PROPOSED FINDING OF NO SIGNIFICANT IMPACT

MAINTENANCE DREDGING 2020-2030

JOINT BASE CHARLESTON, SOUTH CAROLINA

Pursuant to provisions of the National Environmental Policy Act (NEPA), Title 42 United States Code (USC) Sections 4321 to 4347, implemented by Council on Environmental Quality (CEQ) Regulations, 40 Code of Federal Regulations (CFR) Parts 1500-1508, and 32 CFR Part 989, Environmental Impact Analysis Process, the U.S. Air Force (USAF) assessed the potential environmental consequences associated with conducting routine maintenance dredging of the navigation channel and berthing areas, including new and existing dredging units at Joint Base Charleston (JBC), in Charleston and Berkeley counties, South Carolina.

JBC proposes to secure permits from the United States Army Corps of Engineers (USACE) and South Carolina Department of Health and Environmental Control (SCDHEC) for authorization to conduct routine maintenance dredging. The purpose for the Proposed Action is to provide and sustain sufficient depth for navigation and berthing of military vessels that support JBC waterborne missions. Dredging of the JBC navigation channels and associated berthing areas is needed to maintain current depths and meet new dredging requirements. The permits issued by the USACE and the SCDHEC that currently authorize maintenance dredging of the vessel navigation/berthing areas will expire on 31 March 2020. The USAF, on behalf of JBC, is seeking to obtain a new permit that will authorize maintenance dredging for another ten years. The new 404 permit request for future dredging maintenance will include new areas of dredging at Pier C and shoreside/inside of Pier X South. The shoreside/inside area of Pier X South was previously evaluated in the *2018 Supplemental Environmental Assessment for Additional Dredging for Facilities Expansion at the Navy Nuclear Power Training Unit Charleston, Joint Base Charleston, South Carolina*. JBC will not be able to perform dredging and implement their waterborne missions without a new 404 permit.

The draft Environmental Assessment (EA), incorporated by reference into this finding, analyzes the potential environmental consequences of activities associated with maintenance dredging of the JBC navigational channels and berthing areas for a ten year period (2020-2030), and provides environmental protection measures to avoid or reduce adverse environmental impacts. The draft EA considers all potential impacts of Alternative 1, Alternative 2, and the No-Action Alternative. The draft EA also considers cumulative environmental impacts with other projects in the Region of Influence.

ALTERNATIVE 1(Preferred Alternative) New and Existing Maintenance Dredging
Alternative 1 would best meet JBC's mission and needs presented above. When compared to other alternatives, this alternative: 1) includes advanced maintenance dredging up to 4 feet for three dredging units (Shoals 4 and 4A and TC dock) where accelerated shoaling has been experienced over the past ten years. This will enable the action to maintain the authorized depth for a longer period of time, potentially reducing the need to dredge more often; and 2) best meets the need for berthing of military vessels that support JBC waterborne missions by proposing new dredging at the Pier C Security Dock access channel and berth to a maximum depth of 12' Mean Lower Low Water (MLLW). The Preferred Alternative would include conducting routine maintenance dredging within the JBC Channel and Pier X South outside/riverside up to 42' MLLW and Pier X South shoreside/inside up to 22' MLLW. The dredging depth within the Goose Creek Channel would be a maximum of 27' MLLW. Dredging would be conducted by cutter suction dredge or mechanical clamshell methods, as appropriate, on a 15-20 month rotating cycle (or 9 months for TC Dock, as needed) as determined by routine

depth soundings. Depths are measured at MLLW. The dredged material would be placed, as appropriate, into one or more of the designated upland placement areas which includes Yellow House Creek Placement Area, Joint Base Charleston Placement Area, and Clouter Creek Placement Area. This alternative meets all of the selection standards.

ALTERNATIVE 2 Existing Maintenance Dredging
This alternative is the same as the preferred action alternative (Alternative 1), with the elimination of advanced dredging of high shoaling areas and new dredging requirements for the Pier C access channel and berth. Elimination of advanced dredging of the high shoaling areas would likely result in the need to dredge these areas on a more frequent basis than Alternative 1 (annual versus every 18 months) due to the rapid accumulation of sediments in these areas that has reduced the navigable capacity of the waterway. The frequency of the additional dredging would be dependent upon the rate at which the sediments accumulate in the high shoaling areas. With current depths at Pier C, JBC missions can still function but would be subject to operational constraints and navigation hazards at low tide. This alternative meets most of the selection standards, but only partially meets the selection standard for minimum navigation depths needed for safe navigation.

NO-ACTION ALTERNATIVE
Under the No-Action Alternative, the Preferred Alternative (or any of the action alternatives) would not occur and the proposed action would not be met. This alternative entails not applying for a Section 404 permit and conducting routine maintenance dredging of the JBC vessel navigation/berthing areas over a 10-year period after the current permit expires. As a result of no action, sediments will accumulate along the sides and bottom of the channels and in berthing areas, resulting in shoaling that will limit clearance/access for vessels to reach JBC to execute their operational mission. A grounded vessel poses a risk to safe navigation, results in vessel damage, and reduces mission capabilities.

SUMMARY OF FINDINGS
The analyses of the affected environment and potential environmental consequences of implementing the Preferred Alternative presented in the EA concluded that by implementing standard environmental protection measures and operational planning, the Air Force would be in compliance with all terms and conditions and reporting requirements.

The Air Force has concluded that no significant adverse effects would result to the following resources as a result of the Preferred Alternative: Air Quality, Surface Water Quality, Biological Resources, Coastal Zone Management, and Climate Change. No significant adverse cumulative impacts would result from activities associated with the Preferred Alternative when considered with past, present, or reasonably foreseeable future projects.

Air Quality: The Preferred Alternative would not change the project's ability to meet air quality standards. There would be a temporary and localized reduction in air quality during placement due to emissions from the dredge during dredging and upland placement of materials. These impacts would be minor and temporary in nature, and would cease once dredging and placement is completed.

Water Resources: The Preferred Alternative would result in short-term increases in turbidity typical of dredging projects. In order to minimize the migration of sediments, the USAF will implement best management practices as appropriate. Any potential impacts to water chemistry such as dissolved oxygen or salinity concentrations, would be short-term and insignificant as new advanced maintenance dredging requirements are minor and new dredging at Pier C is

relatively small in size and of limited depth. While sediment testing of the JBC channels and berthing areas indicate elevated arsenic levels, these levels are well below the level at which significant adverse impacts would occur. It is not unusual to find elevated levels of arsenic in this region since studies have demonstrated that arsenic is naturally occurring due to high concentrations found in basement rock. Previous sediment testing for the shoreside/inside of Pier X South indicated elevated levels of zinc. In order to limit wildlife exposure to potential dredge material contaminants, the USAF will implement measures including placement of a turbidity curtain around the dredge area, to the maximum extent practicable, and mixing or covering of contaminated dredged material with clean dredged material prior to disposal. Implementation of the Preferred Alternative would still be expected to meet requirements of Sections 404, 401, and 303 of the Federal Clean Water Act and have no applicability to limitations under Sections 301(b) and 302 and requirements of Sections 306 and 307.

Biological (Natural) Resources: Potential impacts associated with the Preferred Alternative include temporary and minor impacts to the water column and sub-bottom habitat such as increased turbidity and loss of benthic communities in the dredged areas. Under the Essential Fish Habitat (EFH) consultation requirements of the Magnuson-Stevens Fishery Conservation and Management Act, the proposed project would impact approximately 4.8 miles of estuarine substrates utilized by various life stages of species comprising the red drum, shrimp, and snapper-grouper management complexes. However, the proposed action would not have a significant individual or cumulative adverse impact on EFH or fisheries managed by the South Atlantic Fishery Management Council and the National Marine Fisheries Service (NMFS). NMFS made no conservation recommendations regarding EFH in their concurrence letter dated November 30, 2018.

By letter dated, October 18, 2018, the United States Fish and Wildlife Service (USFWS) concurred with the USAF determination that the dredging activities “may affect, but are not likely to adversely affect”, the West Indian manatee. Potential impacts to manatees that may occur as a result of the Preferred Alternative include injuries due to vessel collisions and dredging equipment. The USAF will implement USFWS standard protection guidelines as a conservation measure to avoid impacts to the West Indian manatee. A conclusion of “no effect” was made for the remainder of threatened and endangered species managed by the Service.

The USAF determined that the Preferred Alternative may affect, but is not likely to adversely affect, the Atlantic or shortnose sturgeon species. The USAF submitted an expedited request to NMFS on February 22, 2019 and is currently waiting for written concurrence. The Preferred Alternative would not result in the destruction or adverse modification of any federally designated critical habitat. Potential direct and indirect impacts associated with dredging that may adversely impact Atlantic and shortnose sturgeon include entrainment and/or capture of adults, juveniles, larvae, and eggs by dredging activities, short-term impacts to foraging and refuge habitat, and disruption of migratory pathways. However, the project area where dredging activities will occur is outside the area essential to Atlantic and shortnose sturgeon spawning and dredging activities would not prevent passage through migratory pathways or significantly reduce adequate areas for migration. In addition, the chance of injury or death to Atlantic or shortnose sturgeon from interactions with cutter suction or mechanical clamshell dredging equipment is low as these species are highly mobile and are likely to avoid the areas during construction.

The USAF determined that no sea turtle (effects or) takes are anticipated as a result of the Preferred Alternative. According to South Carolina Department of Natural Resources (SCDNR), sea turtles have only been observed in the Cooper River as far north as Riverfront Park.

Riverfront Park is approximately 2.7 miles south of the downstream end of the JBC channel. The action area, with the exception of the TC dock, is located in Berkeley County where sea turtles are not found.

Coastal Zone Resources: The Preferred Alternative would avoid and minimize impacts to water quality and other coastal resources to the maximum extent practicable by conducting the work in a manner consistent with the Coastal Zone Management Program's Dredging and Dredge Material Disposal Policies. The USAF will implement appropriate best management practices to minimize the migration of sediments and implement safety measures to prevent the release of oil, tar, trash, debris and other pollutants. The Preferred Alternative will avoid and minimize impacts to wildlife and fisheries, although no new adverse impacts to wildlife nor fisheries are expected. No Geographic Areas of Particular Concern will be impacted. The USAF determined the Preferred Alternative meets the Certification requirements of the Coastal Zone Management Act, as well as Section 401 of the Federal Clean Water Act and the permitting requirements of R. 19-450 et Seq., 1976 SC Code of Laws. A coastal consistency request was submitted to OCRM on August 7, 2019. The Preferred Alternative would also be expected to meet the permitting requirements for Section 404 of the Clean Water Act.

Climate Change/Sea Level Rise: Climate change and sea level rise is largely attributed to human activities that increase atmospheric concentrations of carbon dioxide and other greenhouse gases (GHG). Carbon dioxide (CO_2) emissions associated with fuel consumption are the primary contributor to greenhouse gas emissions associated with dredging projects. The Preferred Alternative would generate an approximate annual average of 1,767 tons CO_2 emissions representing 0.000034 percent of 2017 total U.S. CO_2 emissions. In addition, the USAF is committed to further minimize CO_2 emissions by reducing dredge vessel speeds, in compliance with Executive Order 13693 Planning for Federal Sustainability in the Next Decade. Rising sea levels can result in changes to salinity regime, shoreline erosion and recession, and inundation of low-lying areas. An increase in sea level rise could result in beneficial changes to the timing of dredging and placement of materials. Under the Preferred Alternative, the Proposed Action would be short term, lasting no more than 10 years, and any effects due to sea level rise would be negligible.

FINDING OF NO SIGNIFICANT IMPACT (FONSI)

Based on my review of the facts and analyses contained in the attached EA, conducted under the provisions of National Environmental Policy Act (NEPA), CEQ Regulations, and 32 CFR Part 989, I conclude that the Preferred Alternative, new and existing maintenance dredging along approximately 4.8 miles of the JBC navigation channel and berthing areas for the period 2020 through 2030, would not have a significant environmental impact, either by itself or cumulatively with other known projects. Accordingly, an Environmental Impact Statement (EIS) is not required. The signing of this Finding of No Significant Impact completes the environmental impact analysis process.

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SIGNATORY NAME, Rank/Title Date