

1 **REPORT OF THE SHORE PROTECTION BOARD**
2 **HELD ON THURSDAY, JANUARY 24, 2013**
3

4
5 I. **CALL TO ORDER**

6 The meeting of the Shore Protection Board was called to order on Thursday, January 24,
7 2013, at 9:03 a.m. in Town Council Chambers.

8
9 II. **ROLL CALL**

10 The following members were present: Chairman E. Llwyd Ecclestone, Mr. Kane Baker,
11 Mr. Pat Cooper, Mr. Gerald Frank, Mr. Lewis Katz, Mr. Lee David Goldstein, and Mr.
12 Richard Raffo.

13
14 III. **PLEDGE OF ALLEGIANCE**

15 Chairman Ecclestone led the Pledge of Allegiance.

16
17 IV. **APPROVAL OF AGENDA**

18 **Motion to approve the agenda was made by Board Member Frank, seconded by**
19 **Board Member Goldstein, and unanimously approved.**

20
21 V. **SWEARING IN OF NEWLY APPOINTED AND RE-APPOINTED MEMBERS**

22 Mrs. Boyles administered the Oath of Office to returning Shore Protection Board
23 Members Kane Baker and J. Patterson Cooper and newly appointed Board Member
24 Richard Raffo.

25
26 VI. **ELECTION OF CHAIR FOR THE 2013 SHORE PROTECTION BOARD**

27 **Mr. Goldstein nominated Mr. Ecclestone to remain as Chair of the Shore Protection**
28 **Board. The motion was seconded by Mr. Cooper. The motion was approved**
29 **unanimously.**

30
31 VII. **ELECTION OF VICE-CHAIR FOR THE 2013 SHORE PROTECTION BOARD**

32 **Mr. Raffo nominated Mr. Cooper as Vice Chair of the Shore Protection Board. The**
33 **motion was seconded by Mr. Goldstein.**

34 **Mr. Katz nominated Mr. Goldstein as Vice Chair of the Shore Protection Board.**

35
36 Mr. Goldstein declined the nomination.

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The motion to approve Mr. Cooper as Vice Chair of the Shore Protection Board was approved unanimously.

VIII. APPROVAL OF THE MINUTES OF THE OCTOBER 25, 2012, MEETING

Motion to approve the minutes of the October 25, 2012, meeting was made by Mr. Cooper, seconded by Mr. Frank, and approved unanimously.

IX. COMMUNICATIONS FROM SHORE PROTECTION BOARD MEMBERS

Mr. Frank stated he would like to add to the agenda a discussion or information in regard to the U.S. Army Corps of Engineers (Corps) dredging of the Inlet.

Mr. Goldstein left the meeting.

Mr. Cooper said that he would like a re-discussion of the groin reports issued by Isiminger and Stubbs Engineering and by Coastal Technology. He explained that there are groins that, in his opinion, are dangerous and should be addressed. He suggested the Board members reacquaint themselves with the reports. Town Manager Peter Elwell recommended the Board revisit the groin issue and any other issues they would like to review at the March Shore Protection Board meeting after Woods Hole had submitted its report. He reported that the deadline to receive the Woods Hole report was February 28. He reminded the Board members that Woods Hole was retained by the Town Council and the report would first be considered by the Council.

In response to a question from Mr. Cooper, Mr. Rob Weber, Coastal Coordinator, stated that the Woods Hole report was expected to discuss the scheduling of projects and the priorities would be included in the scheduling.

Mr. Baker spoke about the conditions at the beaches after Hurricane Sandy saying that some beaches had rejuvenated themselves and maintained very good, high quality sand.

Mr. Goldstein returned to the meeting.

Mr. Katz said that the Woods Hole report would not be received until February 28, the start of turtle season was March 1 and hurricane season begins June 1. He expressed concern with the need to prepare for the next hurricane season considering the loss of the sand transfer plant and some of the dunes. Town Manager Elwell responded that Mr. Katz' concerns and Mr. Frank's concerns saying that the dredging would be addressed as part of the shoreline assessment provided by Mr. Weber. He reported that staff had recommended the Town not pursue a dune project as an emergency measure since federal funds would not be received to leverage the Town funds into more value on the beach. He said it was important that the current conditions be reviewed reach by reach. Mr. Katz stated that if the Town had received funds from the Federal Emergency Management

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Agency (FEMA), there would be some emergency repair on the beaches but because the Town did not receive the funds, the Town would not pay to build some emergency dunes in preparation for next hurricane season. Mr. Elwell replied that he would discuss the issue as part of the Response to Hurricane Sandy agenda item.

X. COMMUNICATIONS FROM CITIZENS - 3 MINUTE LIMIT PLEASE

Peter Pettie of West Palm Beach spoke about the 2008 CP&E report regarding the loss of sand on the beaches, the devastation of the Town's beaches, and asked what the Town was doing to address the state of emergency that exists on the beaches after Hurricane Sandy.

Carla Herwitz, 2275 South Ocean Boulevard, spoke about the Town's application for emergency relief after Hurricane Sandy, the denial by FEMA, and suggested that the \$6 million set aside for beach protection be used to repair the dunes now to achieve a level of immediate protection.

David Herwitz, 2275 South Ocean Boulevard, agreed with Mr. Pettie and Mrs. Herwitz and asked the Board to take time to analyze, debate and think hard about the prospect of going forward without the dunes.

Rodney Blair, 2275 South Ocean Boulevard, stated that his condominium association would be repairing its seawall. He asked if they should work more on the seawall or the dunes to protect the building. Chairman Ecclestone responded that, in his opinion, the seawall would protect the building and the dunes would protect the seawall; they were both needed and need to work together.

XI. RESPONSE TO AND RECOVERY FROM HURRICANE SANDY [Peter B. Elwell, Town Manager]

Town Manager Elwell stated that ideally, for maximum protection of the shoreline, a seawall would be the last defense, and a healthy dune system in the back of the beach, and a wide beach in front would be the first line of defense. He further stated that dune work without a healthy beach was sacrificial and offered very limited protection. He explained that if the Town went forward with a project in the immediate future, it would be the very most expensive type of beach protection that could be done with sand and provide the least value and least meaningful storm protection in terms of the quantity of sand and in a design that would absorb a lot of wave energy for a future storm situation.

Mr. Goldstein left the meeting.

Town Manager Elwell said that the Town could proceed with such a project if it was directed to by the Town Council but to do such a project at Town cost was not an appropriate, prudent use of the \$6 million available in the coastal fund. He stated that if the Town had been able to leverage the project with \$2 million or \$3 million received

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1 from FEMA, it would have been worth considering. He reported that staff had urged the
2 Council not to spend the \$6 million down to zero to place a temporary placement of sand
3 at the base of the dunes after the erosion that had occurred after Hurricane Sandy.
4

5 Mr. Goldstein returned to the meeting.
6

7 Town Manager Elwell spoke further about dune systems. He stated that there is nothing
8 the Town could do in a "do it this week or do it this month effort" that would provide a
9 significant, measurable amount of additional protection to the shoreline. He noted that
10 wise management and wise investment of millions of dollars over the course of years
11 with phased projects would provide additional protection.
12

13 Mr. Cooper asked Town Manager Elwell to comment on emergent beach versus the sand
14 bars with respect to protection of the beach.
15

16 Mr. Katz stated that there would be nothing done on Reach 7 in 2013. He further stated
17 that if there are no dunes or sand to protect the seawalls, the seawalls would deteriorate
18 significantly faster. He said there needed to be cooperation between what the Town is
19 doing and what the property owners are doing. Town Manager Elwell agreed saying that
20 the Town stands ready to assist in helping any property owner understand how their
21 property fits into the overall Town program, as well as to help with work allowed under
22 the emergency order from the Florida Department of Environmental Protection (DEP)
23 and help with getting professional services to pursue a seawall.
24

25 A discussion followed on the protection of human life, the protection of upland
26 properties, the Town working with property owners to protect properties, and funding.
27 Town Manager Elwell reminded the Board that private property owners have the ability
28 to place relatively small amounts of sand in front of their properties and it was commonly
29 done as part of a seawall project.
30

31 Mr. Katz left the meeting.
32

33 Mr. Weber reminded the Board that with beaches and erosion it was important to
34 consider the sand in the water, below the waterline, and the sand on the beach. He said
35 that the sand in the sandbar and in the nearshore provides a toe for the sand on the dry
36 beach and in a storm condition it plays a larger role on the height of berm, dune and
37 seawall. He explained that even under mild conditions, waves will be tripped by the
38 sandbar because of the draft of the water between the bottom of the sand and the top of
39 the water. He continued, in a storm situation, the water levels rise, the waves don't trip up
40 as easily and will hit the shoreline and impact the berm and the dunes. He stated that the
41 sand on the dune ultimately makes it way to the dry beach and to the nearshore and
42 provides additional protection in the future. He reported that the sand served as protection
43 during the nor'easters following Hurricane Sandy.
44

45 Mr. Katz returned to the meeting.
46

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1 Paul Brazil, Director of Public Works, stated that a properly designed seawall that is
2 exposed directly to the ocean is not in eminent danger but does require a lot more
3 maintenance. He added that just because there is not a beach in front of the seawall,
4 doesn't mean it will fail.

5
6 Mr. Cooper, referring to Mr. Pettie's remarks regarding the CP&E study about emerging
7 beach, asked if they are monitored. Mr. Weber responded that in March he would provide
8 the sediment budget report to the Shore Board that would compare the 2011 monitoring
9 data to the 2012 data collected before Hurricane Sandy and include post storm surveys.

10
11 Town Manager Elwell commented that the CP&E study included a modifier on the kind
12 of storm; low frequency or long interval. He said that his concern was that the decisions
13 on shore protection be done comprehensively: the broader components and what is wise
14 to do. He stated that Town staff continues to believe that it would not be wise to
15 invest the Town savings account in an emergency dune restoration project because the
16 quantity of sand would be too small, the level of protection provided would be too small,
17 and it would cost every penny in the savings account. He said there are better uses of
18 the money for the protection of the community. He explained that the decision to apply to
19 FEMA was not a trigger as to whether or not it was necessary or wise to do the work; the
20 FEMA decision was whether by leveraging the federal dollars it made a financially
21 smarter decision to go ahead and spend \$2 million to \$3 million of the Town's money to
22 accomplish something of limited value that staff does not believe was warranted if \$6
23 million of the Town's money was needed to do it. He reported that there has been natural
24 recovery of the shoreline in some areas, and while it is not the ultimate level of protection
25 that the Town strives to provide when constructing projects, it is a condition that can
26 fairly be judged as not being a critical emergency and not requiring immediate action on
27 a Townwide level. He noted that after Hurricane Sandy there were some individual
28 properties that did require immediate action. He said that the Town helped those property
29 owners get what they needed under the emergency order. He reported that the emergency
30 order was good until January 27. A discussion followed regarding the permitting
31 requirements for a seawall.

32
33 Town Manager Elwell provided an update on the damage to the sand transfer plan. He
34 reported that the most significant damage was the connection of the utilities into the
35 plant. He explained that there was so much erosion from Hurricane Sandy that the power
36 line and the water line became exposed and severely damaged. He stated that the design
37 work to repair the plant was in progress and by summer the plant should be fully
38 operational. He further stated that in addition to repairing the damage, the lines would be
39 extended significantly further up the jetty in the hope that they would never again be
40 exposed by a storm event. He said the cost would be about \$.5 million.

41
42 In response to questions raised by Mr. Pettie, Town Manager Elwell reported that the
43 Town is ready to move very quickly into dune restoration if it is required, but, at this
44 point, staff does not think it is required.
45

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XII. CURRENT SHORELINE CONDITION ASSESSMENT [Robert Weber, Coastal Coordinator]

Mr. Weber gave a Power Point presentation on the current shoreline conditions compared to the conditions in November 2012 and immediately before and after Hurricane Sandy.

Sand Transfer Plant – At this time, there is a good amount of sand starting to impound around the plant. Any sand that makes it way around the sand transfer plant and into the Inlet will be dredged. The condition after Hurricane Sandy showed the exposed infrastructure of the pipeline and a lot of erosion in the area.

Reach 1 – The conditions immediately before and after Hurricane Sandy were the same. The nor'easters after Hurricane Sandy caused the current erosion.

Town Manager Elwell reported that the Corps' dredging project was mobilizing. He further reported that it would be the largest Inlet dredging project in decades with the Town expected to receive 300,000 cubic yards of sand compared to 100,000-150,000 cubic yards in a regular dredging. He stated that the Corps would be expanding the settling basin along with the Inlet. Mr. Weber reported that the Corp would be adjusting their scope to place sand starting at the jetty and moving south down to Angler Avenue.

Mr. Cooper asked if the sand was tested for pollutants. Town Manager Elwell responded that the material dredged from the inner part of the Inlet would not be placed on the beach because it is not beach quality. Mr. Weber added that the sand quality is monitored.

Reach 2 – The area to Angler Avenue will be receiving the dredged sand. Within the next ten days, the heavy equipment and pipeline for the dredging project will be delivered using this beach access. The dredge should arrive February 8 or 9 and remain in Palm Beach for about three weeks.

El Puebelo – The beach has thinned out but it is similar to the conditions before Hurricane Sandy.

Orange Grove Road - Even at low tide the waves are hitting the wall. There has not a lot been a lot of recovery since the hurricane. There is a lot of elevation loss.

North Ocean Boulevard – Some of the revetment is exposed but sand has come back to this area since Hurricane Sandy. The conditions before Hurricane Sandy were very similar to the conditions today.

Ocean Lane - Some private residents are in the process of rebuilding their seawalls. The beach is much wider now that during Hurricane Sandy.

Reach 3 - Wells Road is the northern portion of the Mid-Town project and the north end of projects tend to see performance issues. This is a very narrow beach. The seawalls are

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exposed that were not exposed before Hurricane Sandy. This hotspot will continue to be monitored.

Sunset Avenue (Up drift of Breakers t-head) - The conditions are very good; a lot of sand moved into the area since Hurricane Sandy. Before Sandy, the beach was eroding because sand movement was not moving north to south but south to north during certain times of the year. The t-head groins are anchoring a lot of the sand.

The Breakers – The elevation of the beach is still high. The Breakers brought in additional sand and rock to reinforce problem areas. In response to a question from Mr. Cooper regarding the t-head groins, Mr. Brazil stated that the DEP permit requirements for installing the groins includes regular monitoring and mitigation of any negative impacts.

Reach 4 - Clarke Beach – There has been a lot of recovery in this area and the beach is a lot wider than before Hurricane Sandy.

Mid-Town Municipal Beach/Brazilian Avenue – A lot of the groins exposed after Hurricane Sandy are now buried. There is a lot of beach width. The beach is not as high in elevation as before Hurricane Sandy but it will continue to build up as wind blows into the vegetative areas.

Mid-Town/Gulfstream – Most of the groins are buried. There is a lot of sand in the nearshore area. This is a hotspot where the Town intends to put an additional groin.

Reach 5 – Blossom Way – The beaches are recovering well here. They are not as wide as before Hurricane Sandy and the elevation is a little lower but there is a lot of sand in the nearshore. Some of the private homeowners brought in small amounts of sand and placed it on their dunes.

Reach 6 – The beach access at Via Agape was damaged. Sections of Reach 6 had the least amount of erosion of any other areas in the Town because the shoreline is fixed by the revetment.

Reach 7 – Sloan's Curve – The elevation of the beach is still very low, there is loss of the dune, exposure of rocks, and not a lot of sand coming into this area. Piers, jetties and revetments limit the natural recovery.

Phipps Ocean Park – This is a classic hotspot. There was a lot of erosion to the dunes. Before Hurricane Sandy, there was about 30' of dune that was vegetated and has now been eroded.

Tres Vidas – A beach nourishment project was conducted in 2006 which added a substantial dune and beach nourishment in front of the wall. The wall is now exposed due to the storms after Hurricane Sandy.

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1 Par 3 Golf Course – Looking north, the escarpment is larger now but there has been a lot
2 of recovery in this area. Looking to the south, the escarpments are still in place but there
3 is a wide beach.

4
5 Ambassador Hotel – This is a very healthy section of the beach with a lot of sand still in
6 the system. The dunes are somewhat eroded but as the wind blows, the sand will make its
7 way back into the dune.

8
9 Reach 8 - Bellaria – The upper beach and dune system was not impacted too much by the
10 storms.

11
12 Mr. Weber reported that he had spoken to EarthBalance regarding the Seagrapes that had
13 died and they suggested that they not be removed because the root structure provides a
14 benefit to the dune.

15
16 Patrician – There is a large escarpment from Hurricane Sandy. The beaches are starting to
17 come back. The dune south of the Patrician is completely eroded.

18
19 Mr. Raffo questioned why the dredged sand could not be placed in the south end where it
20 is needed. Mr. Weber responded that the permit for Inlet maintenance includes statutes
21 and rules that the sand has to be placed immediately south of the Inlet. He stated that the
22 current template extends to Angler Avenue. He reported that in the Beach Management
23 Agreement (BMA) discussions the Town spoke about the benefit of placing the sand
24 further to the south. He explained if the template is extended 2,000' south, more of the
25 placed sand from the dredging would make its way into the system. He further explained
26 that once the template is filled, then there is the opportunity to place the sand at Mid-
27 Town. Town Manager Elwell added that there had been conversations with the DEP and
28 the Corps to take the sand not just when the template is full but when it makes good
29 sense. He said that they are working toward that goal.

30
31 Referring to the pictures from Reach 2 and Reach 7, Mr. Goldstein said they showed the
32 need to continue the groins, whether adjustable or t-head. A discussion followed on
33 efficiencies discussed in the BMA process to improve the performance of the north end
34 of projects. Town Manager Elwell reminded the Board that the BMA was structured to
35 make it easier and more efficient to do things that are not controversial; don't have
36 environmental or engineering concerns. He stated that the BMA would take the approach
37 for Reach 7 for additional sand but no structures with monitoring to see if it is a hotspot
38 and needs structures. He further stated that if the Town decides to put structures into the
39 north end of Reach 7 the next time it is built, the Town can pursue it under the traditional
40 permitting process, which will take longer and be more costly.

41
42 Mr. Katz expressed his concerns with the conditions at Phipps Ocean Park, a public
43 beach. He also spoke about the sand lost at Reach 1 and Reach 7. He said the Town
44 should look at protection of homes and not the amount of sand that has been lost. Town
45 Manager Elwell agreed that the focus of decision making needed to be taking action to

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protect upland structures. He stated that the photos demonstrated that at this moment there no upland property that is immediately threatened.

Mr. Katz referred to the pictures of The Breakers saying that the structures protected The Breakers and damaged the property south. He urged caution when placing groins.

XIII. 2013 SPB MEETINGS [Peter B. Elwell, Town Manager]

A. Topics for Future Meetings

2012 Townwide Sediment Budget Review and Erosion Rates Discussion

FDEP Palm Beach Island Beach Management Agreement

Woods Hole Group's Independent Review of the Town's Comprehensive Coastal Management Program

B. Schedule

February 28, 2013

March 28, 2013

April 25, 2013

Town Manager Elwell reported that on February 28, the Board would receive the annual surveys on the sediment budget and talk about the movement of sand. He further reported that in March the Board would discuss the findings of the BMA, the Woods Hole report, and the long term action plan.

XIV. ADJOURNMENT

Chairman Ecclestone adjourned the meeting at 11:16 a.m.

APPROVED:



E. Llwyd Ecclestone
Chairman