FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)
FINDING OF NO SIGNIFICANT IMPACT
SECTOR 3 BEACH RESTORATION PROJECT
INDIAN RIVER COUNTY, FLORIDA
FEMA-4283-DR-FL
FEMA-4337-DR-FL
FEMA-4468-DR-FL

BACKGROUND

On October 8, 2016 and amended October 17, 2016, October 19, 2016, October 24, 2016, October 25, 2016, October 27, 2016, November 4, 2016, and December 12, 2016, President Obama declared a major disaster (FEMA-DR-4283-FL) for the State of Florida due to Hurricane Matthew. Subsequently on September 10, 2017 and amended September 11, 2017, September 13, 2017, September 14, 2017, September 16, 2017, September 18, 2017, September 21, 2017, October 2, 2017, October 5, 2017, October 11, 2017, October 18, 2017, January 10, 2018, April 2, 2018, and August 29, 2018, President Trump declared a major disaster (FEMA-DR-4337-FL) for the State of Florida due to Hurricane Irma. Lastly, Hurricane Dorian impacted the State of Florida between August 28, 2019 and September 9, 2019, also bringing storm surge, and flooding. President Trump signed a disaster declaration (FEMA-4468-DR-FL) on October 21, 2019 authorizing federal assistance in Florida. All three disaster declarations authorized the Federal Emergency Management Agency (FEMA) to provide federal assistance to designated disaster areas.

Due to Hurricanes Matthew, Irma, and Dorian, Indian River County Sector 3 beach suffered substantial erosion. The community has identified the need to restore the capacity of the shoreline to withstand future storm events, reduce erosion, and decrease risk from future events to human life and improved property. Prior to construction of the engineered beach in 2010-2012, the upland areas of Sector 3 experienced significant storm impacts and saltwater inundation. The beach has not been renourished since the previous project's completion in 2012. The proposed action reduces the risk of storms to the community, provides restoration of sea turtle and shorebird habitat, and increases the potential for recreational use of this open space.

The proposed work is to renourish 6.5 miles of shoreline between FDEP monuments R-20 (27.81158, -80.42233) and R-55 (27.72468, -80.37893) in Sector 3 in Indian River County. The project will use offshore dredged material or sand from an approved upland sand mine. If dredging is the selected sand source, it will be obtained from the previously permitted Sub-Area 1 of the South Borrow Area. Indian River County is proposing to replace approximately 207,576.5 cubic yards (CY) of lost sand attributable to Hurricane Matthew, 128,300 CY of lost sand attributable to Hurricane Irma, and 72,200 CY of lost sand attributable to Hurricane Dorian. Additionally, 214,323.5 CY of background erosional losses will be placed concurrently to fill the beach template of 622,400 CY. Additional sand may be placed if the beach is further eroded by storm events during the 2020 or 2021 hurricane seasons. Indian River County has elected to include work for their routine sand replenishment at the same time they restore the disaster related sand loss. The project may be paused to occur outside of sea turtle nesting season. It is expected that the work will begin in January 2021 and pause on April 30, 2021 to avoid impacts to sea turtle nesting. The placement of sand during this process will be in the full

cross-section configuration of the beach renourishment plan. The placement of sand will then begin again on November 1, 2021 after sea turtle nesting season is over. The sand placement will continue to be placed in the full cross-section configuration of the beach.

A public notice is posted on the applicant's website, at the project site, and on FEMA's website. The Dial Cordy and Associates Inc. & Coastal Technology Corporation Environmental Assessment (EA) (2009) is available for viewing by visiting the following website: http://www.ircgov.com/Departments/Public_Works/Coastal_Engineering_Section/Documents/Sector_3_Environmental_Assessment.pdf .

FINDINGS

The Proposed Action as described in the USACE EA will impact biological, coastal, water quality, cultural, floodplains, and social economic resources. During construction, impacts to biological resources are expected and have been minimized through equipment modification, timing of project, monitoring, and limiting work. Coordination with the United States Army Corps of Engineers (USACE), the United States Fish and Wildlife Service (USFWS), and National Marine Fisheries (NMFS) has taken place and will continue throughout the life of the project to ensure any and all biological impacts are addressed and minimized should they occur. Short term impacts to water quality and coastal resources are anticipated. Impacts to floodplains and cultural resources as the result of the proposed action are negligible and not anticipated to be long-term. Long-term positive impacts to socio-economic resources are expected.

The Proposed Actions cumulative affects included the impacts from previous beach renourishment activities. Previous assessments as well as the outcomes were factored into this evaluation and helped determine the outcome of the Finding of No Significant Impact.

CONDITIONS

The following conditions must be met as part of this project. Failure to comply with these conditions may jeopardize the receipt of federal funding.

1. The applicant will obtain a permit from the U.S. Army Corps of Engineers and comply with all conditions for the project, including the Special Conditions.
2. The applicant will maintain the Consolidated Joint Coastal Permit and Sovereign Submerged Lands Authorization (No. 0285993-009-JC) from the Florida Department of Environmental Protection and comply with all of the conditions of the permit.
3. The applicant will follow the conditions below set forth by the State Historic Preservation Office (SHPO):
    a. The applicant will establish a 200-foot buffer zone around two magnetic anomalies within the South Borrow area identified in a cultural resources survey by Dr. Robert Baer.
    b. If human remains or intact archaeological deposits are uncovered, work in the vicinity of the discovery will stop immediately and all reasonable measures to avoid or minimize harm to the finds will be taken. The Applicant will assure that archaeological discoveries are secured in place, that access to the sensitive area is restricted, and that all reasonable measures are taken to avoid further disturbance of the discoveries. The Applicant's

contractor will provide immediate notice of such discoveries to the Applicant. The Applicant will contact the Florida Division of Historical Resources and FEMA within 24 hours of the discovery. Work in the vicinity of the discovery may not resume until FEMA has completed consultation with the State Historic Preservation Office, tribes, and other consulting parties as necessary. If unmarked human remains are encountered during permitted activities, all work will stop immediately, and the proper authorities will be notified in accordance with Florida Statutes, Section 872.05.

c. Construction vehicles and equipment will be stored onsite during the project or at existing access points within the Applicant's right-of-way.

d. Prior to conducting repairs, applicant must identify the source and location of fill material and provide this information to FDEM and FEMA. If the borrow pit is privately owned, or is located on previously undisturbed land, or if the fill is obtained by the horizontal expansion of a pre-existing borrow pit, FEMA consultation with the State Historic Preservation Officer will be required. Failure to comply with this condition may jeopardize FEMA funding; verification of compliance will be required at project closeout.

e. Any changes to the approved scope of work will require submission to, and evaluation and approval by, the State of Florida and FEMA, prior to initiation of any work, for compliance with Section 106 of the NHPA.

4. The applicant will comply with the following conditions from the USFWS Statewide Programmatic Biological Opinion for Sand Placement # 41910-2011-F-0170 issued to the U.S. Army Corps of Engineers on March 13, 2015:

    a. Beach-compatible fill shall be placed on the beach or in any associated dune system. Beach compatible fill must be sand that is similar to a native beach in the vicinity of the site that has not been affected by prior sand placement activity. The fill material must be similar in both coloration and grain size distribution to that native beach. Beach compatible fill is material that maintains the general character and functionality of the material occurring on the beach and in the adjacent dune and coastal system. Fill material shall comply with FDEP requirements pursuant to the Florida Administrative Code (FAC) subsection 62B-41.005(15). If a variance is requested from FDEP, the Service must be contacted to discuss whether the project falls outside of the SPBO. A Quality Control Plan shall be implemented pursuant to FAC Rule 62B-41.008(1)(k)4.b.

    b. Sand placement shall not occur during the period of peak sea turtle egg laying and egg hatching to reduce the possibility of sea turtle nest burial, crushing of eggs, or nest excavation.

        i. Sand placement projects in Indian River county shall be started after October 31 and be completed before May 1. During the May 1 through October 31 period, no construction equipment or pipes may be placed and/or stored on the beach.

c. All derelict concrete, metal, and coastal armoring geotextile material and other debris shall be removed from the beach to the maximum extent possible prior to any sand placement in accordance with the dates in b. If debris removal activities take place during shorebird breeding or peak sea turtle nesting season, the work shall be conducted during daylight hours only and shall not commence until completion of daily seabird, shorebird or marine turtle surveys each day.

d. The beach profile template for the sand placement project shall be designed to mimic, the native beach berm elevation and beach slopes landward and seaward of the equilibrated berm crest. Prior to drafting the plans and specifications for a beach nourishment project, the Corps and Indian River County must meet with the Service, FWC, and FDEP to discuss the beach profile surveys, dune formation (specifically on high density green turtle nesting beaches), and the sea turtle monitoring reports from previous placement events. The meeting will be used to discuss modifications to the beach profile based on the post-construction monitoring data.

   Beach profile may vary depending on location, shoreline dynamics, nature of the fill material, and other factors. If a native beach berm elevation is not possible, due to the beach width, impacts to nearshore hardbottom, or other considerations, as discussed during the meeting, the alternative template shall include features to minimize impacts to sea turtle nesting success and the potential for ponding and escarpment formation for that beach. For all high density green turtle nesting beaches, the formation of a dune, either through direct creation or natural accretion, will be included in the project design. Dunes and other construction features must be within the scope of the Congressionally-authorized project, if it is a civil works project, and constructible without impacting other resources. If a recommended dune is not possible, the Corps will contact the Service to see if consultation needs to be reinitiated or discuss features incorporated with the profile that will enhance the existing dune. Dune features included in the profile design (or project) shall have a slope of 1.5:1 followed by a gradual slope of 4:1 for approximately 20 feet seaward on a high erosion beach (SPBO Figure 13**)** or a 4:1 slope (SPBO Figure 14) on a low erosion beach. The Corps must explore options to include a dune system in the project design for existing authorized projects and new non-Federal projects. If another slope is proposed for use, the Corps shall consult the Service. The seaward toe of the dune should be at least 20 feet from the waterline.

e. Predator-proof trash receptacles shall be installed and maintained during construction at all beach access points used for the project construction to minimize the potential for attracting predators of sea turtles and beach mice (SPBO Appendix F). The Corps shall provide predator-proof trash receptacles for the construction workers. The Corps shall brief workers on the importance of not littering and keeping the project area trash and debris

free.

f. A meeting between representatives of Indian River County and the Corps (including the Corps project manager and/or the managing contractor), the Service, the FWC, the FWC Marine Turtle Permit Holder, and other species surveyors, as appropriate, shall be held prior to the commencement of work on projects. At least 10 business days advance notice shall be provided prior to conducting this meeting. The meeting will provide an opportunity for explanation and/or clarification of the sea turtle and beach mouse protection measures as well as additional guidelines when construction occurs during the sea turtle nesting season, and will include the following:

   i. Staging locations, storing equipment including fuel stations
   ii. Coordination with the Marine Turtle Permit Holder on nesting surveys and any nighttime work
   iii. Pipeline placement (between 5 to 10 feet from dune)
   iv. Minimizing driving
   v. Egg relocation- permit holder and location (must be approved by FWC)
   vi. Free-roaming cat observation (for projects in or near beach mouse habitat)
   vii. Follow up lighting surveys - dates and inspector
   viii. Follow up coordination during construction and post construction
   ix. Coordination on construction lighting including dredge lighting and travel within and adjacent to the work area
   x. Direction of the project including progression of sand placement along the beach
   xi. Late season nests present in project area (if any)
   xii. Plans for compaction monitoring or tilling
   xiii. Plans for escarpment surveys

   At the preconstruction meeting, the Corps and Indian River County shall also provide the Service with specific anticipated shoreline lengths and anticipated duration using the form on the following web link: http://www.fws.gov/northflorida/SeaTurtles/Docs/Corp%20of%20Engineers%20Sea%20Turtle%20Permit%20Information.pdf. Only the following information should be filled out: Corps Permit Number, FWS Log Number, Project Location, Construction Activity, Duration of Protect, and Actual Take (linear feet of beach). This form shall be emailed to the Service at seaturtle@fws.gov. This form is in addition to the annual report listed below.

g. Daily early morning surveys for sea turtle nests shall be required and continue throughout the season as outlined in SPBO Tables 16 and 17 (Nesting Season Monitoring) if construction occurs during the nesting and hatching season. Any known nests recorded just prior to the

beginning of Nesting Season Monitoring must be relocated if it will be impacted by the construction activity or marked and avoided if feasible.

h. If nests are constructed in the area of anticipated sand placement, the eggs shall be relocated to minimize sea turtle nest burial, crushing of eggs, or nest excavation as outlined in below. If nests are laid on the dune outside of the immediate sand placement area, the Corps must contact the Service to discuss whether relocation or mark and avoidance is required. Any known nests recorded just prior to the beginning of Nesting Season Monitoring must be relocated if it will be impacted by the construction activity or marked and avoided if feasible.

    i. For any placement projects in Indian River County that occur during the earlier part of the nesting season (see Table 14) through April 30, daily early morning surveys shall begin March 1 and continue through the end of the beach placement window, with egg relocation continuing only until completion of fill placement. Eggs shall be relocated per the following requirements below. For sand placement projects that occur during the period from November 1 through the end of hatching season (see Table 16), daily early morning sea turtle nesting surveys shall be conducted 65 days prior to project initiation and continue through November 11, and eggs shall be relocated per the requirements listed below. The Corps must contact the Service if there are any nests still incubating after November 30:

        1. Nesting surveys and egg relocations will only be conducted by persons with prior experience and training in these activities and who are duly authorized to conduct such activities through a valid permit issued by FWC, pursuant to FAC 68E-1. Please contact FWC's Imperiled Species Management Section in Tequesta at mtp@myfwc.com for information on the permit holder in the project area. Relocation cannot begin until the Corps has a copy of the FWC permit authorizing relocation for construction purposes at that particular sand placement project. Nesting surveys shall be conducted daily between sunrise and 9 a.m. (this is for all time zones).
        2. Only those nests that may be affected by sand placement activities will be relocated. Nest relocation shall not occur upon completion of the project. Nests requiring relocation shall be moved no later than 9 a.m. the morning following deposition to a nearby self-release beach site in a secure setting where artificial lighting will not interfere with hatchling orientation. Relocated nests shall not be placed in organized groupings. Relocated nests shall be randomly staggered along the length and width of the beach in settings that are not expected to experience daily inundation by high tides or known to routinely experience

severe erosion and egg loss, predation, or be subject to artificial lighting. Nest relocations in association with construction activities shall cease when construction activities no longer threaten nests.

3. Nests deposited within areas where construction activities have ceased or will not occur for 65 days or nests laid in the nourished berm prior to tilling shall be marked and left in situ unless other factors threaten the success of the nest. The turtle permit holder shall install an on-beach marker at the nest site and a secondary marker at a point as far landward as possible to assure that future location of the nest will be possible should the on-beach marker be lost. No activity will occur within this area nor will 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.

i. Two surveys shall be conducted of all lighting visible from the beach placement area by the Applicant or Corps, using standard techniques for such a survey (SPBO Appendix C), in the year following construction. The first survey shall be conducted between May 1 and May 15 and a fill out FWS Sea Turtle Lighting Survey Form (SPBO Appendix D) and send electronically to seaturtle@fws.gov. The second survey shall be conducted between July 15 and August 1. A summary report of the surveys, including any actions taken, shall be submitted to the Service by December 31 of the year in which surveys are conducted. After the annual report is completed, a meeting shall be set up with the Applicant, county or municipality, FWC, Corps, and the Service to discuss the survey report, as well as any documented sea turtle disorientations in or adjacent to the project area. If the project is completed during the nesting season and prior to May 1, the Corps may conduct the lighting surveys during the year of construction.

j. Daily nesting surveys shall be conducted for two nesting seasons following construction in accordance with SPBO Table 18 and reported in accordance with SPBO Table 20 by the Corps or the Applicant if placed material still remains on the beach. Post construction year-one surveys shall record the number of nests, nesting success, reproductive success, disorientations, and lost nests due to erosion and/or inundation. Post construction year- two surveys shall only need to record nest numbers, nesting success, and disorientations (SPBO Table 20). This information will be used to periodically assess the cumulative effects of these projects on sea turtle nesting and hatchling production and monitor suitability of post construction beaches for nesting.

k. Sand compaction shall be monitored in the area of sand placement immediately after completion of the project and prior to the dates in SPBO Table 19 for 3 subsequent years.

If tilling is needed, the area shall be tilled to a depth of 36 inches. Each pass of the tilling equipment shall be overlapped to allow more thorough and even tilling. All tilling activity shall be completed at least once prior to the nesting season. An electronic copy of the results of the compaction monitoring shall be submitted electronically to seaturtle@fws.gov prior to any tilling actions being taken or if a request not to till is made based on compaction results. The requirement for compaction monitoring can be eliminated if the decision is made to till regardless of post construction compaction levels. Additionally, out-year compaction monitoring and remediation are not required if placed material no longer remains on the dry beach.

(NOTE: If tilling occurs during shorebird nesting season (February 15-August 31), shorebirds surveys prior to tilling are required per the Migratory Bird Treaty Act. See Appendix E for shorebird conditions recommended by FWC.

i. Compaction sampling stations shall be located at 500-foot intervals along the sand placement template. 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 a depth of 6, 12, and 18 inches three times (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 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 will include all 18 values for each transect line, and the final six averaged compaction values.

iii. 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 immediately prior to the appropriate date listed in SPBO Table 19.

iv. 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 consultation with the Service will be required to determine if tilling is required. If a few values exceeding 500 psi are present randomly within the project area, tilling will not be required.

v. Tilling shall occur landward of the wrack line and avoid all vegetated areas 3 square feet or greater with a 3 square foot buffer around the vegetated areas.

l. Visual weekly surveys for escarpments along the project area shall be made immediately after completion of the sand placement and within 30 days prior to the start dates for Nesting Season Monitoring in SPBO Table 19 for 3 subsequent years if sand in the project area still remains on the dry beach.

   Escarpments that interfere with sea turtle nesting or that exceed 18 inches in height for a distance of 100 feet shall be leveled and the beach profile shall be reconfigured to minimize scarp formation by the dates listed in SPBO Table 19. Any escarpment removal shall be reported by location in the annual report. If the project is completed during the early part of the sea turtle nesting and hatching season (March 1 through April 30), escarpments may be required to be leveled immediately, while protecting nests that have been relocated or left in place. If during weekly escarpment surveys, it is found that subsequent reformation of escarpments interferes with sea turtle nesting or that they exceed 18 inches in height for a distance of 100 feet during the nesting and hatching season, the Service shall be contacted immediately to determine the appropriate action to be taken. If it is determined by the Service or FWC that that escarpment leveling is required during the nesting or hatching season the Service, in coordination with the FWC, will provide a brief written authorization within 5 days that describes methods to be used to reduce the likelihood of impacting existing nests. An annual summary of escarpment surveys and actions taken shall be sent electronically to seaturtle@fws.gov. A summary is required even when no action has been taken (SPBO Table 3).

m. Staging areas for construction equipment shall be located off the beach during early (before April 30) and late (after November 1) nesting season for Brevard through Broward counties (see table 14) and peak nesting season (May 1 through October 31) for the remaining counties. Nighttime storage of construction equipment not in use shall be off the beach to minimize disturbance to sea turtle nesting and hatching activities. In addition, all construction pipes placed on the beach shall be located as far landward as possible without compromising the integrity of the dune system. Pipes placed parallel to the dune shall be 5 to 10 feet away from the toe of the dune if the width of the beach allows. Temporary storage of pipes shall be off the beach to the maximum extent possible. If the pipes are stored on the beach, they shall be placed in a manner that will minimize the impact to nesting habitat and shall not compromise the integrity of the dune systems. If the pipes placed parallel to the dune cannot be placed between 5 to 10 feet away from the toe of the dune during nesting and hatching season, the Corps must reinitiate consultation with the Service as this represents adverse effects not addressed in this SPBO. If it will be necessary to extend construction pipes past a known shorebird nesting site or over-wintering area for piping plovers, then whenever possible 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.

n. Direct lighting of the beach and nearshore waters shall be limited to the immediate construction area during early (before April 30) and late (after November 1) nesting season for Brevard through Broward counties (see Table 14) and peak nesting season (May 1 through October 31) for the remaining counties, and shall comply with safety requirements. A light management plan for the dredge and the work site shall be submitted for approval by the Service and FWC prior to the pre-construction meeting. In accordance with this plan, lighting on all equipment shall be minimized through reduction, shielding, lowering, and appropriate placement to avoid excessive illumination of the water's surface and nesting beach while meeting all Coast Guard, Corps EM 385-1- 1, and OSHA requirements. Light intensity of lighting equipment shall be reduced to the minimum standard required by OSHA for General Construction areas, in order not to misdirect sea turtles. Shields shall be affixed to the light housing on dredge and land- based lights and be large enough to block light from all lamps from being transmitted outside the construction area or to the adjacent sea turtle nesting beach in line-of-sight of the dredge (SPBO Figure 15).

o. During the early (before April 30) and late (after November 1) nesting season for Brevard through Broward counties (see Table 14) and peak nesting season (May 1 through October 31) for the remaining counties, the Corps shall not extend the beach fill more than 500 feet (or other agreed upon length) along the shoreline between dusk and dawn of the following day until the daily nesting survey has been completed and the beach cleared for fill advancement. An exception to this may occur if there is a permitted sea turtle surveyor present on-site to ensure no nesting and hatching sea turtles are present within the extended work area. If the 500 feet is not feasible for the project, an agreed upon distance will be decided on during the preconstruction meeting. Once the beach has been cleared and the necessary nest relocations have been completed, the Corps will be allowed to proceed with the placement of fill during daylight hours until dusk at which time the 500-foot length (or other agreed upon length) limitation shall apply. 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 sea turtle permit holder responsible for nest monitoring has relocated the nest.

p. All vegetation planting shall be designed and conducted to minimize impacts to sea turtles and beach mice. Dune vegetation planting may occur during the sea turtle nesting season under the following conditions.

    i. Daily early morning sea turtle nesting surveys (before 9 a.m.) shall be conducted during the Nest Laying period for all counties in Florida where sea turtle nesting occurs (see Tables 16 and 17). Nesting surveys shall only be conducted by personnel with prior experience and training in nesting surveys. Surveyors shall have a valid FWC permit. Nesting surveys shall be conducted daily

between sunrise and 9 a.m. (all times). No dune planting activity shall occur until after the daily turtle survey and nest conservation and protection efforts have been completed. Hatching and emerging success monitoring will involve checking nests beyond the completion date of the daily early morning nesting surveys;

ii. Any nests deposited in the dune planting area not requiring relocation for conservation purposes shall be left in place. The turtle permit holder shall install an on-beach marker at the nest site and a secondary marker at a point as far landward as possible to assure that future location of the nest will be possible should the on- beach marker be lost. A series of stakes and highly visible survey ribbon or string shall be installed to establish a 3-foot radius around the nest. No planting or other activity shall occur within this area nor will any activities be allowed 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 planting activity;

iii. If a nest is disturbed or uncovered during planting activity, the Corps, or the Applicant shall cease all work and immediately contact the project turtle permit holder. If a nest(s) cannot be safely avoided during planting, all activity within 10 feet of a nest shall be delayed until hatching and emerging success monitoring of the nest is completed;

iv. All dune planting activities shall be conducted by hand and only during daylight hours;

v. All dune vegetation shall consist of coastal dune species native to the local area; (i.e., native to coastal dunes in the respective county and grown from plant stock from that region of Florida). Vegetation shall be planted with an appropriate amount of fertilizer and antidesiccant material for the plant size;

vi. No use of heavy equipment shall occur on the dunes or seaward for planting purposes. A lightweight (all-terrain type) vehicle, with tire pressures of 10 psi or less may be used for this purpose; and

vii. Irrigation equipment, if needed, shall be authorized under a FDEP permit.

q. Beach mouse habitat shall be avoided when selecting sites for equipment, pipes, vehicle storage and staging to the maximum extent possible. Suitable beach mouse habitat constitutes the primary dunes (characterized by sea oats and other grasses), secondary dunes (similar to primary dunes, but also frequently includes such plants as woody goldenrod, false rosemary), and interior or scrub dunes.

r. Equipment placement or storage shall be excluded in the area between 5 to 10 feet seaward of the existing dune toe or 10 percent of the beach width (for projects occurring on narrow eroded beach segments) seaward of the

dune toe in areas of occupied beach mouse habitat (SPBO Figure 16). The toe of the dune is where the slope breaks at the seaward foot of the dune. If the pipes placed parallel to the dune cannot be placed between 5 to 10 feet away from the toe of the dune as required during sea turtle nesting and hatching season, Indian River County must work with the Corps to reinitiate consultation with the Service as this represents adverse effects not addressed in this SPBO.

s. Existing beach access points shall be used for vehicle and equipment beach access to the maximum extent possible. These access points shall be delineated by post and rope or other suitable material to ensure vehicles and equipment transport stay within the access corridor. The access corridors shall be fully restored to the preconstruction conditions following project completion. Parking areas for construction crews shall be located as close as possible to the work sites, but outside of vegetated dune areas to minimize impacts to existing habitat and transporting workers along the beachfront.

t. A report with the information specified in SPBO Tables 20 and 21 shall be submitted to the Service electronically (seaturtle@fws.gov) by December 31 after completion of construction.

u. In the event a sea turtle nest is excavated during construction activities, the project turtle permit holder responsible for egg relocation for the project shall be notified immediately so the eggs can be moved to a suitable relocation site.

   Upon locating a dead or injured sea turtle adult, hatchling, egg, or beach mouse that may have been harmed or destroyed as a direct or indirect result of the project, the Corps, Applicant shall be responsible for notifying FWC Wildlife Alert at 1-888-404-FWCC (3922) and the appropriate Service Field Office immediately (Table 3).

   Care shall be taken in handling injured sea turtles, eggs or beach mice to ensure effective treatment or disposition, and in handling dead specimens to preserve biological materials in the best possible state for later analysis.

v. Manatees

   i. Shall follow the 2011 Standard Manatee In-water Construction Conditions

   ii. Barges shall install mooring bumpers that provide a minimum 4-foot standoff distance under maximum compression between other moored barges and large vessels, when in the vicinity of inlets, river mouths, and large estuaries where manatees are known to congregate.

   iii. Pipelines shall be positioned such that they do not restrict manatee movement to the maximum extent possible. Plastic pipelines shall be weighted or floated. Pipelines transporting dredged material within the vicinity of inlets, river mouths, and large estuaries where manatees are known to congregate shall be weighted or secured to

the bottom substrate as necessary to prevent movement of the pipeline and to prevent manatee entrapment or crushing.

iv. In the event that such positioning has the potential to impact submerged aquatic vegetation (SAV) or nearshore hardbottom, the pipeline may be elevated or secured to the bottom substrate to minimize impacts to SAV.

w. Migratory Birds

i. Applicant shall follow the latest Florida Fish and Wildlife Conservation Commission (FWC) standard guidelines to protect against impacts to nesting shorebirds during implementation of this project during periods from February 15 to August 31.

5. The applicant will comply with the following additional conditions from the USFWS Programmatic Piping Plover Biological Opinion #04EF1000-2013-F-0124 dated May 22, 2013:

a. The Corps or the Permittee must provide the following information to the Service Field Supervisor of the appropriate Field Office at least 10 business days prior to the commencement of work:

i. Project location (include FDEP Range Monuments and latitude and longitude coordinates);

ii. Project description (include linear feet of beach, actual fill template, access points, and borrow areas);

iii. Date of commencement and anticipated duration of construction; and

iv. Names and qualifications of personnel involved in piping plover surveys.

b. Prior to construction, the Corps and Indian River County shall delineate preferred piping plover habitat (intertidal portions of ocean beaches, ephemeral pools, washover areas, wrack lines) adjacent to or outside of the project footprint that might be impacted by construction activities. Obvious identifiers shall be used (for example, pink flagging on metal poles) to clearly mark the beginning and end points to prevent accidental impacts to use areas.

c. Piping plover habitat delineated adjacent to or outside of the project footprint shall be avoided to the maximum extent practicable when staging equipment, establishing travel corridors, and aligning pipeline.

d. Driving on the beach for construction shall be limited to the minimum necessary within the designated travel corridor, which will be established just above or just below the primary “wrack” line.

e. Educational signs shall be installed at public access points within the project area with emphasis on the importance of the beach habitat and wrack for piping plovers. When the project area has a pet or dog

regulation, the provisions of the regulation shall be included on the educational signs.

f. For one full piping plover migration and winter season (beginning July 15 to May 15) prior to construction, and 2 years following each dredging and sand placement event, bimonthly (twice-monthly) surveys for piping plovers shall be conducted in the beach fill and in any other intertidal or shoreline areas within or affected by the project. If a full season is not available, at least 5 consecutive months with three surveys per month spaced at least 9 days apart are required. During emergency projects, the surveys will begin as soon as possible prior to, and up to implementing the project. Piping plover identification, especially when in non-breeding plumage, can be difficult. If preconstruction monitoring is not practicable, it will be so indicated in the notification to the Service (see P3BO Term and Condition #2) and the Service will decide whether to require a separate individual consultation. See introductory paragraph to Reasonable and Prudent Measures.

g. The person(s) conducting the survey must demonstrate the qualifications and ability to identify shorebird species and be able to provide the information listed below. The following will be collected, mapped, and reported:

    i. Date, location, time of day, weather, and tide cycle when survey was conducted;

    ii. Latitude and longitude of observed piping plover locations (decimal degrees preferred);

    iii. Any color bands observed on piping plovers;

    iv. Behavior of piping plovers (*e.g.*, foraging, roosting, preening, bathing, flying, aggression, walking);

    v. Landscape features(s) where piping plovers are located (*e.g.*, inlet spit, tidal creeks, shoals, lagoon shoreline);

    vi. Habitat features(s) used by piping plovers when observed (*e.g.*, intertidal, fresh wrack, old wrack, dune, mid-beach, vegetation);

    vii. Substrata used by piping plovers (*e.g.*, sand, mud/sand, mud, algal mat);

    viii. The amount and type of recreational use (*e.g.*, people, dogs on or off leash, vehicles, kite-boarders); and

    ix. All other shorebirds/waterbirds seen within the survey area.

    All information shall be provided in an Excel spreadsheet. Monitoring results shall be submitted (datasheets, maps, database) on standard electronic media (*e.g.*, CD, DVD) to the appropriate Field Office by July 31 of each year in which monitoring is completed. If an appropriate web-based reporting system becomes

available, it would be used in lieu of hard copy/media.

[NOTE: As a condition to a permit from the FDEP, the bird monitor may also be required to report shorebird data to the Florida Fish and Wildlife Conservation Commission (FWC) https://public.myfwc.com/crossdoi/shorebirds/SigninExploreData.aspx.]

6. If the applicant intends to dredge using a hopper dredge, the project will comply with the NMFS South Atlantic Regional Biological Opinion (SARBO).

CONCLUSION

Based on the findings of the EA, coordination with the appropriate agencies, comments from the public, and adherence to the project conditions set forth in this FONSI, FEMA has determined that the proposed project qualifies as a major federal action that will not significantly affect the quality of the natural and human environment, nor does it have the potential for significant cumulative effects. As a result of this FONSI, and in accordance with FEMA Instruction 108-1-1, an EIS will not be prepared and the proposed project as described in the attached EA may proceed.

APPROVAL

LARISSA A HYATT
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Larissa A. Hyatt
Senior Environmental Protection Specialist
FEMA, Region IV

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Saidat O. Thomas
Public Assistance Branch Chief
FEMA, Region IV