

TOWN OF PALM BEACH

Information for Town Council Meeting on: December 8, 2020

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 23, 2020

The Shore Protection Board (SPB) is currently 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 2020 SPB membership was as follows:

2020 Shore Protection Board Member	Position	Current Term Expires
E. Llwyd Ecclestone	Chairperson	12/2020
Lewis Katz	Vice-chairperson	12/2020
Kane Baker	Regular Member	12/2021
Warren Belmar	Regular Member	12/2022
Melissa Ceriale	Regular Member	12/2022
James C. Gavigan	Regular Member	12/2021
Reuben B. Johnson, III	Regular Member	12/2021
Vladimir Rapoport	Alternate Member	12/2022
Erick Reickert	Alternate Member	12/2022
Vacant	Alternate Member	

Llwyd Ecclestone and Lewis Katz are currently serving their final three-year term ending in December 2020. Kane Baker, James Gavigan, and Reuben Johnson are serving their final three-year terms ending in December 2021. Warren Belmar and Melissa Ceriale are currently serving their first full term and both will be eligible to be appointed for an additional (3) three-year term in December 2022. SPB members are allowed to serve for two (2) consecutive three-year terms.

In the coming months, Town Council is expected to consider reducing the size of several boards and commissions. These reductions could occur through attrition as appointed officials term out. With the term expirations of both Mr. Ecclestone and Mr. Katz, regular membership of the Shore Protection Board could consist of five (5) members in 2021 unless Mr. Rapoport and Mr. Reickert would be promoted to regular members in 2021. On November 12, 2020, the board unanimously recommended that the board be maintained with seven (7) regular members and zero (0) alternate members.

The Board met three (3) times during the 2020 calendar year.

2020 Shore Protection Board Member	Meetings Attended	Absences	Jan 23	Oct 1	Nov 12
E. Llwyd Ecclestone	3	0	P	P	P
Lewis Katz	3	0	P	P	P
Kane Baker	2	1	E	P	P
Warren Belmar	3	0	P	P	P
Melissa Ceriale	3	0	P	P	P
James C. Gavigan	3	0	P	P	P
Reuben B. Johnson, III	3	0	P	P	P
Vladimir Rapoport	3	0	P	P	P
Erick Reickert	3	0	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 in recent years associated primarily with Hurricanes Matthew (2016), Irma (2017), Dorian (2019), and both Isaias and Eta (2020) no buildings are in imminent danger. Sand from the 2020 U.S.Army Corps of Engineers (Corps) Lake Worth Inlet Maintenance Dredging in Reach 1, 2020 Palm Beach County Federal Shore Protection Project Mid-Town Segment in Reaches 3 and 4, and 2016 Phipps Ocean Park Beach Nourishment in Reach 7, continue to feed sand into Reaches 2, 5, 6, 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. The shoreline in Reaches 3, 4, 7, and 8 (and Reach 9 in the Town of South Palm Beach) are to be further stabilized with expected sand placement efforts in early 2021.

2020 COASTAL PROTECTION PROJECTS

Mid-Town

Following initial construction of the Mid-Town Beach Nourishment Project in 1995 and renourishment projects in 2003, 2006, and 2015, all of which were constructed and funded by the Town (with some State cost-sharing), the Mid-Town Segment was constructed for the first time by the U.S. Army Corps of Engineers as a Federally-authorized project between March 16 and May 1, 2020. More than 800,000 cubic yards of sand was placed between Casa Bendita in Reach 2 to Banyan Road in Reach 4 with a Federal cost-share exceeding 50%. The non-Federal cost is eligible to be split between both the Town and the State. The net result of this project is a Town funding obligation of less than 25% of the total project cost. This cost-sharing partnership is currently in place until 2068.

Groin Rehabilitation

On multiple occasions, the board has recommended that Town Council approve and fund construction of the multi-phased groin rehabilitation program. The board continues to support this project. The board wants the responsibilities of both the Town and private oceanfront residences to be better defined with respect to seawalls and groins. It is recognized that the Mid-Town groins would possibly be the first section considered by Town Council for construction once beach nourishment (2020) and dune restoration (2021) efforts have been completed.

Inlet Maintenance

Sand Transfer Plant operations have continued during 2020 with more than 30,000 cubic yards (CY) of sand bypassed under the inlet, from Singer Island to Palm Beach Island, between January and May 2020. The current volume is less than the volume at this time last year due to the plant being down for structural repairs. Fortunately, the down time occurred between June and early October when the volume of sand bypassed is minimal or negligible due to seasonal sea conditions. With inlet maintenance dredging by the U.S. Army Corps of Engineers (Corps) in October and November 2020 placing on the order of 109,000 cubic yards of sand, the inlet management plan goal of bypassing 202,000 cubic yards will be nearly met. Long term, the averaged bypassing goals have been met.

Reach 8

The Town will continue its efforts to address the shoreline issues in Reach 8. After two (2) years of waiting for official correspondence from the Federal regulatory and advisory agencies, the Corps provided the Town with a letter from the National Marine Fisheries Service reviewing the proposed project for Reach 8. Based on this review, the Corps has not accepted the Town's mitigation plan for damage to offshore hardbottom caused by the project and it has requested that the Town provide a revised plan with additional mitigation considerations. The Town and its consultant, as well as the Florida Department of Environmental Protection, had previously reached consensus on the hardbottom impacts due to the project and the necessary mitigation measures. The Town continues to work with both our consultants and the Corps' Jacksonville District to resolve these differences. Following an accepted mitigation plan, the Town expects that the Corps would issue both the Reach 8 Environmental Impact Statement (EIS) Record of Decision and the Federal permit for the Town's preferred project (which includes both beach nourishment and dune restoration). The SPB will review and consider a solution in Reach 8, including an FY 2022 budget item, once these actions have been taken by the Corps.

Monitoring

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.

2020 SHORE PROTECTION BOARD ACTIONS

Due to the global pandemic, board meetings in the Town were temporarily suspended between March and September 2020. The SPB's meetings during this period of time were cancelled. The SPB reinitiated meetings on October 1, 2020 through Zoom and held its second meeting through Zoom since the pandemic on November 12, 2020.

Goals. During the January 23, 2020 SPB meeting, the SPB members discussed goals for the upcoming calendar year. The SPB reviewed the 2019 updated eight (8) goals and objectives as initially identified by the SPB in 2009. It was determined that five (5) of the eight (8) goals had been achieved. The five (5) completed goals include:

1. Pursue placing dry sand on hot spots (north part of Reach 7, south part of Reach 8) from inlet borrow areas to protect threatened property. *Achieved*
2. Review previous SPB's recommendations and conclusions for lessons learned. *Achieved*
3. Initiate discussion, dialogue and problem solving through a series of guest speakers from government officials, industry experts, environmentalists and other municipalities to obtain real solutions to shore protection that include other municipalities and county. Make recommendations accordingly. *Achieved*
4. Where applicable, cause regulatory agencies to re-designate certain reaches as "Engineered Beach" and "Critically Eroded" (e.g. Reach 1 should be an Engineered Beach, etc.) *Achieved*
5. Investigate whether seawalls should be replaced in erosion prone areas not currently protected by such as "last resort" property protection. *Achieved*

The remaining three (3) ongoing goals include:

1. Continue bypassing 100% of the littoral drift across the inlet through a combination of sand bypassing and inlet dredging and placement of dredged sand on or near the dry beach extending south of Reach 1;
2. Implement permitted coastal hard structure technology where appropriate (i.e. groins); and
3. Continue to work with state and Federal agencies and governments to implement projects to protect its shoreline.

In addition to the above three (3) goals, the SPB added two (2) new goals: Coastal Vulnerability & Resiliency and Communication. Overall, the five (5) total goals (including the three (3) ongoing goals and the two (2) new goals) will continue to be carried out into 2021.

Dune Planting. During the October 1, 2020 SPB meeting, the board tasked Vice-Chairperson Lewis Katz to work with Town staff to maximize best practices with respect to dune planting following dune restoration projects. The two (2) most important planting characteristics when soliciting bids for dune planting is the maturity of the plants and the spacing of the plants. In 2018, Town staff did follow the board's previous recommendations to increase the size of sea oats from 12 inches to 18 inches of height and tighten the density planting the sea oats to 12 inches apart rather than 18 inches apart. The Town is to maintain these plant sizes and spacing for future solicitations. Due to sea turtle nesting impacts and the potential to enable growth of invasive vegetation, irrigating native sea oats is an activity that will not be approved by FDEP. The SPB requests that staff obtain regulatory authority to plant sea oats in the late spring recognizing that additional turtle monitoring may be needed and some areas may need to be avoided for nests. The purpose of immediately planting sea oats and not waiting until after sea turtle nesting season is to give the best chance to hold the sand in place.

Five (5) to Ten (10) Year Outlook. As two (2) long-standing original members of the 2008 Shore Protection Board depart their posts in 2020, Mr. Ecclestone and Mr. Katz, it is important for the newer members to remember the efforts which have been performed and the successes which have been achieved during this time. The Coastal Management Program has an appropriate program to continue implementing with only detailed adaptive management applied to this program as new data and policies are brought forward. As beach renourishment projects and sand placement areas continue to be expanded through regulatory approvals in the next few years, the focus of the board will inherently shift more toward implementation of coastal resiliency on both the ocean and the lagoon sides.

ANTICIPATED 2021 SHORE PROTECTION BOARD ACTIONS

Due to the global pandemic and the subsequent moratorium on board and commission meetings, several anticipated 2020 SPB actions have been deferred until 2021. Prior to Town Council review and consideration, as necessary, the SPB will discuss and recommend actions for the following notable items in 2021:

- Continue to support Town staff's implementation of the SPB recommended and Town Council-adopted long-term Coastal Management Program;
- Support expansion of the Corps' Federal Shore Protection Project for the Mid-Town Segment to be extended from Banyan Road to Southern Boulevard;
- Recommend an FY 2022 Coastal Management Program Budget, including Groin Rehabilitation;
- Continue to monitor and permit/implement of a shoreline solution for Breakers/Clarke/Mid-Town area, consistent with the correspondence the Town received from FDEP in October 2020;
- Resolution of any easement disputes and obtain easements to maximize Federal participation of the Mid-Town Beach Nourishment Project;
- Continue consideration for a Reach 8 Beach Nourishment and Dune Restoration Project following Corps' issuance of a Record of Decision and the Town's receipt of both State and Federal permits;
- Continued project monitoring of Mid-Town and Phipps and continued Town-wide physical, biological, sea turtle nesting, and shorebird nesting monitoring in accordance with the BMA;
- Coordination between beach raking and volunteer beach cleanups; and
- Develop an action plan and continue to pursue the following SPB goals amended in 2020:
 - Continue bypassing 100% of the littoral drift across the inlet through a combination of sand bypassing and inlet dredging and placement of dredged sand on or near the dry beach extending south of Reach 1.
 - Implement permitted coastal hard structure technology where appropriate.
 - Continue to work with state and federal agencies and governments to implement projects to protect its shoreline.
 - Initiate the Implementation Plan for Coastal Vulnerability & Resiliency along both the ocean and the lagoon sides following receipt by Woods Hole Group in the spring 2021.
 - Improve communication to the public with respect to the Coastal Management Program.

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