

**REPORT OF THE SHORE PROTECTION BOARD MEETING
HELD ON THURSDAY, APRIL 26, 2012**

I. CALL TO ORDER

The meeting of the Shore Protection Board was called to order on Thursday, April 26, 2012, at 9:00 a.m. in Town Council Chambers.

II. ROLL CALL

The following members were present: Chairman E. Llwyd Ecclestone, Vice Chair Bobbie Lindsay Buck, Mr. Kane Baker, Mr. Pat Cooper, Mr. Gerald Frank, and Mr. Lee David Goldstein. Mr. Lewis Katz was absent.

III. PLEDGE OF ALLEGIANCE

Chairman Ecclestone led the Pledge of Allegiance.

IV. APPROVAL OF AGENDA

Board Member Goldstein asked that comments from citizens be addressed when the particular item was discussed and after the engineer had spoken. Chairman Ecclestone responded that Karyn Erickson had requested to speak on item VIII, Advance Design Alternatives for Phipps Ocean Park (Reach 7) Beach Restoration & Stabilization Project. He stated that she would speak after the staff and engineer, and the Shore Protection Board members would speak after they heard from her.

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

V. APPROVAL OF THE MINUTES OF THE MARCH 22, 2012 MEETING

Motion to approve the minutes of the March 22, 2012, Shore Protection Board meeting was made by Board Member Cooper and seconded by Board Member Goldstein.

Larry Goldberg, 3360 South Ocean Boulevard, stated he was not quoted accurately on page three, line five, of the minutes. He stated that the wording should be: "...the current permit application for should be terminated..." He explained that the south end beach project includes north of the pier.

Chairman Ecclestone asked if a firm determination or designation could be made that Reach 8 was immediately south of the Lake Worth Pier. Town Manager Peter Elwell responded that he anticipated that it would occur in the course of the discussion later in

1 the meeting regarding Reach 7. He stated that once the Shore Board members and the
2 Town Council had made a decision, he anticipated that the area that had been within
3 Reach 8 north of the pier would be incorporated into the next phase of the Reach 7
4 project and the designation would be changed at that time.

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6 There was discussion regarding Mr. Goldberg's correction.

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8 Board Member Cooper suggested that the wording be changed to "...suggested the
9 current permit application for Reach 8 be terminated with a new permit south of Lake
10 Worth Pier be initiated."

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12 **The motion to approve the minutes as amended was unanimously approved.**
13

14
15 **VI. COMMUNICATIONS FROM SHORE PROTECTION BOARD MEMBERS**

16 Board Member Baker spoke about the concerns expressed by citizens regarding the Sand
17 Transfer Plant pipeline extension. He stated that the Sand Transfer Plant was the most
18 economical and best way to renourish the beaches. He asked residents to give the
19 easement to allow the work to be done.

20 Chairman Ecclestone requested a list of attendees at the public meetings on the Sand
21 Transfer Plant pipeline extension.
22

23
24 **VII. COMMUNICATIONS FROM CITIZENS - 3 MINUTE LIMIT PLEASE**

25 Larry Goldberg 3360 South Ocean Boulevard, asked "where are we now" on four "no"
26 items: 1) the Sand Transfer Plant pipeline extension; 2) no fix to the north end of Reach
27 7; and 3) the nonexistent shore protection south of the Lake Worth Pier. (Mr. Goldberg
28 ran out of time for the fourth item.)

29 Peter Pettie, 801 S. Olive Avenue, West Palm Beach, expressed his concerns with the
30 Town's handling of hard bottom issues and coastal permitting. Town Manager Elwell
31 responded that the Town was not abandoning pursuit of the pipeline extension.
32

33
34 **VIII. ADVANCED DESIGN ALTERNATIVES FOR PHIPPS OCEAN PARK (REACH 7)
35 BEACH RESTORATION & STABILIZATION PROJECT [Michael Walther, P.E.,
36 Principal, Coastal Technology Corporation]**

37 Paul Brazil, Director of Public Works, stated that the staff recommendation would be for
38 a peer review. He further stated that the project was a very technically complex project.
39 He reported that Mr. Walther had done a good job evaluating the four alternatives the
40 Shore Protection Board had requested. He further reported that for each alternative, staff
had asked Mr. Walther to evaluate three different grain sizes: .2 (similar to sand placed
for the first Reach 7 project), .25 (sand from the borrow areas, either in the north by
regular dredging or in the south by selected dredging), and .45 (truck haul sand).

Mike Walther, Principal Engineer and President of Coastal Tech, summarized the alternatives the Shore Board requested his firm to evaluate. He noted that G2 was the one alternative that included groins and fill in the Reach between Sloan's Curve and Phipps Ocean Park. He further noted the extensive hardbottom between Widener's Curve and Sloan's Curve, and the natural rock feature between Phipps Ocean Park and Par 3. He reviewed the four alternatives and his firm's recommendation:

Alternative F3-Beach fill essentially as permitted and constructed in 2006 but with greater fill placement at the north end in order to improve performance. It includes no structures and no fill from Sloan's Curve to north of Phipps Ocean Park.

Alternative G1-Consists of the same F3 beach fill but with nine groins located from the north end of Phipps Ocean Park down to the north end of the Par 3 golf course.

Alternative G2-The same fill as proposed by the Town in 2004 but with nine groins at the north end between Sloan's Curve and north of Phipps Ocean to hold some beach in that area.

Alternative G3-Includes the F3 beach fill but with only two groins in Phipps Ocean Park in order to hold some beach seaward of the natural rock feature that exists along the shoreline.

Mr. Walther reported that for all the alternatives with groins, the shore normal length of each groin would be designed to hold and maintain a minimum beach width of 25'. He further reported that the groins would be buried in the beach fill and would only become exposed and function after the beach fill erodes. He stated that the groins were expected to be embedded in the existing rock along the shoreline with a small footprint in order to minimize the potential adverse impacts to nesting sea turtles. He further stated that although the groins would not add any significant storm protection to upland property, they would enhance the aesthetics and recreational use of the beach by maintaining a beach seaward of the existing natural rock feature along the beach. He noted that any permits for groins, particularly Florida Department of Environmental Protection (DEP), would be expected to impose a mandatory requirement for beach nourishment in order to keep the groins filled and offset the down drift affects.

Mr. Walther reviewed and evaluated the three different sand grain sizes: .2 mm representing the lowest composite mean grain size associated with the southern borrow area and comparable to the sand placed in 2006; .25 mm representing the lowest composite mean medium grain size associated with the north borrow area or that could be obtained from the south borrow area using selected areas, and .45 mm which could be obtained from an upland sand mine or the Ortona sand mine. He compared the performance of each sand alternative, modeling where the shoreline would be immediately after construction, after the fill adjusted, two years after construction, five years after construction, and eight years after construction. He stated that for all alternatives it was assumed that the project would be renourished after eight years. He

1 reported that the northern portion of the fill area was expected to become the hot spot due
2 to the longshore transport deficit that exists in the project area.
3

4 When discussing costs of the alternatives, Mr. Walther stated that the differences in
5 initial cost were associated with transporting sand from the different sources, not grain
6 size. He stated that use of the south borrow area was expected to be the most cost
7 effective sand source for the construction of the project in Reach 7 because it was closest.
8 The cost of increasing the grain size was due to the difference in distance of the sand
9 sources from the project area. He also noted that alternative G2 included the construction
10 of an artificial mitigation reef which was estimated to cost over \$7 million if either groins
11 or sand was proposed in this section of beach between Sloans and Phipps Park.
12

13 Mr. Walther discussed the annual cost which includes the placement of sand every eight
14 years over a fifty year life. He noted that the courser the sand, the less maintenance
15 volume would be required. He reported that the volumes of sand in the offshore borrow
16 areas would likely not be able to provide enough .2 mm sand every eight years and it may
17 be true also for the .25 mm sand size. He further reported that even though the .45 mm
18 sand had the lowest renourishment volume, the cost to obtain the .45 sand yielded the
19 highest annual cost, which he said indicates that it is not economically viable.
20

21 Mr. Walther spoke about the likelihood of obtaining permits. He stated that it was very
22 likely the Town would be able to obtain a permit for alternative F3 with sand of any grain
23 size, however, DEP and the U. S. Army Corps of Engineers (Corps) would likely require
24 use of the most economically-justified, coarsest sand for beach fill which, based upon his
25 evaluation, would correspond to .25 mm sand. He said that in general, groins could likely
26 be permitted if the Town determines it was critical to the Town's interest to maintain an
27 enhanced beach seaward of the natural rock feature that exists along the shoreline. The
28 Town may elect to do that for purposes of recreation and beautification of the beaches.
29 He stated that with that determination, alternatives G1 and G3 were likely to be
30 permitted. He further stated that alternative G2 was not likely to be permitted if sand with
31 a low mean grain size, .2 mm or less, is used, but it may be possible to permit using more
32 coarse sand of .25 mm or greater. He added that G2 may require an updated
33 Environmental Impact Statement (EIS), additional mitigation at a cost of about \$7
34 million, and close scrutiny by the regulatory agencies, and without any significant
35 increase in storm protection over the other alternatives. Mr. Walther recommended
36 construction of alternative F3 as a feeder beach using the coarsest sand available from the
37 south borrow area. He further stated that if the Town determined that maintenance of the
38 sandy beach seaward of the natural rock feature was critical to the Town's interests, he
39 recommended construction of alternative G1 including beach fill and groins. In response
40 to a question from Chairman Ecclestone, Mr. Walther clarified that the "Town's
41 interests" were defined as to provide a level of storm protection equal to a 25-year return
42 interval storm event to upland buildings and to provide and maintain a minimum 25'
43 wide beach along the project area.
44

45 Chairman Ecclestone stated that the Board needed to make a determination on grain size
46 and if groins would be used. Mr. Brazil stated that staff recommendation was for the

1 project to go to a peer review as it was a complex issue and would benefit from another
2 set of eyes. Chairman Ecclestone asked that the peer review be defined and the sand size
3 should be determined.
4

5 Vice Chair Lindsay Buck stated that she had viewed the area between Sloan's Curve and
6 Phipps Ocean Park as the hot spot in the north end of Reach 7 and it would be immensely
7 expensive to put in any structures or significant sand on the beach at that location. Mr.
8 Walther responded that even if only groins were proposed, he expected there would be a
9 requirement for mitigation of hardbottom because the hardbottom is so close to shoreline.
10 Lindsay Buck suggested that therefore Alternative G2 should be eliminated. Vice Chair
11 Lindsay Buck stated that the data in the report views the hot spot as starting in Reach 6
12 with the "monster groin" (that has a significant impact on the transport of sand on the
13 beach along with the revetments) to Phipps Park. Mr. Walther responded that the
14 definition of a hot spot is where greater erosion was occurring. He stated that the hot spot
15 moves where there is sand available to erode to offset the longshore transport deficit and
16 is currently located to the south of Phipps Ocean Park.
17

18 Vice Chair Lindsay Buck asked Mr Walther to comment on the amount of the .25 mm
19 sand that was available in the south borrow site. Dr. Mike Jenkins of Applied Technology
20 & Management (ATM) responded that the question was how much of the coarse sand
21 was used in the initial nourishment. He explained that if a coarser initial nourishment is
22 done, it would leave less coarse sand for future nourishments. He noted that if the design
23 minimum was .25 mm there was enough sand in the south borrow area for multiple
24 renourishments. Board Member Cooper asked the average grain size. Dr. Jenkins replied
25 that for the volumes (four million) recorded, the average was in the . 28 mm range in the
26 borrow areas.
27

28 Vice Chair Lindsay Buck said the issue of whether to put structures in or not, was
29 confusing which was a good reason to get a peer review. She stated that the performance
30 without structures using the bigger grain size was about the same as with structures. Mr.
31 Walther agreed, saying that fundamentally groins don't affect the performance until the
32 groins become exposed. He reported that his analysis and model results indicated that
33 after eight years with the more coarse sand, the groins would not be significantly exposed
34 and would not have any significant impact on the performance. Vice Chair Lindsay Buck
35 stated that it may be most cost effective to not put any structures in because that was the
36 least expensive alternative, as long as coarser sand was used. She said she was hearing
37 from him (Walther) that groins were more of a recreational benefit and asked if Mr.
38 Walther agreed. Mr. Walther agreed but said there was some minor protection, largely
39 insignificant with groins, maybe 3-5, or 5-10 years, which is insignificant in comparison
40 to the 50- to 100-year protection that most of the properties enjoy just by the existing
41 beach dune system. On the other hand, he reminded the Board that the design was only a
42 model and erosion may happen more quickly or less quickly than the model, depending
43 on storms. He said if groins were placed, there would be some beach seaward of the rock
44 feature if that is critical to your interest. Vice Chair Lindsay Buck asked if the filling of
45 the groins could conceivably go longer than eight years. Mr. Walther agreed. He stated
46 that the decision to renourish in the absence of any groins and any mandatory provisions

1 from the regulatory agencies was the decision of the Town. Vice Chair Lindsay Buck
2 stated that if the groins are added, there would be a mandatory obligation to conduct
3 renourishments when the groins become exposed, which seems to be every eight years at
4 Mid-Town. She reminded the Board that the borrow sites are finite and at some point the
5 Town would run out of sand that was close. She questioned the value of the groins if they
6 are recreational and could be forcing the town to re-nourish in perpetuity regardless of the
7 price of sand.
8

9 Chairman Ecclestone asked how high the groins would have to be overfilled. Mr. Walther
10 referred to a graphic saying the beach would be advanced 250' seaward of the seaward
11 limits of the groin. He reported that the groin was at elevation 6' and the height of the
12 sand at completion of the fill would be around elevation 9'. Chairman Ecclestone stated
13 there would be 2.5' fill over the top of the groin. He asked the trigger to fill the groins.
14 Mr. Walther responded that the trigger would be negotiated with DEP to sometime after
15 the groins become exposed and would likely be close to every eight years. Chairman
16 Ecclestone stated that assuming the trigger was when you could see the groins, which are
17 6' high, then without the groins when the sand reached 6' that would be the same trigger.
18 Mr. Walther agreed it would be a comparable trigger. Chairman Ecclestone asked if the
19 sand would stay at 6' without the groins. Mr. Walther responded that the groins would
20 hold some sand that would not be in place if the groins were not in place. Chairman
21 Ecclestone stated that the beach would hold 6' of sand with the groins and without the
22 groins it would go down to zero at some point.
23

24 Board Member Goldstein questioned further analysis of .2 mm sand which was used in
25 unsuccessfully in Reach 7 and .45 mm sand which was expensive.
26

27 **Motion was made by Board Member Goldstein and seconded by Board Member**
28 **Baker to use the .25 mm sand as the minimum. Mr. Walther agreed, but it was**
29 **decided to hold the motion until after the other board members and Ms. Erickson**
30 **had commented.**
31

32 Board Member Frank asked if eight or nine groins were permissible. Mr. Walther
33 responded that based on discussions with the DEP staff engineer regarding the conceptual
34 use of a short, low profile, narrow footprint groin, (as opposed to T-head groins) he
35 believed the proposal would be permissible.
36

37 Board Member Frank asked for clarification of the duplication of peer review with
38 Woods Hole. Mr. Brazil responded that Woods Hole had been retained to look at the
39 Town's program globally: what had been done in the past and what was proposed for the
40 future. He explained that the peer review for Reach 7 was more detailed and included a
41 review of the modeling which was outside the scope of Woods Hole.
42

43 Board Member Frank spoke about the hardbottom issues at Sloan's Curve and the
44 statement that the Town had protection in that area that had not varied much over the
45 years as far as a 25' wide beach and 25 year protection. He stated that the
46 recommendation was not to do anything in front of Sloan's Curve. Mr. Brazil responded

1 that Mr. Walther and Rob Weber, the Town's Coastal Coordinator, had looked at the
2 area, looked at historical aerials; and the Town's monitoring, and that since 1974 all data
3 indicated that area is, very stable with little change over time and generally does not erode
4 past a certain point, and, at that point, they still have substantial storm protection. Brazil
5 noted that people perceive it to be different, but that's what the engineering says.
6

7 There was discussion regarding the mandatory filling and mitigation of groins. In
8 response to Mr. Frank, Mr. Brazil commented that when a groin is doing its job and
9 holding sand, it causes an equal and opposite reaction immediately south. When you start
10 seeing the "negative" impact of the groin, the regulatory agencies ask us to mitigate by
11 re-filling them or removing them.
12

13 Referring to the table of properties and risk of damage by erosion, Board Member Cooper
14 noted that with the exception of five properties, all properties could withstand a 100 year
15 storm event. That is a fair characterization, according to Mr. Walther, who explained that
16 the analysis was performed under the assumption that all fill placed in 2006 was washed
17 away and the seawall was exposed.
18

19 Board Member Cooper asked about the effects of the groin on nesting sea turtles that
20 come up on the exposed hardbottom starting at R116. Mr. Brazil answered that the
21 number of sea turtles would be minimal. He stated that Singer Island had unsuccessfully
22 proposed to the regulatory agencies a shore-parallel structure with the argument that there
23 was nothing for the turtles to nest on now and it would create a beach. There was
24 discussion regarding the hot spot. Mr. Walther stated that the absence of any action
25 between Widener's Curve and Sloan's Curve would not appreciably exacerbate the
26 erosion in that area. He further stated that the hot spot would be at the north end of
27 wherever the Town puts fill and that hot spot would move down the fill placement area to
28 expose any rock or groins. Board Member Cooper expressed concern with the cost of
29 sand and groins at a spot where it is known the sand would erode. Mr. Walther responded
30 that the 2006 project had fed and stabilized the system, which is the intent of a feeder
31 beach. There was further discussion regarding the impact of the Mid-Town
32 renourishment.
33

34 Karyn Erickson representing the Save Our Shores (SOS) coalition stated that their
35 recommendation was for alternative G1 as it could be tuned and tweaked to provide a
36 project that was meaningful and offered real protection of the properties in Reach 7. She
37 said there were four areas that needed to be discussed: 1) sand quality in the borrow site
38 locations; 2) the structures in terms of their height, their purpose and their biological
39 implications; 3) the cost of the project; and 4) biological considerations of hardbottom,
40 impacts associated with sand, and sand and structures. Regarding sand, she said that .25
41 mm was not a match to the natural beach and would not perform as well as the natural
42 sand that existed on the beach. She spoke about the overfill ratios of .25 mm sand
43 compared to .45 mm and the reduction in volume of a higher grain size. She suggested
44 the hot spot be addressed using a coarser, high quality sand and put the finer sand from
45 the south borrow site on the remaining section of the shoreline which has a lower erosion
46 rate.

Ms. Erickson stated that the proposed structures were a composite which she hadn't seen constructed before. She said that if the objective is to construct structures to retard and slow the erosion rate, these structures could be used to construct something like a t-head. She noted it was important to consider phasing the structures with 4-6 structures in phase I and the supplemental structures to the south and north in phase II, but permit the project as one structures project. She recommended two additional structures if t-heads were not considered. She spoke about the low elevation of the proposed structures, use of a coarser sand, and the volume of sand.

Ms. Erickson said that the sand costing needed a second look. She stated that coarser sand from the north borrow area was preferred but would cost more because the borrow site is located on a trench along the foot of the beach and the implications of the modeling creating that trench and the waves that would impact the beach may not have been included in the modeling of the performance of the project.

Ms. Erickson recommended that the biological implications of placing sand on the top of the entire hardbottom without structures at the north end of Reach 7 (R116-R118) would create mitigation requirements and would be best served by including two additional structures to anchor the beach at the south end extending the groins to R118.

Vice Chair Lindsay Buck asked Ms. Erickson if she was suggesting putting groins in the sensitive area where it was anticipated there would be a lot of mitigation. Ms. Erickson answered that she suggested the addition of one-or-two groins further north of the G1 option to anchor the beach to the north where the sand would be placed and impact the hardbottom. Mr. Walther reported that alternative G1 and G3 include fill to 300' north of R119, essentially the north limits of Phipps Park. Vice Chair Lindsay Buck summarized that SOS wanted to add two groins north of Phipps, fill the highly sensitive area that would have mitigation costs, and use more expensive (.35 mm or .45 mm) sand. A discussion followed. Mr. Walther stated that Coastal Tech's interpretation of the Town's charge was to provide protection to existing buildings and not necessarily to dunes.

Chairman Ecclestone requested a copy of Ms. Erickson's report.

Tom Warnkey, 2780 Worcester Road, Lake Worth, addressed the Board regarding grain size and durability saying he doubted the .25 mm sand from the south borrow site would be durable enough to stay in place as long as the other good quality sand.

Madelyn Greenberg of the Coalition SOS stated that their expert, Karyn Erickson, strongly recommended against eliminating the .45mm grain size.

There was a brief discussion on the earlier motion regarding a determination of grain size. The motion was amended to use sand with an average of .25 mm or above.

The amended motion to use sand with an average grain size of .25 mm or above was unanimously approved.

There was discussion regarding the alternatives to be included in the peer review. Vice Chair Lindsay Buck recommended G2 be dropped because it would probably not be permitted due to the groins in R116-R118.

Motion was made by Vice Chair Lindsay Buck and seconded by Board Member Goldstein to contract with Humiston & Moore Engineers for a peer review of the project to include alternatives F3, G1, G3 and Ms. Erickson's hybrid option and also include a review of the durability of the grain size in the borrow sites of .25 mm or greater. The motion was unanimously approved.

IX. SPB RECOMMENDATION TO TOWN COUNCIL REGARDING REACH 8 COASTAL MANAGEMENT ACTIVITIES [H. Paul Brazil, Director of Public Works]

Mr. Brazil gave the history of the Reach 8 coastal management activities. He reported that the Corps determined that an EIS would be necessary if any fill is placed south of the Lake Worth pier in the water. He further reported that north of the pier the Corps would allow the fill to be placed without an EIS. He spoke about the Town's participation with Palm Beach County on their EIS and the County's decision to no longer pursue the project. He explained that the intent of an EIS was to provide sufficient information to make decisions about what projects should be done; it tells you what is buildable and explores alternatives. He asked if the Shore Board members wanted to:

- 1) Recommend to the Town Council that they incorporate the north end of the Reach 8 project north of the pier with the Reach 7 project?
- 2) Continue pursuing the limited fill project south of the pier that is currently being permitted? This will require an EIS which will take at least two years to complete and then the permitting process will continue. If the Town does any project in Reach 8 south of the pier, based on the Corps' recent decision an EIS will be needed. If any sand is placed in the water, it will require an EIS.
- 3) Pursue a dune only project south of the pier which would not require a Corps permit and, therefore, would not require an EIS?

Motion to incorporate the Reach 8 project north of the pier with the Reach 7 project was made by Board Member Goldstein, seconded by Board Member Frank, and unanimously approved.

Larry Goldberg, 3360 South Ocean Boulevard, asked why an EIS was needed south of the pier for a project that has 12,100 cubic yards in the water and no structures. Mr. Brazil responded that the Corps had treated everything south of the pier as a separate project and the physical characteristics of any work done in that area are different from the south end of Reach 7 or the north end of Reach 8 north of the pier. He explained that the EIS was driven by the use of structures but by the placement of sand in the water in that area because of the nearshore resources. A lengthy discussion followed.

Connie Gasque, 167 Root Trail, stated that the extensive hardbottom off of Reach 8 was requiring the Environmental Impact Statement.

Ms. Erickson said that the EIS would provide an opportunity to put all concepts on the table, which was a good thing. She asked to be kept abreast of the concepts.

Mr. Brazil reported that the Mayor had expressed a desire to get back into the process with the County and the other communities south of the Town would also make the request of the County. He asked the Board members if they wanted to participate in the EIS, wait to see if the County would participate, or start the process within the limits of the Town of Palm Beach now and if other communities want to participate later they can join?

Mayor Gail Coniglio reported that Palm Beach County Commissioner Steve Abrams had brought forth reconsideration to the County Commission to continue the EIS but it had not yet been approved. She added that another conversation was whether or not the EIS would be included in the Beach Management Agreement (BMA). Mr. Brazil responded that the BMA was a state process and the EIS was from the federal government. He said he did not believe the BMA would eliminate the need for an EIS.

Vice Chair Lindsay Buck stated that Lantana, South Palm Beach, and Palm Beach had sent letters asking the County to pick up the EIS. She reported that the Town was contributing \$500,000 and if the Town pursued the EIS on its own, it would cost more. She suggested the Board wait until the next meeting to make a decision to see if the communities were able to persuade the County Commission.

Town Manager Elwell said he would keep the Board informed and take any items that needed attention during the summer directly to Town Council. He suggested that the Board not take action with the understanding that the intention was to proceed with the EIS in some form, but if there is a need to act (if the County decides to move forward with the EIS), staff would go straight to Town Council for authorization, define the scope of the project, and move forward. He said if there was no action needed during the summer, the Board would be updated at its October meeting.

Motion was made by Board Member Cooper and seconded by Board Member Frank to give the Town Council a recommendation for an EIS in Reach 8 and have the Town Council determine if the EIS would be with the two south communities and the Town, or move forward with the County if it makes the decision to participate.

Town Manager Elwell explained that if the Town linked with the County on the EIS it would take the existing EIS that was underway and extend the northern boundary to the pier and incorporate what the Town needed to do into that broader effort. He said that the cost to the Town would increase.

The motion on the EIS was unanimously approved.

1 Mr. Brazil reported that the budget included a short-term dune project south of the pier.
2 He said that the project could be done less expensively in conjunction with the Reach 7
3 project. He reported it would be a truck haul project out of Reach 7 into Reach 8. Board
4 Member Frank stated that the Town would need beach access through one of the
5 condominiums. Mr. Brazil agreed and stated that the Town does not currently have an
6 easement south of the pier.
7

8 **Motion to approve a recommendation to the Town Council for a dune project south**
9 **of the Lake Worth pier to be done in conjunction with the Reach 7 project was**
10 **made by Board Member Frank, seconded by Board Member Goldstein, and**
11 **unanimously approved.**
12

13 Ms. Erickson requested clarification if the Town would continue to use Ortona sand when
14 there is a requisite loss in the dune because the Reach 7 project may be two years away.
15 Town Manager Elwell replied that if something needed to be done on an emergency basis
16 the Town would take action, but in the normal planning cycles the Town was planning to
17 do the work with the Reach 7 project.
18

19 **X. SAND TRANSFER PLANT PHASE II PERMITTING [Peter B. Elwell, Town Manager]**

20 Town Manager Elwell stated that there had been some confusion regarding the project.
21 He said the Town was 100% committed to extending the pipeline to get sand out of the
22 shadow of the inlet in Reach 1 down to Reach 2 to benefit the entire down drift shoreline.
23 He explained that the project would now be pursued through the BMA process instead of
24 the Joint Coastal Permit (JCP) application. He added that the DEP, in its leadership of the
25 BMA process and in looking at the JCP process, prefers the project to be addressed in the
26 BMA because all the stakeholders would be involved. He reported that the DEP had
27 assured staff that if the Town did not get permission to extend the pipeline through the
28 BMA or the BMA process did not work out, the Town could pick up the JCP process. He
29 addressed the issue of the hardbottom saying that the Town had always recognized it, it
30 would always be an issue for the Town, and whatever action was taken to move sand out
31 of the shadow of the inlet would have to be done with due respect and care for the
32 impacts that may be caused to the extensive hardbottom in Reach 2.
33

34 Town Manager Elwell spoke about the proposal for a truck haul project. He reported that
35 the Corps was requesting from DEP an adjustment to its permit based on how it would be
36 depositing sand in the dredging project next winter. He stated that the Town did not want
37 to be in their way with a truck haul project; however, there was a possibility the Town
38 may be able to work in conjunction with them to move some sand with a smaller scale
39 trucking operation from the south end of their project into Reach 2.
40

41 Larry Goldberg, 3360 South Ocean Boulevard, urged the Board to have the same
42 consideration for Reach 8 as for the Sand Transfer Plant where it would be presented in
43 the BMA process. Town Manager Elwell responded that all reaches of the Town's
44 shoreline would be addressed in the BMA process.
45

Sanford Kuvin, 140 East Inlet Drive, expressed confusion with changes to the pipeline project and spoke about a notice of inactive application from the DEP because the Town had not fulfilled the request for additional information. Town Manager Elwell replied that DEP had said the Town needed to either withdraw the application or submit the response to the Request for Additional Information (RAI). He stated that the Town was prepared to submit the response to the RAI but, in conjunction with the DEP, the Town had determined it was a better approach to address the project through the BMA and withdraw the JCP application. Dr. Kuvin stated he was strongly opposed to the pipeline project but was in favor of the five communities working together to have one plan that would benefit all the communities.

Tom Warnkey, 2780 Worcester Road, Lake Worth, suggested the Board contact Dr. Harold Wanless, University of Miami, who is a sedimentologist and one of the foremost experts on quality and durability of sand. He spoke about sand issues, dredging, and the safety of condominiums during high water events.

Peter Pettie, 801 South Olive, West Palm Beach, addressed the Board asking why the south end was accountable for hardbottom burial in Reaches 7 and 8 but the Town could bury three-quarters of the hardbottom on Reach 2 and then apply for a Joint Coastal Permit. Town Manager Elwell responded that the Town was not burying hardbottom in Reach 2 and the impact to hardbottom was an important consideration in the design of the pipeline extension.

Vice Chair Lindsay Buck reported that she had attended the Mayor's meetings at the north end of Town to discuss the pipeline. She spoke about the erosion in Reach 2 and said that the pipeline or some way of moving some sand that is impounded in the shadow of the inlet into the littoral drift was not only logical, but a responsible thing to do. She suggested staff vigorously reach out to the people in the community to explain the options. She further suggested a timeframe be set so if there is not tangible progress from the BMA process, when the Shore Protection Board comes back in the fall, the project would go back into the traditional permit process. Town Manager Elwell responded that staff would inform the Board if there was significant news in the summer and provide an update in October. He suggested that if the Board did not see enough progress being made in the BMA process and wanted to put it back into the JCP process, at any time they could make that recommendation to Town Council. He reported that the Mayor intended to have more community meetings. Chairman Ecclestone asked that this item be placed on the agenda for the meeting in October.

Motion was made by Vice Chair Lindsay Buck and seconded by Board Member Goldstein to withdraw the current Joint Coastal Permit (JCP) application for Phase II of the Sand Transfer Plant improvements and pursue the project through the Beach Management Agreement (BMA) subject to staff vigorously reaching out to the community to explain the options and if there is no tangible progress from the BMA by the fall, that the project go back into the traditional permit process. The motion was unanimously approved.

XI. BIOLOGICAL MONITORING [Robert Weber, Coastal Coordinator]

Motion to recommend to Town Council the awarding of a contract to Tetra Tech, Inc. for \$47,407.30 and establish a project budget of \$53,000 to complete the State of Florida Department of Environmental Protection (FDEP) permit required annual 2012 post-construction Phipps Park biological monitoring, and a contract to Tetra Tech for \$73,736.74 and establish a project budget of \$85,000 to conduct Mid-Town Project Mitigation and Monitoring Plan permitting services was made by Board Member Frank, seconded by Board Member Goldstein, and unanimously approved.

XII. PHYSICAL MONITORING [Robert Weber, Coastal Coordinator]

Motion to recommend to Town Council the awarding of a contract to Applied Technology & Management, Inc. (ATM) for \$113,036 and establish a project budget of \$120,000 to complete the State of Florida Department of Environmental Protection (FDEP) permit required and Townwide annual physical monitoring was made by Board Member Frank, seconded by Board Member Goldstein, and unanimously approved.

XIII. MID-TOWN BEACH NOURISHMENT DESIGN [H. Paul Brazil, Director of Public Works]

Chairman Ecclestone thanked staff for their work on the Mid-Town beach nourishment design and asked that a copy of the proposal be provided to the Shore Protection Board members.

XIV. OFFSHORE DREDGING TECHNOLOGIES OVERVIEW [Robert Weber, Coastal Coordinator]

Dr. Mike Jenkins of Applied Technology & Management, Inc. (ATM) gave a Power Point presentation on offshore dredging technologies. He reported that the most pressing physical constraint was the weight of the sand which is 1.3 tons per cubic yard (dry weight), and a typical Town renourishment project was about one million tons of material. He stated that the most efficient way to move material was hydraulic or dredging which require a pipeline and the second most efficient way to move sand was by barge or a ship. He further stated that dredging was generally limited to six miles in distance because of the infrastructure needed. He said for longer distances a hopper dredge was most efficient.

Dr. Jenkins spoke about issues regarding owning your own equipment. He said there is no single dredge that meets all needs, they require significant staff and maintenance (pumps, pipes, moving sand and water and daily breakdowns), must be utilized a high percentage of the time, and stored when not in use.

Dr. Jenkins reported that the U.S. Army Corps of Engineers was the market for dredging services and the market is driven by the Corps' projects. He said there are only a few firms and they primarily work for the federal government. He spoke about dredging cost reduction alternatives saying that the Town has no control over any of the alternatives. He stated that the Town does have some opportunities such as completing all design permitting efforts well before bidding to get better prices, bidding early when the dredgers don't have anything scheduled (putting bids out at the beginning of the year for a project in November), schedule projects outside of sequence of other major projects (not on the same schedule as the Corps), consider rebidding a high bid, and pursue regional bidding by combining projects with other entities.

XV. COASTAL PROJECTS UPDATE [Robert Weber, Coastal Coordinator]

This item was not discussed.

XVI. SHORELINE CONDITION ASSESSMENT [Robert Weber, Coastal Coordinator]

Mr. Weber gave a Power Point presentation on the shoreline condition. Board Member Goldstein requested information on the amount of sand left from the 2011 dune project in Reach 8. There was discussion regarding the proposed dune project in Reach 8.

XVII. SCHEDULE OF FUTURE SPB MEETINGS FOR 2012 [Peter B. Elwell, Town Manager]

Stating that the Shore Protection Board had a very long hiatus and the BMA process was scheduled for another meeting on May 16, Vice Chair Lindsay Buck proposed a Board meeting be held in late September or late May. Following further discussion, it was agreed to schedule a meeting for the fourth Thursday in September (September 27). Town Manager Elwell stated that any detailed items that needed to be addressed during the summer would be addressed with the Town Council.

Another meeting will be held on October 25.

Town Manager Elwell stated that because the fourth Thursday in November was Thanksgiving, the November/December meeting would be held on December 6.

XVIII. ADJOURNMENT

Chairman Ecclestone adjourned the meeting at 1:09 p.m.

APPROVED:



E. Llwyd Ecclestone
Chairman

4-26-12 Agenda Backup