## Gahagan & Bryant Associates, Inc.

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January 21, 2018

Robert Weber Town of Palm Beach Public Works Department 951 Old Okeechobee Road West Palm Beach, FL 33401

Via email: RWeber@townofpalmbeach.com

RE: Town of Palm Beach Sand Transfer Plant Feasibility Study

Dear Mr. Weber,

Gahagan & Bryant Associates, Inc. (GBA) is pleased to provide this proposal to prepare a feasibility study to review the current operation of the sand transfer plant and evaluate options for improving bypassing efficiency at Palm Beach Inlet. Recent concerns regarding reduced annual bypassing quantities have prompted the SPB to determine potential causes for the reduction and to investigate potential alternatives for increasing bypassed volumes. The results of the study will be summarized in a report and presented to the Shore Protection Board. The following task describes the services to be provided by GBA to the Town of Palm Beach (Town).

## TASK 1 - ENVIRONMENTAL CONSULTING

GBA will prepare a feasibility study to evaluate improvements to sand bypassing across Palm Beach Inlet. The feasibility study will review currently available information including bypass volumes and surveys, sand transfer plant schematics, as-built drawings for the recent sand trap improvements, hydrographic surveys of the ebb and flood shoals, nourishment plans for updrift communities, and will present a review of options for sand transfer plants implemented at other inlets. We will analyze existing beach profile data updrift and downdrift of the inlet to determine if there have been recent changes in littoral sediment transport patterns in recent years, which may be limiting the influx of sand to the limited reach of the sand transfer plant. The predominance of southeasterly winds during the past few years may have reduced the magnitude of the southerly drift which has historically occurred north of the inlet. The available surveys of the recently constructed sand trap basin will also be analyzed to determine its effect on littoral sand depositional patterns in the vicinity of the plant.

The Study will present the limitations of the existing sand transfer plant, recommend next steps to further investigate potential improvements, and present a range of costs to implement potential solutions. The findings will be presented to the Shore Protection Board at a regularly scheduled meeting. Services for this task are hourly, not to exceed.

Task 1 Cost: \$26,240.00



We appreciate the opportunity to work with the Town of Palm Beach on this important shoreline management project. Should you have any questions or require any additional information, please do not hesitate to contact me at (954) 248-2831 or via email at <a href="mailto:pleastable-pleas

Sincerely,

Penny Cutt Senior Associate