



TOWN OF PALM BEACH

Town Manager's Office

MINUTES OF THE SHORE PROTECTION BOARD MEETING HELD ON THURSDAY, JANUARY 24, 2019

I. **CALL TO ORDER**

The Shore Protection Board meeting was called to order on Thursday, January 24, 2019, at 9:03 a.m. in the Town Council Chambers.

II. **ROLL CALL**

On roll call, all of the board members and alternate board members were present with the exception of Lewis Katz, Vice-Chair, who had an excused absence.

III. **PLEDGE OF ALLEGIANCE**

Chair Ecclestone led the Pledge of Allegiance.

IV. **APPROVAL OF AGENDA**

Communications from Citizens, Item No. X., was moved to the end of the agenda so that presentations from consultants could be heard as soon as possible.

Motion was made by Board Member Baker to approve agenda, and was seconded by Board Member Kinzelberg. The motion carried unanimously.

V. **SWEARING IN OF APPOINTED MEMBERS**

Swearing in of appointed members was conducted prior to meeting by Pat Gayle-Gordon, Deputy Town Clerk.

VI. **ELECTION OF CHAIR FOR 2019 SHORE PROTECTION BOARD**

Chair Ecclestone was nominated by Board Member Kinzelberg as Chair for 2019, seconded by Board Member Jacoby. No other nominations were seconded. Chair Ecclestone was re-elected as Shore Protection Board Chair for 2019.

VII. **ELECTION OF VICE-CHAIR FOR 2019 SHORE PROTECTION BOARD**

Chair Ecclestone passed the gavel to Board Member Johnson, in Vice-Chair Katz' absence, and nominated Board Member Kinzelberg for Vice-Chair. The motion was not seconded.

Board Member Johnson returned the gavel to Chair Ecclestone and nominated Vice-Chair Katz as Vice-

1 Chair for 2019, seconded by Board Member Gavigan. Vice-Chair Katz was re-elected as Shore
2 Protection Board Vice-Chair for 2019.

3
4 **VIII. APPROVAL OF THE MINUTES OF THE NOVEMBER 29, 2018 MEETING**

5
6 Chair Ecclestone called a vote to approve the November 29, 2018 minutes with one noted change
7 to remove "alternate" in front of a reference to Board Member Baker. The vote carried
8 unanimously.

9
10 **IX. COMMUNICATIONS FROM SHORE PROTECTION BOARD MEMBERS**

11
12 Alternate Board Member Lorentzen thanked Applied Technology Management (ATM) and Woods
13 Hole Group (WHG) for great presentations. Lorentzen read in ATM's study that there is 131 cubic yards
14 per year that would be placed on an average annual basis to maintain the current volume of sand from
15 the Town's boundaries. Mr. Lorentzen would like to know what that cost currently is and what it might
16 be in the future and maybe staff could present to the Shore Protection Board. Director of Public Works
17 Brazil replied that staff does not have a cost, as the program has elements in it, but the average is \$10
18 million a year. Director Brazil added that there is a lot more in there than just sand.

19
20 Alternate Board Member Jacoby and Board Member Kinzelberg thanked ATM and WHG for their
21 presentations.

22
23 Board Member Johnson indicated that he is looking forward to the workshop and would like the Board
24 to know more about the groins. Board Member Ceriale added she is also looking forward to the
25 workshop.

26
27 Board Member Baker thanked WHG for their research. The Shore Protection Board needs to identify
28 what to do as a solution, what's next.

29
30 Alternate Board Member Jacoby asked that the Shore Protection Board have a copy WHG study when
31 finalized.

32
33 **X. COMMUNICATIONS FROM CITIZENS - 3 MINUTE LIMIT PLEASE**

34
35 Tom Warnke, Surfrider Foundation, indicated he was happy to be a part of the process as a volunteer
36 and has perspective and impressions to share with the Shore Protection Board and comments to The
37 Breakers and Clarke Beach Project. Mr. Warnke shared that 22 years ago he was the Florida founder of
38 the 1st chapter of the Surf Rider Foundation in Palm Beach County, now there are 12 chapters in the
39 State. In 1996 when breakwaters at Ocean Reef Park were proposed, after the Foundation's input, the
40 State decided not to construct the offshore breakwaters. About 10 years ago, the Reach 8 challenge
41 resulted in the Foundation preventing the use of very poor quality of material throughout the Reach 8
42 area, but it cost the Town \$3 million in court costs. Since then, all parties are at the table in advance,
43 including the Foundation's participation in the Beach Management Agreement adoption. Recently, a
44 few years ago, Palm Beach County proposed breakwaters at the north end of Singer Island. The
45 Foundation challenged the plan and Palm Beach County decided to say "no" to large offshore
46 breakwaters. The Foundation has not changed their opposition to large offshore breakwaters. As far as
47 The Breakers/Clarke Beach is concerned, the Foundation is participating at each step as significant stake
48 holders. The process is an open process with direct input and involvement in person, including DEP
49 decision maker, Bob Bradley. The Foundation was expecting by now that the modeling would have
50 been completed. Mike Jenkins at ATM is not to be blamed for the length of time this has taken. The
51 DEP Technical Advisory Committee are all very high quality engineers, include Bob Bradley, and they
52 have introduced alternatives that were already taken off the table including large expensive breakwaters.
53 The Foundation opposes those. The most effective permittable alternatives for The Breakers/Clarke

1 Beach area include moving The Breakers rock piles over 50 feet to the east and adding groins at Estee
2 Lauder and 600 feet south, which connects up to Mid-Town and that is one of the primary plans and
3 makes sense. Whether a project gets permitted is challenged in court. Large offshore breakwaters should
4 be off the table.

5
6 Diane Buhler, Friends of Palm Beach, shared that over 30,000 pounds of trash was removed in 2018,
7 washing in mostly foreign household waste and mostly plastic. As of today they are out there collecting
8 40-150 pounds per day.
9

10 **XI. CURRENT SHORELINE CONDITIONS**

11 [Robert Weber, Coastal Program Manager]

12
13 Coastal Program Manager Weber provided a presentation of the shoreline from two (2) days prior to the
14 Shore Protection Board meeting.
15

16 **XII. 2018 TOWNWIDE SEDIMENT BUDGET REVIEW AND EROSION RATES DISCUSSION**

17 **[Item heard following Item No. XIV.]**

18 [Robert Weber, Coastal Program Manager, and Michael Jenkins, Ph.D., P.E., Coastal Engineering
19 Principal, Applied Technology & Management, Inc.]
20

21 Coastal Program Manager Weber explained that the Town has produced a Sediment Budget Report
22 since 2007 as a planning tool. Applied Technology & Management's (ATM) presentation is a look at
23 where the sand is moving through the system during the past year. The Sediment Budget is now a
24 requirement with the Beach Management Agreement.
25

26 Michael Jenkins of ATM presented a summary of the 2018 Sediment Budget.
27

28 Board Member Johnson asked that last year 2 million cubic yards were lost, does it come back into the
29 system or is it gone. Dr. Jenkins replied some of it does return but some of it gets transported to the
30 south and it is not to be seen again in the original placed location. Alternate Board Member Lorentzen
31 asked about the limits of the surveys. Dr. Jenkins replied that they survey out to the engineering Depth
32 of Closure of approximately -26 feet.
33

34 **XIII. THE BREAKERS/CLARKE AVENUE/MID-TOWN TECHNICAL ADVISORY**
35 **COMMITTEE RESULTS**

36 [Michael Jenkins, Ph.D., P.E., Coastal Engineering Principal, Applied Technology & Management,
37 Inc.]
38

39 Michael Jenkins of ATM presented an update of the work performed by the Technical Advisory
40 Committee (TAC).
41

42 Board Member Kinzelberg inquired that The Breakers seems to have a huge beach, and seems to have
43 renourished itself, how does that happen and what conditions created that, and how can we trap those
44 conditions in a new system. Director of Public Works Brazil replied that when the Mid-Town sand first
45 eroded, it went offshore and south as the storm pushed it. The sand came right back up on the beach.
46 Director Brazil said that the Town had hoped to be able to build the solution when the next round of
47 sand is placed. However, the next round of sand got accelerated because of federal participation and
48 there is a deadline. Director Brazil continued that, this time next year, they will be placing sand and the
49 Town may not have a permit to get the structures constructed at the same time as getting the sand.
50

51 Board Member Ceriale shared when the last time there was a sand nourishment, the sand was gone
52 within 9 months, placing the sand and then doing groins afterwards, indicating the beach might not be
53 lucky enough to hold the sand. Director Brazil replied that things were working against us the last time,

1 it was very long since last nourishment and there was nothing to hold it there, there was bad weather
2 after placing the sand and it may not work out well unless the Town has a normal year.
3

4 Alternate Board Member Jacoby asked was a discussion of existing groins at The Breakers being
5 modified, is that still the plan. Director Brazil said there is no definitive answer, it is being worked on.
6 Dr. Jenkins said that there are alternatives being considered that includes both modifying existing
7 structures and adding new structures.
8

9 Board Member Gavigan asked what the best time to add sand again is and what date is being aimed to
10 get the sand in at Mid-Town. Director Brazil replied that the schedule for Mid-Town sand placement is
11 fixed because the U.S. Army Corps of Engineers has a deadline.
12

13 Board Member Ceriale asked if it were to stop right now, can something be implemented through
14 permitting to get things in a position before placing sand. Director Brazil replied that giving the fact that
15 the FDEP is the permitting agency, if a permit application is submitted, the engineers at FDEP would
16 probably make the Town go through the TAC. Ceriale inquired as to what is the next step going through
17 the TAC, at least enough to get FDEP buy-in, and is it possible to discuss scope creep. Director Brazil
18 said that Town staff is trying to get a handle of the scope and trying to do things concurrently so that
19 once the validation and the buy-in occurs, the Town is best prepared to implement.
20

21 Board Member Baker asked what is the current situation between The Breakers and Clarke Avenue.
22 Dr. Jenkins responded that there is a beach there and it looks good but it is not a permit situation. Long
23 term, the dune has been expanding on Clarke Avenue. Dr. Jenkins shared that the dune is in good shape.
24 Baker said that sand pumping is the most important thing, whether the structures are removed or to add
25 them, it is important to placing. Dr. Jenkins responded that the Town's program starts with sand,
26 structures do not make sand, they redistribute sand. The sand needs to balance first and then structures
27 are strategic tools to redistribute the sand as necessary.
28

29 Alternate Board Member Lorentzen asked if the deadline is April 2020 for federal funding for
30 renourishment. Coastal Program Manager Weber responded that the U.S. Army Corps of Engineers has
31 a mandate to have all their construction projects included within the U.S. Congress Supplemental Bill
32 completed by August 2020. Therefore, the Town needs to be completed by May 1, 2020 as that is when
33 turtle nesting begins statewide.
34

35 Lorentzen also inquired if the Corps wants the sand to stay where they plan to place it, would they work
36 with the Town and grant an extension. Coastal Manager Weber replied that the design features are being
37 worked on now as well as a long term agreement. No such extension will be granted.
38

39 **XIV. PRESENTATION OF COASTAL VULNERABILITY STUDY [9:15 a.m. TIME CERTAIN]**
40 [Robert P. Hamilton, President, Woods Hall Group, Inc.]
41

42 Coastal Program Manager Weber shared that Woods Hall Group (WHG) has been performing work for
43 the Town of Palm Beach since the 1990's. Recently, WHG performed the long-term planning peer
44 review for this current Town Council adopted 10-year plan. An item included in the 10-year plan is to
45 conduct a Coastal Vulnerability Assessment which was recommended by the Shore Protection Board
46 and approved by Town Council. WHG will present their results and solicit input from both the public
47 and the Shore Protection Board. WHG will compile their report in the month of February and provide
48 that information to the Town.
49

50 Coastal Manager Weber introduced Robert Hamilton and Kirk Bosma of WHG who then presented to
51 the Shore Protection Board.
52
53

1 Chair Ecclestone inquired if the work is based on potential hurricanes. WHG responded, not necessarily,
2 but based on things that have happened, the work included a suite of storms including tropical cyclones.
3 Ecclestone asked how far back does WHG go with storms that hit Palm Beach and what is the history.
4 WHG replied that they go back to 1920's when data is available and include any weather maps that
5 exist. Ecclestone asked how important rain is. WHG responded that rain is important but is not based in
6 this model, it's a coastal based model looking at surface water, which does not include rain.
7

8 Board Member Melissa Ceriale thanked WHG for a detailed and comprehensive report for the Town.
9 Ceriale thanked staff for enabling and pushing forward and indicated the Shore Protection Board now
10 has a roadmap to look at and to project forward to make some conversation as an advisory board for
11 Town Council for possible steps to take to secure the Town in the future. Ceriale indicated that there
12 was a lot of information and a lot to discuss.
13

14 Board Member Kinzelberg inquired, since the flooding models show most of the flooding coming from
15 the Lake Worth Lagoon on the west side of the island, have there been models to block the inlet if storms
16 are coming from the east. WHG replied not in Palm Beach. They are looking at existing conditions but
17 it can be added to the model. Kinzelberg continued that since the Town is renovating the Town docks,
18 does the model suggest to the Town how to construct new docks in the area and structures around the
19 docks and along the park to reduce potential flooding. WHG indicated not at this point, it is information
20 that can be brought in for an implementation plan. Director Brazil replied what is going to be presented
21 to Town Council is a floating docks system which will adjust itself, confined budget gets docks in place
22 first in order to get some revenue and to replace the seawall at a later date.
23

24 Board Member Johnson complimented WHG on their analysis. Johnson asked, within the list of assets,
25 if WHG is going to consider what effects the storms will have on the undergrounding electrical system
26 once it is completed. Director Brazil replied that undergrounding is not in assets provided to WHG, it
27 is still in the building phase so there was not much undergrounding information two (2) years ago when
28 WHG was designing the model. Director Brazil added that if the island was to flood, FPL would shut
29 down their system. When water recedes, FPL would turn the system back on. Transformers are being
30 put in at proper elevations. Engineers are looking at the vulnerability of the electrical systems as they
31 are being put in. The above grade transformers and switches are the structures that would be vulnerable
32 due to flooding. Johnson asked if WHG had experience with insurance companies using similar model
33 results for flooding. WHG has had conversations with insurance companies, but they have not shown
34 much interest as they can only do insurance on what has happened.
35

36 Alternate Board Member Lorentzen had a question regarding drainage, is it an issue to drain the island
37 after an event, does the report have any suggestions for drainage locations and places for filling in spots,
38 and does it block some of the drainage. WHG replied that drainage is something to consider as keeping
39 water out also may cause water to stay in. The model has the capability to stop water coming in and also
40 where it may go out and recede. The models do not have a drainage network. The model does not have
41 pumps in it. Lorentzen indicated it would be a good idea to identify places with pump stations with
42 alternative energy source that can be stationed as it is important to keep the water out. Director Brazil
43 indicated that does exist, and there is an extensive drainage system.
44

45 Alternate Board Member Belmar thanked WHG for their presentation. Belmar indicated that Town
46 Council can make their decisions based on the information provided by WHG. Belmar added that the
47 greatest vulnerability from the probability table presented is the sewer system dangers, does the
48 vulnerability assessment include drinking water, as there was no reference to drinking water. WHG
49 explained that example assets were included in the presentation but there are thousands of assets that
50 were included in the assessment. Director Brazil informed that the City of West Palm Beach owns the
51 drinking water system and there are only two (2) re-pump facilities on the island, the vulnerability would
52 be at the City's water plant and there hasn't been a problem during storm events. Belmar thought there
53 was a concern for aging of the underground drinking water system, does that need to be looked at.

1 Director Brazil replied that it is a closed system. Belmar questioned what input would WHG have to
2 finalize the long term program. Director Brazil suggested that staff put together a long term program to
3 put in the Shore Protection Board budget.
4

5 Board Member Ceriale inquired if there are any impacts on West Palm Beach's side of the bridges
6 within the study. WHG replied that bridges are in the model.
7

8 **XV. COASTAL PROJECTS UPDATE**

9 [Robert Weber, Coastal Program Manager]

10
11 Coastal Program Manager Robert Weber shared that the presentation today from Michael Jenkins,
12 Applied Technology & Management, Inc., will also be presented for the Annual Beach Management
13 Agreement Meeting to be held in Town Council Chambers on February 28, 2019 at 10:00 a.m.
14

15 Weber shared that the project has been deferred until the end of the calendar year due to surveys
16 conducted by the U.S. Army Corps of Engineers indicating that navigation is not a present concern.
17 Sand Forepassing will also be deferred.
18

19 Weber said that both the Mid-Town and Phipps projects area on schedule for a November 1, 2019
20 through May 1, 2020 construction window.
21

22 Weber relayed that a dune planting effort was to be considered by Town Council at the February 14,
23 2019 meeting. The plantings, if approved, would be in place prior to March 1, 2019.
24

25 Weber shared that before the holidays, the U.S. Army Corps of Engineers (Corps) received comments
26 from the U.S. Fish and Wildlife Service. The only comments the Corps has left to receive is from the
27 National Marine and Fisheries Service (NMFS). The NMFS is currently shut down, once they are back
28 up and running, the Town expects action to be taken. An expectation of the Record of Decision is likely
29 sometime in April.
30

31 Weber said that the federal permit was received by the Town on December 6, 2018 and is waiting for
32 additional community input.
33

34 Board Member Ceriale asked that with the permit in hand and in anticipation what the TAC will be
35 proposing to the Shore Protection Board, is there rehabilitation work that can start so when the sand is
36 placed, there is not a reduced potential for loss. Coastal Manager Weber indicated yes, however a lot of
37 coordination needs to occur with the private properties.
38

39 Board Member Ceriale said the Town has the permit for groin rehabilitation, now there is a need to fund
40 it and decide the timing. Ceriale said the groin rehabilitation is a key element in holding the sand once
41 the Town puts sand on the beach. Director Brazil replied that the new groins are not designed to do
42 anything more than the exiting groins today. The Shore Protection Board can make recommendation to
43 the Town Council to make the decision now about funding and proceed with groin program. Staff is to
44 reintroduce the groin program with Town Council during the budget process. Director Brazil added that
45 money in the program today is not sufficient to start the work.
46

47 Board Member Ceriale continued that if we were able to move forward with groin rehabilitation, will
48 this in fact assist the maintenance of the new sand placed. Director Brazil responded that the result is
49 relatively small and that the Town can rehabilitate the existing Mid-Town groins as sand moves north
50 to south. Ceriale asked what the cost/benefit ratio is. Director Brazil replied that it is hard to give an
51 accurate cost. Ceriale said she would hate to see the Town go through the cost, expense, and interruption
52 of doing the sand project and not have in place what is needed to go forward.
53

1 Board Member Baker said that at Reach 2 and 6 there is no point removing or adding groins as the need
2 is to focus on a closer view of which groins are needed and which aren't. If the Town is spending money
3 on groins, they need to be in places where they are needed. Director Brazil said that the groins cannot
4 do anything more than what they do now. If nothing is done, they are going to continue to deteriorate
5 and will not do what they are supposed to be doing.
6

7 Board Member Gavigan asked does the permit define which groins that have to be rehabilitated. Director
8 Brazil replied yes.
9

10 Alternate Board Member Belmar said it is in the budget process, we were authorized to seek a permit,
11 what was full scope of the authorization that Town Council gave to start this whole process. Is it whether
12 or when to go forward or new approval to start process all over again now that we have permit. Director
13 Brazil replied that the direction from Town Council was for staff to get the permit. This was done.
14 Belmar continued that the Town never approved the groin project as principle as an adopted resolution
15 and appropriated money for it anyway.
16

17 Board Member Baker said he is not in favor of pulling out groins.
18

19 Board Member Gavigan said there is a study that was done defined which groins will be modified and
20 which will not be touched. Director Brazil replied that engineering has been done and have permits to
21 do it, are we going to do work on private properties. If so, what is the funding, the total cost, and does
22 the Town want to pay the bill. The engineering is done and paid for. We are down to whether or not the
23 Town is going to do it.
24

25 Board Member Ceriale asked we have groins that were permitted, now the question is to recommend to
26 Town Council to move forward, are we recommending that we are doing every single one of the groins
27 or what is important for the system to work, not every groin in Town.
28

29 Board Member Kinzelberg said they are dangerous. Board Member Baker said it is private property it
30 is not the Town's job.
31

32 Alternate Board Member Belmar asked, the question is if the Town is liable if on private property. Board
33 Member Baker responded that he believes homeowners should be liable. Belmar said Town Council has
34 to take into consideration these issues.
35

36 Chair Ecclestone replied to send it to the Town Council and the Shore Protection Board would like to
37 proceed with it, and have a conversation with the Town Council and tell Shore Protection Board what
38 they want.
39

40 Belmar said the Town Council should have a legal opinion on the scope of the permit.
41

42 Board Member Kinzelberg asked Coastal Manager Weber, do you have a plan that shows the
43 optimization on the king pile groins that are going in that are significantly less than the current number
44 of eroded groins that are out there now, which ones get removed. Weber responded that there was an
45 implementation plan put together by CB&I, 75 of the groins needed action to some degree, 34 would
46 be removed, and 41 of those groins would be removed and replaced. Prioritization was changed to be
47 reflective of the Mid-Town area first to address concerns for how long the nourishment project lasts.
48

49 **Motion was made by Board Member Johnson for the Shore Protection Board to urge Town**
50 **Council to take action to implement and fund the Groin Rehabilitation Program. The motion was**
51 **seconded by Board Member Baker. The motion carried unanimously.**
52
53

1 Coastal Program Manager Weber explained the GANTT chart that was provided in the backup and
2 asked if there was any input on the periodic delivery of this document to Board Members between Shore
3 Protection Board meetings. No comments from the Shore Protection Board were provided. No
4 discussion occurred.
5

6 **XVI. SCHEDULING OF NEXT SHORE PROTECTION BOARD MEETINGS [Item heard prior to**
7 **Item No. XIV.]**

8 [H. Paul Brazil, P.E., Director of Public Works]
9

- 10 • SHORE PROTECTION BOARD Workshop, March 21, 2019 will be an open conversation
11 with staff providing some historical information.
- 12 • Regular SHORE PROTECTION BOARD Meeting, April 25, 2019
13 ○ FY 2020 Coastal Management Program Budget
14

15 Chair Eccelstone inquired if Bob Hamilton will attend the workshop. Director Brazil indicated that
16 could be done if necessary.
17

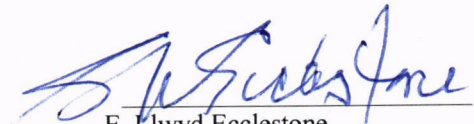
18 Alternate Board Member Belmar suggested scheduling a meeting on the day of the workshop, March
19 21, 2019, and not wait until April as presentation to Town Council will be before April. Chair Eccelstone
20 indicated that the board would adhere to the schedule as planned.
21

22 **XVII. ANY OTHER MATTERS**

23
24 **XVIII. ADJOURNMENT**
25

26 **There being no further business, the Shore Protection Board of January 24, 2019, was adjourned**
27 **at 12:35 p.m.**
28

29
30 APPROVED:

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41

E. Elwyd Eccelstone
Chairman

Meeting audio is located at:
<https://www.townofpalmbeach.com/853/Meeting-Audio>