

DRAFT ENVIRONMENTAL ASSESSMENT

JOINT BASE CHARLESTON
MAINTENANCE DREDGING 2020-2030

CHARLESTON AND BERKELEY COUNTIES,
SOUTH CAROLINA

AUGUST 2019

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1.0 PURPOSE OF AND NEED FOR ACTION

1.1 INTRODUCTION

Joint Base Charleston (JBC) in Berkeley County, South Carolina has performed routine dredging along approximately 4.8 miles of the Cooper River and along approximately 0.4 miles of Goose Creek from the confluence of the Cooper River since the 1940s (Figure 1-1). Dredging is performed to provide sufficient depth for navigation and berthing of Department of Navy, Military Sealift Command, Defense Fuels Supply Depot, Department of Army, Department of Air Force, and Department of Energy vessels that support JBC waterborne missions. The Naval Weapons Station Charleston (now known as Joint Base Charleston) currently holds a permit from the U.S. Army Corps of Engineers (USACE) and South Carolina Department of Health and Environmental Control (SCDHEC) to conduct maintenance dredging of the channels and several berthing areas (see Appendix A).

The USACE, Charleston District issued permit no. 2009-00175-2IR for the existing maintenance dredging in March 2010 pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344) and Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403). The project was Categorically Excluded in accordance with Navy regulations at the time, so an Environmental Assessment (EA) was not prepared. As part of the permit, a Certification in accordance with Section 401 of the Clean Water Act and a Certification in accordance with the Coastal Zone Management Act (15 CFR Part 923) were obtained from the SCDHEC. In 2011, the permits were modified to include dredging of a small area outside/riverside of Pier X to obtain the depths necessary for vessels to dock at this pier (see Figure 1-1, inset map). Additionally, in 2012, the Navy and Air Force completed an Environmental Assessment for Facilities Expansion at Navy Nuclear Power Training Unit Charleston, Joint Base Charleston. In 2018, a Supplemental EA was prepared and a Finding of No Significant Impact (FONSI) was signed for an approximate 2-acre area inside/shoreside of Pier X in need of dredging. This area will be included in the current 404 permit request for maintenance dredging.

The current permit will expire on 31 March 2020, and the action proponent, the U.S. Air Force on behalf of JBC, intends to apply for a new permit that will authorize maintenance dredging for another ten years. Additionally, a new area at Pier C will need to be dredged and maintained that was not in the previous permit, and the newly proposed inside/shoreside area of Pier X South that was not part of the previous permit but already assessed, will be included in the new permit request for future maintenance dredging. Since this is a Federal project, this draft Environmental Assessment (EA) has been prepared to evaluate the potential environmental impacts of the proposed action in compliance with the National Environmental Policy Act of 1969 (NEPA) (42 United States Code [USC] 4331 et seq.), the regulations of the President's Council on Environmental Quality (CEQ) that implement NEPA procedures (40 CFR Parts 1500-1508), and the Air Force Environmental Impact Assessment Process Regulations at 32 CFR Part 989. The information presented in the Final EA will serve as the basis for deciding whether the proposed action would result in a significant impact to the environment, requiring the preparation of an Environmental Impact Statement (EIS), or whether no significant impacts would occur, in which case a Finding of No Significant Impact (FONSI) would be appropriate.

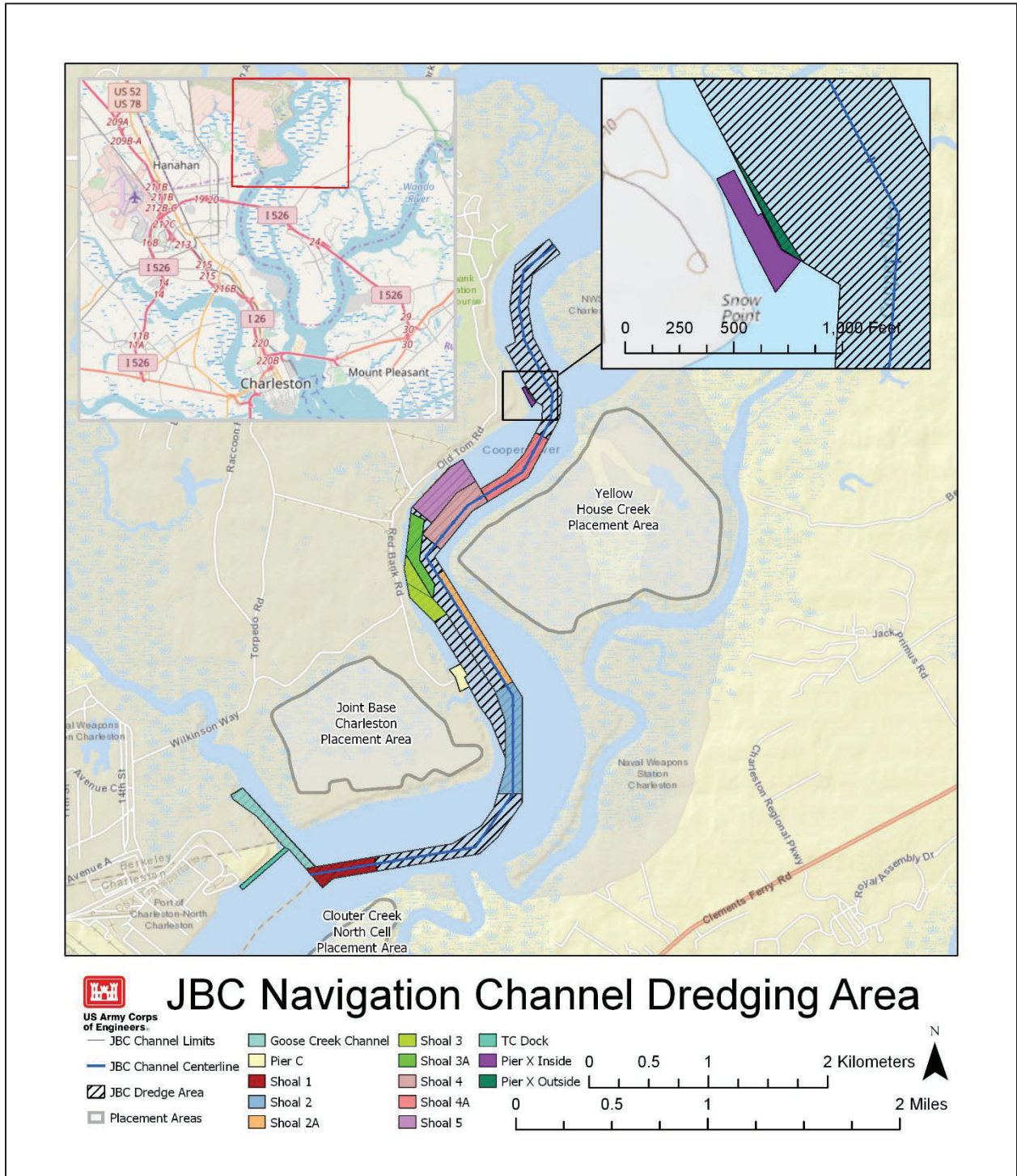


Figure 1-1. Location of Joint Base Charleston Dredging Area and Units.

1.2 PURPOSE OF AND NEED FOR THE ACTION

The purpose for the 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 meet new dredging requirements and allow for the continuation of waterborne missions at JBC. The permits issued by the USACE and SCDHEC that currently authorize maintenance dredging of the vessel navigation/berthing areas will expire on 31 March 2020. The U.S. Air Force on behalf of JBC is seeking to obtain a new permit that will authorize maintenance dredging for another ten years. JBC will not be able to perform dredging and implement their waterborne missions without a new permit.

1.3 DECISION TO BE MADE

The decision to be made is the selection of an alternative by the U.S. Air Force to support future maintenance dredging of the JBC channels and associated vessel berthing areas. The decision options are to:

- Discontinue routine maintenance dredging when the current dredging permit expires (the No Action Alternative);
- Select an action alternative for maintenance and/or new dredging, and prepare a Finding of No Significant Impact (FONSI); or
- Prepare an Environmental Impact Statement (EIS) if the alternatives will result in significant environmental impacts.

1.4 INTERGOVERNMENTAL COORDINATION/CONSULTATIONS

1.4.1 Interagency and Intergovernmental Coordination and Consultations

Federal, state, and local agencies with jurisdiction that could be affected by the alternative actions were notified and consulted during the development of this EA.

Appendix B contains the list of agencies consulted during this analysis and copies of correspondence.

1.4.2 Government to Government Consultations

The National Historic Preservation Act requires Federal agencies to consult with Federally-recognized Native American tribes on proposed undertakings that have the potential to affect properties of cultural, historical, or religious significance to tribes historically affiliated with the JBC geographic area. The tribal coordination process is distinct from NEPA consultation or the Interagency and Intergovernmental Coordination processes in that it requires separate notification of all relevant tribes based on tribal preferences regarding the specific mode of contact. The timelines for tribal consultation are also distinct from those of intergovernmental consultations. Federal agency consultation with Indian tribes must start early in the planning process. The JBC USAF point-of-contact for Native American tribes is the Installation Commander. The JBC USAF point-of-contact for consultation with the Tribal Historic Preservation Officer (THPO) and the Advisory Council on Historic Preservation is the Cultural Resources Manager. The Native American tribal governments that will be coordinated with regarding this action are listed in Section 6.0.

2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

2.1 PROPOSED ACTION

The proposed action is to maintain JBC vessel navigation/berthing areas through routine dredging of up to 2,000,000 cubic yards (CY) of material per year. Maintenance dredging of the JBC channels and berthing areas is managed by dredging units identified by shoals, piers and docks (see Figure 1-1). The dredging depth within the JBC Channel is 40' required depth, plus 2' allowable overdepth Mean Lower Low Water (MLLW). The depth within the Goose Creek Channel is 25' required depth, plus 2' allowable overdepth MLLW. Allowable overdepth is to assure the action is constructed to the authorized depth. The piers and docks have varying depth requirements (see Section 2.4) depending on their purpose. Advanced maintenance dredging of 4' is proposed for three of the dredging units – Shoal 4, Shoal 4A, and TC Dock – where accelerated shoaling has been experienced over the past ten years. Advanced maintenance is conducted to enable the action to maintain the authorized depth for a longer period of time, potentially reducing the need to dredge more often. The width of shoals within the JBC Channel and Goose Creek Channel vary; however, the required width for piers and docks is 125'.

To maintain current project depths, routine maintenance dredging is required on a 15-20 month rotating cycle, with the exception of the TC Dock area every nine months. To meet new dredging needs, a small area at Pier X South will be dredged and maintained that was not included in the previous permit but was assessed in a recent Supplemental EA (US Department of the Navy and US Department of the Air Force, 2018). A second new area at Pier C also needs to be dredged and maintained (see Section 2.4). The original fixed pier structure no longer exists at Pier C, but a floating dock is now present.

Dredging would be conducted using appropriate methodologies, and the dredged material would be placed into one or more existing upland placement areas. The existing, confined, upland placement areas that would be used include the Clouter Creek (the Clouter Creek Placement is divided into 4 cells: North Cell, Highway Cell, Middle Cell, and South Cell), Joint Base Charleston, and Yellow House Creek Placement Areas (Figure 2). The Clouter Creek Placement Area is currently used for material from the TC Dock dredging unit.

2.3.1 Alternative 1 (Preferred Alternative): New and Existing Maintenance Dredging

This is the preferred action alternative, and entails conducting routine maintenance dredging of the JBC navigation channel and berthing areas, including new and existing dredging units. The specifications for the dredging units (depth, slope, etc.) over a 10-year period are presented in Table 2-1. The locations of the dredging units are shown in Figure 1-1. Dredging would be conducted 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 confined placement areas which includes Yellow House Creek, Joint Base Charleston, and Clouter Creek. Dredging methods are largely influenced by site conditions and the dredging contractor and would include cutter suction dredge (CSD) or mechanical clamshell. For confined upland placement areas, a CSD is more efficient to operate than a mechanical dredge. This alternative meets all of the selection standards.

TABLE 2-1. Dredging Units for Joint Base Charleston Navigation Channels and Berthing Areas

Dredging Unit	Status	Proposed Depth and Slope	Change from Previous Permit
JBC Channel Shoal 1 JBC Channel Shoal 2 JBC Channel Shoal 2A JBC Channel Shoal 3 JBC Channel Shoal 3A JBC Channel Shoal 5 JBC Channel Shoal 6	Previously permitted and dredged to 42' MLLW (40' +2' overdepth; 1:4 side slopes)	40' MLLW required depth + 2' allowable overdepth; 1:4 side slopes	None
JBC Channel Shoal 4 JBC Channel Shoal 4A	Previously permitted and dredged to 42' MLLW (40' +2' overdepth; 1:4 side slopes)	40' MLLW required depth + 4' advanced maintenance + 2' allowable overdepth; 1:4 side slopes	+4' advanced maintenance
TC Dock	Previously permitted and dredged to 42' MLLW (40' +2' overdepth; 1:4 side slopes)	40' MLLW required depth + 4' advanced maintenance + 2' allowable overdepth; 1:4 side slopes	+4' advanced maintenance
Pier X South, 1.06 acre area riverside/outside berth	Previously permitted [existing permit modified in 2011] and dredged to 36' MLLW (34' +2' overdepth; 1:4 side slopes)	40' MLLW required depth + 2' allowable overdepth; 1:4 side slopes	+ 6' required depth