206,951</b>	<b>4,024,200</b>	<b>2,327,600</b>	<b>2,099,200</b>	<b>-</b>	<b>2,099,200</b>	<b>(47.8)%</b>
<b>Total Budget</b>	<b>4,665,477</b>	<b>9,289,800</b>	<b>7,048,600</b>	<b>7,292,800</b>	<b>-</b>	<b>7,292,800</b>	<b>(21.5)%</b>

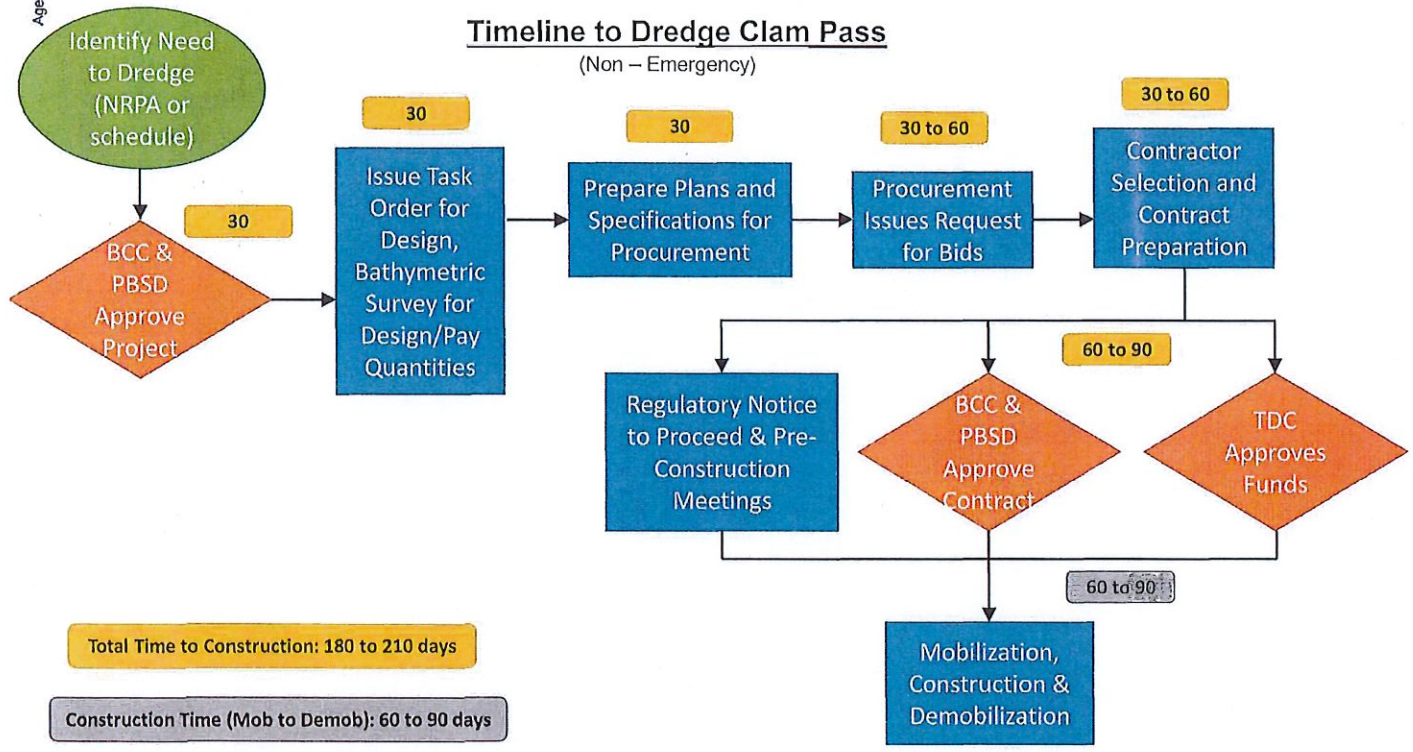
Division Funding Sources	2020 Actual	FY 2021 Adopted	FY 2021 Forecast	FY 2022 Current	FY 2022 Expanded	FY 2022 Requested	FY 2022 Change
Ad Valorem Taxes	581,769	656,400	630,100	669,400	-	669,400	2.0%
Delinquent Ad Valorem Taxes	3,732	-	-	-	-	-	na
Special Assessments	4,668,657	4,224,600	4,055,616	3,971,000	-	3,971,000	(6.0)%
Intergovernmental Revenues (881)	-	-	-	-	-	-	na
FEMA - Fed Emerg Mgt Agency	1,762	-	-	-	-	-	na
Miscellaneous Revenues	33,574	-	-	-	-	-	na
Interest/Misc	101,783	42,100	5,700	26,700	-	26,700	(36.6)%
Trans frm Property Appraiser	19,501	-	-	-	-	-	na
Trans frm Tax Collector	24,795	-	-	-	-	-	na
Net Cost Unincorp General Fund	133,672	150,000	85,000	150,000	-	150,000	0.0%
Trans frm 320 Clam Bay Cap Fd	36,980	34,100	34,100	34,100	-	34,100	0.0%
Carry Forward	3,973,600	4,428,800	4,913,400	2,675,300	-	2,675,300	(39.6)%
Less 5% Required By Law	-	(246,200)	-	(233,700)	-	(233,700)	(5.1)%
<b>Total Funding</b>	<b>9,578,864</b>	<b>9,289,800</b>	<b>9,723,916</b>	<b>7,292,800</b>	<b>-</b>	<b>7,292,800</b>	<b>(21.5)%</b>

Bathymetric survey results  
showing cubic yards of sand  
in sections A, B & C.

CUT TEMPLATE INFORMATION					2020-09-11		12/21/2020		1/5/2021			
	Easting	Northing	Azimuth	Effective Distance	Measured Volumetric Rate (CY/FT)	Total Volume (CY)	Measured Volumetric Rate (CY/FT)	Total Volume (CY)	Measured Volumetric Rate (CY/FT)	Total Volume (CY)		
Stn 1	-4+00	387,454.97	688,291.59	180	100.0	--	--	--	--	--		
	-3+00	387,564.95	688,292.28	180	100.0	2.2	224.8	--	--	--		
	-2+00	387,664.95	688,293.18	180	100.0	4.1	407.0	--	--	1.7	0.0	
	-1+00	387,764.95	688,294.08	180	150.0	4.2	626.1	--	--	1.9	0.0	
Section A	0+00	387,864.94	688,294.98	180	12.5	114.4	8.6	214.8	0.5	12.0		
	0+50	387,914.94	688,295.42	180	50.0	446.3	10.7	553.4	0.6	29.6		
	1+00	387,964.94	688,295.87	180	50.0	441.1	15.4	772.3	0.6	28.6		
	1+50	388,014.94	688,296.32	180	50.0	500.0	7.8	289.2	16.0	805.3	0.7	35.2
	2+00	388,064.94	688,296.77	180	50.0	349.9	10.9	541.6	0.4	22.2		
	2+50	388,114.94	688,297.22	180	50.0	349.9	6.5	324.1	0.1	5.6		
	3+00	388,164.94	688,297.67	180	40.0	44.0	8.1	223.1	1.0	26.5		
	3+50	388,194.94	688,297.94	180	32.3	174.9	9.2	287.4	1.3	41.8		
	3+64.5	388,229.44	688,298.25	180	42.3	223.3	9.2	388.1	1.4	59.5		
Section B	4+10	388,279.10	688,372.13	156	50.0	6.7	357.4	15.0	750.0	1.3	64.8	
	4+60	388,326.17	688,389.30	156	50.1	8.5	426.6	16.3	818.4	0.4	20.4	
	5+10	388,373.24	688,406.47	156	50.1	9.4	472.8	15.6	780.5	0.5	24.1	
	5+60	388,420.31	688,423.64	156	50.1	9.6	482.1	13.6	681.0	1.3	64.9	
	6+10	388,467.38	688,440.81	156	49.0	6.2	308.6	7.3	355.7	7.3	355.7	
	6+60	388,512.37	688,457.21	156	48.1	0.9	43.7	1.3	63.7	1.7	81.9	
	7+10	388,553.62	688,486.14	145	45.0	1.0	45.5	0.1	6.7	1.3	58.3	
Section C	7+50	388,548.38	688,525.38	82	44.8	0.2	9.8	--	--	2.7	121.1	
	8+00	388,541.78	688,574.94	82	50.0	4.7	233.9	--	--	5.6	279.6	
	8+50	388,535.14	688,624.50	82	50.0	7.1	356.7	--	--	8.0	401.9	
	9+00	388,528.52	688,674.06	82	50.0	7.7	386.5	--	--	7.8	390.7	
	9+50	388,521.91	688,723.62	82	50.0	13.6	678.7	--	--	5.9	294.4	
	10+00	388,515.29	688,773.18	82	34.5	1.2	42.0	--	--	1.3	44.8	
	10+19	388,512.75	688,792.09	140	25.0	0.6	15.6	--	--	0.8	20.4	
	10+50	388,506.63	688,811.79	140	40.5	4.4	176.5	--	--	4.6	185.9	
	11+00	388,575.19	688,845.61	140	50.0	1.1	54.6	--	--	6.1	302.7	
	11+50	388,613.75	688,875.44	140	50.0	1.3	64.4	--	--	1.8	90.7	
	12+00	388,652.32	688,907.26	140	101.0	4.9	495.6	--	--	7.5	755.6	
	16+00	388,736.07	688,848.63	240	25.0	0.7	17.6	--	--	8.6	215.7	
	16+50	388,760.89	688,805.22	240	50.0	9.3	465.6	--	--	10.0	500.0	
17+00	388,785.72	688,761.82	240	25	5.7	141.4	--	--	4.9	123.1		
Section A						2,061		4,098		262		
Section B						2,113		3,465		670		
Section C						3,139		--		3,728		
Totals						7,313				4,660		

Agenda Item 5f 1

### Timeline to Dredge Clam Pass (Non – Emergency)



**FY21- December 2020**

TSI Disaster Recovery \$143,926 Fund 195

Humiston & Moore \$24,759 Fund 195

Earth Tech Environmental \$9701 Fund 195

Collier County VOB Permits \$2829.48 Fund 111

City of Naples ROW Permit \$150 Fund 111

Home Depot \$332.66 Fund 111

Home Depot \$75.96 Fund 109

PBF Reimbursed Fund 195 \$50,700 for sand placement on South Beach

**TDC funds \$178,386**

**PBSD funds \$3,388**

**FY20-April 2020**

Collier County Permits \$774 Fund 109, \$516 Fund 111

Home Depot \$151.68 Fund 111, \$176.37 Fund 320

City of Naples Permit \$150 Fund 109

Humiston & Moore \$9160 Fund 320

United Rentals \$11,573.18 Fund 111, \$4967.69 Fund 320

Earth Tech \$9022.14 Fund 320

**PBSD funds 36,491**



# DRAFT

## Water Quality in Clam Bay

The 2020 annual report on water quality in Clam Bay included several encouraging results and one important recommendation for all Pelican Bay members.

- For the third consecutive year Clam Bay is in compliance for copper based on Florida's standards for Class 2 waterways. One hundred of 108 water samples collected and analyzed met or exceeded state standards in 2020. Prior to 2018 Clam Bay was out of compliance with Florida standards for copper. Credit for reducing the amount of copper in Clam Bay goes to all Pelican Bay residents and their vendors who stopped using copper sulfate in water management ponds in Pelican Bay, beginning in 2013.
- All total nitrogen results (108 of 108 samples) were in compliance with Florida Department of Environmental Protection (FDEP) standards.
- The percentage of total phosphorus (TP) results out of compliance with FDEP standards was 24%. This is significantly lower than the 85% of TP samples out of compliance in 2019 and 67% of TP samples out of compliance in 2018. The debris caused by Hurricane Irma in 2017 contributed to the spike in total phosphorus. Reducing total phosphorus in Clam Bay is a top priority.
- The report suggests that Pelican Bay members and their vendors can help reduce phosphorus levels in Clam Bay by reducing the amount of fertilizer used. The reclaimed water used for irrigation in Pelican Bay contains high levels of nitrogen and phosphorus, making additional fertilization in many cases unnecessary. Homeowners and associations are encouraged to make certain that their landscaping vendors are following all County regulations regarding fertilizer use. This information is available at \_\_\_\_\_.

The Pelican Bay Services Division (PBSD) is responsible for monitoring water quality in Clam Bay. There are nine sampling sites in Clam Bay, and samples are collected monthly, analyzed, and reported by the Collier County Pollution Control Department. The 2020 Annual Clam Bay Water Quality Report was coordinated by Tim Hall of Turrell, Hall and Associates and written by scientists at Environmental Science Associates in Tampa, Florida. A copy of the report is available at \_\_\_\_\_.

Please contact \_\_\_\_\_ with questions or for additional information.

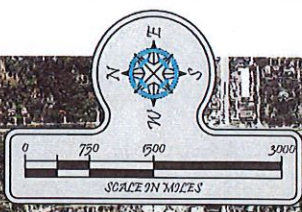
Submitted by Denise McLaughlin, Susan O'Brien, Mike Rodburg, and Rick Swider, members of PBSD's Clam Bay Committee.

(Deadline for articles for the July PB Post is June 8, 2021.)



Photo Cam by C/ZM/SH/ET/MA/NT/EE/S/ONS/OT/1/ MANATEE SIGNS/0/9 MANATEE SIGNS 4/12/20/1 RAND/JONES

MANATEE SIGN LEGEND	
NUMBER	SIGN
①	IDLE SPEED / NO WAKE WITHIN 500' OF LAUNCH
②	SLOW SPEED / MINIMUM WAKE
③	IDLE SPEED / NO WAKE
④	IDLE SPEED / NO WAKE
⑤	SLOW SPEED / MINIMUM WAKE OR INFORMATION SIGN



Putting signs 2, 3, & 4 on the three bridges near where these signs are shown and putting signs 1 & 5 in the locations shown appeared to be agreeable to PBS&D & CZM representatives at the meeting on Oct 20, 2020.

**Turrell, Hall & Associates, Inc.**  
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# CLAM BAY

## SPEED ZONES AND SIGNAGE LOCATIONS

DESIGNED BY:	TH	DATE:	DATE:	DATE:	DATE:
DRAWN BY:	RMJ	2.	-	-	-
CREATED:	02-13-14	3.	-	-	-
JOB NO.:	9868	4.	-	-	-
SHEET NO.:	02	5.	-	-	-

SECTION-08/09 TOWNSHIP-49S RANGE-25E