



**FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION**

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SECRETARY

April 15, 2015

City of Sarasota
c/o Alexandra DavisShaw
1565 1st Street, Room 100A
Sarasota, FL 34263

And

U.S. Army Corps of Engineers
c/o Eric Summa
701 San Marco Blvd.
Jacksonville, Florida 32207

REQUEST FOR ADDITIONAL INFORMATION (RAI #1)

DEP File Number: 0333315-001-JC, Sarasota County
Applicant Name: City of Sarasota and U.S. Army Corps of Engineers
Project Name: Big Sarasota Pass Dredging, Lido Key Beach Nourishment and Structures

Dear Ms. DavisShaw and Mr. Summa:

This letter is to acknowledge receipt of your application on March 16, 2015 for a Joint Coastal Permit, pursuant to Chapter 161 and Part IV of Chapter 373, Florida Statutes (F.S.); and authorization to use state-owned submerged lands, pursuant to Chapter 253, F.S.

Please be advised that your permit application is considered to be incomplete as provided for by Section 120.60, F.S., and Chapter 62B-49, Florida Administrative Code (F.A.C.). Receipt of information listed below is required to complete your application. Please submit the requested information with thirty (30) days from the date of this letter. If a response is not received within thirty (30) days of this letter, the Department of Environmental Protection's (Department's) Permit Manager will contact you regarding the status of your permit application. The items of information are numbered to correspond with the item numbers on the application form.

When replying to this Request for Additional Information (RAI), please address your response to my attention (the undersigned Permit Manager). Please keep your RAI response separate from Scope of Work (SOW) submittals to the Project Manager in the Department's Beach Erosion Control Program. Misdirecting your response or combining your response with SOW matters will delay the review of your application. Please feel free to **courtesy copy** any other individuals

with your response, but only responses addressed to the Permit Manager will be reviewed as part of your permit application.

Please prepare and submit an electronic copy of your response in Portable Document Format ® (PDF) (including response document text, all attachments, and drawings) via the Beaches, Inlets and Ports shared mailbox at BIPP@dep.state.fl.us. For more information on how to submit your response electronically, please refer to the Electronic Submittal Instructions located at: <http://www.dep.state.fl.us/beaches/forms.htm#JCP>

5. Describe in general terms the proposed activity including any phasing.

- *Please describe the order of dredging, including preferential placement of borrow area material on certain portions of the fill template on Lido Key. What volume of material will be removed from each borrow area during the first and subsequent events.*
- *Will these borrow areas (B, C and D) all be used again in future events? If not, which ones will be used in subsequent event(s)?*
- *The project description provided in Item #5 is significantly different from the project description provided in Item 27. The description in Item #5 proposed dredging borrow areas B and C to a maximum depth of -13.5 feet North American Vertical Datum (NAVD) and contour dredging to a depth of -15.5 feet NAVD in borrow area D. The description in Item 27 describes two possible dredging options: option 1 proposes to dredge borrow areas B, C and the overlap of D2 and D3 to a maximum depth of -13.5 ft NAVD. Option 2 proposes to dredge borrow area B to -13.5 ft NAVD and the overlap of D2 and D3 to -15.5 ft NAVD. Please clearly identify which borrow areas will be dredged in this event, and the maximum dredge depth to which the borrow areas will be dredged in order to determine compatibility. Additionally, identify the location of “the overlap of D2 and D3” as these borrow areas are referenced in Item 27, but are not discussed in the project description (#5) or in the permit drawings (#23/24). All proposed activities and templates need to be clearly shown in the permit drawings for approval and authorization under this permit.*
- *Provide construction and design templates that minimize impacts to marine turtles. The proposed 10:1 fill template will likely result in scarping. We suggest a more natural profile that reduces the potential for scarping as the profile adjusts and reflects more natural beach topography, with a slight slope from the foreshore break to the toe of the dune as well as a dune feature at the back of the berm. Have alternative designs such as permeable adjustable groins been considered for the proposed groin field at the south end of Lido Key?*

- *The description states that the project includes an 80-foot wide design beach. Is the intention of the 5-year advance nourishment to build a 200-foot wide design beach (as shown in the permit drawings), which is expected to erode back to 80-feet after 5 years? If this is not the case, the stated width needs to be revised for consistency.*
- *If the terminal groin is not going to be included in the permit at this time, it should be removed from the project description document and all other applicable attachments (i.e. construction schedule, etc.). See Item #33a for additional information.*

This information is required pursuant to Rule 62B-41.008(1)(f, l and q), F.A.C.

6. Are you requesting any exemptions? If yes, provide an explanation and cite rule number(s).

Does the turbidity monitoring data from the recent 2014/2015 Lido Key Beach Nourishment (Permit No. 0270032-001-JC) support the inclusion of provisions to increase the mixing zone size following a stated number of exceedances in turbidity at the edge of the established mixing zone for a given construction event/specified time period? The mixing zone was reduced from 1,500 meters alongshore and 300 meters offshore, down to 150 meters radius in Permit Modification 0270032-004-JN because turbidity data from the 2009 construction event showed that 150 meters radius was the appropriate mixing zone size for that project. Provisions were included in that modification to allow the mixing zone to be increased during each construction event, from 150 meters alongshore to 500 meters alongshore following two (2) exceedances in the alongshore direction. If an additional two (2) exceedances occurred at the 500-meter distance, the Department would authorize a mixing zone up to 1,000 meters alongshore. Similarly, two (2) exceedances in the offshore direction would increase the mixing zone to 300 meters in the offshore direction. There were concerns from the Permittee about delays and increased costs from construction shut-down due to turbidity exceedances and these provisions were included in that modification, specifically for that project. Furthermore, the 2014/2015 construction event was the first to utilize the reduced mixing zone size and data was not yet available to determine the necessity of increasing the mixing zone. Please note that these provisions are not standard conditions that will automatically be included in the water quality monitoring section of Joint Coastal Permits. The necessity will require justification and be evaluated and determined on a case-by-case basis.

Please provide the turbidity data from the mentioned construction event above from the Lido Key Beach Nourishment (0270032-001-JC) and make note of any exceedances and/or increases to the mixing zone size, as applicable. Any inclusion of the provisions

mentioned above will need to be justified for consideration. The data should be organized into Excel.

For further guidance on determining the natural background variability of turbidity within the Outstanding Florida Waters (OFW), please contact Chiu Cheng at chiu.cheng@dep.state.fl.us.

11. Have you obtained approval from the Department of State, Division of Historical Resources? If yes, provide a copy of the letter of approval.

The Department requested this information on your behalf with the Division of Historical Resources (DHR), and received a response on April 15, 2015 (letter and enclosure attached).

There are 23 anomalies identified in the vicinity of the borrow areas. These anomalies need to be included in the permit drawings (#24). Furthermore, DHR has indicated that the anomalies and targets are potentially significant historic resources, and should all be avoided during construction and designated as no work zones, with the avoidance radii recommended in the Table 5-1 of the enclosure (150 or 170 feet buffer). Prohibited activities over these anomalies would include, but are not limited to, activities such as dredging, pipeline/equipment placement, anchoring or spudding, etc.

This information is required pursuant to Rule 18-21.004(2)(i), F.A.C., and Section 267.061, F.S.

12. Has an Erosion Control Line (ECL) been established pursuant to Sections 161.141 - 161.211, F.S.? If yes, please provide evidence that the ECL has been recorded and show the location of the established ECL on all appropriate drawings.

An ECL has not been established along the portions of the beach from R-34.5 to R-35. The template will either need to be modified/reduced in size or an ECL will need to be established along this segment. The southern end of Lido Key, where the third groin would potentially be constructed, also does not already have an ECL (South of R-44.2). If the third groin is proposed at this time, the ECL will also need to be established for this project.

For additional information on the procedures in establishing an ECL, please contact Guy Weeks at William.Weeks@dep.state.fl.us, or 850-245-7696.

13. A copy of the Division of State Lands title determination. If you do not have title determination, department staff will request that the Division of State Lands conduct a title check.

The Department requested this information on your behalf with the Division of State Lands and received a response on 3/31/2015. The State holds title to land seaward of the existing ECL.

This item is complete.

15. A detailed statement describing the existing and proposed upland uses and activities. For projects sponsored by a local government, indicate whether or not the facilities will be open to the general public. Provide a breakdown of any user fees that will be assessed to the general public and indicate whether or not such user fees will generate revenue or will simply cover costs associated with maintaining the facilities.

In Attachment 15, the stated project area is R-3.45 to R-44. Please update with the correct R-monument.

16. The information in this item is only required if you are applying for a sovereignty submerged lands easement or lease. A list of the names and addresses of owners of all riparian property within 1,000 feet (and within a 500 ft radius) of the proposed sovereignty submerged lands easement or lease site from the latest county tax roll. If the property is under cooperative or condominium ownership, the name and mailing address of the cooperative or condominium association will be adequate. This would not apply to off-shore leases or easements that are not located within 1,000 feet of the shoreline.

Since a public easement will be required for this project, notices must be sent to all affected riparian owners within 500-feet of the proposed public easement through certified mail. The Permit Number (0333315-001-JC) should be clearly indicated on the return receipt cards. The attached SLER 0905 Notice of Easement form should be mailed to each addressee. A one-page sketch showing the project and the components of the borrow areas and groins that will require the easement should also be included in the letter. A photocopy of all the return receipt cards should be submitted to the Department.

Your application will remain incomplete pending the receipt of this information.

This information is required pursuant to Rules 62B-41.008(1)(b) and 18-21.005(3), F.A.C.

17. A legal property description and acreage of any sovereign submerged land that would be encompassed by the requested lease or easement, plus two (2) prints of a survey prepared, signed and sealed by a person properly licensed by the Florida State Board of Land Surveyors.

A Public Easement is required for the proposed borrow areas and the proposed groin structures. Pursuant to Rule 18-21.009(1)(e), F.A.C., please submit two (2) hard copies of a professional sketch and legal description, that is prepared and signed and sealed by a Florida-licensed surveyor and mapper. In addition, the survey shall include the information listed in the attached easement sketch requirements (SLER 0960).

20. Topographic and bathymetric survey drawings of the proposed project site(s), including profiles and a contour map that reflect conditions within the past six (6) months, in accordance with Rule 62B-41.008(1)(h), F.A.C. Drawings shall meet the State's minimum technical standards and shall be signed and sealed by the professional surveyor, duly registered pursuant to Chapter 472, Florida Statutes, who performed the survey.

This document needs include the signature and seal of a certified professional surveyor. If an electronic signature is not possible, two signed/sealed hardcopies will need to be mailed to the Department.

Your application will remain incomplete pending receipt of this information.

This information is required pursuant to Rule 62B-41.008(1)(h), F.A.C.

- 23./24. Complete sets of construction plans and specification for the proposed activity, certified by an engineer duly registered pursuant to Chapter 471, Florida Statutes. The plans shall clearly distinguish between existing and proposed structures and grades, and shall include the information contained below. In addition to the full-size drawings requested above, the information required under Paragraphs (20), (22) and (23) shall be provided on 8 1/2-inch by 11-inch paper, certified by an engineer duly registered pursuant to Chapter 471, Florida Statutes. Each drawing shall include an accurate scale or dimensions, and all information shown on the drawing shall be clearly legible.

For clarification, Items 23a and b are not the same as the final plans and specifications that are submitted along with the Notice to Proceed request and used for construction purposes. The information requested below is required for completeness and should be included in the permit drawings (#24). Items #23 and #24 can be treated as one attachment (#24). Pursuant to Rule 62B-41.007(4), F.A.C., the Applicants shall provide the Department with certification by a professional engineer registered in the State of Florida that the permit drawings submitted as part of the permit application are in compliance with standards established in Chapter 62B-41, F.A.C. If the drawings cannot be electronically signed/sealed, then two (2) hardcopies will need to be mailed to the Department.

General comments on the Permit Drawings:

- *The OFW boundary needs to be marked on all applicable sheets, particularly on sheets 2, 7, 15-19.*
- *The existing groin structure at R-38.4 needs to be shown and labelled on the permit drawings.*
- *Construction staging and access areas need to be indicated on the drawings.*
- *The northern limit (tapering) of the fill template appears to encroach on top of vegetation. Is there any impacts to the vegetation or dune system anticipated for this project (sheet 4)?*
- *If the slope is modified, this will need to be reflected on applicable sheets/cross sections of the permit drawings. For specific comments on the beach berm slope design, please see item #5.*
- *A lateral view of the groin structures should also be provided, in addition to the landward-facing view provided on sheet 31. If the third terminal groin is proposed at this time, all of the information will also be required in the permit drawings prior to completeness. If the third groin is not approved at this time, a permit modification will be required to add it at a later time. See item #33a for additional information.*
- *Information provided in the application (e.g., permit sketches, aerials, and natural community description) indicates that seagrasses are located within the proposed borrow areas. The construction plans indicate that a buffer will be established around the seagrass resources to avoid impacts, however the permit sketches do not show the proposed buffer that would be established to avoid impacts. A buffer around seagrass resources would need to be substantial in order to prevent impacts due to project-related turbidity and potential sloughing of materials around the seagrass habitat due to dredging of adjacent portions of the borrow areas beyond the buffer. Moreover, the inclusion of a buffer does not provide the Department with reasonable assurance that seagrass impacts would be avoided given the significant volumetric excavation that is proposed which could alter the elevation and mobility of sediments supporting seagrass resources. Please be advised, the Department requests a biological mitigation and monitoring plan to document and offset impacts to seagrass resources.*

This information is required pursuant to Rules 62B-41.008(1)(k) and 62B-41.007(4), F.A.C.

- a. Plan view of the proposed activity depicting the mean high water line (MHWL), any easement boundary and the erosion control line (if applicable) within the area of influence of the proposed activity. Identify the boundaries of significant geographical features (e.g., channels, shoals) and natural communities (e.g., submerged grass beds, hardbottom or mangroves) within the area of influence of the activity. Include a north arrow and a scale bar on each drawing.

- ***The drawings indicate that borrow areas C and D overlap. Please clearly identify the boundaries of each borrow area.***
- ***Please clearly identify the maximum dredge depth for each borrow area, including any overdredge, on the drawings.***

This information is required pursuant to Rules 62B-41.008(1)(k)(1) and 62B-41.008(1)(q), F.A.C.

- b. A sufficient number of cross-section views of the proposed activity depicting the slopes, the MHWL, any easement boundary and the erosion control line (if applicable) within the area of influence of the proposed activity. Identify the boundaries of significant geographical features and natural communities in the area of influence of the proposed activity. Elevations indicated on the cross-sections shall be referenced to the North American Vertical Datum of 1988 (NAVD 88).

- ***The identifiers (PL-XX) for the borrow areas do not match the cross-sections for those borrow areas. For example, the plates are labeled as PL-20 A-C, PL-21 D-F and PL-22 G and H. However, the cross sections show plates PL-16 A-C, PL-17 D and E, PL-18 F, PL-19 G and H. Please make sure the plate numbers correspond to the respective sections of each borrow area.***
- ***Furthermore, the Key Plan on sheets 23-27 do not show borrow area D, and the PL-numbers are different from the Key Plan shown on sheets 16-19. Please keep the PL-designations consistent for each borrow area/segment throughout the drawings and update the drawings accordingly.***

This information is required pursuant to Rule 62B-41.008(1)(k)(2), F.A.C.

- c. Details of construction, including materials and general construction procedures and equipment to be used (e.g., construction access, dredging method, dredged material containment, pipeline location).

- ***Please describe the dredging method that will be used, and fully describe the contoured dredging approach that has been proposed for borrow area D.***

- *Between Borrow Areas B, C, and D, there is an unknown volume of material available for beach placement. The volume provided from borrow areas B and C should provide approximately 1.285 million cubic yards (mcy), 335,000 cy more material than actually needed for the first nourishment project. Will all 3 borrow areas be used for this first event? What volume of material will be removed from each borrow area? Which sections of the borrow areas will be dredged? How much material is available in borrow area D?*
 - *Please provide a dredging plan for excavation of the borrow area material that provides the most efficient utilization of the entire volume of borrow area sediment over the course of the initial and subsequent beach nourishment projects throughout the lifetime of the 15 year permit. Borrow area sediment management should conserve the beach fill material remaining within the borrow area after completion of each nourishment event, and should be sufficient for at least two nourishment events. The dredging plan should specify the sequence of excavation areas within each borrow area such that the remaining material after each nourishment event will reside within the borrow area cut where it can be efficiently and economically excavated during subsequent events. The conservation of sand resources objective is to excavate all the available beach compatible sediment in such a manner that no significant quantity of material remains where it is not technically or economically feasible to extract during a subsequent event.*
27. Permit applications for excavation or fill activities shall include the following detailed information concerning the material to be excavated and the existing or native material at the beach fill site:
- *Attachment 27 states that the nourishment will occur from R-35 to R-44 (1.56 miles of shoreline), which is inconsistent to the 1.6 miles (R-34.5 to R-44) stated in all other attachments. Please correct the inconsistency.*
 - a. Site plans showing the location of all core borings and the boundaries of the area to be excavated.
 - *Please justify the configuration of cut depths within borrow areas B, C and D, and clearly identify the location of the overlap of borrow area D2 and D3, as it is not shown or labelled on the permit drawings.*
 - *Clearly identify the boundaries of borrow areas C and D, as they appear to overlap and have different dredge depths of -13.5 ft NAVD and -15.5 ft NAVD (with contour dredging), respectively. Borrow areas should not overlap, nor should there be multiple proposed cut depths for a given borrow area.*

- *The department requests that the marine contractor's final dredge plans be provided prior to construction.*
 - *There are more core logs provided than cores shown on the map. Please submit a map showing all cores that have been collected for this project so the data can be spatially and correctly assessed.*
- b. Core boring logs of all cores taken throughout the area to be excavated and surrounding area. Logs should extend at least two feet below the proposed bottom elevation. The depth of each visible horizon in the log should be reported relative to NAVD (88) and the material in each stratum classified according to grain size.
- *Several cores had a recovery of 80% or less (14 of the 28 cores). Please provide an explanation for these cores having recovery of 80% or less, as they were ultimately used in the design and characterization of the borrow areas and material. Be sure to include any possible complications or error.*
 - *As there was 80% recovery or less in 14 of the cores, was any seismic data collected to determine the subsurface stratigraphy? If so, provide those data, and a summary of the results of those data.*
 - *In order to better understand the material between each of the vibracores, please provide reasonable assurance that non-compatible material will not be encountered by providing a fence diagram of the cross sections along the borrow areas.*

This information is required pursuant to Rule 62B-41.008(1)(k)(4)(a), F.A.C.

- d. Carbonate content and percent organics by dry weight from representative stratum in each core. Chemical analyses shall be required if there is reason to suspect that the sediments are contaminated.
- *The Department acknowledges that a geotechnical study is underway, and this item would be provided at a later date. Please provide these data once the analysis is complete.*
 - *Please describe the nature of the carbonate material (i.e. is it shell fragments, shell hash, sand-sized material, silt-sized material?).*

Your application will remain incomplete pending receipt of this information.

This information is required pursuant to Rule 62B-41.008(1)(k)(4)(a), F.A.C.

- e. Representative physical samples and particle size, color and carbonate content of the existing or native material at the beach fill site.

- *The existing beach data provided was reported in 2008 (Finkl et al., 2008). Since the publication of the report, two nourishment projects have occurred on Lido Key in accordance with JCP Permit # 0270032-001-JC. Please provide updated existing beach data, including mean grain size, sorting, percent silt, percent shell and moist Munsell color.*

This information is required pursuant to Rule 62B-41.008(1)(k)(4)(a), F.A.C.

- f. A sediment QA/QC plan that will ensure that the sediment to be used for beach restoration or nourishment will meet the standards set forth in paragraph 62B-41.007(2)(j), F.A.C.

- *Silt content may contribute to financial costs and turbidity issues. Please provide a justification for the compliance values provided in Table 1 of the QA/QC plan, as they are not in agreement with the data submitted for this project. The requested percent silt and shell compliance values are 5% each; however when comparing to the two dredge options proposed, the percent silt and shell in the borrow area are less than 2% and less than 1%, respectively. Additionally, the existing beach (from Finkl et al, 2008) indicate percent silt and shell values of less than 1% each. Finally, the Munsell color of the borrow area material is, on average, 5Y 8/1, with only 2 occurrences of a value of 6.*
- *The permit number should be included on the QA/QC plan.*
- *Coordination should be made with the Department's coastal geologist, Dr. Jennifer Coor at Jennifer.Coor@dep.state.fl.us, to discuss the proposed track changes to the QA/QC plan. In particular, the requested track change to strike the certification of sediment analyses and volume calculations by a registered PG or PE in the state of Florida is not consistent with Statute and Rule. This is required pursuant to Rule 62B-41, F.A.C and Chapters 471 and 472, F.S.*
- *Please update the FDEP contact information to reflect the accurate address of JCP compliance:*

*JCP Compliance Officer
Department of Environmental Protection
Division of Water Resource Management
Bob Martinez Building, MS 3566
2600 Blair Stone Road
Tallahassee, FL 32399-2400*

Phone: 850-245-7591

Email: JCPCCompliance@dep.state.fl.us

This information is required pursuant to Rule 62B-41.008(1)(k)(4)(b), F.A.C.

ROSSI

Submit all geotechnical information in electronic file format suitable for input to the Department's Regional Offshore Sand Source Inventory (ROSSI) database.

- ***Please submit all geotechnical information in electronic file format suitable for input to the Department's Regional Offshore Sand Source Inventory (ROSSI) database. The data may be submitted in Excel, Access, and/or gINT® files. The MS Access Front End Loader and gINT® files are available on the ROSSI website <http://ross.urs-tally.com/Downloads.aspx>.***
- ***Please submit electronic spatial data of borrow area boundaries, core boring locations, and seismic track lines with time stamps and shot points, and .pdf files of seismic images with time stamp annotations. Spatial data are to be submitted in a georeferenced format, which may be the following: MicroStation (.dgn), AutoCAD (.dwg, .dxf), GIS (.shp, coverages, geodatabase, kmz, etc.).***

28. Using an established natural community classification system, describe each natural community within the area of influence of the proposed activity and include:
- a. Acreage.
 - b. Identification of the flora and fauna to the lowest taxon practicable.
 - c. Characterization of dominant and important flora and fauna and estimates of percent biotic cover.
 - d. Sampling locations, date of sampling or measurements and methods used for sampling.

Impacts to seagrass resources are expected due to the significant volumetric excavation that is proposed. Therefore, the Department requests additional information on the current status of resources within the influence of the proposed project; this information is required for the Department to evaluate project-related impacts to resources and to use the Uniform Mitigation Assessment Method (UMAM), in accordance with Chapter 62-645, F.A.C., to calculate the amount of mitigation that will be required to offset project-related impacts. Accordingly, the Department requests additional information on natural communities within the influence of the proposed project pursuant to Rules 62B-41.008(1)(q), and 18-21.004(2)(i) F.A.C.

What is the total acreage of seagrass in the project area, and what acreage of seagrass resources is present within each of the proposed borrow areas? What acreage of seagrass resources is located within the proposed mixing zone? Please provide additional information on the historical distribution (acreage estimates and

maps) of seagrass within the project area. What is the maximum extent of seagrasses documented in the project area? What is the total acreage of the project area that has ever supported seagrass (present and historical coverage)?

The Department requests additional information regarding the field methods that were used to evaluate seagrass within the project area. Attachment 28-1 contains a figure showing the locations where divers verified towed-video survey data to determine the distribution and abundance (e.g., acreage and cover) of seagrass and hardbottom resources within the project area. The location of diver surveys in Figure 1 appears to conflict with other information provided in the field observation report. Specifically, the position of seagrass verification dives in Figure 1 does not correspond to the location of seagrass patches depicted in Figures 2a and 2b. Moreover, figures 6 and 7 show in-situ photographs of seagrasses patches that were not shown as having been diver-verified in Figure 1. Please provide a revised map showing all locations that were diver-verified. Please also provide information on the survey methods used to estimate the percent cover of seagrass within each patch. Was percent cover of seagrasses in the project area evaluated using standard Braun-Blanquet cover-abundance methods? How many quadrats were surveyed per patch?

Thank you for providing a tabular summary of the seagrass observations (Table 1, attachment 28-1); the Department also requests that you provide the mean and standard deviation of seagrass cover (total and by species) for each of the seagrass patches in-which visual estimates of seagrass percent cover were taken within quadrats. The Department would appreciate access to any additional field data, photos and video that document the current condition of resources within the project area.

In addition to seagrasses within the proposed borrow areas, hardbottom resources were also documented within the project area. Are hardbottom resources in the project area natural or was this material placed during a previous project, e.g., rip rap for shoreline stabilization?

Please provide additional information regarding natural hardbottom resources in the project area, including the acreage of hardbottom that is within the influence of the project (including the proposed mixing zone).

31. A current Biological Opinion from the U.S. Fish and Wildlife Service or the National Marine Fisheries Service, when the Florida Wildlife Conservation Commission has determined that the proposed project will result in a take of marine turtles, which could not be authorized without an incidental take determination under federal law.

Please provide an updated Incidental Take and Biological Opinions from both the U.S. Fish & Wildlife Service and the National Marine Fisheries Service. The incidental take authorization should assess take due to construction of the groin as well as potential impacts to nesting and nearshore foraging sea turtles. This Opinion should include potential impacts to nearshore hard bottom habitats as well as impacts due to fill placement.

This authorization is not a completeness item, but will be required prior to issuance of a Notice to Proceed. Any necessary changes to the relevant specific conditions following the issuance of the final order would require a permit modification.

This information is required pursuant to Sections 379.2431 (1), 379.2431(1) and 373.414(1)(a)2., F.S., and Rules 18-21.004(2)(i), 62B-41.002(19)(d) and 62B-41.005(18), F.A.C.

33. Analysis of the expected effect of the proposed activity on the coastal system including but not limited to:
- a. Analysis of the expected physical effect of the proposed activity on the existing coastal conditions and natural shore and inlet processes. The analysis should include a quantitative description of the existing coastal system, the performance objectives of the proposed activity, the design parameters and assumptions, relevant computations, validation of the results and the data used in the analysis.

The application indicates that the option of constructing a third, terminal groin will be based on the performance of the project as determined by the physical monitoring results. Please provide a quantitative description of the coastal conditions of Lido Key and performance of the project that would demonstrate the need for construction of the third, terminal groin. This information is required pursuant to Rule 62B-41.008(1)(f), F.A.C.

Based on current coastal conditions, USACE 2015 provides analysis of the expected physical effect of dredging the Big Sarasota Pass ebb shoal for initial construction of the Federal project. The application requested a permit for periodic dredging of the Big Sarasota Pass ebb shoal as a renewable sediment resource for beach nourishment. Please provide a quantitative description of the coastal conditions of Big Sarasota Pass and the adjacent beaches of Lido Key and Siesta Key, and performance of the project, that would indicate no adverse impacts to the coastal system and renewal of the sediment resource. Explain how the analysis in USACE 2015 is applicable to periodic dredging under these coastal conditions. This information is required pursuant to Rule 62B-41.008(1)(f), F.A.C.

Please provide a physical monitoring plan as required by Rule 62B-41.005(16), F.A.C. The monitoring plan should be sufficient for both the Permittees and Department to regularly observe and assess, with quantitative measurements, the performance of the project, the project's effects on the inlet tidal shoals and adjacent beaches and, in particular, to determine the appropriate location and volume of future dredging for periodic maintenance of the project. The inlet monitoring plan should consolidate data collection, analysis and reporting of the physical monitoring of the New Pass dredging and beach placement of dredged material on Lido Key. As guidance for obtaining Department approval, the monitoring plan shall generally contain beach-offshore surveys of Lido Key, and the area of Siesta Key within the influence of the inlet; bathymetric surveys of New Pass and Big Sarasota Pass, including the navigation channel and entire shoal complex; an engineering report that shall summarize and discuss the data, the performance of the project, identify and analyze erosion and accretion patterns within the monitored area, and be the basis for determining the location and volume of future dredging material.

- b. Analysis of the compatibility of the fill material with respect to the native sediment at the placement site. The analysis should include all relevant computations, the overfill ratios, and superimposed graphs of the cumulative grain-size distribution and the frequency distribution of the fill material over the data for the existing or native sediment at the placement site. Provide computations of borrow area volume and composite fill material characteristics (mean grain size and sorting, percent carbonate content) in an electronic spreadsheet.

- ***The Department acknowledges that a final analysis of the compatibility of the fill material with respect to the native sediment at the disposal site will be provided upon completion of the geotechnical (sand source) investigation. Please update the compatibility analysis based on the data from the response to item #27e.***
- ***Provide composite graphs of the grain-size distribution of the fill material and the existing or native sediment at the disposal site.***
- ***Provide a cumulative frequency plot containing the dredge material and native beach composite for comparison.***
- ***Please provide computations of borrow area volume and composite fill material characteristics (mean grain size and sorting, percent carbonate content) in an electronic spreadsheet.***

This information is required pursuant to Section 373.414(1), F.S., and Rule 62B-41.008(f), F.A.C.

- d. Analysis of how water quality and natural communities would be affected by the proposed project. Provide graphic representation (depiction) of the area of direct and secondary influence of the proposed activity and delineate the natural communities within that area. All required surveys shall be representative of conditions existing at the time of submittal. Surveys of submerged aquatic vegetation (SAV) shall be conducted in the field during the growing season for a given climatic region such that they capture the full areal extent and biomass of the SAV community. Species composition and spatial distribution shall also be addressed by the survey. Estimate the affected acreage of each impacted community.

Note: If a mixing zone is proposed, provide a narrative description and graphic representation of the mixing zone. Identify any areas within the proposed mixing zone that contain significant submerged resources. Explain why the size of the proposed mixing zone is the minimum necessary to meet water quality standards and provide justification for that size.

The Department requests a comprehensive analysis of all potential effects the proposed project may have on natural communities pursuant to Rules 62B-41.008(1)(q) and 18-21.004(2)(i) F.A.C. Please provide information (including graphical representation) on the area(s) within the direct and secondary influence of the project. Specifically, the Department requests that you provide the acreage of each seagrass patch / hardbottom area within each of the proposed borrow areas and within the proposed mixing zone. Additionally, describe any potential secondary impacts to resources (e.g., temporary degradation or loss of function) that may result from “temporary elevated turbidity during dredging” per attachment 28. Given the dynamic nature of seagrass resources, please consider the potential future distribution of resources outside of the dredge footprint that may be influenced by subsequent maintenance dredging events.

34. Describe the location and details of the erosion, sediment and turbidity control measures to be implemented during each phase of construction and all other measures used to minimize adverse effects to water quality.

Please see the response under item #6 for additional information.

The sampling frequency will be three (3) times per day, at least four (4) hours apart. The intermediate monitoring (if required) will occur over the same frequency.

Part of the project falls within the OFW. If the Applicants intend to utilize the provisions from Rule 62-4.242(2)(b)2., F.A.C., to determine the background variability of turbidity in OFW, this will need to be done prior to the completeness of this

application. Otherwise, turbidity levels will not be authorized to exceed zero (0) NTUs at the edge of the established mixing zone within the OFW.

This information is required pursuant to Section 373.414(1), F.S., and Rule 62B-41.008(f), F.A.C.

37. A narrative description of any proposed mitigation plans, pursuant to Rule 62-345, F.A.C., including purpose, a comparison between the functions of the impact site to the mitigation site, maintenance, monitoring, estimated cost, construction sequence and techniques. For proposed artificial reefs, indicate the water depth, depth of sand overlying bedrock, proposed relief and materials (type, size and shape).

The Department requests a biological mitigation and monitoring plan. Department staff in the Beaches, Mining and ERP Support program would be glad to assist the applicant in the preparation of this plan. Please contact Jennifer Peterson at Jennifer.M.Petesron@dep.state.fl.us with any questions regarding compensatory mitigation and monitoring for impacts to resources.

A mitigation plan to offset impacts to seagrass resources within the proposed borrow areas is requested by the Department.

Please provide a biological monitoring plan that provides reasonable assurance that the current condition of all natural communities that may be impacted by the project will be thoroughly characterized prior-to and following construction, and that any potential impacts to resources will be documented pursuant to Rule 62B-41.005(16), F.A.C. Please note, the Department typically requires monitoring of all resources located within (at least) 1000 feet of borrow areas. Given the dynamic nature of seagrass resources, the monitoring plan should consider the potential future distribution of resources outside of the dredge footprint that may be influenced by turbidity, sedimentation and sloughing associated with subsequent maintenance dredging events.

Please publish the enclosed Notice of Application. Pursuant to Section 403.815, F.S. and Rule 62-110.106, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Notice of Application. This notice shall be published one time only within 14 days, in the legal ad section of a newspaper of general circulation in the area affected. For the purpose of this rule, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. The applicant shall provide proof of publication to the Department within seven (7) days of publication.

Your application will be denied without prejudice if all the information listed below is not received within 6 months after a written request for such information has been sent. A new application, accompanied by the appropriate fee, would then be required to renew your application. However, if you can demonstrate that you have been actively working on collecting or developing the requested information, and that additional time will be required to complete your response to the RAI, you may request up to six (6) additional months to submit your response.

If the processing of the application is prolonged, or if a storm event is known to have altered the shoreline such that the staff determines that the topographic and bathymetric survey data is no longer adequate to complete its analysis, then an updated survey shall be required as specified in Item No. 20 above. In the event that an updated survey is required, the application shall be treated as an amended application.

If I may be of any further assistance or if you wish to discuss this request in a personal meeting, please contact me at the letterhead address (add Mail Station 3544), by e-mail at chiu.cheng@dep.state.fl.us or by telephone at (850) 245-7585.

Sincerely,

A handwritten signature in blue ink, appearing to read "Chiu Cheng", with a stylized flourish at the end.

Chiu Cheng
Environmental Specialist II
Beaches, Inlets and Ports Program

Enclosure(s): Notice of Application
Notice of Easement (0905)
Easement sketch requirements (SLER 0960)
DHR Project File No.: 2015-1268 (dated April 15, 2015, with enclosure)
Siesta Key Association comment letter (dated April 9, 2015)

cc: Tom Pierro, CP&E
Michelle Pfeiffer, CP&E
Milan Mora, Corps
Danielle Irwin, DEP DWRM
Martin Seeling, DEP DWRM
Thomas Jacobs, DEP DWRM
Robert Brantly, DEP DWRM
Subarna Malakar, DEP DWRM
Ralph Clark, DEP DWRM
Robert Wang, DEP DWRM
Roxane Dow, DEP DWRM
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Steve West, DEP S District
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Catherine Luckner
Tom Reese