

FINDING OF NO SIGNIFICANT IMPACT

Issuance of a Negotiated Agreement for Use of Outer Continental Shelf Sand from Borrow Area CS-II for the Brevard County, Florida Shore Protection Project (North Reach, Mid-Reach, and South Reach)

Pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations implementing NEPA (40 CFR 1500-1508), and Department of the Interior (DOI) regulations implementing NEPA (43 CFR 46), the U.S. Army Corps of Engineers Jacksonville District (Corps) and Bureau of Ocean Energy Management (BOEM) have prepared numerous environmental documents (1996-2021) that consider use of offshore sand from Canaveral Shoals with placement on North Reach, Mid-Reach, and South Reach segments of the Brevard County Shoreline Protection Project (SPP) (herein referred to as the “Project”). For example, in 2021, the Corps (lead agency) and BOEM (cooperating agency) prepared an Environmental Assessment (EA) to evaluate new information, including a new location for stockpiling sand from the Canaveral Shoals II borrow area (CS-II) at Spessard Holland Park, Brevard County, with subsequent excavation and truck haul to the Mid-reach segment. In 2017, BOEM prepared a new EA for dredging of CS-II to nourish the North-Reach and South-Reach segments and provided updated information on the status of and potential impacts to archaeology/cultural resources, threatened and endangered species, water quality, and benthic habitat and morphology.

To support the current construction cycle, BOEM conducted an adequacy review of past NEPA documents (highlighted below), evaluating whether new circumstances or information, changes to the proposed action, or any impacts not previously analyzed would result in significantly different environmental effects. This Finding of No Significant Impact (FONSI), supported by the adequacy review, considers BOEM’s decision about using Outer Continental Shelf (OCS) sand resources in the proposed emergency nourishment following significant erosion from Hurricanes Ian and Nicole in 2022.

Proposed Action

BOEM’s action is to enter into a Non-competitive Negotiated Agreement (NNA) with the Corps and Brevard County authorizing use of OCS sand resources from the CS-II borrow area to conduct “Emergency Rehabilitation” along all three reaches of the Project. The Project purpose is to reduce storm damage to coastal structures, maintain the recreational beach, maintain opportunities for recreational use of the nearshore areas, and maintain environmental quality.

The proposed nourishment will require dredging and transport of up to 2.9 million cubic yards (mcy) of sand from CS-II to pre-determined pump-out locations offshore of North and South Reaches. Placement would occur along 21.8 miles of shoreline between Florida Department of Environmental Protection (FDEP) Range Monuments R-001 and R-54.5 (North Reach), between R-75.4 and R-118.3 (Mid-Reach), and between R-118.3

to R-141 (South Reach) (**Attachment 1**). Sand will be hydraulically pumped and conveyed via submerged pipelines to designated sections of North and South Reaches for berm and dune construction for all three reaches. Sand for Mid-Reach and part of South Reach will be hydraulically placed in South Reach, dewatered, and stockpiled to avoid nearshore hard bottom impacts during placement. Up to 1 mcy of OCS sand will be dredged to construct the template at North Reach; up to 0.95 mcy to construct the template at South Reach; and up to 0.95 mcy to construct the template at Mid-Reach. Placement volumes would be less accounting for dredged material sorted and then deposited in situ or transported during dredging, pump-out, or placement operations. Approximately 610,000 cy of dewatered sand would be transported from the South Reach stockpile to Mid-Reach via truck haul.

The North Reach was initially constructed in 2000 and has been nourished four times (2005, 2013, 2018, 2021), while South Reach was initially constructed in 2002 and has been nourished five times (2005, 2010, 2013, 2018, 2019) using the CS-II borrow area. This is the second nourishment event for Mid-Reach and follows initial construction in 2019.

Alternatives to the Proposed Action

The Corps considered and analyzed structural and non-structural alternatives to address coastal erosion and storm damage in Brevard County, FL in prior environmental documents. The original 1996 feasibility study and Environmental Impact Statement (EIS) analyzed a suite of structural (e.g., sea walls, revetments, groins, breakwaters, beach nourishment, etc.) and non-structural (e.g., relocation of structures, flood proofing, condemnation, construction moratorium, etc.) alternatives, in addition to no action. The Corps selected beach nourishment using offshore sand resources as the only alternative that met all the planning objectives, while avoiding and minimizing environmental impacts. The Corps prepared an Environmental Assessment (EA) in 1998 (revised 1999) analyzing additional offshore borrow area alternatives and identified CS-II as the preferred borrow area alternative for the 50-year life of the Project. The Corps and BOEM prepared a subsequent EIS and multiple EAs between 1999 and 2021 evaluating changes to the originally proposed action.

Environmental Effects

The following environmental documents previously evaluated potential effects of the Project (see **Attachment 2**):

1996. [USACE. Brevard County Shore Protection Project Review Study, Final Environmental Impact Statement. Prepared by US Army Corps of Engineers Jacksonville District, September 1996.](#)
1998. USACE. Canaveral Shoals Borrow Area II. An Environmental Assessment of Proposed Sand Borrow Area for the Purposes of Beach Nourishment in Brevard County, FL. Prepared by US Army Corps of Engineers Jacksonville District. December 1998.

1999. USACE. Sand Rehandling Area, North Reach Environmental Assessment. Prepared by US Army Corps of Engineers Jacksonville District. September 1999.
2002. USACE. Borrow Area, South Nearshore Disposal and Sand Re-handling Area, South Reach Modifications, Environmental Assessment. Prepared by US Army Corps of Engineers Jacksonville District. January 2002.
2005. BOEM EA/FONSI. Issuance of a Noncompetitive Lease for Canaveral Shoal II Borrow Area in the Brevard County Beach Erosion Control Project and Memorandum of Agreement with Patrick Air Force Base for Canaveral Shoal II Borrow Area. Environmental Assessment and Finding of No Significant Impact. Prepared by Bureau of Ocean Energy Management. January 2005
- [2009. BOEM. Issuance of a Negotiated Agreement for Use of Outer Continental Shelf Sand from Canaveral Shoals in the Brevard County \(South Reach\) Shore Protection Project. Environmental Assessment and Finding of No Significant Impact. Prepared by Bureau of Ocean Energy Management. August 2009.](#)
- [2010. USACE. Final Integrated General Reevaluation Report and Supplemental Environmental Impact Statement, Brevard County, FL Hurricane and Storm Damage Reduction Project, Mid-Reach Segment. Prepared by US Army Corps of Engineers Jacksonville District. August 2010 \(Revised April 2011\).](#)
- [2012. BOEM. Use of Outer Continental Shelf Sand from Canaveral Shoals II in the Patrick Air Force Base \(Florida\) Beach Shoreline Protection Project. Environmental Assessment and Finding of No Significant Impact. Environmental Assessment prepared by Patrick Air Force Base \(lead agency\) and Bureau of Ocean Energy Management \(cooperating agency\). February 2012. Finding of No Significant Impact prepared by Bureau of Ocean Energy Management. May 2012.](#)
- [2016. USACE. Proposed Use of Upland Quarries as an Additional Source of Sand. Hurricane and Storm Damage Reduction Project, Mid Reach Segment. Environmental Assessment. Prepared by US Army Corps of Engineers Jacksonville District. July 2016.](#)
- [2017. BOEM. Issuance of a Negotiated Agreement for Use of Outer Continental Shelf Sand from Canaveral Shoals II in the Brevard County Shore Protection Project \(North Reach and South Reach\). Environmental Assessment and Finding of No Significant Impact. Prepared by Bureau of Ocean Energy Management. September 2017.](#)
- [2019. USACE. Proposed Sand Stockpile Area, Brevard County, FL Shore Protection Project, Mid-Reach Segment, Supplemental Environmental Assessment. Prepared by US Army Corps of Engineers Jacksonville District \(lead agency\) and Bureau of Ocean Energy Management \(cooperating agency\). July 2019.](#)
- [2020. BOEM FONSI. Issuance of Negotiated Agreements for Use of Outer Continental Shelf \(OCS\) Sand from Canaveral Shoals II Borrow Area on North-Reach, Mid-Reach, South-Reach, and Patrick Air Force Base Project Segments in Brevard County, FL. Finding of No Significant Impact. Prepared by Bureau of Ocean Energy Management. July 2020.](#)
- [2021. USACE. Brevard County Shore Protection Project – North Reach Sand Bypass Borrow Area, Supplemental Environmental Assessment. Prepared by US Army Corps of Engineers Jacksonville District. November 2021.](#)

Before preparing this FONSI, BOEM considered the adequacy of existing environmental documents and related mitigation requirements given new circumstances or information and minor changes in the proposed action. BOEM searched for but did not discover any new information relevant to significantly different effects associated with the proposed action. The occurrence and condition of resources in the affected environment are similar to what have been previously evaluated in past documents. Minor changes in the Project, including implementation of new South Atlantic Regional Biological Opinion (SARBO) Project Design Criteria (PDC), updated air emissions estimates, and increased dredging frequency and cumulative volume over the remaining life have occurred; however, the adequacy review found that those changes did not change the type or severity of impacts previously described. As a result, BOEM concluded that these changes would not result in significantly different environmental effects.

BOEM confirmed that the suite of mitigation, monitoring, and reporting requirements documented in past environmental documents is necessary to avoid, minimize, and/or reduce and track any foreseeable adverse impacts that may result from all project segments and phases of construction. The Corps and/or Brevard County are responsible for ensuring compliance with all environmental requirements. The Corps will define roles and responsibilities and coordinate with BOEM in advance of construction to confirm and integrate all environmental compliance requirements into the contract plans and specifications, as appropriate.

Significance Review

Pursuant to 40 CFR 1501.3(b), BOEM analyzed the significance of potential effects of the proposed action considering both the potentially affected environment and the degree of effects. BOEM analyzed connected actions (defined per 40 CFR 1501.9(e)(1)), including on-and-off site mobilization and beach placement activities.

BOEM considered the affected area and resources potentially present in both spatial and temporal contexts. The proposed action is considered site-specific. The area of direct fill placement includes dry sandy beach, intertidal flat/surf zone, and shallow subtidal habitat. The CS-II borrow area includes sandy submerged habitat. Effects would be limited to the placement site (including the pipeline corridors for conveying sediment to the beach) and the immediate dredging area, both of which are dominated by storms and physical processes of waves and currents. Effects of the Project would generally be limited to the 3-month to 6-month construction window and the time interval associated with equilibration of the placement material, recovery of the disturbed borrow area, and any habitat change along the beach. BOEM evaluated the following when evaluating the degree of effects:

(i) Short- and long-term effects

Potential effects associated with the Project would be localized, short-lived, and generally reversible as described below with the exception of the physical geomorphologic change due to the long-term removal of OCS sand. Nine different dredge events occurred at CS-II between 2000 and 2021 that have removed

approximately 15 CY of sand. Each dredging event removed sand in a relatively thin layer along the surface of the borrow area leaving behind beach compatible sand with suitable habitat for recovery. These morphologic changes and subsequent infilling continue to be monitored by Brevard County via execution of pre- and post- dredge surveys. Implementation of previously established mitigation, such as limiting cut thicknesses to avoid the creation of pits or deep furrows, will further minimize and limit effects to the immediate dredging area. Dredging in the borrow area is likely to permanently reduce the elevation of the shoal in the region that coincides with the borrow area (**Attachment 1**).

The continued removal of sand from CS-II over multiple dredging cycles could potentially change the shape and characteristics of the bottom habitat in that limited area. However, the effects would not be physically or biologically significant, since CS-II is a relatively small area in a larger shoal complex that has similar habitat for species potentially displaced by the alteration of CS-II. Dredging of CS-II could impact benthic epifauna and infauna resulting in the temporary, localized loss of some species. The plan to dredge CS-II currently includes preserving similar sediment types at the bottom of the dredge template ensuring that the sediments exposed by dredging are similar to those previous surface sediments and will therefore remain suitable for expected rapid benthic recolonization. Recruitment and recolonization would occur in the short-term after dredging given similar species in surrounding habitat. Recovery of the benthic population is expected within 1 to 2 years after dredging; therefore, the potential for significant or chronic impact would be avoided. Similar impacts are anticipated in the nearshore soft bottom communities of the beach placement site, and intertidal areas would recover through recruitment from surrounding communities.

BOEM recently concluded a decade long monitoring study examining the potential physical and ecological impacts from dredging CS-II, focusing on benthic and fish recovery. Results from this long-term study confirm prior assumptions regarding short-term and recoverable impacts. Most impacts to benthic epifauna and infauna fell within the natural variability expected of a physically dominated system characteristic to the Cape Canaveral ecosystem, or the recovery of the invertebrates was too rapid to be detected by sampling schemes. Furthermore, results observed on Canaveral Shoal were comparable to nearby control sites where no dredging occurred.

Current sea turtle nesting opportunities along the Project's beach area are diminished because of long-term chronic beach erosion and frequent storm damage, resulting in lower-quality habitat. The sand composition of the CS-II borrow area meets the State of Florida's sediment criteria for native beach compatibility. Construction activities and staging of equipment may affect existing dune vegetation; however, the Project includes revegetation of dune areas that would be disturbed. Nesting habitat may be affected over the short-term, until the beach and dune system equilibrate post-construction and provide improved habitat.

The beach placement area lies within designated terrestrial critical habitat units (LOGG-T-FL-06 and LOGG-T-FL-07) and the marine waters adjacent to the beach are within designated nearshore reproductive, breeding, and migratory (LOGG-N-16, LOGG-N-17,

LOGG-N-18) critical habitat units. These critical habitats and associated physical and biological features of the habitat are not likely to be adversely affected with avoidance and minimization measures in place. BOEM and the Corps will avoid and/or minimize effects to protected species and designated critical habitat in accordance with requirements outlined the U.S. Fish and Wildlife Service (USFWS) Statewide Programmatic Biological Opinion (SPBO, 2015) and Piping Plover Programmatic Biological Opinion (P3BO, 2013), for beach placement activities and the National Marine Fisheries Service (NMFS) South Atlantic Regional Biological Opinion (SARBO, 2020) for in water activities.

The Project's area falls under NMFS and the South Atlantic Fisheries Management Council (SAFMC) jurisdiction. NMFS has designated Essential Fish Habitat (EFH) in and adjacent to the Project's area for various demersal, pelagic, and highly migratory species. The Project will have temporary effects on EFH from dredging and placement activities. The Corps will implement measures to avoid and minimize effects on those fish species and fish habitat including but not limited to adherence to the State Water Quality conditions at the edge of a 150-meter mixing zone, avoiding/minimizing construction overlap with peak recruitment windows for benthic infauna assemblages and federally managed species, and avoidance of ephemeral hard bottom. The effects would not be significant as there is comparable, undisturbed habitat adjacent to the borrow area and the anticipated effects are short-term and limited in area.

Other expected short-term effects from the Project include interruptions of shorebird foraging and resting at the placement site, noise and beach access closure effects on the local socio-economics and aesthetics, impediments to recreational usage at the placement site, restricted boating navigation at the dredge and placement sites, increases in turbidity at the construction sites, localized and minor noise level increases at the dredge site, and public safety risks posed by the construction equipment. These effects are limited to the 3-month to 6-month construction period.

(ii) Beneficial and adverse effects

BOEM considered potential effects to the physical environment, biological resources, cultural resources, and socioeconomic resources. Some coastal sand dependent species (e.g., native and migratory shorebirds, sea turtles) may experience temporary disruptions to foraging and nesting during and following construction. However, the birds and sea turtles that use the beach for foraging or nesting should benefit in the long-term from higher quality habitat. Brevard County plans to implement standard shorebird monitoring (as required by biological opinions if the project timing overlaps with the nesting season) and sea turtle nesting protocols (if the project construction is delayed thus overlapping nesting season). Dune vegetation would help create higher quality habitat to improve ecosystem function.

Dredging activities within CS-II overlap with the distribution of threatened loggerhead (Northwest Atlantic Distinct Populations Segment (DPS)) and green sea turtles (North Atlantic DPS), and endangered leatherback, hawksbill, and Kemps Ridley Sea turtles

protected under the Endangered Species Act (ESA). Placement of sediment within the designated beach placement site may affect nesting sea turtles (loggerhead, leatherback, and greens) and piping plovers. Adherence to state and federal requirements, including sediment compatibility requirements, dredging operational constraints, endangered species observers, sea turtle nest monitoring, *etc.* would avoid and/or minimize effects. The Project would not occur in “optimal” piping plover habitat and is not likely to adversely affect the piping plover. The threatened West Indian manatee occurs in coastal and estuarine habitat within Brevard County where they primarily use inlet estuaries and shallow coastal waters to migrate and forage. The dredge and support vessels associated with the Project will be operating in deeper waters offshore and not in these migratory and foraging habitats. Therefore, minimal effects to the West Indian manatee are expected.

Seafloor-disturbing activities (*e.g.*, dredging, anchoring, pipeline placement, *etc.*) would occur during proposed construction activities. The Corps conducted cultural resources and hard bottom resource clearance surveys in CS-II, pipeline corridors, and the beach placement area. No hard bottom resources were identified in the borrow area. The Corps will avoid cultural resources associated with the Space program that occur in the CS-II borrow area, as well as nearshore targets within the vicinity of the nearshore pipeline routes. If any other potential hard bottom or cultural resource anomalies are identified, avoidance buffers will be implemented. No adverse effects to historic or pre-contact resources or hard bottom resources within the borrow area, placement area, or pipeline corridors are expected with implementation of recommended avoidance measures.

iii. Effects on public health or safety

Significant effects to public health and safety are not expected. The Project would provide for increased recreational opportunity (*e.g.*, beach access, surfing, shore fishing, wildlife viewing) from the improved beach and dune habitat. Temporary disruption to recreation would occur in small alongshore stretches as the construction progresses along the beach. The Project would result in improved visual amenity and long-term recreational improvements. Construction of the beach would provide protection of existing infrastructure as well. Noise would temporarily increase at the placement locations during construction, and then would return to ambient levels after project completion. The construction equipment at the beach placement site could pose a minor public safety risk. BOEM used the EPA EJScreen ([EJScreen \(epa.gov\)](https://www.epa.gov/ejscreen)) to determine that there are no minority or low-income populations in the Project area; therefore, the Project would not disproportionately affect populations outlined in Executive Order 12898.

In January 2023, the Corps conducted a probability assessment for the encounter of Munitions and Explosives of Concern (MEC) within the CS-II borrow area and along the Project shoreline. The Corps completed a site history and past use review confirming miniature practice bombs (AN-Mk 5) have been encountered within CS-II during past dredging events. There was no indication of ordnance being fired towards the CS-II borrow area, and there is no known bombing target in CS-II. The Corps surmised that

the MEC items found were possibly dumped. Based on these findings, the assessment concluded a “low” MEC probability assessment determination. If additional MEC is found on-site not related to the previous items found, the Corps will cease all work efforts, prepare a new MEC Probability Assessment, and handle all encountered MEC according to established Corps protocols.

iv. Effects that would violate a Federal, State, Tribal, or local law protecting the environment

The Corps and BOEM have completed ESA and Magnuson-Stevens Fishery Management and Conservation Act consultations. The Corps and BOEM determined that beach placement of sediment associated with the Project is within scope of the USFWS SBPO (revised 2015) and 3PBO (2013). The Corps and BOEM have determined that dredging activities associated with the Project are within scope and will operate under the NMFS SARBO (2020). The Corps and Brevard County will comply with all relevant PDCs, Reasonable and Prudent Measures (RPMs), and associated Terms and Conditions (T&Cs).

The proposed action complies with the Marine Mammal Protection Act. Marine mammals are not likely to be adversely affected by the Project and incorporation of safeguards to protect threatened and endangered species during project construction (e.g., vessel speed requirements, protected species observers, etc.) would also protect non-listed marine mammals in the area.

Migratory birds may experience minor, short-term interruptions to foraging or resting activities linked to prey smothering or turbidity increases. The Corps and Brevard County will implement measures to avoid effects to migratory birds, hatchlings, or eggs along with pre- and post-project monitoring requirements.

The Corps and BOEM previously coordinated with the Florida Division of Historical Resources and State Historic Preservation Officer (SHPO) and Tribal Historic Preservation Officers (THPOs), as required by Section 106 of the National Historic Preservation Act. The SHPO concurred with the determination that the proposed project would have no adverse effect to historic properties listed, eligible, or potentially eligible for listing in the National Register of Historical Places provided avoidance of the nearshore targets. The Corps will immediately cease operations and notify BOEM and SHPO if an unexpected discovery occurs.

The Project has existing or modified consolidated Joint Coastal Permits (JCP) for each of the project segments. The JCP constitutes a finding of consistency with Florida’s Coastal Management Program, as required by Section 307 of the Coastal Zone Management Act (CZMA); the JCP also constitutes certification of compliance with Florida water quality standards pursuant to Section 401 of the Clean Water Act (CWA) (33 U.S.C. 1341).

Consultations and Public Involvement

The referenced EISs, EAs, and FONSI were made available for public review and can be found on the Corps and BOEM websites or provided upon request. This Finding will be made available to the public on boem.gov.

Mitigation and Monitoring

The Corps and Brevard County are responsible for complying with all mitigation measures and monitoring requirements engendered by Federal, State, Tribal, and local laws, including those identified in the prior NEPA documents and related consultations. The Corps will prepare an environmental compliance matrix to document and track all environmental mitigation requirements and identify roles and responsibilities for implementation to ensure compliance prior to, during, and after construction. Additionally, the Corps or dredging contractor will be required to provide an environmental protection plan that verifies compliance with relevant environmental requirements. Implementation of mitigation measures and monitoring requirements will ensure effects are not significant.

Any mitigation or monitoring uniquely specified by BOEM in its negotiated agreement is done pursuant to the authority established by the Outer Continental Shelf Lands Act and 30 CFR 583. Other Project mitigation is engendered by various authorities, including the vested authority of the Corps, as well as environmental laws, such as ESA, CWA, and CZMA. Other federal or state agencies shall be responsible for enforcement of other mitigation measures. BOEM may terminate its authorization, or refer the Corps to enforcing agencies, if the Corps does not comply with mitigation measures (30 CFR 583).

Conclusion

BOEM considered the consequences of entering into a NNA authorizing use of OCS sand from CS-II for the Project. BOEM concludes that the suite of referenced NEPA documents and associated adequacy review fully analyze the direct, indirect, and cumulative impacts of the Project and the environmental commitments necessary to avoid, minimize, and or mitigate impacts. BOEM finds that the Project is in compliance with the relevant provisions of the CEQ regulations implementing NEPA, DOI regulations implementing NEPA, and other Bureau requirements.

BOEM finds that entering into a NNA, with the implementation of the mitigating measures, does not constitute a major Federal action significantly affecting the quality of the human environment, in the sense of NEPA Section 102(2)(C), and would not require preparation of an EIS.

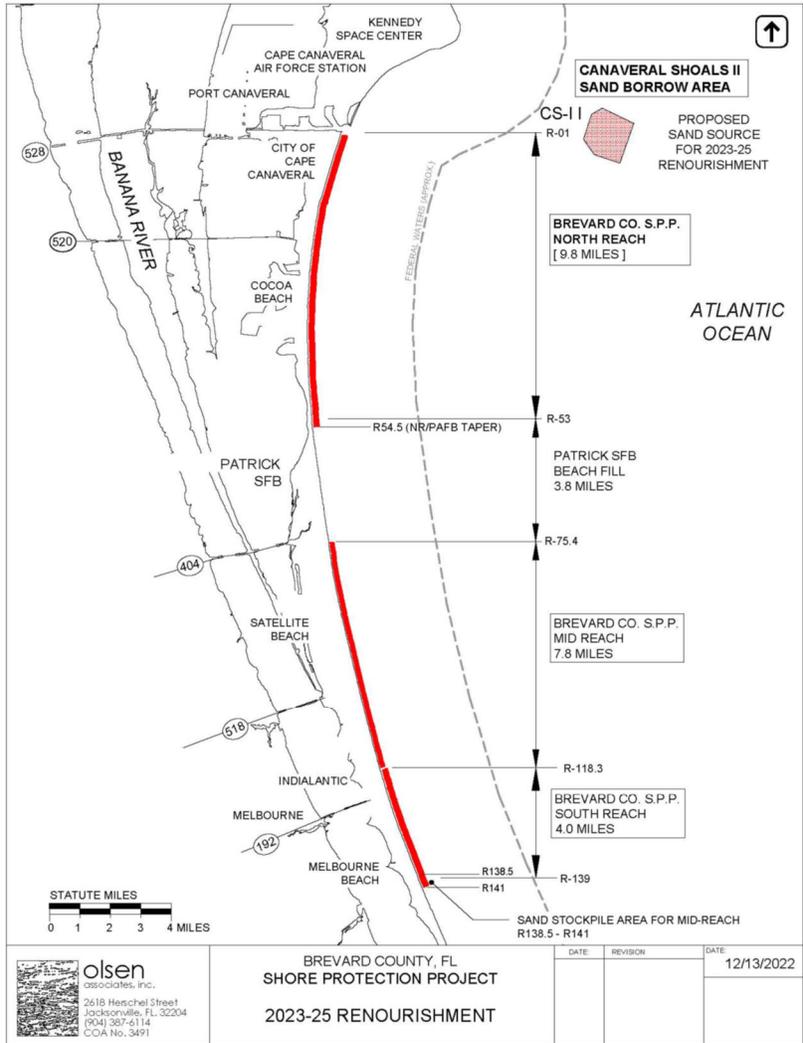
Jeffrey Reidenauer
Chief, Marine Minerals Division

Date

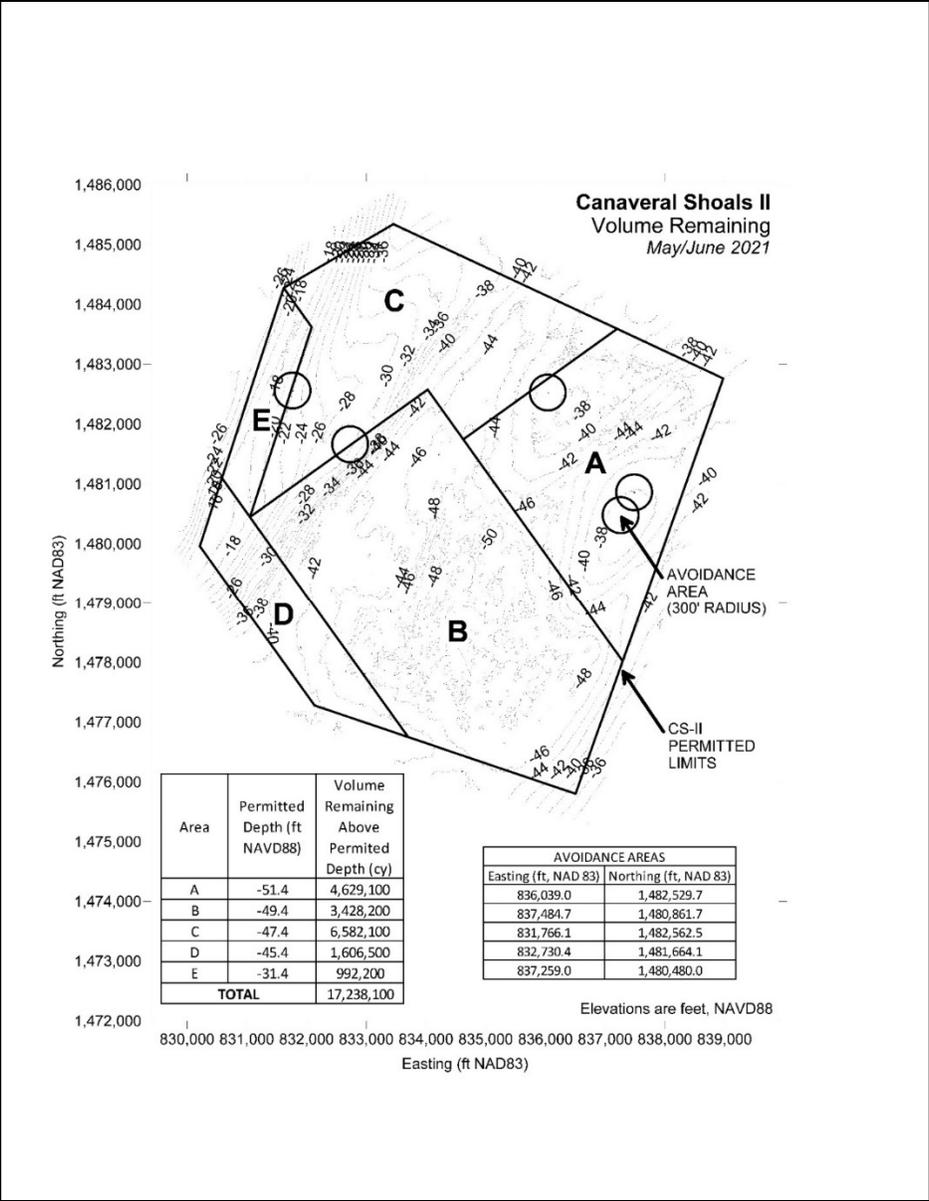
Attachment

Attachment 1 – [Project Maps](#)

ATTACHMENT 1



Brevard County SPP Project Area



CS-II Borrow Area