

FLORIDA DEPARTMENT OF Environmental Protection

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CONSOLIDATED JOINT COASTAL PERMIT AND SOVEREIGN SUBMERGED LANDS AUTHORIZATION

PERMITTEE:

Lee County Natural Resources Division 1500 Monroe Street Ft. Myers, FL 33901

AGENT:

Coastal Engineering Consultants 28421 Bonita Springs Boulevard Bonita Springs, FL 34135

PERMIT INFORMATION:

Permit Number: 0311811-004-JM

Project Name: Bonita Beach and Lovers Key

Beach Nourishment

County: Lee

Issuance Date: December 14, 2022

Expiration Date: June 24, 2028

REGULATORY AUTHORIZATION:

This major modification to Permit No. 0311811-001-JC is issued under the authority of Chapter 161 which includes consideration of the provisions contained in Part IV of Chapter 373, Florida Statutes (F.S.), and Title 62, Florida Administrative Code (F.A.C.). Pursuant to Operating Agreements executed between the Department of Environmental Protection (Department) and the water management districts, as referenced in Chapter 62-113, F.A.C., the Department is responsible for reviewing and taking final agency action on this activity. **This modification, hereafter referred to as Permit No. 031181-004-JM, supersedes Permit No. 031181-001-JC, but not Variance No. 0311811-002-BV.** Changes to Permit No. 031181-001-JC are shown as strikethroughs (deletions) or underlines (additions).

PROJECT DESCRIPTION:

The project consists of nourishing 0.8 miles of Bonita Beach and 1.1 miles of Lovers Key Beach using beach compatible material from 2 <u>nearshore</u> borrow areas <u>and an offshore sand source</u>. Upland sand sources will also be used for hot-spot maintenance and post-storm recovery. The <u>nearshore</u> borrow areas are part of the Big Carlos Pass ebb shoal complex. The project also includes the <u>one-time only placement of roughly 20,000 ey of periodic placement of beach compatible</u> sand obtained from the maintenance dredging of the New Pass Navigational Channel Complex, within the permitted Lovers Key beach fill template.

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PROJECT LOCATION:

The nourishment site on Lovers Key extends from 500 feet north of DEP Reference Monument R-215 to 500 feet south of R-220. The nourishment site on Bonita Beach extends from 50 feet south of R-226 to R-230, on Little Hickory Island. The <u>nearshore</u> borrow areas are located in the ebb tidal shoal of Big Carlos Pass, between Estero Island and Big Hickory Island. Both of Tthe two ebb shoal borrow areas and sand placement areas extending seaward from the Erosion Control Line are on state owned sovereign submerged lands in the Gulf of Mexico, Class III Waters. The project is located in Lee County, Sections 10, 11, 14, 24 and 25, Township 47 South, Range 24 East. The offshore borrow area is located 30 nautical miles offshore of Lovers Key on the Outer Continental Shelf (OCS).

PROPRIETARY AUTHORIZATION:

This activity also requires a proprietary authorization, as the activity is located on sovereign submerged lands held in trust by the Board of Trustees of the Internal Improvement Trust Fund (Board of Trustees), pursuant to Article X, Section 11 of the Florida Constitution, and Sections 253.002 and 253.77, F.S. The activity is not exempt from the need to obtain a proprietary authorization. The Board of Trustees delegated, to the Department, the responsibility to review and take final action on this request for proprietary authorization in accordance with Section 18-21.0051, F.A.C., and the Operating Agreements executed between the Department and the water management districts, as referenced in Chapter 62-113, F.A.C. This proprietary authorization has been reviewed in accordance with Chapter 253 F.S., Chapter 18-21 and Section 62-330.075, F.A.C., and the policies of the Board of Trustees.

The Department has also determined that the dredging activity qualifies for a Letter of Consent to use sovereign, submerged lands, as long as the work performed is located within the boundaries as described herein and is consistent with the terms and conditions herein. Therefore, consent is hereby granted, the project's local sponsor, pursuant to Chapter 253.77, F.S., to perform the activity on the specified sovereign submerged lands.

COASTAL ZONE MANAGEMENT:

This permit constitutes a finding of consistency with Florida's Coastal Zone Management Program, as required by Section 307 of the Coastal Zone Management Act.

WATER QUALITY CERTIFICATION:

This permit constitutes certification of compliance with state water quality standards pursuant to Section 401 of the Clean Water Act, 33 U.S.C. 1341.

OTHER PERMITS:

Authorization from the Department does not relieve you from the responsibility of obtaining other permits (Federal, State, or local) that may be required for the project. When the Department received your permit application, a copy was sent to the U.S. Army Corps of

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Engineers (Corps) for review. The Corps will issue their authorization directly to you or contact you if additional information is needed. If you have not heard from the Corps within 30 days from the date that your application was received by the Department, contact the nearest Corps regulatory office for status and further information. Failure to obtain Corps authorization prior to construction could subject you to federal enforcement action by that agency.

AGENCY ACTION:

The above named Permittee is hereby authorized to construct the work that is outlined in the Project Description and Project Location of this permit and as shown on the approved permit drawings, plans and other documents attached hereto. This agency action is based on the information submitted to the Department as part of the permit application, and adherence with the final details of that proposal shall be a requirement of the permit. **This permit and authorization to use sovereign submerged lands are subject to the General Conditions,**General Consent Conditions, Specific Conditions, and attached Plans which are a binding part of this permit and authorization. Both the Permittee and their Contractor are responsible for reading and understanding this permit (including the permit conditions and the approved permit drawings) prior to commencing the authorized activities, and for ensuring that the work is conducted in conformance with all the terms, conditions and drawings.

GENERAL CONDITIONS:

The following permit conditions shall apply to all permits issued pursuant to this chapter:

- 1. All activities authorized by this permit shall be implemented as set forth in the project description, permit drawings, plans and specifications approved as a part of this permit, and all conditions and requirements of this permit. The Permittee shall notify the Department in writing of any anticipated deviation from the permit prior to implementation so that the Department can determine whether a modification of the permit is required pursuant to Rule 62B-49.008, F.A.C.
- 2. If, for any reason, the permittee does not comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department and the appropriate District office of the Department with a written report containing the following information: a description of and cause of noncompliance; and the period of noncompliance, including dates and times; and, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.
- 3. This permit does not eliminate the necessity to obtain any other applicable licenses or permits that may be required by federal, state, local or special district laws and regulations. This permit is not a waiver or approval of any other Department permit or authorization that may be required for other aspects of the total project that are not addressed in this permit.

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- 4. Pursuant to Sections 253.77 and 373.422, F.S., prior to conducting any works or other activities on state-owned submerged lands, or other lands of the state, title to which is vested in the Board of Trustees, the Permittee must receive all necessary approvals and authorizations under Chapters 253 and 258, F.S. Written authorization that requires formal execution by the Board of Trustees shall not be considered received until it has been fully executed.
- 5. Any delineation of the extent of a wetland or other surface water submitted as part of the permit application, including plans or other supporting documentation, shall not be considered specifically approved unless a specific condition of this permit or a formal determination under Section 373.421(2), F.S., provides otherwise.
- 6. This permit does not convey to the Permittee or create in the Permittee any property right, or any interest in real property, nor does it authorize any entrance upon or activities on property which is not owned or controlled by the permittee. The issuance of this permit does not convey any vested rights or any exclusive privileges.
- 7. This permit or a copy thereof, complete with all conditions, attachments, plans and specifications, modifications, and time extensions shall be kept at the work site of the permitted activity. The Permittee shall require the contractor to review the complete permit prior to commencement of the activity authorized by this permit.
- 8. The Permittee, by accepting this permit, specifically agrees to allow authorized Department personnel with proper identification and at reasonable times, access to the premises where the permitted activity is located or conducted for the purpose of ascertaining compliance with the terms of the permit and with the rules of the Department and to have access to and copy any records that must be kept under conditions of the permit; to inspect the facility, equipment, practices, or operations regulated or required under this permit; and to sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.
- 9. At least 48 hours prior to commencement of activity authorized by this permit, the permittee shall electronically submit to the Department, by email at JCPCompliance@dep.state.fl.us, and the appropriate District office of the Department a written notice of commencement of construction indicating the actual start date and the expected completion date and an affirmative statement that the Permittee and the contractor, if one is to be used, have read the general and specific conditions of the permit and understand them.
- 10. If any prehistoric or historic artifacts, such as pottery or ceramics, stone tools or metal implements, shipwreck remains or anchors, dugout canoes or other physical remains that could be associated with Native American cultures, or early Colonial or American

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settlement are encountered at any time within the project site area, the permitted project shall cease all activities involving subsurface disturbance in the immediate vicinity of such discoveries. The Permittee, or other designee, shall contact the Florida Department of State, Division of Historical Resources, Compliance and Review Section at (850)245-6333 or (800)847-7278, as well as the appropriate permitting agency office. Project activities shall not resume without verbal and/or written authorization from the Division of Historical Resources. In the event that unmarked human remains are encountered during permitted activities, all work shall stop immediately and the proper authorities notified in accordance with Section 872.05, F.S.

11. Within 30 days after completion of construction or completion of a subsequent maintenance event authorized by this permit, the permittee shall electronically submit to the Department, by email at JCPCompliance@dep.state.fl.us, and the appropriate District office of the Department a written statement of completion and certification by a registered professional engineer. This certification shall state that all locations and elevations specified by the permit have been verified; the activities authorized by the permit have been performed in compliance with the plans and specifications approved as a part of the permit, and all conditions of the permit; or shall describe any deviations from the plans and specifications, and all conditions of the permit. When the completed activity differs substantially from the permitted plans, any substantial deviations shall be noted and explained on as-built drawings electronically submitted to the Department, by email at JCPCompliance@dep.state.fl.us.

GENERAL CONSENT CONDITIONS:

- 1. Authorizations are valid only for the specified activity or use. Any unauthorized deviation from the specified activity or use and the conditions for undertaking that activity or use shall constitute a violation. Violation of the authorization shall result in suspension or revocation of the grantee's use of the sovereignty submerged land unless cured to the satisfaction of the Board.
- 2. Authorizations convey no title to sovereignty submerged land or water column, nor do they constitute recognition or acknowledgment of any other person's title to such land or water.
- 3. Authorizations may be modified, suspended or revoked in accordance with their terms or the remedies provided in Sections 253.04 and 258.46, F.S., or Chapter 18-14, F.A.C.
- 4. Structures or activities shall be constructed and used to avoid or minimize adverse impacts to sovereignty submerged lands and resources.

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- 5. Construction, use or operation of the structure or activity shall not adversely affect any species that is endangered, threatened or of special concern, as listed in Rules 68A-27.003, 68A-27.004 and 68A-27.005, F.A.C.
- 6. Structures or activities shall not unreasonably interfere with riparian rights. When a court of competent jurisdiction determines that riparian rights have been unlawfully affected, the structure or activity shall be modified in accordance with the court's decision.
- 7. Structures or activities shall not create a navigational hazard.
- 8. Activities shall not interfere with the public easement for traditional uses of the sandy beaches provided in section 161.141, F.S.
- 89. Structures shall be maintained in a functional condition and shall be repaired or removed if they become dilapidated to such an extent that they are no longer functional. This shall not be construed to prohibit the repair or replacement subject to the provisions of Rule 18-21.005, F.A.C., within one year, of a structure damaged in a discrete event such as a storm, flood, accident or fire.
- 910. Structures or activities shall be constructed, operated and maintained solely for water dependent purposes, or for non-water dependent activities authorized under paragraph 18-21.004(1)(g), F.A.C., or any other applicable law.

SPECIFIC CONDITIONS:

- 1. No work shall be conducted until and unless the Department issues a Final Order of Variance (File No. 00311811-002-EV) from Rule 62-4.244(5)(c), F.A.C. to establish expanded mixing zones for this project.
- 2. Unless otherwise specified in the specific conditions of this permit all submittals required herein (e.g., progress reports, water-quality reports etc.) shall be electronically submitted (via e-mail, file transfer site or hard drive). Email submittals shall be sent to the Department's JCP Compliance Officer at (e-mail address:

 JCPCompliance@dep.state.fl.us). If a file transfer site is used, a link shall be e-mailed to the JCP Compliance Officer. If data are too large to be submitted via e-mail or file transfer site, the Permittee may submit the data via an external hard drive, provided by the Permittee. The external hard drive shall be mailed to:

Department of Environmental Protection Office of Resilience and Coastal Protection Attn: JCP Compliance Officer 2600 Blair Stone Road, Mail Station 3544 Tallahassee, FL 32399-2400 Joint Coastal Permit Bonita Beach and Lovers Key Beach Nourishment Permit No. 0311811-004-JM Page 7 of 38

- 3. The Permittee shall not store or stockpile tools, equipment, materials, etc., within littoral zones or elsewhere within surface waters of the state without prior written approval from the Department. Storing Storage, stockpiling or accessing of equipment on, in, over or through areas with benthic biological resources (including beds of submerged aquatic vegetation [SAV], wetlands, oyster reefs or hardbottom) is prohibited unless it occurs within a work area or ingress/egress corridor that is specifically approved by this permit and is shown on the approved permit drawings. Anchoring or spudding of vessels and barges within areas with benthic biological resources is also prohibited.
- 4. The Permittee shall not conduct project operations or store project-related equipment in, on or over dunes, or otherwise impact dune vegetation, outside the approved staging, beach access and dune restoration areas designated in the permit drawings.
- 5. **Pre-Construction Submittals. For each construction event under this permit**, no work shall commence until the Permittee has satisfactorily submitted all information noted in this condition. At least 45 days (unless earlier submittal of a deliverable is specified below) prior to commencement of construction, the Permittee shall submit the following items for review by the Department. Unless a request for additional information is received by the Permittee on any of the submittals within 15 days of receipt by the Department otherwise notified by the Department within 15 days of receipt of all information specified below, the Permittee shall assume the submittals are satisfactory:
 - a. An electronic copy of detailed *final construction plans and specifications* for all authorized activities. The plans and specifications must be consistent with the project description, conditions and approved drawings of this permit. These documents shall be certified by a professional engineer (P.E.), who is registered in the State of Florida. The Permittee shall point out any deviations from the Project Description of this permit (as stated above) or the approved permit drawings (attached to this permit), and any significant changes that would require a permit modification. The plans and specifications shall include a description of the dredging and construction methods to be utilized and drawings and surveys that show all biological resources and work spaces (e.g., anchoring areas, pipeline corridors, staging areas, boat access corridors, etc.) to be used for this project.
 - b. *Turbidity Monitoring:* In order to assure that turbidity levels do not exceed the compliance standards established in this permit, construction at the project site shall be monitored closely by an independent third party with formal training in water quality monitoring and professional experience in turbidity monitoring for coastal construction projects. Also, an individual familiar with beach construction techniques and turbidity monitoring shall be present at all times when turbidity generating activities are occurring. This individual shall have authority to alter construction

techniques or shut down the dredging or beach construction operations if turbidity levels exceed the compliance standards established in this permit.

- a. *Qualifications*: The names, credentials (demonstrating experience and qualifications) and 24-hour contact information of those individuals performing these functions;
- b. A *Scope of Work* for the turbidity monitoring to ensure that the right equipment is available to conduct the monitoring correctly at any location, and under any conditions;
- c. **Draft turbidity sampling map.** An example of the geo-referenced map that will be provided with turbidity reports, including aerial photography and the boundaries of biological resources and/or OFW (pursuant to Specific Condition 12.)
- d. Prior to each subsequent event, the results of the intermediate turbidity monitoring shall be evaluated and provided to the Department. If the results indicate that the project can be built using a smaller mixing zone, this adjustment shall be made through an administrative modification to the permit prior to commencement of construction.
- c. *Biological Monitoring Qualifications*. Biological monitoring qualifications of firms and their staff shall be submitted to the JCP Compliance Officer for review. If additional monitoring team(s) are subcontracted, or new staff are added to the monitoring team, proposed changes and qualifications shall be submitted to the JCP Compliance Officer for review at least 30 days prior to a monitoring event. The Permittee's selected biological monitoring firm is fully responsible for training of new staff members and subcontractors, as well as the QA/QC verification of their work;
- d. Fish & Wildlife Monitoring Qualifications: To ensure that individuals conducting monitoring of fish and wildlife resources have appropriate qualifications, the Permittee shall provide documentation demonstrating expertise/experience in surveying the types of resources that are present in the project. The Department and the Florida Fish and Wildlife Conservation Commission (FWC) will review this information for confirmation that the monitors are capable of meeting the requirements in Specific Conditions 15 through 29. This documentation shall include the following:
 - i. <u>Marine Turtle Protection:</u> A list of the names and FWC permit numbers for the Marine Turtle Permit Holders.

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- <u>ii.</u> Shorebird Protection: A list of Bird Monitors with their contact information, summary of qualifications including bird identification skills, and avian survey experience, proposed locations of shorebird survey routes, and the locations of travel routes.
- e. Documentation from the U.S. Fish and Wildlife Service (USFWS) that this work will be covered under a Statewide Programmatic Biological Opinion or a Biological Opinion(s) (BO) issued for construction on this project site. If the BO contains conditions that are not already contained herein, a permit modification may be required to include those additional conditions.
- f. Documentation confirming that the approved upland source is currently producing the quantity and quality of the authorized sand product required for the upcoming event, as required by Specific Condition 9.
- 6. **Pre-Construction Conference.** After all items required by a through f above have been submitted to the Department, the Permittee shall conduct a pre-construction conference to review the specific conditions and monitoring requirements of this permit with the Permittee's contractors, the engineer of record, those responsible for turbidity monitoring, those responsible for protected species monitoring, staff representatives of the Fish and Wildlife Conservation Commission (FWC) and the JCP Compliance Officer (or designated alternate) prior to each construction event. In order to ensure that appropriate representatives are available, at least twenty-one (21) days prior to the intended commencement date for the permitted construction, the Permittee is advised to contact the Department, and the other agency representatives listed below:

DEP, JCP Compliance Officer

phone: (850) 414-7716

e-mail: JCPCompliance@dep.state.fl.us

DEP South District Office Submerged Lands & Environmental Resources 2295 Victoria Avenue, Suite 364 Ft. Myers, Florida 33901-3881 phone: (239) 332-6975

e-mail: SouthDistrict@floridadep.gov

FWC Imperiled Species Management Section Florida Fish & Wildlife Conservation Commission 620 South Meridian Street Tallahassee, Florida 32399-1600

phone: (850) 922-4330

fax: (850) 921-4369 or e-mail: MarineTurtle@MyFWC.com

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FWC Regional Biologist

<u>See Contact list for phone numbers (http://myfwc.com/conservation/you-conserve/wildlife/shorebirds/contacts)</u>

The Permittee is also advised to schedule the pre-construction conference at least a week prior to the intended commencement date. At least seven (7) days in advance of the pre-construction conference, the Permittee shall provide written notification, advising the participants (listed above) of the agreed-upon date, time and location of the meeting, and also provide a meeting agenda and a teleconference number.

If the actual construction start date is different from the expected start date proposed during the preconstruction conference, at least 48 hours prior to the commencement of each dredging event, the Permittee shall ensure that notification is sent to the FWC indicating the actual start date and the expected completion date to MarineTurtle@MyFWC.com. The Permittee shall also ensure that all contracted workers and observers are provided a copy of all permit conditions.

- 7. When discharging slurried sand onto the beach from a pipeline, the Permittee shall employ best management practices (BMPs) to reduce turbidity. At a minimum, these BMPs shall include the following:
 - a. Use of shore-parallel sand dikes on the beach berm, seaward of the pipeline discharge point, to maximize settlement of suspended sediment on the beach before return water from the dredged discharge reenters the Gulf of Mexico; and
 - b. A pipeline discharge point that is located at least 50 feet from open water, or at the landward edge of the beach berm (if the berm width is less than 50 feet).
- 8. The following upland sand source products were reviewed and authorized for use in this project: (1) Stewart Mining Industries' Immokalee Mine; (2) Vulcan Materials

 Company's Witherspoon Mine, E.R. Jahna Industries' Ortona Mine, and CEMEX Lake
 Wales Mine. Any additional upland sand sources will require review and authorization through the permit modification process.
- 9. Prior to each construction event, the Permittee (or Permittee's Representative) shall submit documentation confirming that the authorized upland sand source(s) is currently producing both the quantity and quality of the authorized sand product(s) to meet the needs of the upcoming event. The documentation shall indicate the name(s) of the product(s), the upland sand source(s) and the approximate volume (per product per source) needed for the upcoming event. The Permittee shall submit the documentation to the Department as a preconstruction submittal item no later than 45 days prior to construction. Note: If the upland source(s) is no longer producing a product consistent

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with the approved Sediment QA/QC plan, a permit modification will be required to authorize an alternate source.

MONITORING REQUIRED:

10.8. Water Quality - Turbidity shall be monitored as follows:

Units: Nephelometric Turbidity Units (NTUs).

Frequency: Monitoring for a pipeline dredge and sand placement operations shall be

<u>conducted</u> Tthree 3 times per day, <u>at least approximately</u> 4 hours apart, <u>and at any other time that there is a likelihood of an exceedance of the turbidity standard, during all dredging and filling sand placement operations and any</u>

re-grading below the MHW line.

Monitoring for a hopper dredge shall be conducted for each hopper dredge load during daylight hours. At the dredge site, sampling shall be conducted after overflow from the hopper begins and the associated turbidity plume has reached the edge of the mixing zone. At the fill placement site, sampling shall be conducted after discharge from the hopper begins and the associated turbidity plume has reached the edge of the mixing zone.

Sampling shall be conducted **while the highest project-related turbidity levels are crossing the edge of the mixing zone**. Since turbidity levels can be related to pumping rates, the dredge pumping rates shall be recorded, and provided to the Department upon request. The compliance samples and the corresponding background samples shall be collected at approximately the same time, i.e., background sample shall immediately follow the compliance sample.

Location:

Background: <u>Sampling shall occur</u> at surface (approximately one foot below the surface), mid-depth (for sites with depths greater than 6 feet), and bottom (approximately 6 feet above the bottom for sites with depths greater than 25 feet). <u>All background sampling shall occur</u> 2 meters above the bottom clearly outside the influence of any artificially generated turbidity plume or the influence of an outgoing inlet plume.

Dredge Site: Samples shall be collected at least 300 meters up-current from the source of turbidity at the dredge site.

Beach Site: Samples shall be collected at least 500 meters up-current from any portion of the beach that has been, or is being, filled during the current construction event, at the same distances offshore as the associated compliance and intermediate samples.

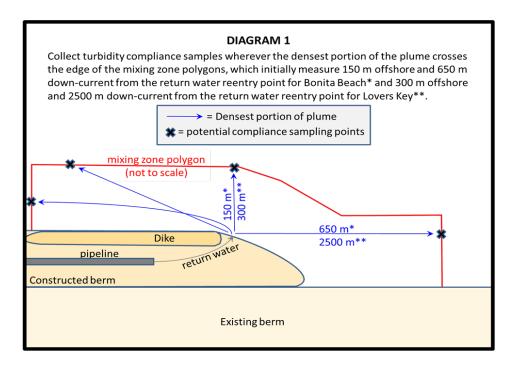
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Compliance: <u>Sampling shall occur</u> at surface <u>(approximately one foot below the surface)</u>, mid-depth (for sites with depths greater than 6 feet), and <u>bottom (approximately 6 feet 2meters</u> above the bottom for sites with depths greater than 25 feet).

Dredge Site: Samples shall be collected 150 meters down-current from the cutterhead <u>or the hopper dredge overflow point</u>, **and** from any other source of turbidity generated by the dredge, in the densest portion of any visible turbidity plume. If no plume is visible, follow the likely direction of flow.

Beach Site: Samples shall be collected where the densest portion of the turbidity plume crosses the edge of the mixing zone polygon. For **Bonita Beach**, the mixing zone polygon measures up to 150 meters offshore and up to 650 meters alongshore from the point where the return water from the dredged discharge reenters the Gulf of Mexico. For **Lovers Key**, the mixing zone polygon measures up to 300 meters offshore and up to 2500 meters alongshore from the point where the return water from the dredged discharge reenters the Gulf of Mexico.

For each sampling event, compliance samples shall be collected within the area of highest turbidity at **both** the rip current location and the longshore drift location. Note: If the plume flows parallel to the shoreline, the densest portion of the plume may cross the mixing zone polygon at a distance less than the maximum offshore dimension of the mixing zone. In that case, it may be necessary to access the sampling location from the shore, in water that is too shallow for a boat. If the plume flows offshore, it may cross the mixing zone polygon at a distance less than the maximum alongshore dimension of the mixing zone, and the sample would be collected at that point. See Diagram 1.



Intermediate Monitoring: Samples shall be collected in the densest portion of the turbidity plume, at the surface, mid-depth and (for sites with depths greater than 25 feet) 2 meters from the bottom. The intermediate sampling points at the Bonita Beach nourishment site shall be approximately 150 meters, 300 meters and 500 meters down-current from the point where the return water from the dredged discharge reenters the Gulf of Mexico (if those points are located inside the mixing zone). The intermediate sampling points for the Lovers Key nourishment site shall be 150 meters, 500 meters, 1000 meters, 1500 meters and 2000 meters down-current from the point where the return water from the dredged discharge reenters the Gulf of Mexico (if those points are located inside the mixing zone). These measurements will be used to calibrate the size of the mixing zone for future nourishment events.

Analysis of turbidity samples shall be performed in compliance with DEP-SOP-001/01 FT 1600 Field Measurement of Turbidity:

http://publicfiles.dep.state.fl.us/dear/sas/sopdoc/2008sops/ft1600.pdf

Calibration and Verification: The instruments used to measure turbidity shall be fully calibrated with primary standards within one month of the commencement of the project, and at least once a month throughout the project. Calibration with secondary standards shall be verified each morning prior to use, after each time the instrument is turned on, and after field sampling using two secondary turbidity "standards" that bracket the anticipated turbidity samples. If the post-sampling calibration verification value deviates

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more than 8% from the previous calibration value, results shall be reported as estimated and a description of the problem shall be included in the field notes.

If the turbidity monitoring protocol specified above prevents the collection of accurate data, the person in charge of the turbidity monitoring shall contact the JCP Compliance Officer to establish a more appropriate protocol. Once approved in writing by the Department, the new protocol shall be implemented through an administrative permit modification.

11.9. The **compliance** locations given above shall be considered the limits of the temporary mixing zone for turbidity allowed during construction. If monitoring reveals turbidity levels at the **compliance** sites that are greater than 29 NTUs above the corresponding background turbidity levels, construction activities shall **cease immediately** and not resume until corrective measures have been taken and turbidity has returned to acceptable levels. Any such occurrence shall also be immediately reported to the JCP Compliance Officer via email at JCPCompliance@dep.state.fl.us and include in . Tthe subject line, "TURBIDITY EXCEEDANCE", and the Project Name and Permit Number. Also notify the Department's South District office.

Any project-associated turbidity source other than dredging or fill placement for beach nourishment (e.g., scow or pipeline leakage) shall be monitored as close to the source as possible. If the turbidity level exceeds 29 NTUs above background, the construction activities related to the exceedance shall **cease immediately** and not resume until corrective measures have been taken and turbidity has returned to acceptable levels. This turbidity monitoring shall continue every hour until background turbidity levels are restored or until otherwise directed by the Department. The Permittee shall notify the Department, by separate email to the JCP Compliance Officer, of such an event within 24 hours of the time the Permittee first becomes aware of the discharge. The subject line of the email shall state "OTHER PROJECT-ASSOCIATED DISCHARGE, <u>TURBIDITY</u> EXCEEDANCE".

- <u>a.</u> When reporting a turbidity exceedance, the following information shall also be included:
 - i. a. the Project Name;
 - ii. b. the Permit Number;
 - iii. e. location and level (NTUs above background) of the turbidity exceedance;
 - iv. d. the time and date that the exceedance occurred; and
 - v. e. the time and date that construction ceased.

- <u>b.</u> Prior to re-commencing the construction, a report shall be emailed to the Department with the same information that was included in the "Exceedance Report", plus the following information:
 - <u>i.</u> a. turbidity monitoring data collected during the shutdown documenting the decline in turbidity levels and achievement of acceptable levels;
 - ii. b. corrective measures that were taken; and
 - iii. e. cause of the exceedance.
- 12.10. **Turbidity Reports:** All turbidity monitoring data shall be submitted within one week of analysis. The data shall be presented in tabular format, indicating the measured turbidity levels at the compliance sites for each depth, the corresponding background levels at each depth and the number of NTUs over background at each depth. Any exceedances of the turbidity standard (29 NTUs above background) shall be highlighted in the table. In addition to the raw and processed data, the reports shall also contain the following information:
 - a. time of day samples were taken;
 - b. dates of sampling and analysis;
 - c. GPS location of sample. When possible, coordinates should be provided in decimal degrees with a 5 decimal level of precision (i.e., 0.00001). Please also indicate the datum;
 - d. depth of water body;
 - e. depth of each sample
 - f. antecedent weather conditions, including wind direction and velocity;
 - g. tidal stage and direction of flow;
 - h. water temperature;
 - i. a geo-referenced map, overlaid on an aerial photograph, indicating the sampling locations (background and compliance), location of active construction, the visible plume pattern and direction of flow. The map shall also include the boundaries of any benthic resources or OFW. A sample map shall be submitted to and reviewed by the Department prior to construction (Specific Condition 5);

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- j. a statement describing the methods used in collection, handling, storage and analysis of the samples;
- k. a statement by the individual responsible for implementation of the sampling program concerning the authenticity, precision, limits of detection, calibration of the meter, and accuracy of the data turbidity and precision of the GPS measurements data;
- 1. When samples cannot be collected, include an explanation in the report. If unable to collect samples due to severe weather conditions, include a copy of a current report from a reliable, independent source, such as an online weather service.

Monitoring reports shall be submitted by email to the Department's JCP Compliance Officer. In the subject line of the reports, include the Project Name, Permit Number and the dates of the monitoring interval. Failure to submit reports in a timely manner constitutes grounds for revocation of the permit. When submitting this information to the Department's JCP Compliance Officer, on the cover page to the submittal and at the top of each page, please state: "This information is provided in partial fulfillment of the monitoring requirements in Permit No.0311811-001004-JMC, for the Bonita Beach and Lovers Key Beach Nourishment Project"

PHYSICAL MONITORING

13.11. Pursuant to 62B-41.005(16), F.A.C., physical monitoring of the project is required through acquisition of project-specific data to include, at a minimum, topographic and bathymetric surveys of the beach, offshore, and borrow site areas, and engineering analysis. The monitoring data is necessary in order for both the project sponsor and the Department to regularly observe and assess, with quantitative measurements, the performance of the project, any adverse effects which have occurred, and the need for any adjustments, modifications, or mitigative response to the project. The scientific monitoring process also provides the project sponsor and the Department with information necessary to plan, design and optimize subsequent follow-up projects, potentially reducing the need and cost of unnecessary work, as well as potentially reducing any environmental impacts that may have occurred or be expected.

The physical monitoring and associated reporting shall be conducted in accordance with the approved physical monitoring plan dated December 17, 2021.

The Permittee shall conduct the activities as specified in the attached *Bonita Beach and Lovers Key 2012 Nourishment Physical Monitoring Plan*, dated May 2012, and in accordance with the following additional guidance:

- a. The monitoring surveys shall be conducted during a spring or summer month and repeated as close as practicable during that same month of the year, allowing for coordination of physical monitoring activities to coincide at all beach and inlet management within the county, at the discretion of Lee County. If the time period between the immediate post-construction survey and the first annual monitoring survey is less than six months, then the Permittee may request a postponement of the first monitoring survey until the following spring/summer. The request should be submitted as part of the cover letter for the post-construction report. A prior design survey of the beach and offshore may be submitted for the pre-construction survey if consistent with the other requirements of this condition.
- b. For the borrow sites, bathymetric surveys of the entire shoal complex, including any attachment bars, shall be conducted. In all other aspects, work activities and deliverables shall be consistent with the BBCS *Monitoring Standards for Beach Erosion Control Projects, Section 01200*.
- c. The Permittee shall submit an engineering report and the monitoring data to the JCP Compliance Officer within 90 days following completion of the post-construction survey and each annual or biennial monitoring survey.

The report shall summarize and discuss the data, the performance of the beach fill project, and identify erosion and accretion patterns within the monitored area. In addition, the report shall include a comparative review of project performance to performance expectations and identification of adverse impacts attributable to the project. It shall also include graphical representation of pre and post-construction monitoring survey MHW shoreline positions in the project monitoring area relative to the design shoreline. The analysis of data in the report shall include the effect of all 4 borrow areas. Appendices shall include plots of survey profiles and graphical representations of volumetric and shoreline position changes for the monitoring area. Results shall be analyzed for patterns, trends, or changes between annual surveys and cumulatively since project construction.

decompliance Officer. Failure to submit reports and data in a timely manner constitutes grounds for revocation of the permit. When submitting any monitoring information to the Bureau, please include a transmittal cover letter clearly labeled with the following at the top of each page: "This monitoring information is submitted in accordance with Item No. [XX] of the approved Monitoring Plan for Permit No. [XX] for the monitoring period [XX].

The approved Monitoring Plan can be revised at any later time by written request of the Permittee and with the written approval of the Department. If subsequent to approval of the Monitoring Plan there is a request for modification of the permit, the Department may

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require revised or additional monitoring requirements as a condition of approval of the permit modification.

14 12. Sediment quality shall be assessed as outlined in the attached Sediment QA/QC plan, dated December 18, 2012. Any occurrences of placement of material not in compliance with the Plan shall be handled according to the protocols set forth in the Sediment QA/QC plans. The sediment testing result shall be submitted to the JCP Compliance Officer within 90 days following the completion of beach construction

Sediment quality shall be assessed as outlined in the offshore or upland Sediment QA/QC Plan (as appropriate for the source), dated December 17, 2021. Placement of material that is not in compliance with the Plan shall be handled according to the protocols set forth in the Sediment QA/QC Plan. The sediment testing result shall be submitted to the Department within 90 days following the completion of beach construction. The following requirements are included in the Sediment QA/QC Plan:

- a. The Sediment QC/QA plans include the following:
- a. If, during construction, the Permittee or Engineer_determines that the beach fill material does not comply with the sediment compliance specifications, measures shall be taken the Permittee shall take measures to avoid further placement of noncompliant fill, and the sediment inspection results shall be reported to the JCP Compliance Officer.
- b. The Permittee shall submit post-construction sediment testing results and an analysis report as outlined in the Sediment QA/QC plan to the JCP Compliance Officer within 90 days following beach construction. The sediment testing results will be certified by a P.E. or P.G. from the testing laboratory. A summary table of the sediment samples and test results for the sediment compliance parameters as outlined in Table 1 of the Sediment QA/QC plan shall accompany the complete set of laboratory testing results. A statement of how the placed fill material compares to the sediment analysis and volume calculations from the geotechnical investigation shall be included in the sediment testing results report.
- c. A post-remediation report containing the site map, sediment analysis, and volume of noncompliant fill material removed and replaced shall be submitted to the <u>JCP</u> <u>Compliance</u> within 7 days following completion of remediation activities.

Specific Conditions 13 - 31 will be stricken and replaced with Specific Conditions 15 - 29 and all subsequent conditions have been renumbered accordingly.

Fish and Wildlife

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- 15. In-water Activity. The Permittee shall adhere to the following requirements for all inwater activity:
 - a. The Permittee shall instruct all personnel associated with the project about the presence of marine turtles and manatees, and the need to avoid collisions with (and injury to) these protected marine species. The Permittee shall be responsible for harm to these resources and shall require their contractors to advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees or marine turtles, which are protected under the Endangered Species Act, the Marine Mammal Protection Act, the Marine Turtle Protection Act and the Florida Manatee Sanctuary Act.
 - b. All vessels associated with the construction project shall operate at "Idle Speed/No Wake" at all times while in the immediate project area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels shall follow routes of deep water whenever possible.
 - c. Siltation or turbidity barriers (if used) shall be made of material in which manatees and marine turtles cannot become entangled, shall be properly secured, and shall be regularly monitored to avoid manatee entanglement or entrapment. Barriers shall not impede manatee or marine turtle movement or travel.
 - d. The Permittee is responsible for all on-site project personnel and shall require them to observe water-related activities for the presence of marine turtles and manatee(s). All in-water operations shall be immediately shut down if a marine turtle or manatee comes within 50 feet of the operation. For unanchored vessels, operators shall disengage the propeller and drift out of the potential impact zone. If drifting would jeopardize the safety of the vessel then idle speed may be used to leave the potential impact zone. Activities shall not resume until the animal(s) has moved beyond the 50-foot radius of the project operation, or until 30 minutes elapses if the animal(s) has not reappeared within 50 feet of the operation. Animals shall not be herded away or harassed into leaving.
 - e. Any collision with (or injury to) a marine turtle or manatee shall be reported immediately to the FWC Hotline at 888-404-3922, and to the FWC at ImperiledSpecies@MyFWC.com. Any collision with (and/or injury to) a marine turtle shall also be reported immediately to the Sea Turtle Stranding and Salvage Network (STSSN) at SeaTurtleStranding@MyFWC.com.
 - f. Temporary signs concerning manatees shall be prominently posted prior to and during all in-water project activities, at sufficient locations to be regularly and easily viewed by all personnel engaged in water-related activities. Two temporary signs,

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which have already been approved for this use by the FWC, shall be posted at each location. One sign shall read "Caution Boaters - Watch for Manatees". A second sign measuring at least 8 ½" by 11", shall explain the requirements for "Idle Speed/No Wake" and the shutdown of in-water operations. All signs shall be removed by the Permittee upon completion of the project. These signs can be viewed at MyFWC.com/manatee. Questions concerning these signs can be sent to ImperiledSpecies@MyFWC.com.

- 16 **Hopper Dredging.** If a hopper dredge is used for this project, the following requirements shall be met:
 - a. Handling of captured marine turtles during hopper dredging activities shall be conducted only by persons with prior experience and training in these activities, and who are duly authorized to conduct such activities through a valid Marine Turtle Permit issued by the FWC, pursuant to Chapter 68E-1, F.A.C. The Permittee shall forward documentation of these qualifications to the FWC for review, as required in Specific Condition 17.
 - b. In order to minimize impingement or entrainment of marine turtles within the water column, dredging pumps shall be disengaged by the operator, or the draghead bypass valve shall be open and in use when the dragheads are not firmly on the bottom. This precaution is especially important during the cleanup phase of dredging operations.
 - c. A state-of-the-art rigid deflector draghead shall always be used on all hopper dredges.
 - d. The Sea Turtle Stranding and Salvage Network (STSSN) Coordinator shall be notified of the start-up and completion of hopper dredging operations at 904-573-3930 or via e-mail at Allen.Foley@MyFWC.com. If a marine turtle is captured or marine turtle parts are recovered, the STSSN shall be contacted at SeaturtleStranding@MyFWC.com.
- 17. Trawling. If relocation trawling for marine turtles is required as per applicable NMFS Biological Opinions and Incidental Take authorizations, the following is required:
 - a. Any activity involving the use of nets to harass and/or to capture and handle marine turtles in Florida waters requires a Marine Turtle Permit from the FWC prior to trawling.
 - b. The Permittee or their contractor shall e-mail (MTP@MyFWC.com) reports to the FWC's Imperiled Species Management Section on Friday of each week that trawling is conducted in Florida waters. These weekly reports shall include the species and number of turtles captured, their general health, and release information. A summary of all trawling activity (including non-capture trawling) shall be submitted to

MTP@MyFWC.com by January 15 of the following year, or at the end of the project. The summary shall be recorded/documented on the FWC-provided Excel spreadsheet (available at https://myfwc.com/media/3168/trawl-report-template.pdf), and shall list all turtles captured in Florida waters, the measurements of all captured turtles, the location of captures (latitude and longitude in decimal degrees), the location of tow start-stop points (latitude and longitude in decimal degrees), and times for the start-stop points of the tows (including tows when no turtles are captured).

18. Construction Area Project Lighting. During the marine turtle nesting season (May 1 through October 31), direct lighting of the beach and nearshore waters shall be limited to the immediate area of active construction. Staging areas, if allowed on the nesting beach, shall not be illuminated unless specifically reviewed and authorized by FWC.

Lighting on offshore and onshore equipment shall be minimized by reducing the number of fixtures, shielding, lowering the height and appropriately placing fixtures to avoid excessive illumination of the water's surface and nesting beach. The intensity of lighting shall be reduced to the minimum standard required for general construction area safety. Shields shall be affixed to the light housing on dredge and on land-based lights and shall be large enough to block lamp light from being transmitted outside the construction area or to the adjacent marine turtle nesting beach. (Figure 1 below).

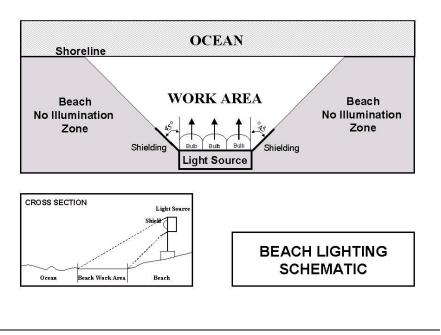


Figure 1

19. Wildlife Conditions for All Beach Related Activities. The Permittee shall adhere to the following requirements for all beach-related activities during marine turtle and shorebird

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nesting/breeding seasons [February 15 through October 31].

a. Beach Maintenance.

- i. The Permittee shall require their contractor and protected species monitors to inspect all work areas that have excavations and temporary alterations of beach topography each day, to determine which areas have deviations (such as depressions, ruts, holes and vehicle tracks) capable of trapping flightless shorebird chicks or marine turtle hatchlings. If so, the deviations outside of the active fill placement area (see Specific Condition 21) shall be filled or leveled from the natural beach profile prior to 9:00 p.m. each day. The beach surface shall also be inspected subsequent to completion of the project, and all tracks, mounds, ridges or impressions, etc. left by construction equipment on the beach shall be smoothed and leveled.
- ii. All debris, including derelict construction or coastal armoring material, concrete and metal, found on the beach placement site, shall be removed from the beach to the maximum extent practicable prior to any placement of fill material. If debris removal activities will take place during protected species nesting seasons, the work shall be conducted during daylight hours only, and shall not commence until completion of daily monitoring surveys.

b. Equipment Storage and Placement.

- i. Staging areas and temporary storage for construction equipment and pipes shall be located off the beach to the maximum extent practicable. Nighttime storage of construction equipment that is not in use shall be located off the beach. If staging and storage areas off the beach are not possible, then additional marine turtle and shorebird protective measures shall be implemented. Such protective measures shall be determined in coordination with the Department and the FWC prior to beginning of construction. All construction pipes that are in use on the beach shall be located as far landward as possible without compromising the integrity of the existing or reconstructed dune system. Pipes placed parallel to the dune shall be 5 to 10 feet away from the toe of the dune.
- ii. If it is necessary to extend construction pipes past a known shorebird nesting site, then those pipes shall be placed landward of the site before birds are active in that area. No pipe or sand shall be placed seaward of a shorebird nesting site during the shorebird nesting season. If such placement is not feasible for the project, the FWC's Regional Biologist shall be contacted for alternative measures. See contacts available at https://myfwc.com/conservation/you-conserve/wildlife/shorebirds/contacts/.

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- c. Beach Driving. All vehicles operated on the beach shall operate in accordance with the FWC's Best Management Practices for Operating Vehicles on the Beach (http://myfwc.com/conservation/you-conserve/wildlife/beach-driving/).

 Specifically, the vehicle shall be operated at speeds less than 6 mph and run at or below the high-tide line. All personnel associated with the project shall be instructed about the potential presence of protected species, and the need to avoid injury and disturbance to these species. Note: when flightless chicks are present within or adjacent to travel corridors, construction-related vehicles shall not be driven through the corridor unless a Bird Monitor is present pursuant to Specific Condition 29.
- 20. Marine Turtle Protection Conditions. Construction-related activities are authorized to occur on the nesting beach (sandy beach seaward of existing coastal armoring structures or dune crest and all areas used for beach access) during marine turtle nesting season (May 1 through October 31) under the following conditions:
 - a. Daily early morning marine turtle nest surveys shall start two weeks prior to marine turtle nesting season (April 15) or 65 days prior to beach placement whichever is later. Daily nesting surveys shall continue through November 30, or until two weeks after the last crawl in the project area, whichever is earlier.
 - b. Daily nesting surveys shall be conducted beginning ½ hour prior to sunrise, and no construction activity may commence until completion of the marine turtle survey each day.
 - c. The Permittee shall ensure that marine turtle nesting surveys are conducted as required in this authorization, and only conducted by personnel with a valid FWC Marine Turtle Permit, that covers all project activities as required by Chapter 68E-1, F.A.C. For information on the authorized Marine Turtle Permit Holders in the project area, contact FWC at MTP@MyFWC.com.
 - d. Only those nests laid in the area where sand placement will occur shall be relocated, and nest relocation shall cease after the sand placement is completed. Nests requiring relocation shall be moved no later than 9 a.m., the morning following deposition (no longer than 12 hours from the time the eggs are laid), to a nearby self-release beach site in a secure setting, where artificial lighting will not interfere with hatchling orientation. The relocation site shall be determined in conjunction with and approved by the FWC prior to nest relocations. Relocated nests shall not be placed in organized groupings. Relocated nests shall be randomly staggered along the length and width of beach settings that are not expected to experience any of the following: inundation by high tides; severe erosion; previous egg loss; or illumination by artificial lighting.
 - e. Nests deposited within areas where construction activities will not occur for 65 days, or nests laid in the nourished berm prior to tilling, shall be marked and left in place.

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The Marine Turtle Permit Holder shall install on- beach markers at the nest site to establish a minimum 5- foot radius around the approximate clutch location and shall also install a secondary marker at a point as far landward as possible to assure that the nest can be located should the on- beach marker be lost. No activity shall occur within the marked area, nor shall any activities occur that could result in impacts to the nest. Nest sites shall be inspected daily to assure nest markers remain in place and the nest has not been disturbed by the project activity.

- 21. Fill Restrictions. During the marine turtle nesting season, the contractor shall not advance the beach fill more than 500 feet along the shoreline between dusk and the following day, until the daily nesting survey is completed, and the beach has been cleared for fill advancement. If the 500-foot advancement limitation is not feasible for the project, an alternative distance shall be established during the preconstruction meeting, if a distance can be agreed upon in consultation with the FWC. If the work area is extended, nighttime nesting surveys are required, and a Marine Turtle Permit Holder is required to be present on-site to ensure that no nesting and hatching marine turtles are present. If any nesting turtles are sighted on the beach within the immediate construction area, activities shall cease immediately until the turtle has returned to the water and the Marine Turtle Permit Holder responsible for nest monitoring has relocated the nest.
- Marine Turtle or Nest Encounters. Upon locating a dead or injured marine turtle adult, hatchling, or egg that may have been harmed or destroyed as a result of the project, the Permittee shall be responsible for notifying the FWC Wildlife Alert at 888-404-FWCC (3922). Care shall be taken in handling injured marine turtles or exposed eggs to ensure effective treatment or disposition, and in handling dead specimens to preserve biological materials for later analysis. If a marine turtle nest is excavated during construction activities, but not as part of the authorized nest relocation process outlined in these specific conditions, the permitted person responsible for egg relocation for the project shall be notified immediately so the eggs can be moved to a suitable relocation site.
- <u>Tilling, Compaction and Escarpment Remediation Requirements.</u> For the years after the first- year sand placement (out- year), compaction monitoring, tilling and escarpment monitoring are not required if placed material no longer remains on the dry beach.
 - a. Compaction Sampling. Sand compaction shall be monitored in the area of sand placement immediately after completion of the nourishment event, and two weeks prior to the beginning of marine turtle nesting season, for three (3) subsequent years. The requirement for compaction monitoring may be eliminated if the placed sand is tilled, regardless of post-construction compaction levels. If the average value for any depth exceeds 500 pounds per square inch (psi) for any two or more adjacent stations, then that area shall be tilled prior to the beginning of marine turtle nesting season. If a few values exceeding 500 psi are present

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randomly within the project area, tilling will not be required. Compaction monitoring shall be in accordance with the following protocol:

- i. Compaction sampling stations shall be located at 500-foot intervals along the project area. One station shall be at the seaward edge of the dune/bulkhead line (when material is placed in this area), and one station shall be midway between the dune line and the high-water line (normal wrack line).
- ii. At each station, the cone penetrometer shall be pushed to depths of 6, 12 and 18 inches three times (i.e., three replicates at each depth). Material may be removed from the hole if necessary to ensure accurate readings of successive levels of sediment. The penetrometer may need to be reset between pushes, especially if sediment layering exists. Layers of highly compact material may lie over less compact layers. Replicates shall be located as close to each other as possible, without interacting with the previous hole and/or disturbed sediments. The three replicate compaction values for each depth shall be averaged to produce final values for each depth at each station. Reports shall include all 18 values for each transect line, and the final 6 averaged compaction values.
- iii. If values exceeding 500 psi are distributed throughout the project area, but in no case do those values exist at two adjacent stations at the same depth, then the Permittee shall consult with the FWC to determine if tilling is required. A request for a tilling waiver based on these compaction values shall be submitted to the FWC at MarineTurtle@MyFWC.com.
- b. Tilling Requirements. If tilling is performed regardless of post-construction compaction levels or tilling is required based on compaction measurements, the area shall be tilled to a depth of 24 inches. Tilling shall be in accordance with the following protocol:
 - i. All tilling activity shall be completed prior to the marine turtle nesting season. If the project is completed during the marine turtle nesting season, tilling shall not be performed in areas where nests have been relocated to or left in place.
 - ii. A relatively even surface, with no deep ruts or furrows, shall be created during tilling. To do this, chain-linked fencing or other material shall be dragged over those areas as necessary after tilling. Each pass of the tilling equipment shall be overlapped to allow thorough and even tilling.
 - <u>iii.</u> Tilling shall occur landward of the wrack line and shall avoid all naturally vegetated areas that are at least 3 square feet in size, as well as any planted areas that have been authorized by the Department. A 3-foot-wide No-Tilling buffer

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shall be maintained around vegetated areas. The slope between the mean highwater line and the mean low water line shall be maintained to approximate natural slopes.

- c. Escarpment Surveys. Visual surveys for escarpments along the project area shall be made immediately after completion of sand placement, within 30 days prior to April 15 and weekly throughout the marine turtle season for three (3) subsequent years, each year placed sand remains on the dry beach. Escarpment remediation shall be as follows:
 - i. Prior to marine turtle nesting season, escarpments that interfere with marine turtle nesting or that exceed 18 inches in height for a distance of at least 100 feet shall be leveled to the natural beach contour or the beach profile shall be reconfigured to minimize scarp formation. Any escarpment removal shall be reported relative to R monument location to the FWC at MarineTurtle@MyFWC.com with a copy sent to the JCP Compliance Officer.
 - ii. If weekly surveys during the marine turtle nesting season document escarpments that exceed 18 inches in height for a distance of at least 100 feet and have persisted for more than two weeks, the FWC shall be contacted immediately to determine the appropriate action to be taken. The Permittee shall provide locations and measurements of the escarpments to the closest R monument as well as the coordinates for the location of marine turtle nests located within 20 feet of the escarpments (latitude and longitude in decimal degrees), with photographs when possible. Upon written notification by the FWC that the escarpment needs to be leveled, the Permittee shall level the escarpment. If nests are located nearby, to minimize impacts to any existing nest the Permittee shall also coordinate with the marine turtle permit holder prior to leveling the escarpments. An annual summary documenting weekly escarpment surveys (including dates, presence and height of escarpments) and any remediation actions taken shall be submitted electronically to the FWC (MarineTurtle@MyFWC.com) by December 31 of each year.

Note for Shorebird Protection: If compaction sampling, tilling or escarpment removal occurs during shorebird breeding season, the Shorebird Conditions (including surveys) included in this authorization shall be followed. No heavy equipment shall operate, and no compaction sampling or tilling shall occur within 300 feet of any shorebird nest. If flightless shorebird chicks are present within the work zone or equipment travel corridor, a Bird Monitor shall be present during the operation to ensure that no heavy equipment operates within 300 feet of the flightless young or within a site-specific corridor established per Specific Condition 29. It is the responsibility of the Permittee to ensure that their contractors avoid tilling, scarp removal or dune vegetation planting in areas where

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nesting birds are present.

- 24. Post-Construction Lighting Surveys. The Permittee shall ensure that lighting surveys be conducted from the renourished berm and the following actions taken to address potential adverse impacts expected with artificial lights visible from any dry portion of the newly elevated beach. The surveys shall be conducted from the top of the foreshore slope (i.e., the seaward edge of the filled berm before it slopes into the water), facing landward. The survey shall follow standard techniques for such a survey, such as including the number and type of visible lights, location of lights, and photo documentation (see additional techniques as per the 2015 USFWS Statewide Programmatic Biological Opinion).
 - a. The first survey shall be conducted between May 1 and May 15 for the first nesting season following construction. For each visible light source, the Permittee shall document that the property owners have been notified and has been provided with recommendations for correcting the light as soon as possible.
 Recommendations shall be in accordance with local lighting ordinances. A report summarizing all visible lights and the recommendations for correcting the light shall be forwarded to local code enforcement. If no lighting ordinances exist, the recommendations to the property owners shall be consistent with the FWC lighting guidelines, which include no lights or light sources shall be visible from the newly elevated beach. The second survey shall be conducted between July 15 and August 1 to assess any remaining visible lights requiring corrective action.
 - b. A summary report of the surveys and what corrective actions or local enforcement actions have been taken shall be submitted to the FWC at
 MarineTurtle@MyFWC.com and copied to JCPCompliance@dep.state.fl.us by
 December 31 of the year in which surveys are conducted. Upon request by the FWC, the Permittee shall set up and hold a meeting with the those responsible for code enforcement (when applicable), the FWC and the USFWS to discuss the report and potential additional corrective action needed, as well as any documented marine turtle disorientations in or adjacent to the project area.

25. Post-Construction Monitoring and Reporting Marine Turtle Protection Conditions.

a. For each sand placement event, reports for all required marine turtle nesting surveys shall be provided for the post construction (partial or remaining) nesting season and for two full nesting seasons post construction in accordance with the Table 1 (below). If nesting and reproductive success is less than the criteria in the table below, an additional year of monitoring and reporting may be required. If criteria is not met, additional conditions prior to the next sand placement on this beach may be required by the Department and the FWC.

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b. Data shall be reported and summarized for the nourished areas and reference beach in accordance with Table 1 (below). Reports shall summarize all crawl activity, hatching success of a representative sampling of nests left in place (if any) by species, project name and applicable project permit numbers and dates of construction. Data on nesting activity on the nourished areas and on an equal length of beach that is not nourished shall be submitted in electronic format (Excel spreadsheets) which are available upon request from MarineTurtle@MyFWC.com. Reports shall be sent to the FWC Imperiled Species Management section at MarineTurtle@MyFWC.com and copied to JCPCompliance@dep.state.fl.us. All summaries should be submitted by January 15 of the following year.

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Table 1. Marine Turtle Monitoring for Beach Placement of Material.

<u>Date</u>	<u>Duration</u>	<u>Variable</u>	Criterion
Nesting Success	Year of in-season construction and two entire nesting seasons post construction, with possible additional year (for a total of three years) **Example 1.5	Number of nests and non- nesting emergences by day by species	40 percent or greater
Hatching success	Year of in-season construction and one entire nesting season post construction, with possible additional year ^{1 &} 2	Number of hatchlings by species to hatch from egg	60 percent or greater (a statistically valid number of loggerhead and green nests, and all leatherback nests)
Emergence Success	Year of in-season construction and one entire nesting season post construction, with possible additional year ^{1 &}	Number of hatchlings by species to emerge from nest onto beach	Average must not be significantly different than the average hatching success
<u>Disorientations</u>	Year of in-season construction and two entire nesting seasons post construction ¹	Number of nests and/or individuals that misorient or disorient	
Nests affected by erosion or inundation	Year of construction and two years post construction if placed sand remains on the beach	Number of nests lost and/or affected, by species	

<u>Date</u>	<u>Duration</u>	<u>Variable</u>	<u>Criterion</u>
Lighting Surveys	Two in-season surveys the year following construction; First survey between May 1 and May 15 and second survey between July 15 and August 11	Number, location and photographs of lights visible from nourished berm, corrective actions recommended, and notifications made	Lighting survey and possible meeting resulting with plan for reduction in lights visible from nourished berm
Compaction	Three nesting seasons beginning with the year of construction. Not required if the beach is tilled prior to nesting season ¹	Shear resistance	Less than 500 psi
Escarpment Surveys	Weekly during nesting season for three years beginning with year of construction ¹	Number of scarps 18 inches or greater extending for more than 100 feet that persist for more than 2 weeks	Successful remediation of all persistent scarps as needed

¹ If placed sand remains on the beach

- Shorebird Protection. The term "shorebird" is used here to refer to all solitary nesting shorebirds and colonial nesting seabirds that nest on Florida's beaches. These conditions are intended to avoid direct impacts associated with the construction of the project and may not address all potential take incidental to the operation and use related to this authorization. The Permittee shall adhere to the shorebird protection conditions during the shorebird breeding cycle, which includes nesting.
 - a. Shorebird breeding season dates for this project area are **February 15 through September 1** (note that while most species have completed the breeding cycle by

 September 1, flightless young may be present through September and must be protected if present).
 - b. Any parts of the project where "project activities" on the beach take place *entirely* outside the breeding season, do not require shorebird surveys. The term "project

² Additional years may be required if variable does not meet criterion based on previous year

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activities" includes operation of vehicles on the beach, movement or storage of equipment on the beach, sand placement or sand removal, and other similar activities that may harm or disturb shorebirds. Bird survey routes must be established and monitored throughout the entire breeding season in any parts of the project area where: 1) potential shorebird breeding habitat occurs, and 2) project activities are expected to occur at any time within the breeding season. Breeding season surveys shall begin on the first day of the breeding season or 10 days prior to project commencement (including survey activities and other pre- construction presence on the beach), whichever is later.

- c. Bird surveys shall be conducted in all potential beach-nesting bird habitats within the project boundaries that may be impacted by construction or pre-construction activities. One or more shorebird survey routes shall be established by the Permittee to cover project areas which require shorebird surveys. These routes shall be determined in coordination with the FWC Regional Biologist (or their designee) prior to the initiation of construction. Routes shall not be modified without prior notification to the FWC.
- d. During the pre-construction and construction activities associated with the project, the Permittee shall ensure that surveys for detecting breeding activity and the presence of flightless chicks shall be completed on a daily basis by a qualified bird monitor. This shall be completed prior to movement of equipment, operation of vehicles, or other activities that could potentially disrupt breeding behavior or cause harm to the birds or their eggs or young. If all project activities are completed and all personnel and equipment have been removed from the beach prior to the end of the breeding season, route surveys shall continue to be conducted at least weekly through the end of the breeding season. If breeding or nesting behavior is confirmed by the presence of a scrape, eggs or young, the Permittee (or their designee) shall establish a buffer in accordance with Specific Condition 29 around the site and shall notify the FWC Regional Biologist (or their designee) within 24 hours. The posts and materials for the shorebird buffer zones shall be removed once all breeding or nesting behavior has ceased.
- e. The Permittee shall require the Bird Monitor to conduct a shorebird education and identification program (and/or provide educational materials) with the on-site staff to ensure protection of precocial (mobile) chicks. All personnel are responsible for watching for shorebirds, nests, eggs and chicks. If the Bird Monitor finds that shorebirds are breeding within the project area, the Permittee shall place and maintain a bulletin board in the construction staging area with the location map of the construction site showing the bird breeding areas and a warning, clearly visible, stating that "NESTING BIRDS ARE PROTECTED BY LAW INCLUDING THE FLORIDA ENDANGERED AND THREATENED SPECIES ACT AND THE STATE and FEDERAL MIGRATORY BIRD ACTS".

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27. Shorebird Monitor Requirements.

- a. The Permittee shall ensure that nesting and breeding shorebird surveys are conducted by trained, dedicated individuals (Bird Monitors) with proven shorebird identification skills and avian survey experience.
- b. Bird Monitor(s) shall be required to review and become familiar with the general information, employ the data collection protocol, and implement data entry procedures outlined on the FWC's FSD website (http://www.flshorebirddatabase.org or Florida Shorebird Database). They shall use the data-collection protocol and implement data entry procedures as outlined in that website.
- c. The Permittee shall submit a list of Bird Monitors, with their contact information and a summary of qualifications, including bird identification skills and avian survey experience to the FWC Regional Biologist and JCPCompliance@dep.state.fl.us, prior to any construction or shorebird surveys. The determination that the selected Bird Monitor(s) meet the required qualifications shall be coordinated between the Permittee and the FWC Regional Biologist. Once approved, the Permittee shall submit the names and contact information of the Bird Monitor(s) who have been approved by the FWC to JCPCompliance@dep.state.fl.us, prior to any construction or shorebird surveys. The Bird Monitor(s) shall meet the following minimum qualifications:
 - i. Has previously participated in beach-nesting shorebird surveys in Florida (provide references or resume). Experience with previous projects must document the ability to 1) identify all species of beach-nesting birds by sight and sound, 2) identify breeding/territorial behaviors, and find nests of shorebirds that occur in the project area, and 3) identify habitats preferred by shorebirds nesting in the project area.
 - ii. Have a clear working knowledge of, and adhere to, the <u>Breeding Bird Protocol</u> for Florida's <u>Seabirds and Shorebirds</u>.
 https://publictemp.myfwc.com/crossdoi/shorebirds/resources.aspx
 - iii. Have completed full-length webinars: Route- Surveyor Training and Rooftop

 Monitoring Training, including the annual refresher training. Training resources
 can be found on the *Florida Shorebird Database* (FSD) website.

 https://publictemp.myfwc.com/crossdoi/shorebirds/index.aspx
 - iv. Familiar with the FWC beach driving guidelines.

 (https://myfwc.com/conservation/you-conserve/wildlife/beach-driving/).

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- v. Experience posting beach-nesting bird sites, consistent with *Florida Shorebird Alliance (FSA) Guidelines*.
 http://flshorebirdalliance.org/resources/instructions-manuals.aspx
- vi. Has registered as a contributor to the FSD.
- Shorebird Survey Protocols. Bird survey protocols, including downloadable field data sheets, are available on the FSD website. All breeding activity shall be reported to the FSD website within one week of data collection. If the use of this website is not feasible for data collection, the FWC Regional Biologist (or their designee) shall be contacted for alternative methods of reporting. The Permittee shall ensure that the Bird Monitors use the following survey protocols:
 - a. Surveys shall be conducted by walking the length of all survey routes and visually surveying for the presence of shorebirds exhibiting breeding behavior, shorebird chicks or shorebird juveniles, as outlined in the FSD Breeding Bird Protocol for Shorebirds and Seabirds. Use of binoculars (minimum 8x40) is required and use of a spotting scope may be necessary to accurately survey the area. If an ATV or other vehicle is needed to cover large survey routes, the Bird Monitor shall stop at intervals of no greater than 600 feet to visually inspect for breeding activity.
 - b. Once breeding or nesting behavior is confirmed by the presence of a scrape, eggs or young, the Permittee (or their designee) shall notify the FWC Regional Biologist (or their designee) within 24 hours.
- 29. Shorebird Buffer Zones and Travel Corridors. The Permittee shall require the Bird Monitor(s) and Contractor(s) to meet the following:
 - a. The Bird Monitor(s) shall establish a disturbance-free buffer zone around any location within the project area where the Bird Monitor has observed shorebirds engaged in breeding behavior, including territory defense. A 300-foot buffer shall be established around each nest or around the perimeter of each colonial nesting area. A 300-foot buffer shall also be placed around the perimeter of areas where shorebirds are seen digging nest scrapes or defending nest territories. All construction activities, movement of vehicles, stockpiling of equipment, and pedestrian traffic are prohibited in the buffer zone. Smaller, site-specific buffers may be established if approved in writing by the FWC Regional Biologist (or their designee). Travel corridors shall be designated and marked outside the buffer areas for pedestrian, equipment, or vehicular traffic.
 - b. The Bird Monitor(s) shall keep breeding sites under sufficient surveillance to determine if birds appear agitated or disturbed by construction or other activities in adjacent areas. If birds appear to be agitated or disturbed by these activities, then the

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Bird Monitor(s) shall immediately widen the buffer zone to a sufficient size to protect breeding birds.

- c. The Bird Monitor(s) shall ensure that reasonable and traditional pedestrian access is not blocked in situations where breeding birds will tolerate pedestrian traffic. This is generally the case with lateral movement of beach-goers walking parallel to the beach at or below the highest tide line. Pedestrian traffic may also be allowed when breeding was initiated within 300 feet of an established beach access pathway. The Bird Monitor(s) shall work with the FWC Regional Species Conservation Biologist to determine if pedestrian access can be accommodated without compromising nesting success. These site-specific buffers must be determined in coordination with the FWC Regional Biologist (or their designee).
- d. The Bird Monitor(s) shall ensure that the perimeters of designated buffer zones shall be marked according to FSA Posting Guidelines available at: http://flshorebirdalliance.org/resources/instructions-manuals.aspx) with posts, twine and the FWC-approved signs stating "Do Not Enter, Important Nesting Area" or similar language around the perimeter (see example of signage for marking designated buffer zones at http://myfwc.com/conservation/youconserve/wildlife/shorebirds/). Posts shall not exceed 3 feet in height once installed. Symbolic fencing (twine, string or rope) should be placed between all posts at least 2.5 feet above the ground and rendered clearly visible to pedestrians. If pedestrian pathway and/or equipment travel corridor modifications are approved by the FWC Regional Biologist (or their designee), these shall be clearly marked. Posting shall be maintained in good repair until no active nests, eggs, or flightless young are **present.** Although solitary nesters may leave the buffer zone temporarily with their chicks, the posted area continues to provide a potential refuge for the family until breeding is complete. Breeding is not considered to be completed until all chicks have fledged.
- e. The Permittee shall ensure that no construction activities, pedestrians, moving vehicles, or stockpiled equipment are allowed within the buffer area.
- f. The Permittee shall ensure that the Bird Monitor(s) designate and mark travel corridors outside the buffer areas so as not to cause disturbance to breeding birds. Heavy equipment, other vehicles, or pedestrians may transit past breeding areas in these corridors. However, other activities such as stopping or turning heavy equipment and vehicles shall be prohibited within the designated travel corridors adjacent to the breeding site.
- g. When flightless chicks are present within or adjacent to travel corridors, construction-related vehicles shall not be driven through the corridor unless a Bird Monitor is present to adequately monitor the travel corridor. The Permittee shall require the

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contractor with the oversight of the Bird Monitor(s) to avoid any chicks that may be in the path of moving vehicles. The Permittee shall also require the contractor with the oversight of the Bird Monitor(s) to level any tracks, ruts, or holes that may be capable of trapping flightless chicks, while avoiding any impacts to the chicks.

Notification. Any injury or death of a shorebird (including crushing eggs or young) resulting from project activities shall be reported immediately to the FWC Regional Biologist (or their designee).

- 30 32. Biological monitoring required. Biological monitoring shall be conducted to provide the Department with reasonable assurance that any unpermitted, project-related, impacts to biological resources will be documented, if they occur. When dredging material from the New Pass Navigational Channel Complex, biological monitoring shall be conducted in accordance with the attached Biological Monitoring Plan [dated February 2015, approved for the New Pass Navigational Dredging and Beach Disposal Permit (Permit # 0323832-001-JC)], which is enforceable as an integral component of this specific condition of the permit. Any revisions to the Plan will require a written request from the Permittee and written approval from the Department through a permit modification.
 - a. All biological monitoring shall be conducted by experienced biologists with expertise in surveying seagrass. To ensure that individuals conducting monitoring have appropriate qualifications, documentation demonstrating expertise / experience shall be provided, pursuant to Specific Condition 5(c). The Permittee is responsible for ensuring that their selected contractor(s) / subcontractor(s) are knowledgeable of all permit conditions pertaining to biological monitoring requirements and the Biological Monitoring Plan.
 - b. *Pre and Post-construction surveys*. Monitoring shall be conducted immediately prior to each construction event (time zero, T0) during the growing season (May 1 October 31) and post-construction (year 1, Y1) in the same time period as T0 monitoring. Each survey shall include:
 - i. In-water surveys of benthic resources (i.e., Submerged Aquatic Vegetation, SAV) located within 150 meters of the dredging footprint or the authorized mixing zone, whichever is greater, to 1) delineate the edge of seagrass beds, and 2) quantitatively assess species composition and abundance of SAV using quadrats; as well as
 - ii. Visual assessment of mangroves.

c. Deliverables:

- i. Raw data (field sheets and Excel spreadsheets), GIS files, and photos shall be submitted to the Department within 45 days of each monitoring event.
- ii. Biological monitoring reports shall be provided to the Department no later than 90 days after each monitoring event.

d. Notifications:

- i. *Notification of monitoring:* The monitoring team shall notify the Department when biological monitoring surveys are scheduled to begin, when each survey has begun, and when each survey has been completed. Throughout the duration of monitoring, weekly progress reports describing the status of biological monitoring tasks shall be submitted to the Department.
- ii. *Notification of impacts*: If at any time the Permittee, the biological monitoring team, or the contractor performing the construction discovers potential unpermitted project-related impacts, the Department shall be notified immediately (within 24 hours). Impacts to seagrasses and mangroves are not authorized in this permit.

Notifications and deliverables pertaining to biological monitoring shall be submitted electronically to the JCP Compliance Officer.

Post Construction

- 31 33 Within 90 days after completion of authorized activities, the Permittee shall submit a notice of completion to the JCP Compliance Officer that includes the following information:
 - a. The permit number 031181-001-JC <u>004-JM</u> and the project name (Bonita Beach and Lovers Key Beach Nourishment Project).
 - b. A copy of any post-construction As-Built Survey drawings required of the Contractor. If any of the completed activities differ substantially from the permitted plans, any substantial deviations shall be noted and explained.
 - c. A summary of the construction event (the date on which authorized activities began and the date of completion, the volume of sand placed and/or dredged as well as the source of sand and the R-monument locations for construction activities);

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- d. A table identifying any exceedances of turbidity standards that occurred during dredging or disposal, the probable causes of the exceedances, and corrective measures taken to reduce turbidity.
- e. A table identifying any <u>known</u> impacts to biological resources (including SAV and Mangrove communities) and, the probable causes of the impacts, and corrective measures taken.
- f. A table identifying any harm or injury to threatened species, endangered species or protected species, endangered status communities, the probable causes of the take and corrective measures taken.
- 32. **Post-Construction Meeting.** Within 90 days following each construction activity authorized by this permit, the Permittee shall hold a post-construction conference. Attendees shall include at minimum, the Permittee, Agent, Department representative, and FWC representative.

EXECUTION AND CLERKING:

Executed in Tallahassee, Florida.
STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Gregory W. Garis.

Program Administrator

Beaches, Inlets and Ports Program

Office of Resilience and Coastal Protection

Attachment(s):

- 1. Approved Permit Drawings (19 pages, dated April 20, 2022)
- 2. QA/QC Plan (approved on December 7, 2021)
- 3. Physical Monitoring Plan (dated December 17, 2021)
- 4. Variance No. 0311811-002-BV

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CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this permit and all attachments were sent on the filing date below.

FILING AND ACKNOWLEDGMENT

FILED, on this date, pursuant to Section 120.52, F. S., with the designated Department Clerk, receipt of which is hereby acknowledged.

Andiya Walker 12/14/2022
Clerk Date