

TOWN OF PALM BEACH

Information for Town Council Meeting on: December 11, 2018

TO: Mayor and Town Council

VIA: Kirk W. Blouin, Town Manager

FROM: E. Llwyd Ecclestone, Shore Protection Board Chairperson
Robert Weber, Coastal Program Manager

RE: Shore Protection Board Annual Report

DATE: November 30, 2018

The Shore Protection Board (SPB) is comprised of seven (7) regular members and three (3) alternate members appointed by the Town Council for three-year terms.

A chairperson and vice-chairperson are selected by the members. The 2018 SPB membership was as follows:

2018 Shore Protection Board Member	Position	Current Term Expires
E. Llwyd Ecclestone	Chairperson	12/2020
Lewis Katz	Vice-chairperson	12/2020
Kane Baker	Regular Member	12/2018
Melissa Ceriale	Regular Member	12/2019
James C. Gavigan	Regular Member	12/2018
Reuben B. Johnson, III	Regular Member	12/2018
Harvey Kinzelberg	Regular Member	12/2019
Stephen Jacoby	Alternate Member	5/2020
Warren Belmar	Alternate Member	5/2020
William Lorentzen	Alternate Member	5/2020

On December 12, 2017, Town Council re-appointed Llwyd Ecclestone and Lewis Katz. With that appointment, Mr. Ecclestone and Mr. Katz are currently serving their final three-year term. SPB members will only be allowed to serve for two (2) consecutive three-year terms. However, the board members serving at the time that Town Council set term limits have been grandfathered and will be allowed to apply for one final three-year term regardless of how many terms that they have previously served. The only remaining member that which grandfathering will be applicable to regarding term limits is Kane Baker (December 2018).

The Board met five (5) times during the 2018 calendar year.

2017 Shore Protection Board Member	Meetings Attended	Absences	Jan 23	Mar 29	Apr 26	May 24	Nov 29
E. Llwyd Ecclestone	5	0	P	P	P	P	P
Lewis Katz	2	3	P	E	E	P	E
Kane Baker	5	0	P	P	P	P	P
Melissa Ceriale	5	0	P	P	P	P	P
James C. Gavigan	5	0	P	P	P	P	P
Reuben B. Johnson, III	5	0	P	P	P	P	P
Harvey Kinzelberg	5	0	P	P	P	P	P
Stephen Jacoby	5	0	P	P	P	P	P
Warren Belmar	5	0	P	P	P	P	P
William Lorentzen	5	0	P	P	P	P	P

P = Present

E = Excused

U = Unexcused

CURRENT SHORELINE CONDITION

The Town's proactive on-going coastal management efforts have maintained storm protection along the 12.2 miles of Town shoreline. Despite heavy sand erosion associated primarily with Hurricanes Matthew (2016) and Irma (2017), no buildings were in imminent danger in 2018. Sand from the 2015 U.S. Army Corps of Engineers (USACE) Lake Worth Inlet Maintenance Dredging in Reach 1, 2015 Mid-Town Beach Renourishment in Reaches 3 and 4, and 2016 Phipps Ocean Park Beach Nourishment in Reach 7, continue to feed sand into Reaches 2, 5, and 8, respectively, to maintain shoreline stability. Dune Restoration in Reach 3 (2016), Reach 4 (2017) and Reach 8 (2015 and 2016) continue to provide stability to the Town's overall shoreline.

Effects from Hurricane Irma in September 2017 and subsequent seasonal storms displaced large amounts of sand from the dry beach and into the nearshore. Overall, the volumetric sand losses from the beach attributable to Irma are on the order of hundreds of thousands of cubic yards. While natural shoreline improvements occurred earlier this year, one 'hot spot' area near Gulfstream Road required Town intervention to assist with shoreline recovery.

The impacts from Hurricane Irma were measured and a FEMA claim exceeding \$19 million has been prepared and is currently going through Federal approval queues. The Town's claim includes the northern portion of Reach 2, Reaches 3 and 4 (Mid-Town), Reach 7 (Phipps), and Reach 8 (upland only). This process has been delayed due to the Federal response associated with Hurricane Michael in the Florida Panhandle.

2018 COASTAL PROTECTION PROJECTS

The following coastal protection project was constructed in 2018:

- Gulfstream Road Groin Construction
 - 9,500 cubic yards of sand was placed in the project area.
 - More than 1,700 tons of armor stone was used to construct the groin.
 - Construction was completed on time in 41 days and prior to May 15, 2018.
 - Construction was completed on budget in an amount of \$1,742,200.
 - Project Certification and Completion Report was provided to the regulatory agencies on July 30, 2018.

Sand Transfer Plant operations have continued during 2018 with more than 100,000 cubic yards (CY) of sand bypassed under the inlet, from Singer Island to Palm Beach Island, between January and mid-November 2018. The current volume is consistent with the volume (approximately 114,000) at this time last year and, together with the inlet maintenance dredging, meets the inlet sand bypassing goals of an average of 202,000 cubic yards per year.

Biological, physical, sea turtle nesting, and shorebird monitoring work continued, as required by State's Beach Management Agreement (BMA) and/or Federal permits, as previously approved by Town Council.

The Town continues to await regulatory action by the U.S. Army Corps of Engineers (USACE) for the Reach 8 Environmental Impact Statement (EIS). Action by the USACE, such as publication of a Record of Decision (ROD), continues to be expected to identify possible solutions for consideration in Reach 8. The Shore Protection Board will review and consider a solution in Reach 8, including an FY 2020 budget item, once additional feedback is received by the USACE.

The Town continues to await the USACE issuance of a permit to allow the Town approved groin rehabilitation project to proceed. The Shore Protection Board will then, in accordance with guidance from the Town Council, provide recommendations with respect to implementation of the groin rehabilitation project.

2018 SHORE PROTECTION BOARD ACTIONS

Dynamic Modeling for Coastal Vulnerability Assessment. In January, the Shore Protection Board unanimously recommended to adjust the purchase order to Woods Hole Group (WHG) to include dynamic modeling rather than static modeling for the flooding vulnerability study. One element of the study was to use a model to help the Town plan for present and future risks of flooding. The initial scope of work, developed in 2013, was to use a static model. WHG successfully completed a flooding study utilizing a newly developed dynamic model for the Boston area. This new technology has the capability to recognize specific flooding pathways rather than the more simplified approach of identifying impacts based generally on water levels. The additional detail is more realistic and can identify focused solutions for Town assets and infrastructure that may be at risk from flooding events. In April, Town Council accepted the SPB recommendation to the modeling scope of work was adjusted. Following the two-year study, the final report from WHG is to be provided to the Town in January 2019.

The Breakers/Clarke/Mid-Town Area. The Shore Protection Board continues to support the ongoing efforts initiated by the Technical Advisory Committee (TAC), as recommended by the Florida Department of Environmental Protection (FDEP). Due to the multiple number of stakeholders and the shoreline complexities, FDEP recommended that a TAC be established to maintain concurrence, transparency, and participation through the design and permitting process. Detailed design through the TAC was initiated in April. Results from the TAC are anticipated to be brought back to the board in January 2019.

FY 2019 Coastal Management Program Budget. In May, the Shore Protection Board unanimously recommended an FY 2019 Coastal Management Program Budget of \$17.7 million. To summarize, the budget included carryover for artificial reef construction, Sand Forepassing, Town shared costs associated with FEMA for Mid-Town and Phipps repair projects from Hurricane Matthew, Town shared costs to designate Mid-Town as a Federal project, and program maintenance and monitoring requirements. In addition, the SPB's FY 2019 budget recommended adjusting the groin rehabilitation item from \$500,000 to \$5,000,000 to construct the first phase. Town Council adopted an FY 2019 budget consistent with 55 of the 56 individual items identified within the SPB recommended FY 2019 Coastal Management Program Budget. The only item approved by Town

Council that was inconsistent with the SPB recommendation was groin rehabilitation (which was maintained at an annual appropriation of \$500,000). Construction of structural coastal projects, such as groins, can be funded through future bonds.

Innovative Technologies. Representatives from coastal engineering consulting firms APTIM and Tetra Tech provided the board with both historical and current perspectives on innovative technologies for coastal projects both in Florida and worldwide. The Town's Coastal Management Program, which is currently implementing Town Council's adopted 10-year plan, includes projects that are consistent with the State's Strategic Beach Management Plan. This is what led FDEP and the Florida Fish and Wildlife Conservation Commission to enter into a BMA with the Town. The SPB continues to have interest in finding innovative ways to address coastal management within the Town, but is careful in consideration of any innovative technologies so that the BMA is not affected.

Administrative. The Shore Protection Board spent some time getting the two (2) new alternate members informed and familiarized with Sunshine Laws and Public Records Laws.

Seniority for SPB Alternates. Voting rights need to be assigned to those alternate members based on the number of absent regular members for a particular meeting. The board decided to give seniority to Stephen Jacoby since he has been in the position of alternate member the longest. The order of second alternate (Warren Belmar) and third alternate (William Lorentzen) were determined by the board from a coin toss.

ANTICIPATED 2019 SHORE PROTECTION BOARD ACTIONS

Prior to Town Council review and consideration, the Shore Protection Board will discuss and recommend actions for the following notable items in 2019:

- FY 2020 Coastal Management Program Budget;
- Continued implementation of shoreline solution for Breakers/Clarke/Mid-Town area; and
- Continued considerations for Reach 8 following USACE issuance of a Record of Decision.
- Continued assistance to the Town Council in response to Town Council requests concerning implementation of the anticipated USACE-permitted groin rehabilitation project.
- Continued project monitoring of Mid-Town and Phipps and continued Townwide physical, biological, sea turtle nesting, and shorebird nesting monitoring in accordance with the BMA.
- Continue to explore alternative long-term solutions for the Coastal Management Program.
- Start considering long-term improvements following the Coastal Vulnerability Assessment.

cc: Jay Boodheshwar, Deputy Town Manager
H. Paul Brazil, P.E., Director of Public Works
Patricia Strayer, P.E., Town Engineer