US Army Corps
of Engineers ®
Wilmington District

General Re-evaluation Report and Environmental Assessment
Surf City, Onslow and Pender Counties, North Carolina
Coastal Storm Risk Management Project

Appendix Q: Section 106 Documentation

Final

February 2025

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1.0 INTRODUCTION

The following provides documentation under Section 106 of the National Historic Preservation Act (NHPA) (54 USC § 300101 et seq.) on the effects to historic properties eligible for, and listed on, the National Register for Historic Place (NRHP) within the area of potential effect (APE) of the Surf City Coastal Storm Risk Management (CSRM) Project in Pender and Onslow Counties, North Carolina. This documentation was prepared in accordance with Title 36 of the Code for Federal Regulations (CFR), Part 800, Subpart B, Section 800.11(d) (i.e., 36 CFR 800.11) by the Wilmington District, U.S. Army USACE of Engineers (USACE). The USACE is the lead federal agency for this proposed undertaking while BOEM serves as a cooperating agency for consultation requirements related to the NHPA and National Environmental Policy Act (NEPA).

This document is part of larger general re-evaluation and environmental assessment to verify an implementable Federal project within the town limits of Surf City. To accomplish this, the project's engineering requirements, environmental impacts, costs, real estate information, and benefits were re-examined for the authorized plan described within the 2010 Surf City-North Topsail Beach (SCNTB) CSRM Feasibility and Environmental Impact Statement (FEA/EIS). This re-examination resulted in changes to the proposed dredge cuts and estimated compatible material volumes within offshore sand borrow areas (i.e., horizontal and vertical extents), and the offshore sand borrow area use plan for the 50-year project. Such changes represent a Federal undertaking with a potential to effect historic properties per 36 CFR 800.3(a) and require consultation to identify and evaluate the significance of these properties, if any, per 36 CFR 800.4.

In addition to previously assessed effects to historic properties within the APE, this document examines the undertaking's effects to now submerged landforms most recently exposed and potentially suitable for human habitation during the Last Glacial Maximum (LGM). The USACE recognizes that these landforms, herein referred to as "ancient submerged landforms", exist within the APE and may be suitable to contain archaeological deposits although the preservation potential in these areas is low (Science Applications, Inc., 1981). In Onslow Bay, ancient submerged landforms include sections of coastal plain deposits, such as fluvial channels (i.e., paleochannels), point bars, floodplains, terraces, etc., as well as marginal marine deposits, such as estuaries, tidal channels, inlets, delta plain, strand plains, barrier islands, etc., that were subsequently buried beneath marine sediments (Tidewater Atlantic Research, 2004; TRC, 2012).

2.0 PROJECT HISTORY

The FEA/EIS for the SCNTB CSRM project was completed on 30 December 2010. The recommended plan, which ultimately became the authorized plan, consisted of a 52,150-foot-long berm and dune system along approximately 9.9 miles of shoreline, extending from the boundary separating Topsail Beach and Surf City town limits to the southern edge of the Coastal Barrier Resources Act (CBRA) Zone in North Topsail Beach (Figure 1). The berm and dune system was to be constructed to an elevation of 14 feet North Atlantic Vertical Datum 1988 (NAVD 88) with a 25-foot-wide crest, fronted by a 50-foot-wide berm at an elevation of 6 feet (NAVD 88) and renourished seven

times over 50 years at fixed six-year intervals. Other features included planting dune vegetation and constructing 60 dune walkover structures to provide public beach access. Sand for the initial berm and dune system construction and subsequent renourishment intervals was to be taken from offshore sand borrow areas identified between one and six miles seaward of Topsail Island. The authorized plan also included post-construction monitoring over the period of Federal participation (50 years) to ensure project performance and to allow for renourishment plan adjustment, as needed.

Construction of the SCNTB CSRM project was authorized by Section 7002(3) of the Water Resources Reform and Development Act (WRRDA) of 2014. Project construction was funded by Public Law 116-20, the Additional Supplemental Appropriations Disaster Relief Act, 2019 (DRA 19). Per the Assistant Secretary of the Army for Civil Works (ASA(CW)) *Policy Guidance on Implementation of Additional Supplemental Appropriations for Disaster Relief Act, 2019* memo dated 24 April 2020, paragraph 4(m), the provisions of section 902 of Water Resources Development Act (WRDA) of 1986 did not apply to Public Law 116-20 funding.

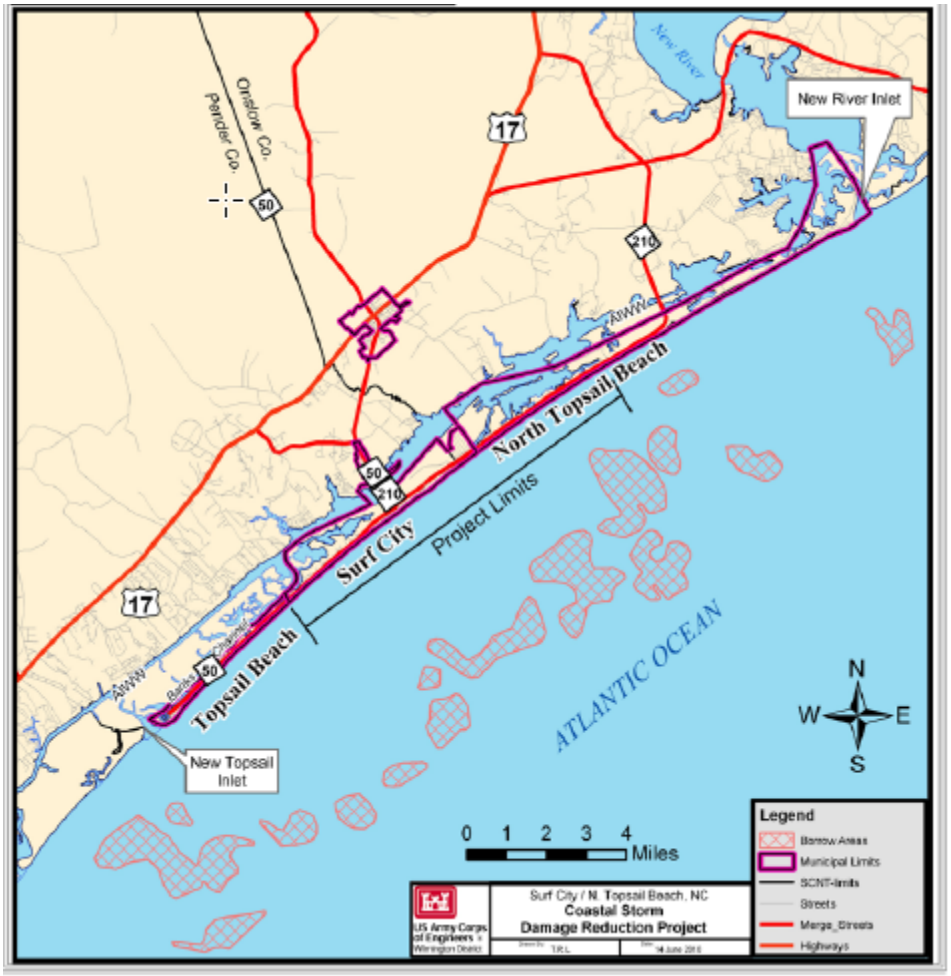

Figure 1. 2010 Authorized Plan for the Surf City/North Topsail Coastal Storm Risk Management Project.

The SCNTB CSRM project completed its Pre-construction, Engineering and Design (PED) phase in 2014 with the Towns of Surf City (SC) and North Topsail Beach (NTB) as non-Federal sponsors. However, in July of 2021, the Town of NTB announced its intention not to participate in the construction phase of the project citing financial reasons. It was NTB's understanding that their locally funded beach nourishment project was eligible for Federal Emergency Management Agency (FEMA) reimbursement if damaged by a qualifying coastal storm event. As such, it was NTB's opinion that this reimbursement was more financially advantageous than the cost-shared Federal project. Thus, a Project Partnership Agreement (PPA) was not executed (Appendix M).

The Town of SC maintained its support for a Federal project and asked the USACE to examine coastal storm risk reduction alternatives within its town limits. As the 2010 authorized project was not formulated or designed with separable elements, and construction funding for the project appropriated by the DRA 19 was constrained to the limits that included the beaches of both towns, a new study and project authorization was required to evaluate the SC portion of the project only. A limited feasibility study of the project at a general re-evaluation level was determined to be the appropriate path forward (Appendix M). Upon the receipt of appropriations from DRA 19, the USACE began efforts on the limited integrated feasibility and environmental assessment.

3.0 STUDY AREA

Topsail Island is located within Onslow and Pender Counties, North Carolina, approximately 40 miles northeast of the City of Wilmington. The island contains the communities of NTB, SC, and Topsail Beach (TB). The resident, year-round population of SC is approximately 5,380 persons. This population increases by several thousand people during the summer months, primarily due to seasonal tourism. SC's resident population has doubled (i.e., ~103% increase) since 2010.

Public access to the beaches is provided through numerous parking areas and dune walkovers. Three fishing piers are present on the island, one in each community: Seaview (NTB), Surf City (SC), and Jolly Roger (TB). SC is home to the Karen Beasley Sea Turtle Rescue and Rehabilitation Center, whose primary mission is the rescue, rehabilitation, and release of sick and injured sea turtles, and public education. Roadway access to the mainland is provided through North Carolina (NC) Highway 50 and then by bridges on NC Highway 50/210 at SC and NC Highway 210 at NTB.

Land use in SC continues to consist of medium-density detached homes, multi-unit apartments, and condominiums since 2010. Newly constructed and rebuilt structures on the island have raised first floors in response to previous coastal storm events and local building codes. While there are a few structures built at grade, most buildings in the town are raised to at least 9 feet above mean lower low water (MLLW). Commercial use of the island centers around the intersection of NC Highways 50 and 210 (i.e., S. Shore Drive), and N. Topsail Drive. While a few vacant lots exist on the island, it is assumed that they will be built upon within the 50-year period of analysis for this report, since the infrastructure (water, electric, sewer, etc.) already exists in these areas.

This analysis, assessing effects to historic properties eligible for, and listed on, the NRHP within the APE, addresses all offshore sand borrow areas including potential dredge cuts (i.e., horizontal and vertical extents), the beach face within the town limits of Surf City and a transition of 1,000 ft at the Surf City/North Topsail Beach town limit, and yet-to-be identified nearshore pipeline routes and hopper pump-out stations (Figure 2). The northern limits of the study area are in Onslow County near the road intersection of Island Drive and Scotch Bonnet Drive, while the southern limits are in Pender County near the road intersection of South Shore Drive and Hispaniola Lane.

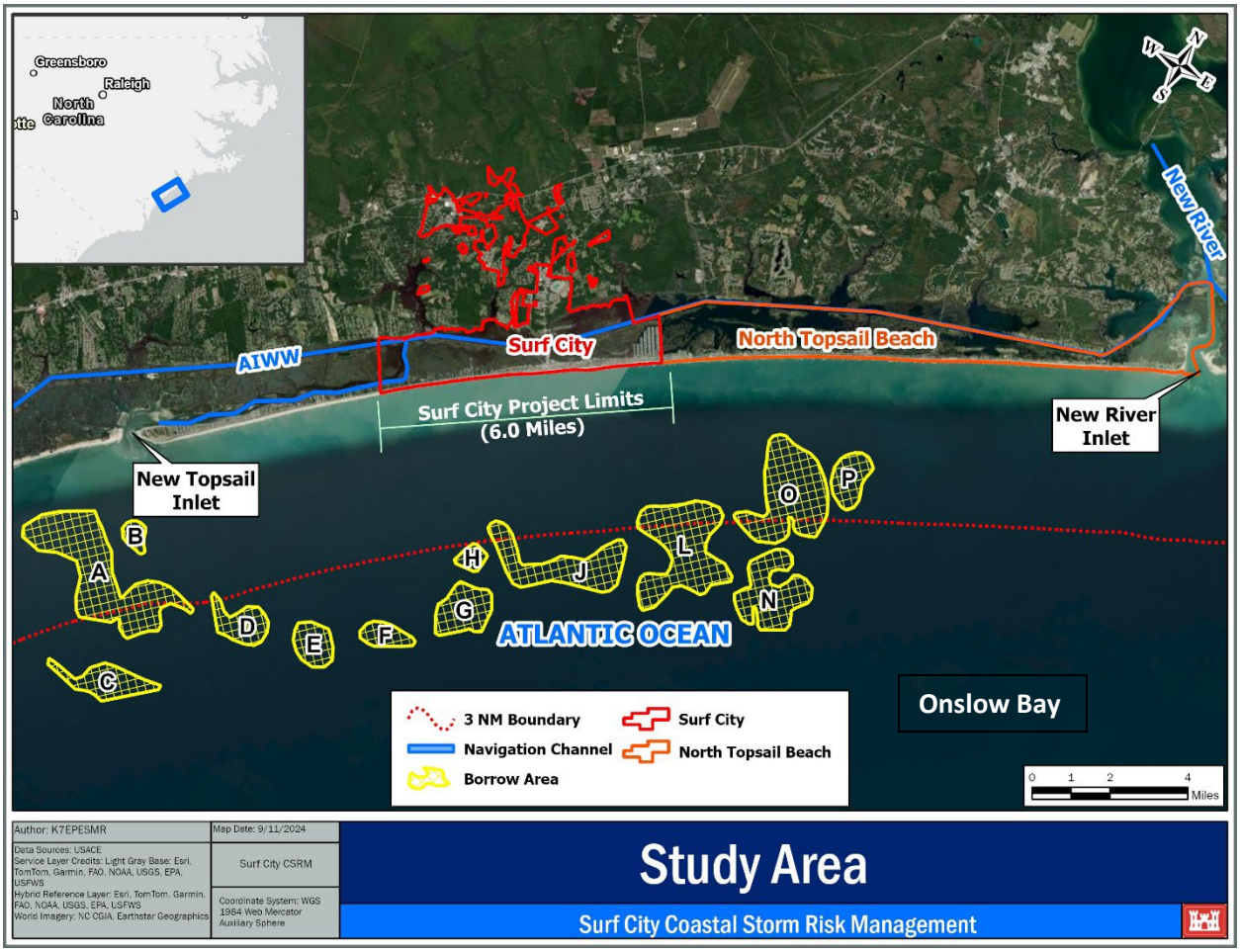

Figure 2. Study Area.

4.0 ENVIRONMENTAL SETTING

The project is located on a 26-mile-long and 0.5-mile-wide barrier island within the Onslow Bay section of North Carolina known as Topsail Island. Onslow Bay is a geomorphological indentation of the North Carolina coast, between Cape Fear and Cape Lookout. Before its development in the 1940s, the island was characterized by beaches, dunes, and salt marshes overlain by a thick maritime forest. The island was formed by wave and wind action depositing and eroding sand and sediment parallel to the mainland.

The New River and New Topsail Inlets border the island to the northeast and southwest, respectively. A series of small sounds and channels and a portion of the Atlantic Intracoastal Waterway separate the island from the mainland. Artificially constructed channels with boat docks are present on the northwestern side of the island, providing water access to for residents.

Onslow Bay is underlain by relatively flat-lying sedimentary units which gently dip and thicken to the southeast. This large sedimentary wedge includes sediments which have not been indurated or cemented and rock units. These sedimentary units range in age from Cretaceous to Quaternary and overlie crystalline basement rock. A patchy veneer of Holocene sands and gravels (i.e., the end of the last ice age or last glacial maximum, LGM) overlies the older strata. The sand soils found on the Topsail Island beaches are classified as fine-to-medium-grained poorly graded sands (SP) according to the Unified Soils Classification System.

The geologic setting offshore of Topsail Island consists of several Oligocene bedrock platforms with scarce surficial sedimentary deposits in the sand starved embayment of Onslow Bay (Meisburger, 1979; McQuarrie, 1998; HDR Engineering, 2002; HDR Engineering, 2003; Greenhorne and O'Mara, 2004). Oligocene bedrock, commonly referred to as hardbottoms, consists of moldic sandy limestone and sandy siltstone that underlies most of Onslow Bay with the platforms dissected by relict infilled fluvial channels commonly referred to as paleochannels (Snyder et al., 1982; HDR Engineering, 2002; Greenhorne and O'Mara, 2004; USACE, 2013). The bedrock dips gently to the southeast and creates hardbottom scarps and valleys in an otherwise flat submerged terrain. Several studies indicate that Oligocene hardbottoms are laterally continuous with Topsail Island and that reworked and eroded sediments from these units provide much of the available sediment with surficial sands and gravels captured between escarpments (Clark et al., 1986; Cleary and Hosier, 1987; Cleary, 2002; Riggs et al., 1996a; Riggs et al., 1996b; Greenhorne and O'Mara, 2004; USACE, 2013).

Previous studies support a series of shore-normal relict paleochannel features and/or active Rippled Scour Depressions (RSDs) occurring throughout Onslow Bay with sorted bedforms occurring in the nearshore environment and a series of shore perpendicular sediment ridges present offshore (Cacchione et al., 1984; Thieler et al., 1999; Thieler et al., 2001; Greenhorne and O'Mara, 2004; HDR Engineering, 2003; USACE, 2010; Geodynamics, 2012; USACE, 2013). The term RSD is synonymous with sorted bedforms, or ripple channel depressions as described by McQuarrie (1998) and Murray and Theiler (2004). These bedforms represent "self-perpetuating patches of coarse sediment."

A series of glacioeustatic sea level fluctuations occurred during the LGM which led to a series of transgressive sequences in Onslow Bay that persisted into the Holocene (Hine and Snyder, 1985; Greenhorne and O'Mara, 2004; Conery et al., 2021;). Hine and Snyder (1985) indicated that the paleochannels located in Onslow Bay could be traced for miles in the subsurface and reached up to 80 ft in depth. Ocean Surveys Inc.(2004) reported that these paleochannels "were infilled with estuarine and shelf fossiliferous muds and fluvial sands." Previous studies also indicate that the infilling of these

paleochannels would have been completed by the mid-Pleistocene transgressive event and that these channel fill sediments would represent the only shelf stratigraphic record for this area (Belknap, 1982; Hine and Snyder, 1985; HDR Engineering, 2003; Greenhorne and O'Mara, 2004). Continued sea level change occurring in the Holocene with no significant sediment recharge to Onslow Bay could explain the limited surficial sediments with those occurring being the result of erosion to the low-relief hardbottom scarps and reworking of existing surficial veneers of sand and gravel (Meisburger, 1979; Snyder at al., 1982; Riggs et al., 1985; Hines and Snyder, 1985; McQuarrie, 1998; HDR Engineering, 2002; HDR Engineering, 2003).

Pleistocene and Holocene age drainage (and or tidal) networks, now buried and revealed as complex channel incision and infill sequences, are incised through shelf sediments and underlying siltstone and limestone in Onslow Bay, as sea levels rose and lowered during numerous transgressive-regressive glacioeustatic cycles. Regional sea level reconstructions, translated into ground models of Holocene shoreline positions, suggesting expansive areas of habitable lands along what is now the inner shelf region of Onslow Bay offshore North Carolina (TRC, 2012; Harris, 2018).

In Onslow Bay, ancient submerged landforms include sections of coastal plain deposits, such as fluvial channels (i.e., paleochannels), point bars, floodplains, terraces, etc., as well as marginal marine deposits, such as estuaries, tidal channels, inlets, delta plain, strand plains, barrier islands, etc., that were subsequently buried beneath marine sediments (Research Planning et al., 2004; TRC, 2012). The potential for archaeological resource integrity is higher in marginal marine deposits, such as former floodplains, terraces, point bars, other low-relief terrestrial landscapes (e.g., riparian wetlands) or shallow submerged fluvial or estuarine environments (TRC, 2012; Gayes et al., 2019) although no archaeological resources have been identified to date within the project's APE and the general preservation potential in these areas is low (Science Applications, Inc., 1981). In addition previous consultation with federally recognized Native American tribes in North Carolina – the Catawba Indian Nation, the Eastern Band of Cherokee Indians in North Carolina, and the United Keetoowah Band of Cherokee Indians in Oklahoma - have not ascribed significance to cultural resources within the project's APE. Areas within nearshore Onslow Bay exhibit shallow burial of lithified Oligocene and channel incisions that could expose rocks, creating potential places for human activity such as refuse areas, seasonal extraction camps, and places of ceremony (if preserved).

Geophysical and geological data interpretation and feature differentiation is difficult in the proposed offshore sand borrow areas, as it is characterized by repeated incision, deposition, and erosion. Therefore, it is beneficial to differentiate non-margin paleochannel features and depositional sequences, such as channel thalwegs and subsequent transgressive infill sequences, from intact marginal areas.

The relative ages of infilled, remnant paleochannels and related tidal features within the APE is unclear, but may range from the Pliocene to Holocene (a few million years to ~5,000 years ago --when sea level change slowed in the mid Holocene and the modern

configuration of the shoreline was established) (Hine and Snyder, 1985; Snyder et al., 1994; Stille et al., 1994; Horton et al., 2009).

Sea level change and marine transgression tend to be very destructive of these ancient submerged landforms, and identifiable remnants typically show evidence of significant truncation and disturbance. In addition, subsequent sea level changes create the opportunity for channel re-occupation, where a younger channel will often track along a preexisting paleochannel course, ultimately resulting in a complicated, nested channel fill, presenting as varied depositional environments from periodic and discrete time intervals. Although such features still reflect the location of prior elements of the ancient submerged landforms, they are very unlikely to retain intact sediment or in-situ evidence of indigenous prehistoric activities.

5.0 CULTURAL AND HISTORIC CONTEXT

The state of North Carolina possesses a rich, long history of human habitation and occupation shaped by the arrival, growth, and influence of indigenous inhabitants (i.e. American Indians), European settlers, and West African slaves. In all, this history spans approximately 16,000 years of adaptation and re-adaptation to a changing environment and tells the story of political, social, economic and religious development for these groups and the nation as a whole.

Archaeologists have developed a general chronology for the prehistory of North Carolina that provides a useful framework for organizing and describing archaeological data (Griffin, 1967; Jennings, 1974; Dragoo, 1976). The prehistoric cultural sequence is generally divided into the following chronological periods based on culturally and temporally diagnostic artifacts and the distribution of related archaeological sites across the various landscapes within the state:

- Paleo-Indian Cultures (14,000 - 8,000 B.C.).
- Archaic Cultures (8,000 - 1,000 B.C.)
- Woodland Cultures (1,000 B.C. - A.D. 1,600)
- Mississippian Cultures (A.D. 1,000 - 1,600)

Generally, this prehistoric cultural sequence reflects a trend toward increasing socio-cultural and technological complexity beginning with small mobile bands that later developed into more sedentary, complex societies. The subsistence activities of the Paleo-Indian cultures focused on the hunting of large herbivore animals and the gathering of wild foods. However, by the time of the Woodland and Mississippian Cultures, agricultural economies based on three major tropical cultigens – corn, beans, and squash – were characteristic of many societies in the North Carolina. Increases in the size and density of the human population and a trend toward increasing sedentism were also evident and reached their highest levels during these times. In all, these cultural trends are marked by stylistic differences in artifacts and correspond to major technological innovations or important shifts in adaptational patterns (Ford, 1977).

However, there was considerable regional variation in the timing and extent to which these trends were expressed, thus accounting for the overlap in the Woodland and Mississippian cultures (Ward and Davis, 1999).

The ancient submerged landforms discussed in Section 9 and dating to the late Pleistocene and Early Holocene epochs, roughly 126,000 to 7,000 years ago, generally coincide with the recorded arrival of Paleo-Indians to the North American continent and the rise of the Archaic culture in North Carolina (Ward and Davis, 1999).

The Paleo-Indian culture is distinguished by its use of fluted and unfluted (Clovis, Hardaway, and possibly Palmer) spear points and knives and specialized stone tools for processing materials and fabrication (i.e., drills, scrapers, burins, punches, spokeshaves). These peoples were highly nomadic kin groups (25- 50 people) living in fixed base camps that followed the movement of Mega-fauna (Woolly Mammoth, Mastodon, and Giant Ground Sloth) and other large herbivore animals. Eventually, Paleo Indians adopted mobile foraging, repeatedly moving their camps as resources and food became exhausted in the immediate area. Locations of habitation for Paleo Indians in the eastern United States ranged from caves and rock shelters to rock quarries to river and stream valleys (Ward and Davis, 1999). Evidence for Paleo Indian archaeological sites along the North Carolina coastline have likely been covered by rising sea levels during the late Pleistocene epoch (Price et al., 2001).

The early Archaic culture, approximately 8,000 to 6,000 B.C., marks a transition from big game hunting to small game hunting and intensive foraging. The Early Archaic people continued a nomadic lifeway organized in relatively small bands but were utilizing a wider variety of food resources, including fish, oysters, and diverse plants. These peoples began to settle into larger and more permanent habitations. Base camps and limited resource extraction sites from this period are commonly found in rock shelters and deeply buried alluvial floodplains near water. A variety of stone projectile points (Kirk, bifurcates, Stanly, Morrow Mountain, Guilford, Halifax, Savannah River, and others), knives, scrapers, drills, and others are associated with early Archaic cultures. Ground stone tools, including axes and atlatl weights, were developed during this time period, along with carved stone bowls (soapstone), jewelry made from marine shell or bone, bone fishhooks, sewing awls, hoes, wood gravers, and hide scrapers. Evidence for Early Archaic archaeological sites along the Carolina coastline have primarily been based on surface finds (Ward and Davis, 1999).

Historians have also developed a general framework for history of North Carolina starting with the arrival of European explorers and their interaction with historic-period American Indian tribes - including the Cherokee, Lumbee, Haliwa-Saponi, Sappony, Occaneechi Band of the Saponi Nation, Waccamaw-Siouan, Meherrin, and Coharie – to the present day, although this list may not be comprehensive or be representative of current tribal interests in the project area. This framework is based on the progression of broad historical events within the state and nation.

- Precolonial Period (pre-1600)

- Colonial Period (1600-1763)
- American Revolution (1763-1789)
- Early Statehood (1789-1820)
- Antebellum (1820-1861)
- Civil War (1861-1865)
- Reconstruction (1865-1876)
- Gilded Age (1876-1900)
- Industrial Revolution (1900-1929)
- World War I (1914-1918)
- The Great Depression (1929-1941)
- World War II (1941-1945)
- Post World War II (1946-2000)
- 21st Century (2001-present)

Historic archaeological sites and standing structures within the APE are discussed in *Section 8* of this document.

6.0 DESCRIPTION OF THE UNDERTAKING

The proposed undertaking is the recommended plan within the General Re-evaluation and Environmental Assessment which includes:

- A berm and dune system measuring approximately 33,300 ft long, or approximately 6 miles of shoreline, with a dune constructed to an elevation of 14 feet (NAVD 88) and fronted by a 6-foot (NAVD 88) 50-foot wide beach berm restricted by the town limits of SC.
- A 1,000-foot transition berm at the northern end of the project beginning at the town limits of SC and extending into the town limits of NTB.
- Dune plantings.
- 40 public walkover structures.
- Beach quality sand from offshore sand borrow areas designated as Borrow Areas A, B, C, D, E, F, G, H, J, L, N, O, and P. The acreage within these sites is listed below (Table 1).

Table 1.Total Acreage Within Each Borrow Area Excluding Hardbottoms and Low-relief Buffers.

Borrow Area	Acreage	Maximum Cut Depth (feet)	Maximum Cut Depth Overlap Zone (feet)
A	2,297	5-15	7-10
B	158	TBD[1]	TBD[1]
C	597	TBD[1]	TBD[1]
D	464	TBD[1]	TBD[1]
E	406	4-5	4-5
F	282	TBD[1]	N/A[2]
G	576	8-10	8-10
H	158	6-8	N/A[2]
J	1,033	3-4	3-4
L	1,382	5-7	5-7
N	1,061	7-10	5-9
O	838	4-10	5
P	410	10-12	N/A[2]
Total:	**9,662**		

[1] To be determined (TBD)
[2] Not applicable (N/A)

Approximately 8.0 million cubic yards of sand will be taken from identified offshore sand borrow areas for the initial construction of the berm and dune system beginning in 2025 (expected). After initial construction is completed and project is operational (i.e., 2027 [expected]), the project will be renourished with sand once every six years with approximately 1.9 million cubic yards until the end of its 50-year project period of performance (i.e., 2076 [expected]). The total amount of sand for the initial construction and renourishments is expected to be approximately 21.8 million cubic yards.

The general process for building the berm and dune system and 1,000-foot transition for SC, during initial construction and for the subsequent renourishments, begins with the extraction of suitable sand from delineated offshore sand borrow areas with trailing suction hopper dredges of varying size, although other dredge types (i.e., cutterhead may be used by the Contractor performing the work). These self-propelled and self-loading ships carry dredged sand to designated pump-out stations near and along the beach. The sand will then be transported to the beach surface through large,

submerged pipelines that are carried to the locations of berm and dune construction along the sea floor. The locations of the pump-out stations and pipeline routes are not currently identified and will be determined by the Contractor during construction. Once on the beach, heavy mechanical equipment will used to place the sand and build a berm and dune system. Dune plantings and the construction of public walkover and beach access structures will be completed once the system is in place.

7.0 AREA OF POTENTIAL EFFECT

Per 36 CFR 800.16(d) an APE is defined as ". . .the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the use or character of a historic property, if any such properties exist. The APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking."

The APE for this undertaking includes all offshore sand borrow areas including potential dredge cuts (i.e., horizontal and vertical extents), the beach face within the town limits of Surf City and a transition of 1,000 feet at the Surf City/North Topsail Beach town limit, and yet-to-be identified nearshore pipeline routes and hopper pump-out stations.

Direct effects are typically those that will occur within the footprint of the project's construction. Indirect effects are those that may occur outside the footprint of the construction and/or are temporary in duration. Indirect effects for this undertaking include temporary visual, auditory and atmospheric changes resulting from the proposed construction activities.

8.0 STEPS TAKEN TO IDENTIFY HISTORIC PROPERTIES

A historic property, per 36 CFR 800.16 (l)(1), is defined as ". . .any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the NRHP maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria."

Identification of these historic properties in the project area has been incrementally conducted since development of the 2010 SCNTB CSRM FEA/EIS, to include an examination of existing documents and records on file with the North Carolina Historic Preservation Office (SHPO), North Carolina Office of State Archaeology (OSA), and the National Park Service's NRHP inventory.

No historic properties listed on the NRHP are recorded within the limits of the APE. However, one NRHP historic property is recorded just outside of the APE, specifically Towers 3, 4, and 5 of the U.S. Naval Ordnance Testing Facility (NRIS# 93000910, date listed September 14, 1993). These towers are remnants of the U.S. Navy's occupation of Topsail Island between 1946 and 1948 for Operation Bumblebee: an intensive testing of ramjet missiles after World War Two. A related structure for this historic property is the assembly building at 720 Channel Boulevard which houses the Missiles and More Museum and Historical Society of Topsail Island. The property was listed to the NRHP

under Criterion A: a contribution to events that have shaped the broad pattern of our history. The proposed undertaking will have no effect to this historic property and will not change or alter its historic significance.

Consultation under Section 106 for the proposed undertaking was conducted in association with the 2010 FEA/EIS. An investigation of proposed sand borrow locations was performed by Mid-Atlantic Technology and Environmental Research, Inc., under a contract with the USACE, for nourishment of the beaches at Topsail and West Onslow (2004). Eight proposed sand borrow areas for North Topsail Beach and Surf City, designated as Areas A1, A2, B, C, D, E, F, and G, were examined through a marine magnetometry and side scanner sonar survey. These borrow sites corresponded with the current borrow areas of A, B, C, D, and F, respectively. The USACE acknowledged the potential for prehistoric occupation of Onslow Bay during the early Holocene and late Pleistocene periods when the area would have been exposed by lower sea levels, yet also indicated the likelihood of encountering intact archaeological deposits was extremely low (USACE 2010: 94-96, and 229-231). Results of this investigation identified no archaeological sites within the proposed sand borrow areas and no further consultation under Section 106 was recommended. However, this conclusion focused largely on submerged, historic-period archaeological sites (i.e., shipwrecks). Although sub-bottom geophysical or geotechnical data were available at the time, consultation did not focus on these data. The NC SHPO concurred with these recommendations in a letter dated March 1, 2005.

The USACE subsequentially examined seven proposed sand borrow areas for North Topsail Beach and Surf City, designated as Areas H, K, LN1, M, N2, N3, and P through a contract with Mid-Atlantic Technology and Environmental Research, Inc. (2005). The investigation was conducted with a marine magnetometry and side scanner sonar survey to identify historic archaeological resources (i.e., shipwrecks) within the proposed borrow areas. These borrow sites corresponded with the current borrow areas of G, H, J, L, N, O, and P, respectively. Results of this investigation identified no historic shipwrecks within the proposed sand borrow areas, but verified the presence of infilled, remnant paleochannels and related tidal features underlying offshore sand borrow areas A, B, C, D, E, G, J, L, N and O (Mid-Atlantic Technology and Environmental Research, Inc. 2005). No further cultural resources investigations were recommended within the above borrow areas. The NC SHPO concurred with these recommendations in a letter dated August 3, 2005.

Additional consultation with the NC SHPO under Section 106 was initiated for the proposed undertaking on May 6, 2020, regarding the examination of yet-to-be determined pump-out locations and submerged pipeline routes in areas between the shoreline and offshore borrow areas. Since these locations would not be determined until the time of construction, the USACE proposed a strategy of “avoidance” to resolve potential effects to historic properties. This strategy included the following:

- Once identified by the construction contractor, the proposed pump-out locations and submerged pipeline routes will be examined for archaeological resources using geophysical techniques (i.e., a shallow seismic profiler, side scan sonar,

fathometer, marine survey magnetometer, sub-bottom profiler, and electronic positioning system).

- If any archaeological resources are encountered, a buffer (to be coordinated with the NC SHPO and other interested consulting parties) will be placed around the site and the pump-out station and/or the pipeline routes will be relocated. This strategy will avoid effects to these resources.

The NC SHPO stated in their June 15, 2020 response that their office was "...aware of no historic properties which would be affected by the project" within the APE, which included all currently proposed offshore sand borrow areas (i.e. A, B, C, D, E, F, G, H, J, L, N, O, and P). A project-specific programmatic agreement has been executed to guide the compliance effort for the pump-out locations and submerged pipeline routes in areas between the shoreline and offshore borrow areas and is presented in **Appendix S**.

The sections to follow focus on potential intersections among proposed dredge cuts, acceptable sand resources, and ancient submerged landforms within offshore sand borrow areas A, B, C, D, E, F, G, H, J, L, N, O, and P.

9.0 EVALUATION OF ANCIENT SUBMERGED LANDFORMS WITHIN APE

To evaluate the effects of proposed dredge cuts within offshore sand borrow areas and potential intersections with ancient submerged landforms (i.e., paleochannels), surficial sands suitable for beach placement were spatially compared to the interpretation of likely paleochannels as determined from Compressed High-Intensity Radiated Pulse (CHIRP) sub-bottom profiles. The co-location of sands suitable for beach placement and paleochannels, or lack thereof, and degree of data availability allow for arrangement of the 13 offshore sand borrow areas into three types (Figure 3):

- Type 1 - sufficient data available, does not overlay paleochannels or subsurface deposits of Quaternary age and pre-LGM (sand borrow areas F, H, P)

- Type 2 - sufficient data available, does overlay paleochannels or subsurface deposits of Quaternary age and pre-LGM (sand borrow areas A, E, G, J, L, N, O)

- Type 3 - requires additional data to determine potential intersections and to inform geotechnical dredge cuts and volume calculations (sand borrow areas B, C, D)

Offshore sand resources for the project are primarily targeted from infill sequences that available data suggest are transgressive marine deposits. Proposed dredge cuts within sand borrow areas F, H, and P do not overlay or intersect with identified paleochannels. Proposed dredge cuts within sand borrow areas A (West) and O (North) would avoid dredging into identified paleochannels due to geotechnical concerns with material quality and lateral variability. Proposed dredge cuts within sand borrow area E

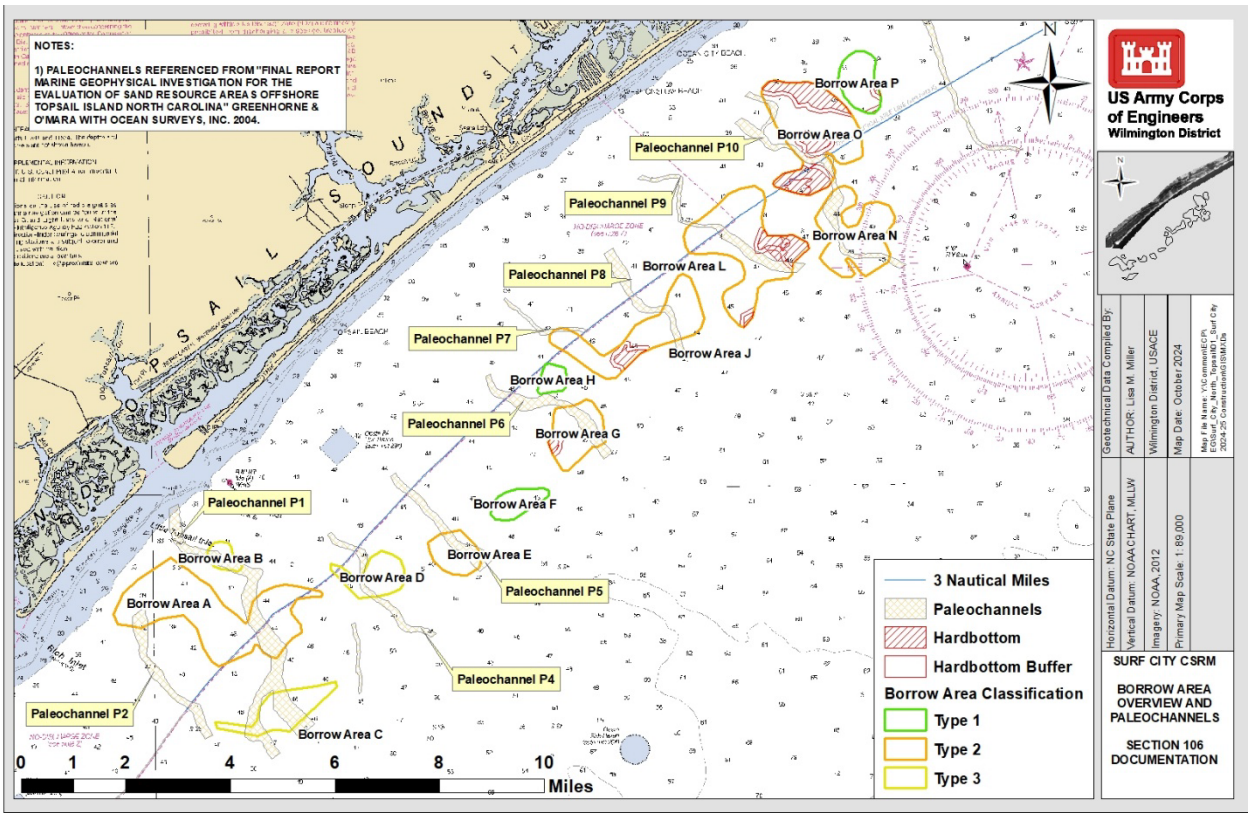

Figure 3. Sand Borrow Areas A, B, C, D, E, F, G, H, J, L, N, O, and P with paleochannels and surveyed hardbottom areas and buffers.

would overlay identified paleochannel P5 but would not intersect infill sequences at depth. Proposed dredge cuts within sand borrow areas A (East) and N would overlay paleochannel P10 but would avoid dredging into identified paleochannel infill sequences (i.e., paleochannels are deeper than proposed dredge cuts); however, proposed dredge cuts within sand borrow areas G, J, L, and O (South) would partially overlay and intersect with identified paleochannels and, potentially, relict infill sequences. Finally, available data within sand borrow areas B, C, and D are less definitive regarding potential intersections among proposed dredge cuts, acceptable sand resources, and ancient submerged landforms.

The dataset informing potential intersections among paleochannels and offshore sand borrow area boundaries is a result of investigations conducted by Greenhorn and O'Mara (2004). The study found, for all offshore sand borrow areas, that the variability of the channel fill sediment was dependent upon the stage of the riverine channel at the time of burial in the Pleistocene with the Holocene transgressive event "beveling off" the upper sections of facies and preserving the deeper fluvial deposits. Furthermore, this study found that quantity of material is not confined to the limits of paleochannel features but is instead controlled by bedrock topography and the subsequent distribution of surficial sands from the Holocene erosive transgression. Given the low fluvial input and the lack of sediment exchange between neighboring bays, contributions to the system after the last Holocene transgression are limited to erosion of hardbottom, scarps, ledges, and platforms which is controlled by the materials relative hardness and

reworking of surficial sediments (Blackwelder et al., 1982; Cleary 1968, Pilkey, 1968; Cleary and Thayer, 1973; Milliman et al., 1972; Riggs et al., 1995; Riggs et al., 1996a; Riggs et al., 1996b).

In the subsequent sections, a description and interpretation of each offshore sand borrow area and underlying paleochannels (if co-located), an assessment of data availability and adequacy for analysis, and a determination of potential effect to historic properties (if possible) will be presented.

9.1 Type 1 – Sand Borrow Areas F, H, P

Sand borrow areas F, H, and P all target surficial, Holocene reworked sands that do not overlay with any of the identified paleochannels (Figure 4). Additionally, no acoustic or magnetic targets were identified in sand borrow areas F, H, and P (Hall, 2004; Hall, 2005). Therefore, the proposed construction within Type 1 sand borrow areas F, H, and P will have no effect on historic properties. Additional information for sand borrow area H can be found in *Section 9.2.4* of this report which addresses its close proximity to Paleochannel P6.

9.2 Type 2 – Sand Borrow Areas A, E, G, J, L, N, O

Sand borrow areas A, E, G, J, L, N, and O all target surficial, Holocene reworked sands that overlay the identified paleochannels (Figure 5-Figure 13). The bases of these sands are demarcated by a transgressive surface that erodes into Oligocene limestones and siltstones. The acoustically transparent surficial sands are lens-shaped and overlay a high impedance erosional surface with the unit below containing low to moderate impedance reflectors which are folded or gently dipping. Core samples confirm these geophysical interpretations, where the Holocene surficial sands that are suitable for beach placement are composed of fine to coarse grained, shelly sands with some reworked rock from the erosion of the underlying Oligocene material, and the units beneath were composed of more consolidated to cemented sandy limestones and calcareous siltstones. Occasionally, the core depth of penetration was also limited, and this has been interpreted to be the result of an older-consolidated unit at depth. The integrated interpretation of these offshore sand borrow areas suggests that there is a low likelihood of directly encountering ancient submerged landforms suitable for possessing archaeological sites.

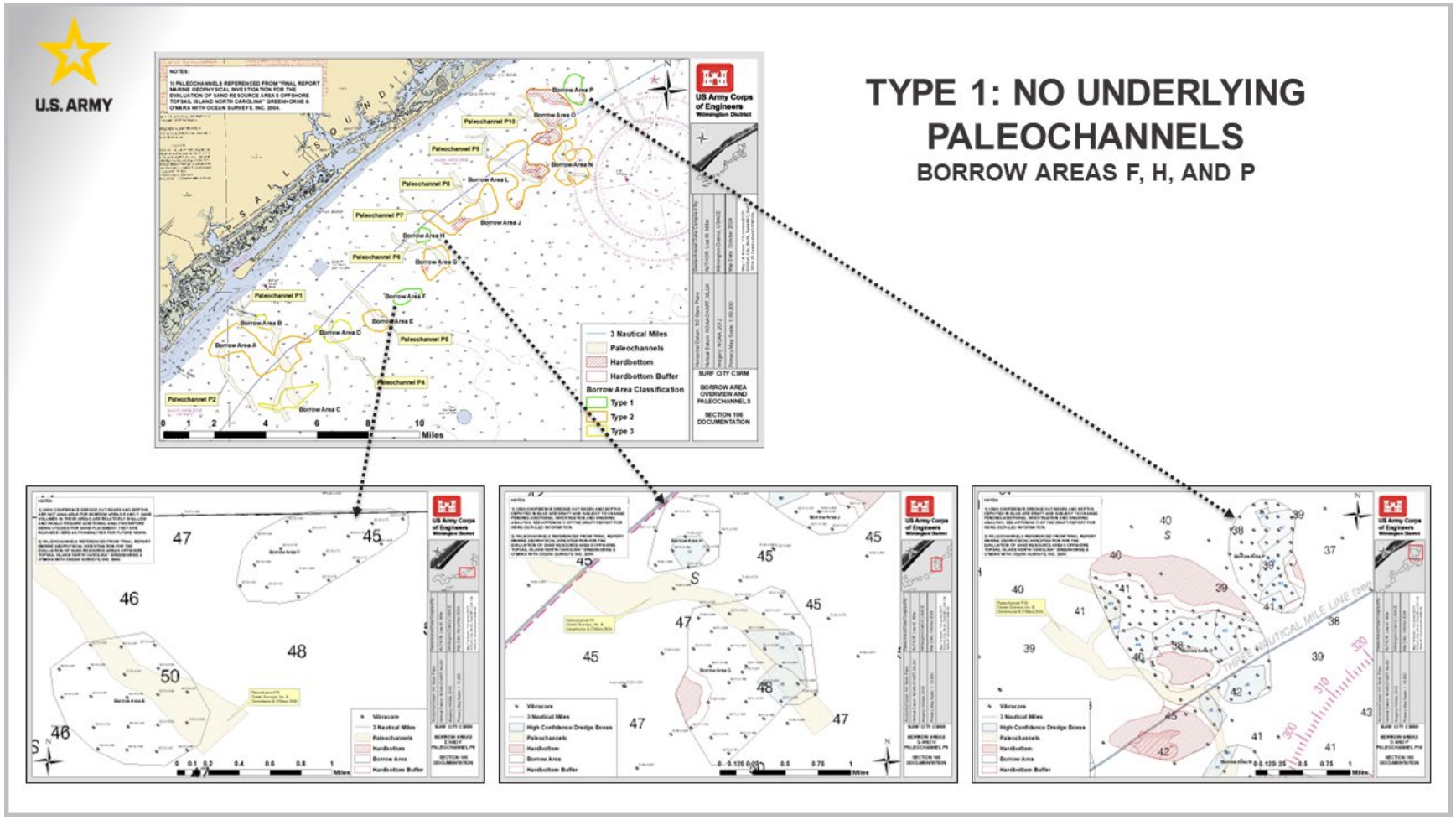

Figure 4. Location of Type 1 Sand Borrow Areas F, H, and P.

9.2.1 Sand Borrow Area A

Sand borrow Area A is located approximately 1.5 miles south of New Topsail Inlet. Figure 5 through Figure 7 depict findings within Sand Borrow Area A. Two independent paleochannel features underlay the sand borrow area. Paleochannel P1 underlies the eastern side of the sand borrow area on both the northern and southern ends. Paleochannel P2 underlies a small section of the sand borrow area to the southwest. Shore perpendicular sediment ridges are located on the flanks of these paleochannels with a relatively flat ocean floor surface between these areas. Surveys completed by Geodynamics in 2011 found that shore perpendicular sediment ridges were “perched atop deformed bedrock layers represented by folded and tilted subsurface reflectors in the sub-bottom data” and these were found to be extensions of those sorted bedforms found in the nearshore often containing substantial sediment accumulation with the deepest proposed dredge cuts occurring in these areas (8 to 12 feet). Additionally, no acoustic or magnetic targets were found in this sand borrow area (Hall, 2004) and cores showed no indication of estuarine or land-based remnants, such as peat or organics common in back barrier environments of the southeast (Long et al., 2021).

Paleochannel P1 depicts a well-developed channel complex with truncation of the basal paleochannel by younger channel sequences. The channel is incised through Oligocene siltstone and contains variably silty sands and gravels that become finer downcore with fine silty sands and some elastic silts occurring near P1 and at depth. Depth in paleochannel P1 ranges from near surface depth to 48 feet. Generally, there are two horizons within the P1 complex: a basal paleochannel that cuts anywhere from 48 to 60 feet into the underlying bedrock and a younger channel(s) that truncates it as described by Greenhorne and O'Mara (2004). The paleochannel seismic fill includes nearly transparent and high amplitude, layered U-shaped acoustic signatures. The P1 ancestral channel complex in the subsurface appears similar to both the back barrier paleochannel complex and the fluvial paleovalley described in Long et al. (2021). Cores obtained during the 2004 survey work included several cores reaching depths of 20 feet and reports greater than 20 feet of sediment availability within the P1 complex. However, some cores in the high-amplitude channel seismic fill contained only a few feet of beach quality material overlying silty sands and alternating layers of nearly beach quality sands and non-beach quality clays and silts. The upper surface capping the paleochannel is an irregular, erosional surface. On the western and eastern flanks of the paleochannel, sand ridges exist that have been interpreted as sorted bedforms (Figure 6 and Figure 7). These bedforms have likely eroded down into the erosional surface, capping the paleochannel, creating an irregular, compound erosional surface. Geodynamics (2011) interprets the layer below the surficial sediments to be the transgressive surface from the last sea level high stand and notes that reflectance values support reworking and semi-consolidation. Given the evidence of multiple, significant periods of erosion, potential integrity could have occurred at depth within these deeper infilled channel deposits, but is unlikely to have occurred

within the last Holocene transgression (Greenhorne & O'Mara, 2004; Geodynamics, 2011).

Paleochannel P2 contains variable sediments with thicker sequences of sands with silts and clays located in the western side of the channel and no greater than a foot of beach quality sand over clay located in the eastern side of the channel. Depth in the western portion ranges from near surface depth to approximately 24 feet (Greenhorne & O'Mara, 2004; Geodynamics, 2011). Acoustic signatures indicate mixed sands and silts similar to the high amplitude, high frequency, mud-rich, aggradational channel fill described in Gibling (2006) and referenced in Long et al. (2021). Sediment type in this sand borrow area was found to have extensive lateral variation both within and beyond the paleochannel. A series of borings collected in P2 were highly variable across 1,000 feet total spacing. Core SC-23-V-014 was found to have approximately 1 foot of sand with silt (SPSM) overlying approximately 5 feet of silty sand (SM 38% fines). Approximately 500 feet away, core SC-23-V-015 was found to have approximately 1 foot of sand (SP) overlying a layer less than 1 foot thick of silty sand (SM) over the top of approximately 8 feet of laminated silt (ML). Finally, approximately 500 feet away, core SC-23-V-016 was found to have 1 foot of sand (SP) overlying approximately 9 feet of variable sand with silt (SPSM 8-10.2% fines). Due to the variability and range of beach quality material in P2, dredge cuts would not intersect the paleochannel but instead would target adjacent well-defined beach quality sands (Figure 5 and Figure 7).

The deepest draft dredge cut depths for sand borrow area A occur in areas adjacent to paleochannels, and in and around the sediment ridges. Draft dredge cuts reach between 8-12 feet below the surface across the entire borrow area. One draft dredge cut overlaps P1 on the eastern side of the borrow to a depth of approximately 7 feet. The extent of beach quality sand in this region is variable with siltier sands occurring in much of the channel. Thicker sequences of sands appear to thicken towards the sediment ridges with core TIA-V-10-BQ containing nearly 12 feet of composite beach quality sand and cores TIA-V-10-BX, BY, and BZ containing nearly 10 feet of sand with varying amounts of silt (SP to SM up to 18% fines at depth); both of these areas align well with multibeam backscatter depictions of sorted bedform sediment ridges found in Geodynamics (2011; Figure 5-Figure 7). Given the evidence of extensive reworking during the Holocene transgression, the depth of relict sediments, and fining and consolidation with depth, the USACE does not anticipate encountering ancient submerged landforms suitable for possessing archaeological sites. Based upon available information and analyses, the USACE has determined that the proposed construction within sand borrow area A will have no effect on historic properties.

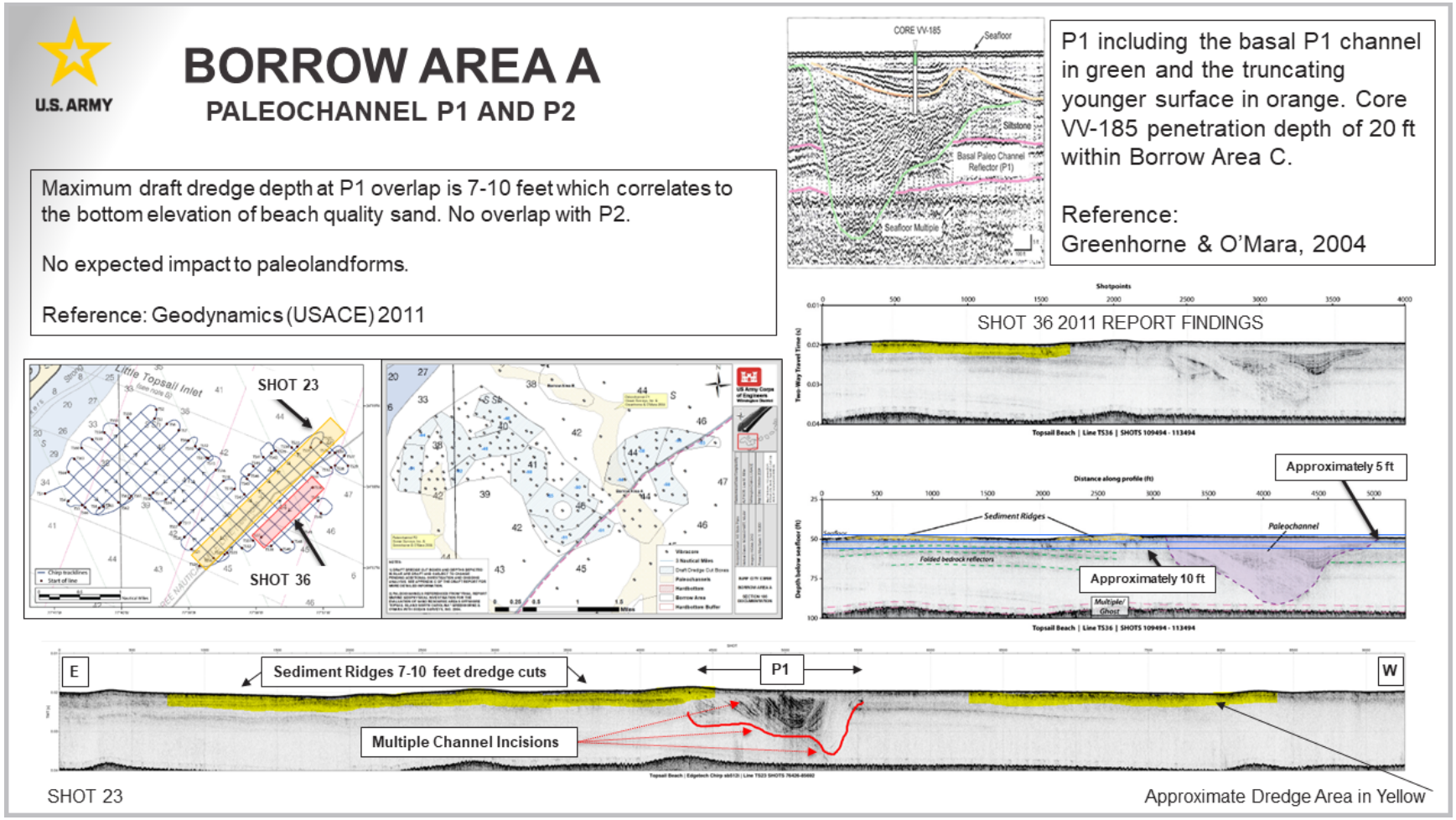

Figure 5. Paleochannels P1 and P2 underlying Sand Borrow Area A with Draft Dredge Cut Boxes and vibracore locations (Geodynamics, 2011). Maximum draft dredge cuts depicted in yellow encountering reworked surficial sandy material sitting atop Paleochannel P1.

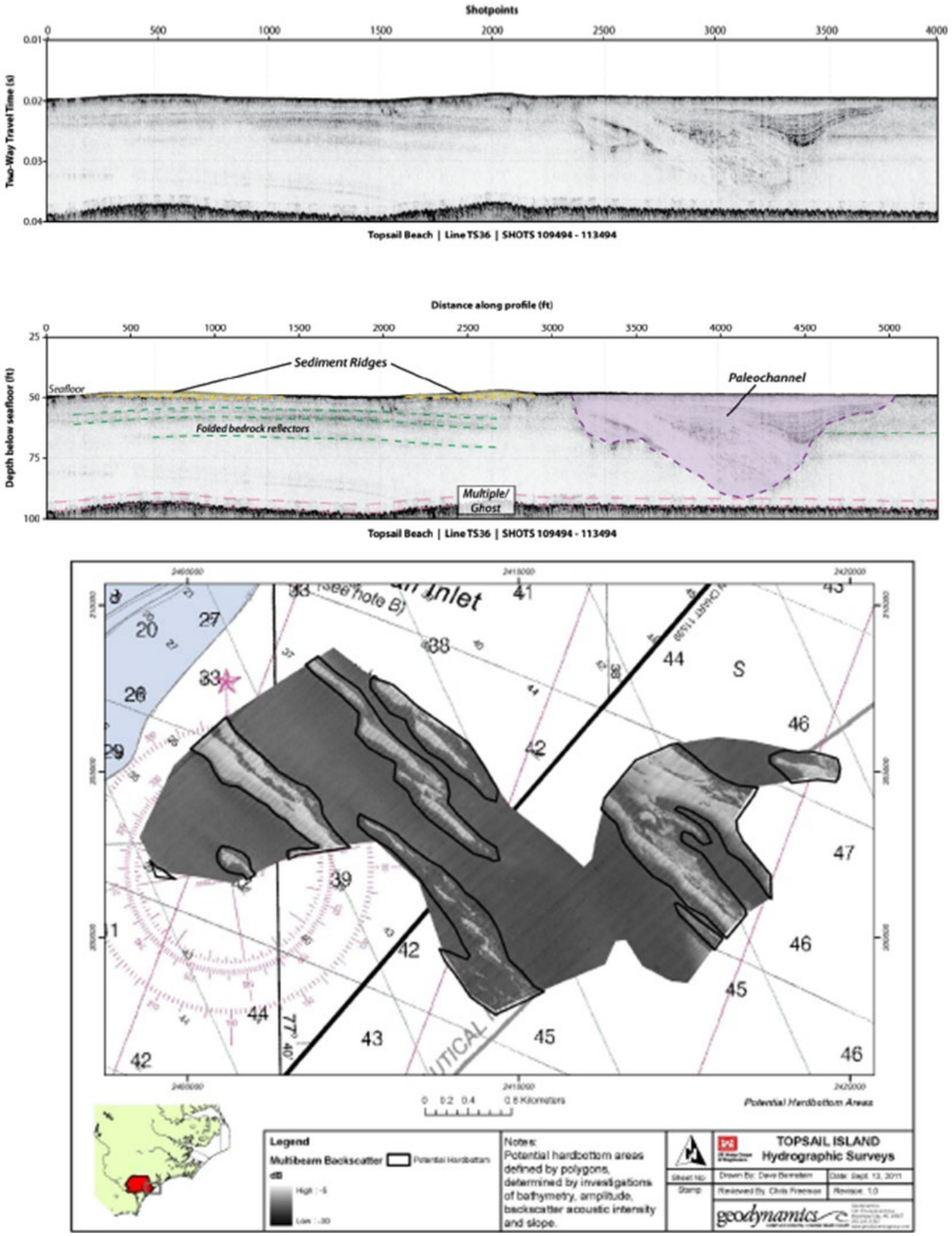

Figure 6. Results of Geodynamics survey from 2011 including the delineation of sorted beform rigdes occurring over folded and dipping layers of bedrock in Sand Borrow Area A.

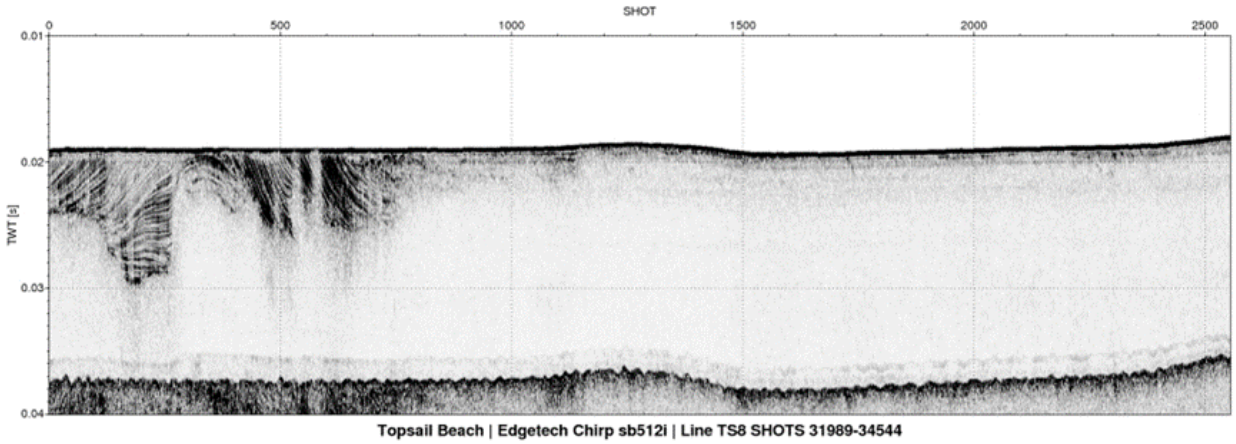

Figure 7. Additional CHIRP sub-bottom profile across Sand Borrow Area A (Geodynamics, 2011). Image shows the variability of infill sediments within Paleochannel P2. Sufficient quantities of beach quality material were not identified within the channel.

9.2.2 Sand Borrow Area E

Sand borrow area E is located approximately half a mile from the eastern side of sand borrow area D. An independent paleochannel, paleochannel P5, underlies the eastern side of the borrow area and extends from the northern to the southern end of the sand borrow area (Figure 8). No acoustic or magnetic targets were identified in this borrow area (Hall, 2004). Sand borrow Area E was observed to have a thin veneer of sand (SP) and sand with silt (SPSM) at the surface that transitions to silty sand (SM 13-28% fines) with consolidation and cementation occurring at depth. Paleochannel P5 was found to underlie the sand borrow area on the eastern side and was approximated to extend vertically to a depth of 25 feet (Greenhorne and O'Mara, 2004). Although previous studies place this paleochannel within sand borrow area E, sub-bottom profiles showed a homogenous, low intensity return with a few ripple scour features and no indication of a paleochannel at depth (Geodynamics, 2013; Figure 8). The increased fines content at depth, the surficial nature of sandier materials, and the presence of poorly cemented gravels at depth indicate a package of reworked semi-consolidated material at depth in this sand borrow area. Given the reworked nature of the sediment and the homogenous sub-bottom profiles, the USACE does not anticipate encountering ancient submerged landforms suitable for possessing archaeological sites. Based on available information and analyses, the USACE has determined that the proposed construction within sand borrow area E will have no effect on historic properties.

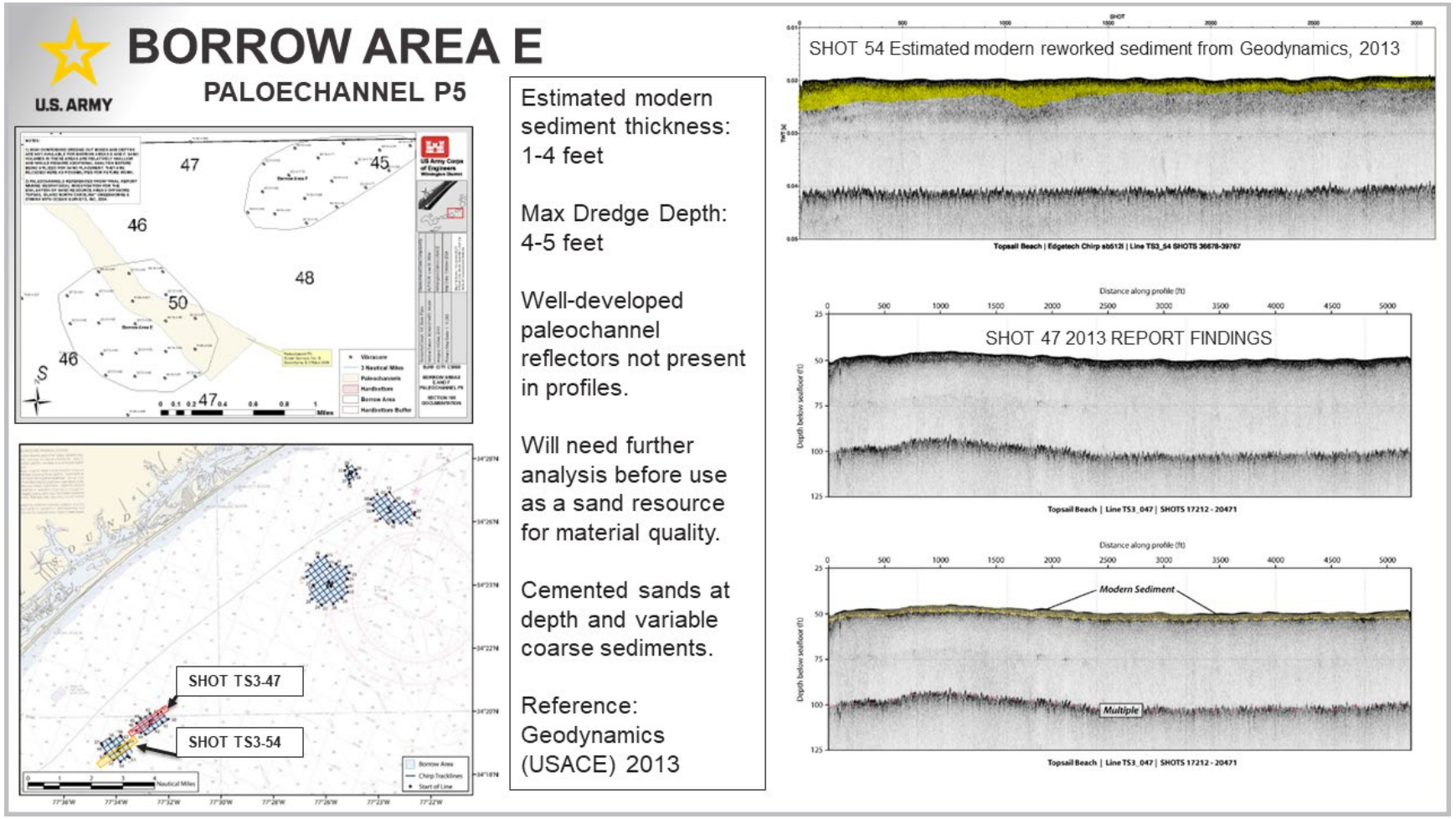

Figure 8. Sand Borrow Areas E and F with Paleochannel 5 underlying Sand Borrow Area E. Note that P5 could not be well defined in the 2013 Geodynamics sub-bottom data profiles.

9.2.3 Sand Borrow Area G

Sand borrow area G is located approximately four miles from the southern end of Surf City. An independent paleochannel, paleochannel P6, underlies the eastern side of the sand borrow area and extends across the borrow from the northern to the southern end (Greenhorne & O'Mara, 2004; OSI, 2004; Figure 9). No acoustic or magnetic targets were indentified in this borrow area (Hall, 2004). A suspected hardbottom area was found in this sand borrow area with moderate acoustic returns found on the southwestern side. Grab samples indicated that this area contained coarser sands like those found in the sand ridge, sorted bedforms of sand borrow area A (Geodynamics, 2011; Geodynamics, 2013). Cores collected in 2011 indicated the presence of cemented sands and gravels at depth with a veneer of sand (SP) and sand with silt (SPSM) at the surface (Figure 9). Due to the presence of consolidation and/or cementation this part of the borrow is being avoided, treated as rock and/or hardbottom, and includes a low-relief buffer.

Surficial sediments range from 2-3 feet in thickness and become finer and consolidated at depth. The dredge cuts delineated in 2013 indicated a maximum dredge depth of approximately 8-10 feet. High confidence volumes[1] developed in 2020 found that cemented sands at depth allowed for a maximum dredging depth of approximately 6 feet. Relict sediments were estimated to range from 10-15 feet within Paleochannel P6. Acoustic signatures were transparent to "chaotic," indicating mixed sediments at the surface and with depth or a reworked sediment package both of which result in a low potential for integrity. P6 appears to be a fairly straight transgressive surface with ambiguous signatures outside the channel appearing mostly homogenous. Given these characteristics, the USACE does not anticipate encountering ancient submerged landforms suitable for possessing archaeological sites. Based on available information and analyses, the USACE has determined that the proposed construction within sand borrow area G will have no effect on historic properties.

9.2.4 Sand Borrow Area H

Sand borrow area H is located approximately half a mile north-northeast of sand borrow area G (Figure 9). The southeastern side of the sand borrow area is directly adjacent to the paleochannel that underlies sand borrow area G, but does not directly overlay ancient submerged landforms suitable for possessing archaeological sites. Additionally, no acoustic or magnetic targets were identified within this sand borrow area (Hall, 2004). Therefore, the USACE has determined that the proposed construction within sand borrow area H will have no effect on historic properties.

[1] High Confidence Volumes are defined in the Surf City GRR and EA Main Report as those volumes with a high degree of confidence in both the quantity and quality of materials originally identified in the Surf City and North Topsail Beach and West Onslow Beach CSRM projects.

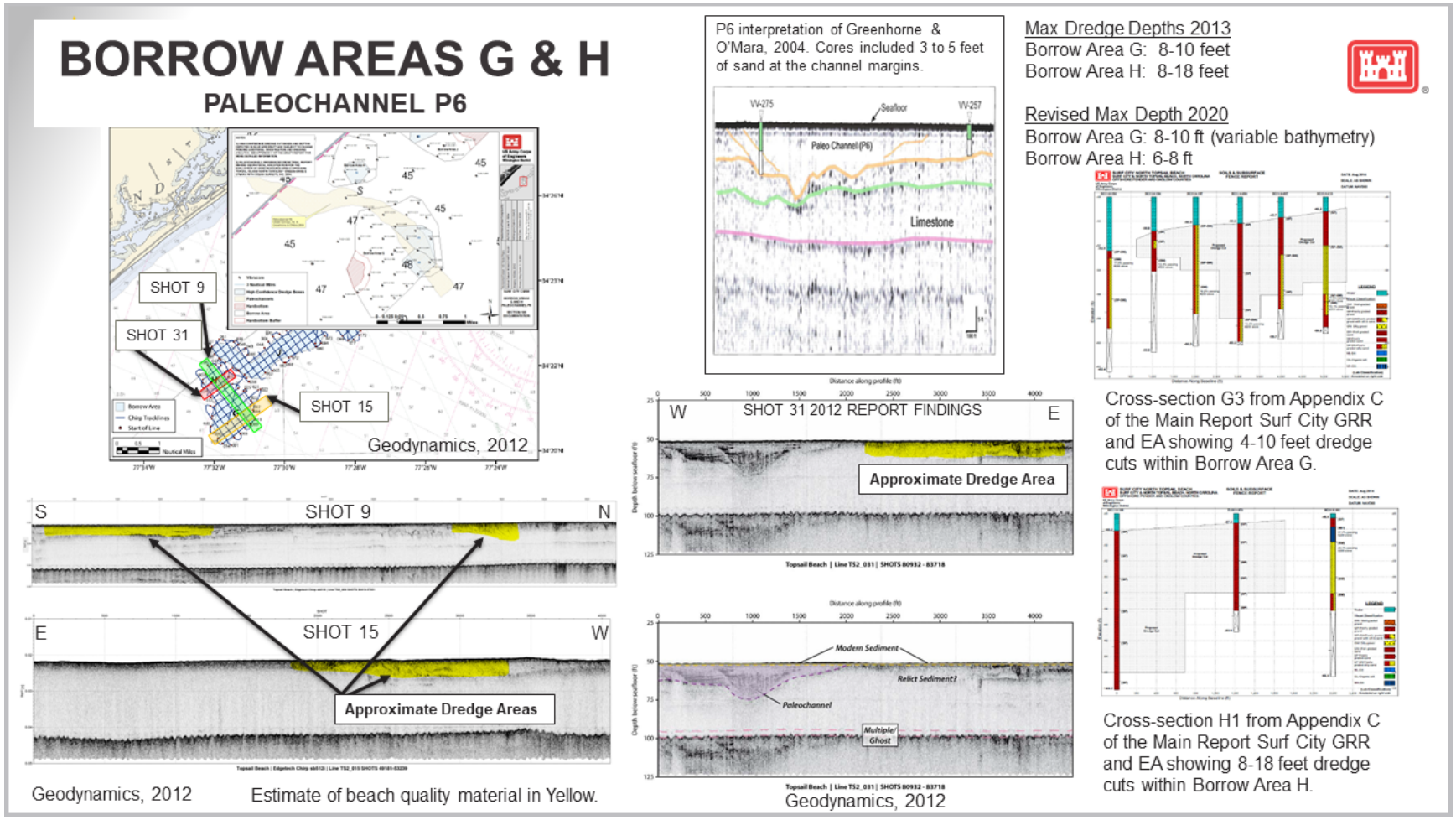

Figure 9. Paleochannel P6 underlying Sand Borrow Area G with surveyed hardbottom areas and buffers.

9.2.5 Sand Borrow Area J

Sand borrow area J is located approximately three to four miles seaward of central Surf City. Two independent paleochannels underlie the sand borrow area, one on the western end and one on the eastern end (Figure 10). The western paleochannel, P7, underlies a very small portion of the north end of the western side of the borrow area along the edge of the sand borrow area. The eastern paleochannel, P8, underlies the eastern side of the borrow and extends from the northern to the southern portion of the borrow (Greenhorne & O'Mara, 2004). Paleochannels in this area were found to "show a mix of well-defined, acoustically laminated infill and transparent to chaotic infill" (Geodynamics, 2012). Modern sediment thickness had the highest values in the vicinity of P8; however, core samples indicated a surficial layer of sand (SP) overlying either SM (SC11-V-140) or SM and black elastic silt (MH; SC11-V-170). In the western section, the highest values of modern sediment thickness occurred adjacent to hardbottom areas with the core samples supporting a mixed and reworked sediment package likely sourced from erosion of the adjacent hardbottom (SC11-V-158). Core samples for both dredge areas indicate the presence of gravel and cemented sands within the channel fill areas at depth.

Proposed dredge box estimates avoid most encounters of paleochannels except a small portion of the northwestern side of the borrow at P7. This section includes a shallow dredge cut of approximately 5 feet deep. Sub-bottom profiles in this area did not depict a well-developed channel in the dredge box intersection area. Acoustic signatures indicate a broad, fairly flat, erosional surface with mixed infill that becomes ambiguous with depth. Additionally, no magnetic or acoustic targets were identified in this sand borrow area (Hall, 2005). For these reasons, the USACE does not anticipate encountering ancient submerged landforms suitable for possessing archaeological sites. Based on available information and analyses, the USACE has determined that the proposed construction within sand borrow area J will have no effect on historic properties.

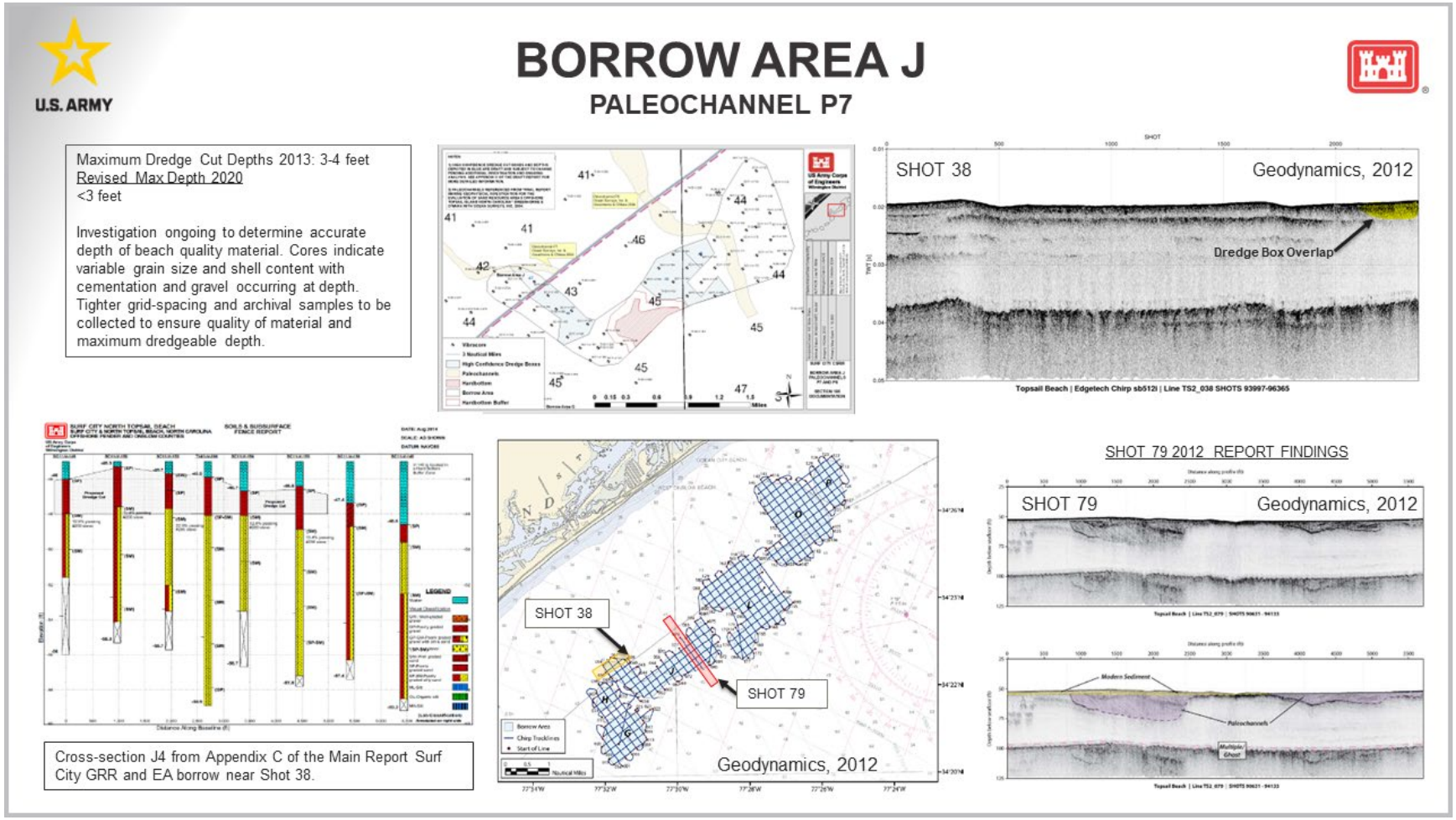

Figure 10. Paleochannels P7 and P8 underlying Sand Borrow Area J with surveyed hardbottom areas and buffers.

9.2.6 Sand Borrow Area L

Sand borrow area L is located approximately 0.5 miles from the eastern end of sand borrow area J and is parallel to the northern end of the Surf City limits. An independent paleochannel, paleochannel P9, underlies the sand borrow area at its northwestern side and extends across the length of the borrow to the southeastern end (Greenhorne & O'Mara, 2004). This sand borrow area was found to have shore-perpendicular sediment ridges consisting of coarser grained sorted bedforms similar to Borrow Area A. Surveys conducted in 2012 indicated a modern sediment thickness across the borrow of 2-4 feet with the largest accumulation along these sediment ridges (Geodynamics, 2012; Figure 11). Acoustic signatures indicate a variability in sediment type while core logs indicate a higher fines content, gravel, and consolidation at depth, all of which support a package of reworked sediments sourced from adjacent rock outcrops and likely occurring over multiple events of channel incision. Sub-bottom reflectors dip gently offshore with high variability in the composition of both the surficial and relict sands.

Relic sediments within the paleochannel delineated by Geodynamics in 2012 were found to have depths ranging from 5 feet to greater than 15 feet with the approximate depth of the channel ranging from 43-85 feet across the sand borrow area. This report also notes that there is a high degree of uncertainty in the designation of relict sands and that sand borrow area L appeared to have erosional scars with a "rubbly" surface in the bathymetry and slope. Sub-bottom profiles indicate a high degree of variability in the underlying geology, likely due to the presence of rock below the surficial sands (Geodynamics, 2012). Although proposed dredge cuts are relatively shallow, they do encounter these delineated relict paleochannel sands in some locations. Before being used for construction, additional geotechnical cores need to be collected to further elucidate subsurface conditions, potential paleochannel intersections, and quality of material in this sand borrow area. Given the variability of sediment infill and surficial sands, the uncertainty in the interpretation of relict sands, and the evidence for a highly reworked package of material sourced from underlying and adjacent rock and/or hardbottom areas, the USACE does not anticipate encountering ancient submerged landforms suitable for possessing archaeological sites and recognizes that additional data could better inform this conclusion. Additionally, no magnetic or acoustic targets were identified for this sand borrow area (Hall, 2004). Based on available information and analyses, the USACE has determined that the proposed construction within sand borrow area L will have no effect on historic properties.

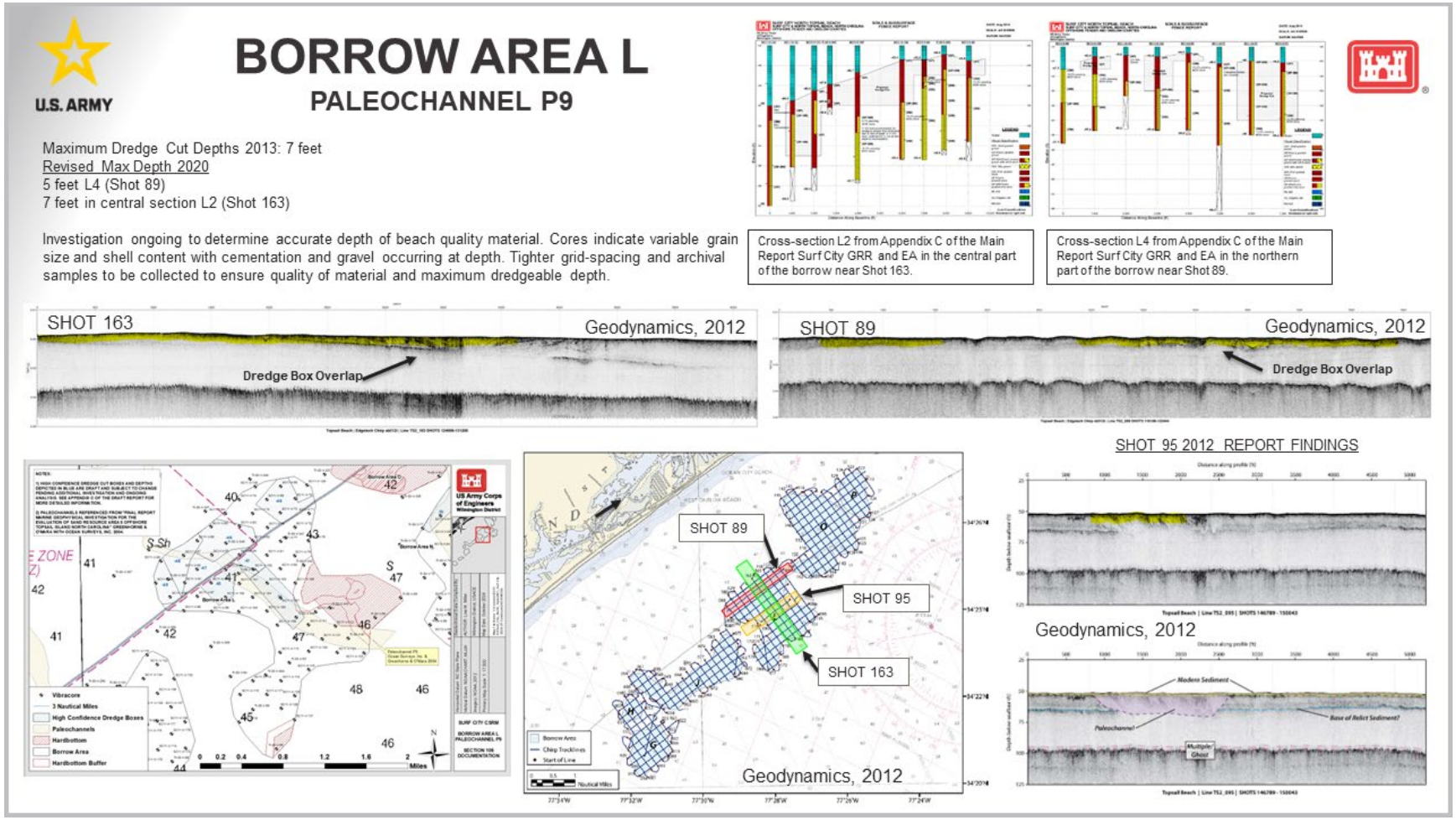

Figure 11. Paleochannel P9 underlying Sand Borrow Area L with surveyed hardbottom areas and buffers.

9.2.7 Sand Borrow Area N

Sand borrow area N is located approximately 4-6 miles from the northern end of Surf City and is less than 0.5 miles south of sand borrow area O. An independent paleochannel, P10, intersects the sand borrow area on the northeastern side and extends across the length of the borrow area before intersecting the southeastern end (Greenhorne & O'Mara, 2004; Figure 12). Surveys conducted by Geodynamics in 2013 reported a "complex morphology" with 3 distinct areas described as follows:

> *"The northwestern portion has a very low relief and is mostly complex due to the presence of small ripple scour features in the backscatter mosaic. These features wean out to an expansive open area of homogenous seafloor with minimal surficial features and almost no relief. The southwestern portion of Area N has a broken up portion of ledge-like features evident in the bathymetry and backscatter data. The northeastern region of Area N is dominated by ridge-like features of high intensity backscatter and elevation changes of 1-2 feet across these features. To the southwest of these ridge-like features is an area of higher intensity backscatter and slightly less elevation surrounded by small ripple scour features, similar to a signature of a previously dredged area."*

The 2013 survey found that the most extensive accumulation of modern sediment occurred near P10 with the channel incised to depths of approximately 75 feet. In addition, Geodynamics identified "Areas of Complex Morphology" (ACM) in both dredge overlap areas for sand borrow area N, which were described as areas that exhibit a higher slope than the surrounding seafloor, with high acoustic backscatter, erosional scars, and a "rubbly" type surface. Several of the sub-bottom profiles showed variability with several of them depicting a P10 that is not well defined in the subsurface. Sorted bedforms and reworked material appears to dominate the modern sediments while the relict horizon shows a high intensity indicative of sand or rock at depth and core logs support this interpretation with consolidation at depth and cemented sand and gravel reported in the field descriptions. Given the highly variable complex morphology and the chaotic signatures of the modern sediment, the potential for integrity within this part of P10 is low. Additionally, no acoustic or magnetic targets were identified for this sand borrow area (Hall, 2005). For these reasons, the USACE does not anticipate encountering ancient submerged landforms suitable for possessing archaeological sites. Based on available information and analyses, the USACE has determined that the proposed construction within sand borrow area N will have no effect on historic properties.

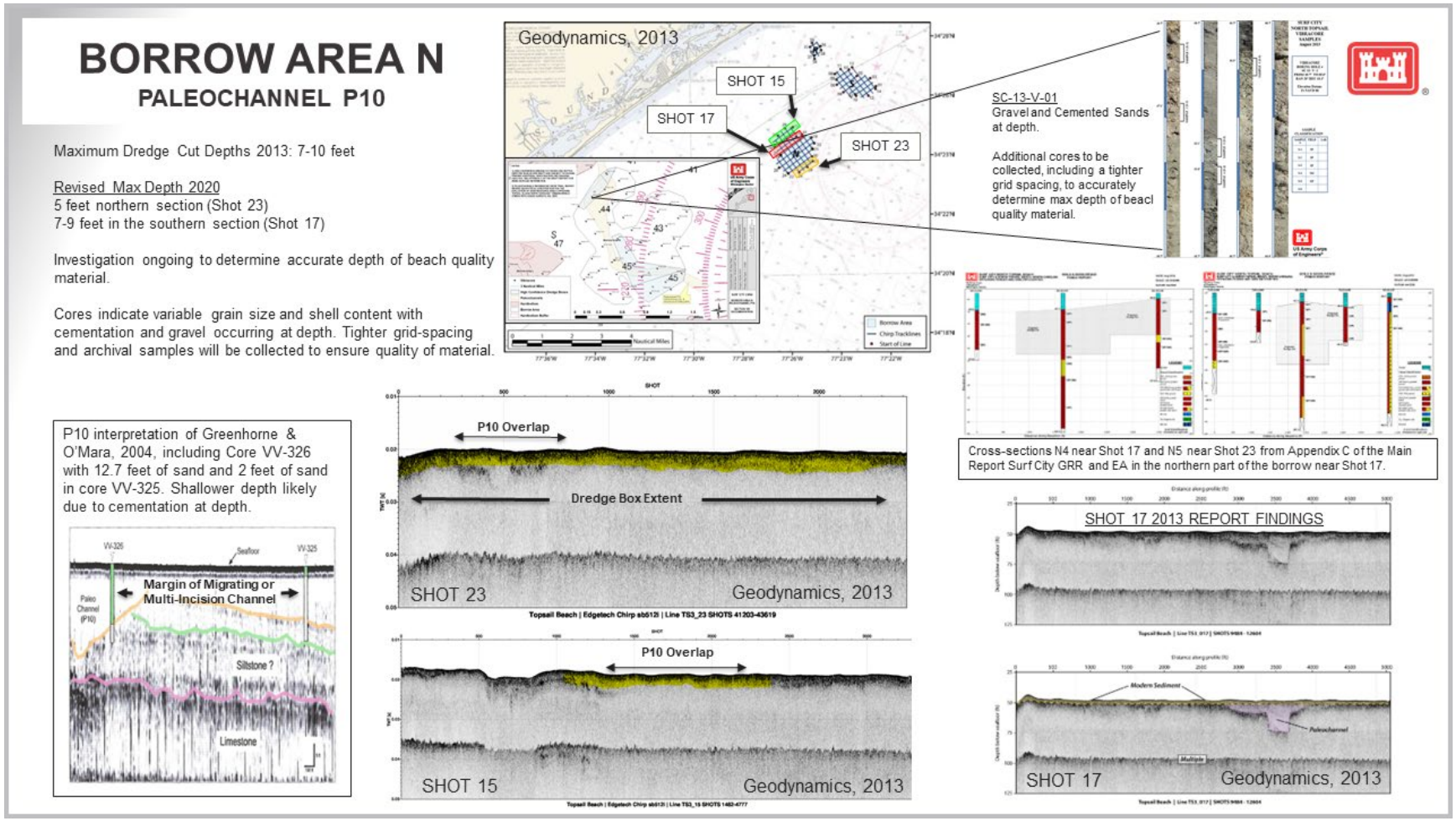

Figure 12. Paleochannel P10 underlying Sand Borrow Area N.

9.2.8 Sand Borrow Area O

Sand borrow area O is located less than 0.5 miles shoreward of sand borrow area N. Paleochannel P10 continues landward from sand borrow area N underlying the southwestern lobe of sand borrow area O with a smaller arm of P10 underlying the northwestern edge of the sand borrow (Greenhorne & O'Mara, 2004; Figure 13). Like other borrows in Onslow Bay, Borrow Area O was found to have the thickest accumulation of sand within shore-perpendicular sorted bedform ridges closer to shore (Geodynamics, 2012; Figure 13). Acoustic signatures appear to support integrity on the northern part of P10 with this part of the channel extending to approximately 85 feet of depth; however, this part of the channel does not intersect preliminary dredge cut boxes for this part of the borrow. The southwestern portion of P10 lies between two hardbottom outcrops with a variety of infill material from clean sand consolidated at depth, sands that become finer and consolidated with depth, and clay near the eastern edges of the channel. Acoustic signatures in the southern part of P10 appear less likely for integrity with chaotic signatures indicative of reworked material with consolidation at depth (SC-11-V-66 and 67) and clay to the eastern side (SC-11-V-58, 61, and 63). Core data indicates the presence of rock fragments at depth and cemented sands further suggesting that sediments in this area consists of mostly reworked material sourced from scour of the adjacent rock outcrops. High-confidence preliminary dredge cuts for the southern portion ranges from 4-6 feet[2]. Although dredge cuts may encounter paleochannel sands, the USACE does not anticipate encountering ancient submerged lands suitable for possessing archaeological sites. Additionally, no acoustic or magnetic targets were identified for this sand borrow area (Hall, 2005). Therefore, the USACE has determined that the proposed construction within sand borrow area O will have no effect on historic properties.

9.3 Type 3 – Sand Borrow Areas B, C, and D

Sand borrow areas B, C, and D have been classified here as Type 3 borrow areas (Figure 14). These areas are underlain by paleochannels; however, additional geotechnical data is needed to determine the quantity and quality of sediments within these borrow areas for beach placement. Paleochannels may or may not contain suitable sediments. At this stage in the investigation, the location of beach quality sand both laterally and at depth is unknown and could occur within or beyond the paleochannel areas. Sand borrow areas B and C are underlain by the ancestral New Topsail River Inlet, paleochannel P1. Sand borrow area D is underlain by paleochannel P4. These borrow areas were originally delineated at the feasibility level for the West Onslow Beach and Surf City and North Topsail Beach projects. They are included here as supplemental borrow areas that could potentially be used in the future pending completion of further investigation, including tightly spaced (approximately 500 feet) cores and seismic data.

[2] High Confidence Volumes are defined in the Surf City GRR and EA Main Report as those volumes with a high degree of confidence in both the quantity and quality of materials originally identified in the Surf City and North Topsail Beach and West Onslow Beach CSRM projects.

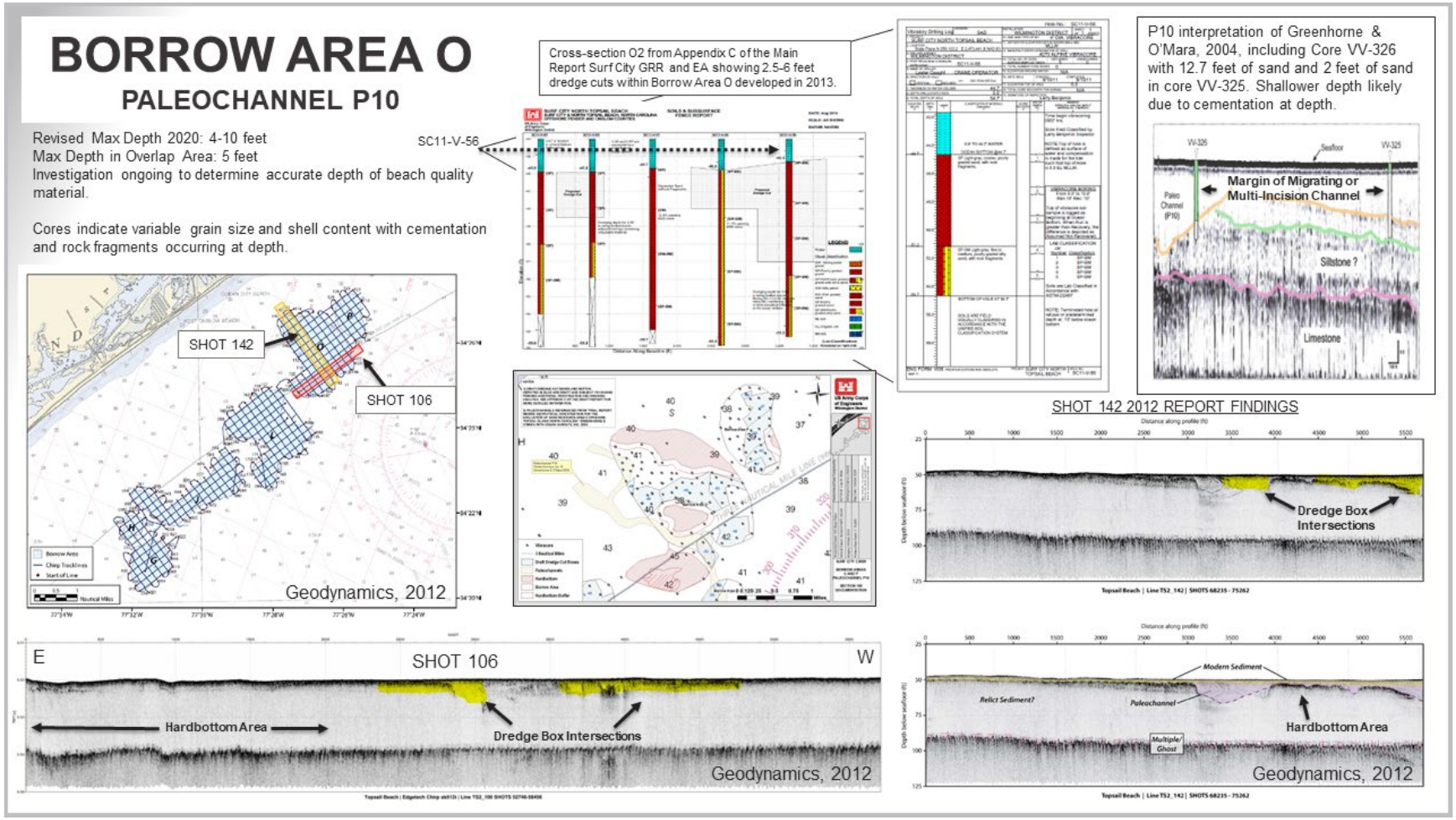

Figure 13. Paleochannel P10 underlying Sand Borrow Area O with surveyed hardbottom areas and buffers.

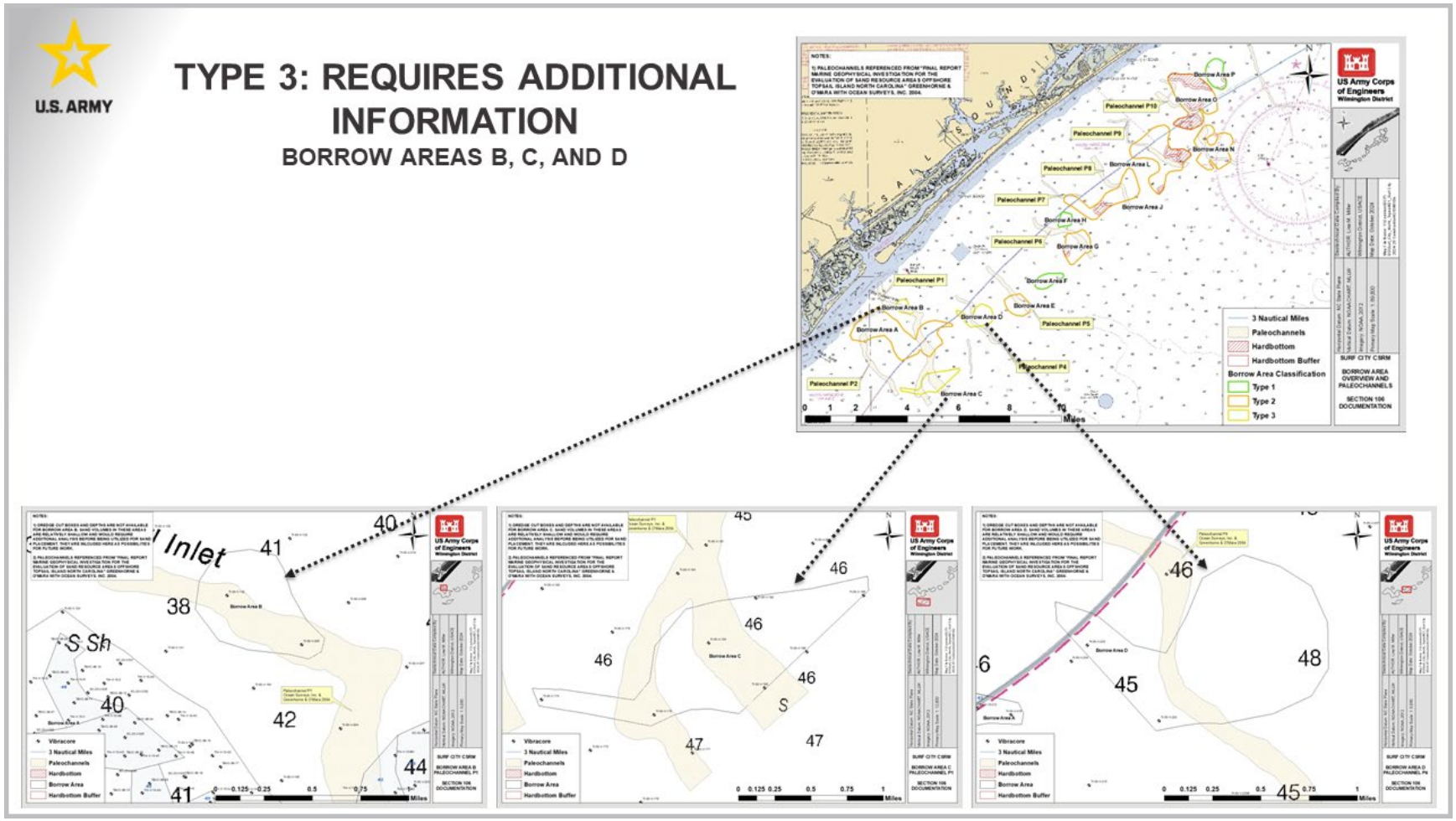

Figure 14. Overview of Type 3 Sand Borrow Areas B, C, and D which would require additional investigation to discern potential intersections with Paleochannels P1 and P4.

9.3.1 Sand Borrow Area B

Sand borrow area B is located adjacent to sand borrow area A and nearly parallel with New Topsail Inlet. Paleochannel P1 underlies approximately half of sand borrow area B from the northwestern end to the southeastern end before extending seaward and turning southwest towards sand borrow area A and sand borrow area C (Figure 15). No acoustic or magnetic targets were identified in this sand borrow area (Hall, 2004). In order to be utilized as a sand source, sand borrow area B would first require additional subsurface investigation to further elucidate subsurface conditions and sediment quantity and quality. Based on current information, no archaeological sites are recorded within sand borrow area B. Therefore, USACE has been determined that no historic properties will be effected by the proposed undertking. Additional data and analysis will be needed to discern potential intersections among proposed dredge cuts, acceptable sand resources, and ancient submerged landforms within this offshore sand borrow area.

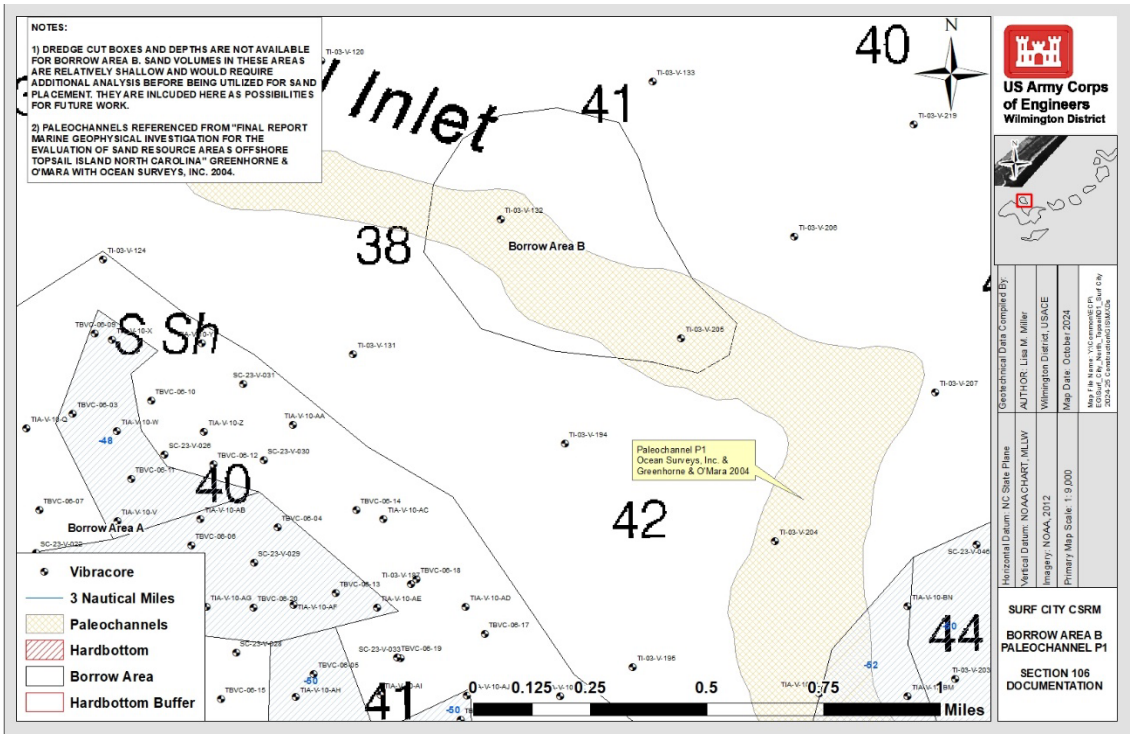

Figure 15. Paleochannel P1 underlying Sand Borrow Area B.

9.3.2 Sand Borrow Area C

Sand borrow area C is located approximately one mile southeast of sand borrow area A. Paleochannel P1, which underlies the northern and southern portions of sand borrow area A, continues seaward and splits into two channels which underlay both the northeastern and southwestern ends of sand borrow area C (Figure 16). No acoustic or magnetic targets were identified in this sand borrow area (Hall, 2004). In order to be utilized as a sand source, sand borrow area C would first require additional subsurface investigation to further elucidate subsurface conditions and sediment quality and quantity. Based on current

information, no archaeological sites are recorded within sand borrow area C. Therefore, USACE has been determined that no historic properties will be effected by the proposed undertaking. Additional data and analysis will be needed to discern potential intersections among proposed dredge cuts, acceptable sand resources, and ancient submerged landforms within this offshore sand borrow area.

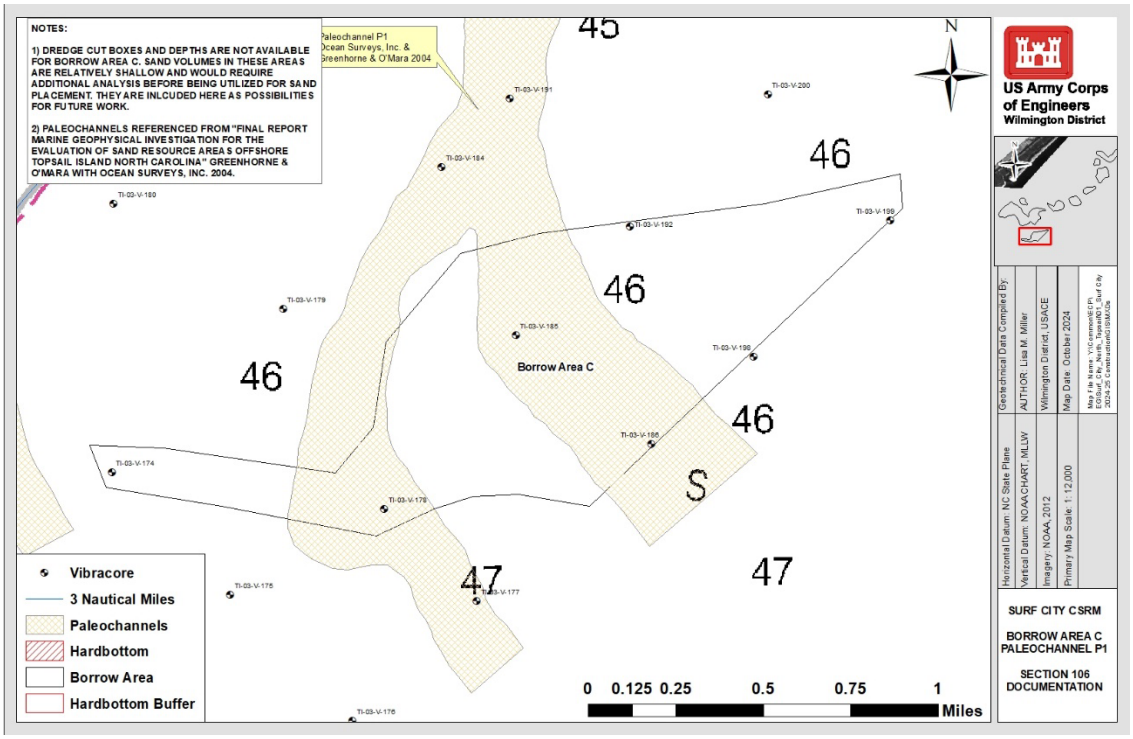

Figure 16. Paleochannel P1 underlying Sand Borrow Area C.

9.3.3 Sand Borrow Area D

Sand borrow area D is located approximately half a mile from the most eastern tip of sand borrow area A and approximately 3.5 miles south of Topsail Beach. No acoustic or magnetic targets were identified in this sand borrow area (Hall, 2004). An independent paleochannel, paleochannel P4, underlies the western side of the sand borrow area and extends from the northern to the southern end of the sand borrow area (Greenhorne and O'Mara, 2004; Figure 17). P4 contains a surficial veneer of sand and gravel that is approximately 1-4 feet thick and discontinuous (Greenhorne and O'Mara, 2004; USACE, 2010). In order to be utilized as a sand source, sand borrow area D would first require additional subsurface investigation to further elucidate subsurface conditions and sediment quantity and quality. Based on current information, no archaeological sites are recorded within sand borrow area D. Therefore, USACE has been determined that no historic properties will be effected by the proposed undertaking. Additional data and analysis will be needed to discern potential intersections among proposed dredge cuts, acceptable sand resources, and ancient submerged landforms within this offshore sand borrow area.

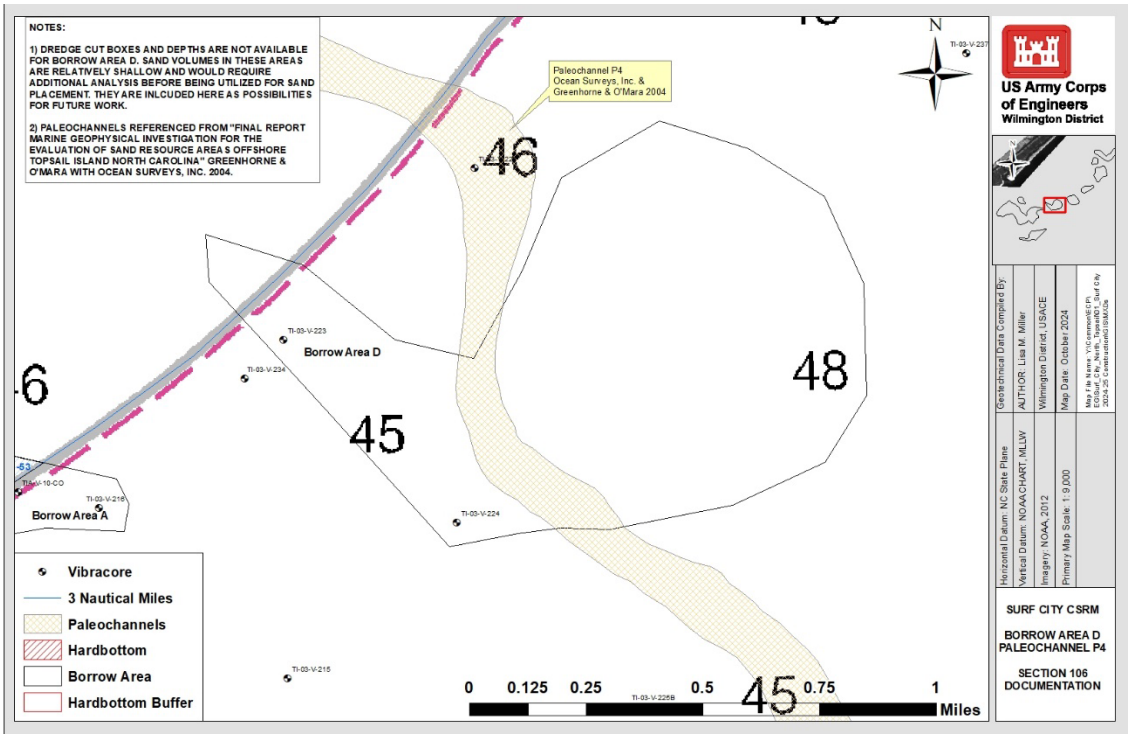

Figure 17. Paleochannel P4 underlying Sand Borrow Area D.

10.0 CONCLUSIONS AND RECOMMENDATIONS

Based on previous consultation, a detailed records and literature review, an examination of existing geomorphological data, and an updated offshore sand borrow area design to include refined depth cut information (i.e., horizontal and vertical), the USACE has identified no historic properties listed in, or considered eligible for, the National Register of Historic Places within the APE. Similarly, to date, the USACE is not aware of any resources to which tribes may ascribe cultural significance within the APE.

In accordance with 36 CFR §800.4(d) (1), this agency has determined that the proposed undertaking on the beach and within all delineated sand borrow areas A, B, C, D, E, F, G, H, J, L, N, O, and P will have no effect to historic properties.

Sand borrow areas B, C, and D do not include design level sand borrow area delineation and are considered future options that may be developed following future geotechnical investigations. Should these sand borrow areas be selected as sources of beach quality material following future geotechnical subsurface investigations, and the proposed dredge cuts within these sand borrow areas intersect an ancient submerged landforms situated within the APE, then the USACE will reconsult with interested parties to inform the dredging activities prior to project construction per 36CFR800.13(b): Post-discovery review.

A project-specific programmatic agreement has been executed to guide the compliance efforts under Section 106 for the pump-out locations and submerged pipeline routes in areas between the shoreline and offshore borrow areas and is presented in **Appendix S**.

11.0 UNANTICIPATED DISCOVERIES

If historic properties are discovered during implementation of the proposed undertaking, USACE shall cease all work within a vicinity of the discovery and implement reasonable measures that avoid, minimize and/or mitigate effects to the resource. Until a formal evaluation can be made of the cultural resource, the discovery will be treated as a historic property eligible for listing to the NRHP.

USACE shall notify the consulting parties in writing within 48 hours of the discovery and request their participation to consult under 36 C.F.R. § 800.13, Post Review Discoveries. Minimally, the notification will include a description of the discovery, the events leading to the discovery, the steps being taken to avoid further damage to the discovery, anticipated effort to document and evaluate the discovery's historic significant and a list of consulting parties.

USACE will then evaluate the historic significance and the NHRP eligibility of the discovery, providing documentation in a letter report to consulting parties for a 30-day review and comment period. The following conditions will guide subsequent conditions in this process:

1. If the discovery is determined ineligible for the listing to the NRHP, then construction activities within the area of the discovery is permitted to continue with fourteen (14) calendar days from date the determination.
2. If it is determined that the cultural resource is eligible for listing to the NRHP, then the suspension of work will continue. USACE and consulting parties will determine the best course of action needed to avoid, minimize and/or mitigate adverse effects to the discovery.

Procedures guiding the discovery of human remains and associated burial items will generally follow a similar process. The North Carolina Commission of Indian Affairs and all Tribes with ancestral ties to the APE will be added as consulting parties for the discovery. No photographs or scientific analysis beyond the identification of the remains will be permitted. The treatment of these remains and associated items shall be guided by the ACHP Policy Statement Regarding Treatment of Burial Sites, Human Remains, and Funerary Objects, National Historic Preservation Act and its regulatory guidance (36 C.F.R. Part 800), U.S. Army Corps of Engineers, Policy Guidance Letter No. 57 (1998) Indian Sovereignty and Government-to-Government Relations with Indian Tribes and North Carolina General Statute Chapter 70, Article 3 Unmarked Human Burial and Human Skeletal Remains Protection Act, and 43CFR10.4 of the Native American Graves Protection and Repatriation Act (NAGPRA).

12.0 REFERENCES

Belknap, D.F., 1982. Amino acid racemization from C14 dated "Mid-Wisconsin" mollusks of the Atlantic coastal plain, Geological Society of America Abstracts with Programs, 14: 4.

Blackwelder, B.W., MacIntyre, I.G., and Pilkey, O.H., 1982. Geology of the continental shelf, Onslow Bay, North Carolina, as revealed by submarine outcrops. *Bulletin of the American Association of Petroleum Geologists* 66: 44-56.

Cacchione D.A., Drake, D.E., Grant, W.D., and Tate, G.B., 1984. Rippled scour depressions on the inner continental shelf off central California. *Journal of Sedimentary Petrology* 54(4): 1280-1291.

Clark, J.S., Overpeck, J.T., Webb, III, T., and Patterson, W.A., 1986. Pollen stratigraphic correlation and dating of beach-barrier peat sections: *Review of Palaeobotany and Palynology* 47(1-2): 145-168.

Cleary, W.J., 1968. Marine Geology of Onslow Bay: MS Thesis, Department of Geology, Duke University, Durham, North Carolina.

Cleary, W.J. and Thayer, P.A., 1973. Petrography of carbonate sands on the Carolina continental shelf. *Gulf Coast Association of Geological Societies Transactions* 23: 288-304.

Cleary, W.J and Hosier, P.E., 1987. North Carolina coastal geologic hazards: an overview. *Environmental & Engineering Geoscience* XXIV(4): 469-488.

Cleary, W.J., 2002. *An assessment of the availability of beachfill quality sand offshore Topsail Beach, Pender County, N.C.*, prepared for U.S. Army USACE of Engineers, Wilmington District.

Conery, I., Walsh, J.P., Mallinson, D., and Corbett, D.R., 2021. Marine Geology and Sand Resources of the Southern North Carolina Inner Shelf. *Marine Georesources & Geotechnology* 40(9): 1084-1107.

Dragoo, D.W., 1976. Eastern North American Prehistory. *American Antiquity* 41(1).

Ford, R. I. 1977. *Evolutionary Ecology and the Evolution of Human Ecosystems: A Case Study from the Midwestern U.S.A. Explanation of Prehistoric Change*, edited by James N. Hill, pp. 153-184. University of New Mexico Press, Albuquerque.

Gayes P.T., Knapp CC, Knapp J, Brantley D, White S, Battista B, Spirek J.D., Brown D.M., Christian L.M., Bradley R.J., Harris M.S., 2019. A*tlantic Offshore Wind Energy Development: Geophysical Mapping and Identification of Paleolandscapes and Historic Shipwrecks Offshore South Carolina*. Conway (SC): US Department of the Interior, Bureau of Ocean Energy Management. OCS Study BOEM 2019-008. 189 p.

Geodynamics, 2011. *High-Resolution Geophysical Surveys of Borrow Area A Offshore Topsail Beach, North Carolina*, Contract W912HN-10-D-0013, September 2011, Report for the United States Army USACE of Engineers, Wilmington District.

Geodynamics, 2012. *High-resolution geophysical surveys of Borrow Areas G, H, J, L, O, and P Offshore Topsail Beach, North Carolina*, Contract W912HN-10-D-0013, November 2011-January 2012, Report for the United States Army USACE of Engineers, Wilmington District.

Geodynamics, 2013. *Multibeam & Geophysical Surveys of Designated Borrow Areas (E, F, N, R, S) Topsail, North Carolina*, Contract W912HN-10-D- 0013, September 2013-February 2014, Report for the United States Army USACE of Engineers, Wilmington District.

Gibling, M.R., 2006. Width and thickness of fluvial channel bodies and valley fills in the geological record: A literature compilation and classification. *Journal of Sedimentary Research* 76(5): 731–77.

Greenhorne and O'Mara, Inc., 2004. *Marine Geophysical Investigation for the Evaluation of Sand Resource Areas Offshore Topsail Island, North Carolina, New Topsail Inlet to New River Inlet in Onslow Bay*, OSI Report #03ES014-F, sub- consultant Ocean Surveys, Inc.

Griffin, J.B., 1967. Eastern North American Archaeology: A Summary. *Science* 156: 175-191.

Hall, W., 2004. *Archaeological Remote Sensing Survey of Topsail and West Onslow Beaches Offshore Borrow Areas*, Mid-Atlantic Technology and Environmental Research, Inc. Report for the U.S. Army USACE of Engineers, Wilmington District.

Hall, W., 2005. *Archaeological remote sensing survey of Topsail and West Onslow beaches offshore borrow areas*, Mid-Atlantic Technology and Environmental Research, Inc. Report for the United States Army USACE of Engineers, Wilmington District.

Harris, M.S., 2018. *Paleogeography and Sea Level Positions on the Southeastern U.S. Continental Margin Since the LGM: Implications to Potential Habitation Sites*. In Early Human Life on the Southeastern Coastal Plain.

HDR Engineering, Inc., 2002. *An Assessment of the Availability of Beachfill Quality Sand Offshore Topsail Beach, Pender County, NC*, Project Report for the U.S. Army USACE of Engineers, Wilmington District, 28p.

HDR Engineering, Inc., 2003. *An Assessment of the Availability of Beachfill Quality Sand Offshore North Topsail Beach and Surf City, North Carolina*, Project Report for the U.S. Army USACE of Engineers, Wilmington District, 41p.

Hine, A.C. and Snyder, S.W., 1985. Coastal Lithosome preservation: Evidence from the shoreface and inner continental shelf off Bogue Banks, North Carolina. *Marine Geology* 63: 307-330.

Horton, B.P., Peltier, W.R., Culver, S.J., Drummond, R., Engelhart, S.E., Kemp, A.C., Mallinson, D., Theiler, E.R., Riggs, S.R., Ames, D.V., and Thomson, K.H., 2009. Holocene sea level changes along the North Carolina Coastline and their implications for glacial isostatic adjustment models. *Quaternary Science Reviews* 28(17-18): 1725-1736.

Jennings, J.D., 1974. *Prehistory of North America*. McGraw-Hill Book Company, New York.

Long, J.H., Hanebuth, T.J.J., Alexander, C.R., and Wehmiller, J.F., 2021. Depositional environments and stratigraphy of Quaternary paleochannel systems offshore of the Georgia Bight, southeastern USA. *Journal of Coastal Research* 37(5).

Mid-Atlantic Technology and Environmental Research, Inc., 2004. *Archaeological Remote Sensing Survey of Topsail and West Onslow Beaches Offshore Borrow Area.* Prepared for the Wilmington District, U.S. Army USACE of Engineers, under Contract Number: DACW54-03-D-0002 Delivery Order Number: 003. 28 December 2004.

Mid-Atlantic Technology and Environmental Research, Inc., 2005. *An Archaeological Remote Sensing Survey of Surf City-North Topsail Beaches Offshore Borrow Areas.* Prepared for the Wilmington District, U.S. Army Corps of Engineers, under Contract Number: DACW54-03-D-0002 Delivery Order: 0005. 23 September 2005.

McQuarrie, M.E., 1998. Geologic framework and short-term, storm induced changes in shoreface morphology: Topsail Beach, NC: MS Thesis, Department of the Environment, Duke University, Durham, 105p.

Meisburger, E.P., 1979. Reconnaissance geology of the inner continental shelf, Cape Fear Region, North Carolina, United States. U.S. Army Corps of Engineers, Coastal Engineering and Research Center, Technical Report TP79-3, 135p.

Milliman, J.D., Pilkey, O.H., and Ross, D.A., 1972. Sediments of the continental margin off the eastern United States. *GSA Bulletin* 83(5): 1315-1334.

Murray, A.B. and Thieler, E.R., 2004. A New Hypothesis and Exploratory Model for the Formation of Large-Scale Inner-Shelf Sediment Sorting and “Rippled Scour Depressions.” *Continental Shelf Research* 24: 295-315.

Ocean Surveys, Inc., 2004. *Final report marine geophysical investigation for the evaluation of sand resource areas offshore Topsail Island, North Carolina*, Contract DACW54-2-D-006, prepared for U.S. Army Corps of Engineers, Wilmington District, 44p. with plates.

Price, M.L., Samford, P.M., and Steponaitis, V.P., 2001. *Intrigue of the Past:*

North Carolina's First People. Monograph Series No. 3. Chapel Hill, N.C.: Research Laboratories of Archaeology, University of North Carolina Chapel Hill.

Pilkey, O.H., 1968. Sedimentation processes on the Atlantic southeastern United States continental shelf. *Atlantic Geology* 4(2): 49-51.

Riggs, S.R., Snyder, S.W., Hine, A.C., Ellington, M.D., and Mallette, P.M., 1985. Geologic framework of the phosphate resources in Onslow Bay, North Carolina continental shelf. *Economic Geology* 80: 716-738.

Riggs, S.R., Cleary, W.J., and Snyder, S.W., 1995. Influence of inherited geologic framework on barrier shoreface morphology and dynamics. *Marine Geology* 126: 213-234.

Riggs, S.R., Ambrose, W.G., Cook, J.W., and Snyder, S.W., 1996a. Sediment production on sediment-starved continental margins: The interrelationship between hard bottoms, sedimentological and benthic community processes, and storm dynamics. *Journal of Sedimentary Research* 68(1): 155-168.

Riggs, S.R., Snyder, S.W., Hine, A.W., and Mearns, 1996b. Hardbottom morphology and relationship to the geologic framework: Mid-Atlantic continental shelf. *Journal of Sedimentary Research* 66(4): 830-846.

Science Applications, Inc., 1981. *A Cultural Resource Survey of the Continental Shelf from Cape Hatteras to Key West, Final Report Volume III.* Prepared for the Bureau of Land Management, New Orleans, LA.

Snyder, S.W., Hine, A.C., and Riggs, S.R., 1982. Miocene seismic stratigraphy, structural framework, and sea level cyclicity, North Carolina continental shelf. *Southeastern Geology* 23: 247-266.

Snyder, S.W., Hoffman, C.W., and Riggs, S.R., 1994. Seismic stratigraphy framework of the inner continental shelf: Mason Inlet to New Inlet, North Carolina. *North Carolina Geological Survey Bulletin 96*.

Stille, P., Riggs, S., Clauer, N., Ames, D., Crowson, R., and Snyder, S., 1994. Sr and Nd isotopic analysis of phosphorite sedimentation through one Miocene high-frequency depositional cycle on the North Carolina continental shelf. *Marine Geology* 117(1-4): 253-273.

Thieler, R.E., Gayes, P.T., Schwab, W.C., and Harris, M.S., 1999. Tracing sediment dispersal on nourished beaches: two case studies. *Coastal Sediments*, New York ASCE, p. 2118-2136.

Thieler, R.E., Pilkey, Jr., O.H., Cleary, W.J., and Schwab, W.C., 2001. Modern sedimentation on the shoreface and inner continental shelf at Wrightsville Beach, North Carolina, U.S.A. *Journal of Sedimentary Research* 71(6): 958-970.

Tidewater Atlantic Research, Inc., 2004. *Archaeological Damage From Offshore Dredging: Recommendations For Pre-Operational Surveys and Mitigation During Dredging To Avoid Adverse Impacts*. Prepared for Department of the Interior, Minerals Management Service, Leasing Division, Sand and Gravel Unit, Herdon, Virginia under Contract No. 01-02-CT-85139, OCS Report MMS 2004-005.

TRC Environmental Corporation, 2012. Inventory and analysis of archaeological site occurrence on the Atlantic outer continental shelf. U.S. Dept. of the Interior, Bureau of Ocean Energy, Gulf of Mexico OCS Region, New Orleans, LA. OCS Study BOEM 2012-008. 324 pp.

United States Army Corps of Engineers, Wilmington District, 2010. *Integrated Feasibility Report and Environmental Impact Statement, Surf City and North Topsail Beach, North Carolina, Coastal Storm Damage Reduction Project*.

United States Army Corps of Engineers, Wilmington District, 2013. *Geotechnical Appendix – West Onslow Beach and New River Inlet (Topsail Beach), NC, Coastal Storm Damage Reduction Project*.

Ward, H.T. and Davis, Jr., R.P.S., 1999. *Time Before History: The Archaeology of North Carolina.* University of North Carolina Press, Chapel Hill and London.

Attachment 1: Correspondence*

(*Arranged chronologically from oldest to newest)

North Carolina Department of Cultural Resources
State Historic Preservation Office
Peter B. Sandbeck, Administrator

Michael F. Easley, Governor
Lisbeth C. Evans, Secretary
Jeffrey J. Crow, Deputy Secretary

Office of Archives and History
Division of Historical Resources
David Brook, Director

August 3, 2005

Richard H. Kimmel
Environmental Resources Section
Department of the Army
Wilmington District, Corps of Engineers
P.O. Box 1890
Wilmington, NC 28402-1890

RE: Draft Report: *An Archaeological Remote Sensing Survey of Surf City-North Topsail Beaches Borrow Areas,* Bib #5524, Pender and Onslow Counties, CH 01-0497

Dear Mr. Kimmel:

We have received the draft report summarizing the remote sensing surveys conducted by Mid-Atlantic Technology and Environmental Research, Inc. (M-AT/ER) in proposed offshore sand borrow areas near Surf City and North Topsail Beaches.

No previously recorded archaeological sites occur within the seven proposed sand borrow areas. M-AT/ER conducted marine magnetometer and side-scan sonar surveys of the proposed borrow areas for the purpose of identifying any potential archaeological resources that might be impacted by the offshore dredging activities. The survey identified no single source magnetic anomalies or acoustic targets with characteristics suggesting significant cultural resources within the proposed sand borrow areas. Because of these findings, we concur with the recommendation for no additional archaeological investigations related to sand mining activities in the seven proposed borrow areas.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, please contact Renee Gledhill-Earley, environmental review coordinator, at 919/733-4763. In all future communication concerning this project, please cite the above-referenced tracking number.

Sincerely,

Peter Sandbeck

	Location	Mailing Address	Telephone/Fax
ADMINISTRATION	507 N. Blount Street, Raleigh NC	4617 Mail Service Center, Raleigh NC 27699-4617	(919)733-4763/733-8653
RESTORATION	515 N. Blount Street, Raleigh NC	4617 Mail Service Center, Raleigh NC 27699-4617	(919)733-6547/715-4801
SURVEY & PLANNING	515 N. Blount Street, Raleigh, NC	4617 Mail Service Center, Raleigh NC 27699-4617	(919)733-6545/715-4801

NORTH CAROLINA STATE CLEARINGHOUSE
DEPARTMENT OF ADMINISTRATION
INTERGOVERNMENTAL REVIEW

COUNTY: PENDER
ONSLOW

H05: IRRIGATION/DRAINAGE/FLOOD CONTROL

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JAN 15 2010
HISTORIC PRESERVATION OFFICE

STATE NUMBER: 10-E-0000-0249
DATE RECEIVED: 01/14/2010
AGENCY RESPONSE: 03/03/2010
REVIEW CLOSED: 03/08/2010

MS RENEE GLEDHILL-EARLEY
CLEARINGHOUSE COORDINATOR
DEPT OF CULTURAL RESOURCES
STATE HISTORIC PRESERVATION OFFICE
MSC 4617 - ARCHIVES BUILDING
RALEIGH NC

CH-01-0497
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DEPT OF TRANSPORTATION
EASTERN CAROLINA COUNCIL

FEB 2010 RECEIVED DCR

Due 2/1/10

PROJECT INFORMATION

APPLICANT: Department of the Army
TYPE: National Environmental Policy Act
Draft Environmental Impact Statement

DESC: Develop Coastal Storm Damage Reduction plan for Surf City and North Topsail Beach

The attached project has been submitted to the N. C. State Clearinghouse for intergovernmental review. Please review and submit your response by the above indicated date to 1301 Mail Service Center, Raleigh NC 27699-1301.

If additional review time is needed, please contact this office at (919)807-2425.

AS A RESULT OF THIS REVIEW THE FOLLOWING IS SUBMITTED: ☒ NO COMMENT ☐ COMMENTS ATTACHED

SIGNED BY: Renee Gledhill-Earley DATE: 2.5.10

JAN 19 10

DEPARTMENT OF THE ARMY
WILMINGTON DISTRICT, CORPS OF ENGINEERS
69 DARLINGTON AVENUE
WILMINGTON, NORTH CAROLINA 28403-1343

May 6, 2020

Planning and Environmental Branch - Environmental Resources Section

Mrs. Renee Gledhill-Earley, Environmental Review Coordinator
North Carolina State Historic Preservation Office
4617 Mail Service Center
Raleigh, North Carolina 27699-4617

Dear Mrs. Gledhill-Earley:

The U.S. Army Corps of Engineers Wilmington District (Corps) is assessing effects to cultural resources associated with the Surf City and North Topsail Beach Coastal Storm Damage Reduction (SCNTB CSDR) Project[1] (hereafter Project; ER 20-0050). Specifically, the Corps is assessing effects associated with pump-out activities in areas between identified offshore sand borrow areas and the shoreline, for the entirety of the Project's footprint (Figures 1 and 2). The contract for construction of the SCNTB CSDR Project will include language allowing flexibility for the Contractor to determine the best equipment to use in constructing the Project; however, based on other similar CSDR projects in the region, it's anticipated that a hopper dredge with pump-out capability will be used to extract and temporarily hold the sand obtained from the borrow sites. Once the hopper (hull) is filled to capacity with sand, it would move to a buoy or floating platform closer to shore (between the offshore borrow site and shore) that would be connected to a submerged pipeline that extends to the placement location on the beach. The sand in the hopper would then be pumped through the pipe to the beach. The location of the pump-out buoy or platform would vary, depending on which offshore borrow site is being used. All potential borrow areas[2] have been previously coordinated with your office and reviewed for compliance regarding Section 106 of the National Historic Preservation Act (NHPA; Attachment 1).

Table 7.2 and Section 8.06 of the Project's Integrated Feasibility Report and Environmental Impact Statement[1] include text stating "To assure the risk of potential impacts to cultural resources within inshore areas subject to pump-out activities are avoided, specific pump-out locations would be identified, surveyed, and investigated for cultural resources in conjunction with hard bottom surveys before commencement of nourishment activities." This text was included to provide a plausible path forward concerning project implementation/construction and, chiefly, to ensure compliance with Section 106 of the NHPA regarding pump-out activities' relationship with submerged cultural resources. The Corps remains committed to avoiding Project impacts relating to cultural resources; however, to most efficiently use Project funds, the Corps now proposes to identify areas where pump-out activities (i.e., submerged dredge pipeline routes, pipeline anchor locations, etc.) **cannot** occur rather than identifying specific areas where they are to occur. The Corps feels that this proposal also satisfies outstanding

[1] https://www.saw.usace.army.mil/Missions/Coastal-Storm-Risk-Management/Surf-City-and-N-Topsail-Beach/
[2] Mid-Atlantic Technology and Environmental Research, Inc. (2005). An Archaeological Remote Sensing Survey of Surf City-North Topsail Beaches Offshore Borrow Areas.

obligations under Section 106 and will provide Contractors flexibility in use of their equipment, given the distances separating borrow areas from the shoreline.

Unofficial communication with the North Carolina Office of State Archaeology's Underwater Archaeology Branch has revealed that all known submerged cultural resources requiring avoidance between the Projects' borrow areas and the shoreline (Figures 1 and 2) are identified in Figure 3, and are concentrated towards the southwestern extent of the Project near Topsail Inlet. Furthermore, best available information indicates that the probability of encountering submerged cultural resources in the Project area other than those shown in Figure 3 is low. The Corps proposes to avoid these identified resources and implement 300-foot radii buffers around them during pump-out activities.

Regarding continued compliance with Section 106 of the NHPA, the Corps has determined that there is a low likelihood that cultural resources within the Project's footprint, and specifically between potential borrow areas and the shoreline, will be affected by pump-out activities (i.e., submerged dredge pipeline routes, pipeline anchor locations, etc.) as long as these activities occur no nearer than 300-feet from the center points of identified submerged cultural resources as shown in Figure 3. At your earliest convenience, please provide comments regarding our determinations to include the coordinates of the resources shown in Figure 3, so that avoidance measures can be accurately included in contract plans and specifications. If you have any questions, please contact Mr. Justin Bashaw, Environmental Resources Section, at Justin.P.Bashaw@usace.army.mil, or you may call him at (910) 251-4581.

Sincerely,

OWENS.JENNIFER.L.1229795151 Digitally signed by OWENS.JENNIFER.L.1229795151 Date: 2020.05.06 09:01:24 -04'00'

Jennifer L. Owens
Chief, Environmental Resources Section

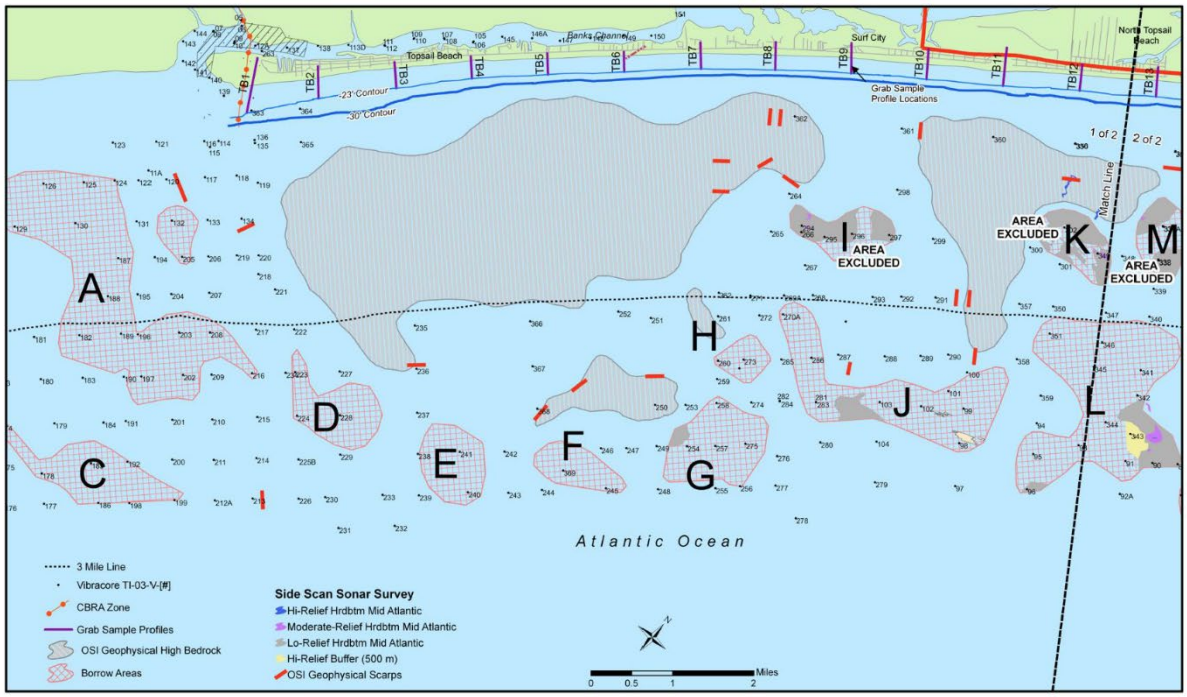

Figure 1. Surf City and North Topsail Beach Coastal Storm Damage Reduction Project Map (1 of 2).

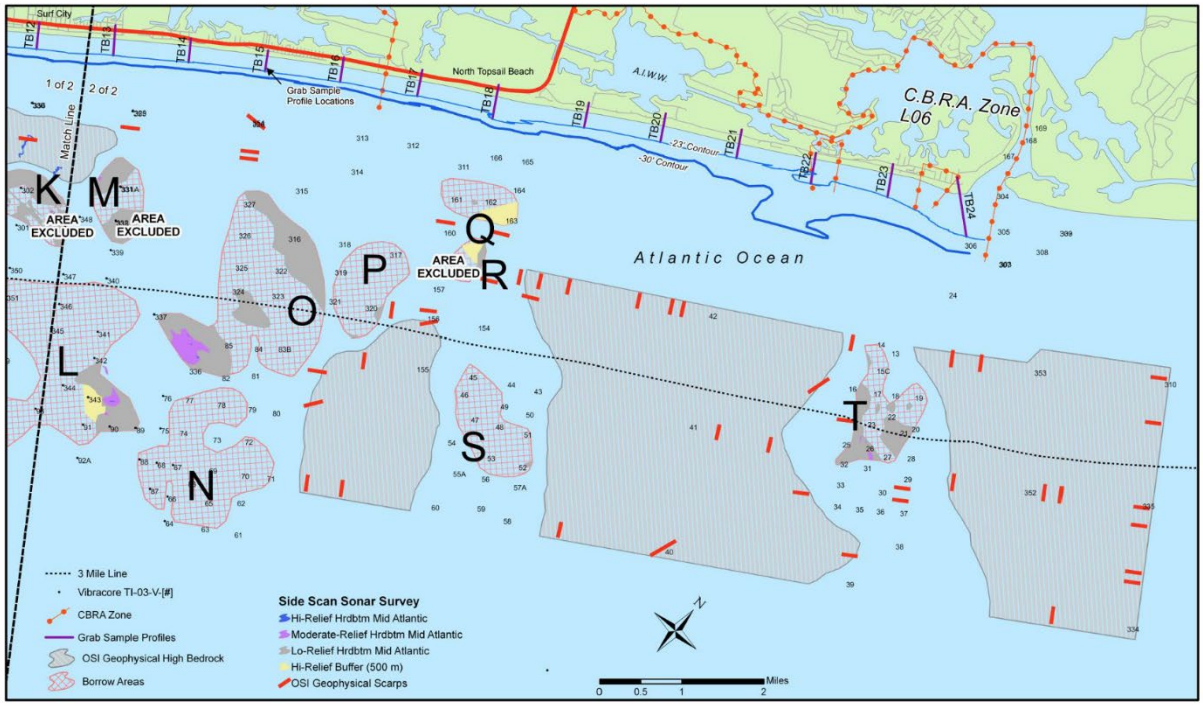

Figure 2. Surf City and North Topsail Beach Coastal Storm Damage Reduction Project Map (2 of 2).

Figure 3. Known Submerged Cultural Resources Requiring Avoidance and 300-foot buffer.

North Carolina Department of Natural and Cultural Resources
State Historic Preservation Office
Ramona M. Bartos, Administrator

Governor Roy Cooper
Secretary Susi H. Hamilton

Office of Archives and History
Deputy Secretary Kevin Cherry

June 15, 2020

Justin Bashaw Justin.P.Bashaw@usace.army.mil
United States Army Corps of Engineers
Wilmington District
69 Darlington Avenue
Wilmington, NC 28403

Re: Beach nourishment project, South of Humphrey Avenue to North of Ninth Street, Surf City, Pender County, ER 20-0050

Dear Mr. Bashaw:

Thank you for your email of May 6, 2020, concerning the above project.

We have conducted a review of the project and are aware of no historic resources which would be affected by the project. Therefore, we have no comment on the project as proposed.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, contact Renee Gledhill-Earley, environmental review coordinator, at 919-814-6579 or environmental.review@ncdcr.gov. In all future communication concerning this project, please cite the above referenced tracking number.

Sincerely,

Renee Gledhill-Earley

for Ramona Bartos, Deputy
State Historic Preservation Officer

Location: 109 East Jones Street, Raleigh NC 27601 **Mailing Address**: 4617 Mail Service Center, Raleigh NC 27699-4617 **Telephone/Fax**: (919) 807-6570/807-6599

From: Gledhill-earley, Renee
To: Bashaw, Justin P CIV USARMY CESAW (US)
Subject: [Non-DoD Source] Beach Renourishment South of Humphrey Ave to north of 9th Street, adjacent to the Atlantic Ocean/AIWW, Surf City ER 20-0050
Date: Tuesday, June 16, 2020 12:44:48 PM
Attachments: image001.png

Dear Mr. Bashaw:
Thank you for your telephone call yesterday concerning the above-referenced undertaking. We understand that the project description used in our June 15, 2020, letter does not match that of the US Army Corps of Engineers. To resolve any confusion, we want to assure you that our comments applied to the entirety of the areas shown in Figures 1 and 2 in your May 6, 2020 letter.

If you have any further questions concerning this matter, please do not hesitate to contact me again.
Best regards,
--

Renee Gledhill-Earley
Environmental Review Coordinator
State Historic Preservation Office
109 E Jones St MSC 4617 Raleigh, NC 27699
919 814 6579 *office*

#StayStrongNC
Learn more @ nc.gov/covid19

And don't forget your Ws! Wear. Wait. Wash.
WEAR a face covering.
WAIT 6 feet apart from other people.
WASH your hands often.

****COVID-19 has changed the way we accept non-electronic mail . See below.****

NC DEPARTMENT OF
NATURAL AND CULTURAL RESOURCES

Please Note:
Requests for project review or responses to our review comments should be sent to our Environmental Review emailbox at environmental.review@ncdcr.gov Otherwise, I will have to return your request and ask that you send it to the proper mailbox. This will cause delays in your project. Information on email project submittal is at:
Blockedhttps://www.ncdcr.gov/state-historic-preservation-office/environmental-review/environmental-review-submission-process-0
Couriered items from USPS, FedEx, UPS AND hand delivered items will only be accepted at the loading bay door located on Wilmington St. between the hours of 8AM-Noon M-F.Applicants should knock/ring the door bell at the loading bay entrance door. If no one answers they can leave the package on top of

the bin to the side of the door, then email me so that I can let staff know. Any packages left outside the stated hours are left at the deliverer's responsibility. We CANNOT be responsible for them. Custodial staff will NOT accept ANY deliveries.

DEPARTMENT OF THE ARMY
WILMINGTON DISTRICT CORPS OF ENGINEERS
69 DARLINGTON AVE
WILMINGTON, NC 28403

August 29, 2024

Environmental Resources Section

Mrs. Renee Gledhill-Earley, Environmental Review Coordinator
North Carolina State Historic Preservation Office
4617 Mail Service Center
Raleigh, NC 27699-4617

Re: Draft General Re-evaluation Report and Environmental Assessment, Surf City, Onslow and Pender Counties, North Carolina, Coastal Storm Risk Management Project, August 2024 – ER 20-0050

Dear Mrs. Gledhill-Earley:

The U.S. Army Corps of Engineers (USACE), Wilmington District, Wilmington, North Carolina has prepared the Draft General Re-evaluation Report and Environmental Assessment, Surf City, Onslow and Pender Counties, North Carolina, Coastal Storm Risk Management (CSRM) Project, August 2024 (Draft GRR/EA). The Bureau of Ocean Energy Management (BOEM) is a cooperating agency under the National Environmental Policy Act (NEPA) of 1969, as amended, for this project due to the potential use of Outer Continental Shelf (OCS) sand resources. BOEM will also serve as a cooperating agency for consultation requirements related to the Endangered Species Act (ESA) Section 7 (50 CFR 402), the National Historic Preservation Act (NHPA) Section 106 (36 CFR 800), Consistency for Federal Agency Activities Subpart C (15 CFR 930), and the Magnusson-Stevens Fishery Conservation and Management Act Section 305 (50 CFR 600). BOEM is authorized under Public Law 103-426 [43 United States Code (U.S.C.) 1337 (k) (2)] to negotiate on a non-competitive basis the rights to OCS sand resources for shore protection projects. BOEM may undertake a connected action (i.e., authorize use of the OCS borrow areas) that is related to, but unique from, the USACE's proposed action presented in the Draft GRR/EA.

This letter conveys availability of the Draft GRR/EA, which describes the USACE's proposed action and its effects to the human environment in accordance with NEPA. Additionally, this letter serves to consult on the USACE's proposed undertaking and effects to historic properties considered eligible for listing to the National Register of Historic Places in accordance with the Section 106 of the NHPA, as amended, and its regulatory guidance found in 36 CFR 800. Previous reviews conducted by your office for the project are associated with environmental review (ER) number 20-0050.

An electronic version of the Draft GRR/EA is available on the USACE, Wilmington District website at:

https://www.saw.usace.army.mil/Missions/Coastal-Storm-Risk-Management/Surf-City-General-Reevaluation-Report-and-Environmental-Assessment/

The subject of this Draft GRR/EA is the Federal CSRM project for the Town of Surf City **only**. The Town of North Topsail Beach withdrew from participation in the Federal project. The separable element of the Surf City segment will be 6 miles in length versus the originally authorized project length of 9.9 miles that included North Topsail Beach.

The originally authorized project design template and renourishment intervals have not changed as compared to those described in the Integrated Feasibility Report and Environmental Impact Statement (EIS), Coastal Storm Damage Reduction (CSDR), Surf City and North Topsail Beach, North Carolina, December 2010 (IFR/EIS). The beach and berm design consists of a 25-foot-wide sand dune constructed to an elevation of 14 feet above the National American Vertical Datum (NAVD 88) fronted by a 50-foot wide design beach berm constructed to an elevation of 6 feet above NAVD 88. The project will include a transition of 1,000 ft at the Surf City/North Topsail Beach town limit; the transition on the southwest end of the project will be within the Surf City town limit. The dune portion of the project will be stabilized against wind losses by planting appropriate native beach grasses. The periodic nourishment interval for the project remains at six years. Dredged material for the beach fill would be obtained from portions of 13 identified sand borrow areas, located between one and six miles offshore.

The Draft GRR/EA includes new information obtained since completion of past NEPA documents for the Surf City and North Topsail Beach CSDR/CSRM project, discusses changes to the project, including removal of the North Topsail Beach, sediment volumes, borrow areas and the borrow area use plan, dredging and placement timeframes and environmental monitoring/commitments to avoid or minimize impacts. The proposed action will increase flexibility and efficiencies for initial construction and will implement a risk-based process to reduce risks to the most vulnerable species within the project area. The proposed action is for initial project construction to be completed in 16 continuous months versus over four dredging seasons utilizing a December 1 through March 31 environmental window. Periodic renourishments are proposed to be accomplished during the beach placement timeframe of November 16 through April 30.

The Draft GRR/EA has been prepared in accordance with the Council on Environmental Quality and USACE requirements for implementing the National Environmental Policy Act (NEPA) of 1969, as amended, and addresses the relationship of the proposed action to other applicable Federal and State Laws and Executive Orders. The Draft GRR/EA addresses the proposed action's impacts on resources,

including: federally listed threatened and endangered species, archaeological and historical resources, wetlands, fish and wildlife habitat, and water and air quality.

As previously documented in the 2010 IFR/EIS, no historic properties listed on, or eligible for listing on, the National Register of Historic Places (NRHP) were identified within the offshore sand borrow areas or beach face currently associated with the proposed action described in the Draft GRR/EA. This determination was based on the results of surveys conducted within the proposed sand borrow locations. Surveys were coordinated with the North Carolina State Historic Preservation Office (SHPO), who concurred with the survey findings in letter dated March 1, 2005. The SHPO's concurrence letter and the final survey report were included in the 2010 IFR/EIS. Since the 2010 IFR/EIS, consultation under Section 106 of the NHPA was re-initiated on June 15, 2020. The SHPO confirmed that no known historic properties have been recorded within the proposed sand borrow locations.

The Area of Potential Effect described in the Draft GRR/EA for purposes of Section 106 consultation includes all offshore sand borrow areas, the beach face within the town limits of Surf City and a transition of 1,000 ft at the Surf City/North Topsail Beach town limit, and yet-to-be identified nearshore pipeline routes and hopper pump-out stations. In the Draft GRR/EA, the USACE revisits existing geotechnical- and cultural resources-related data regarding potential effects associated with the undertaking.

The USACE acknowledges that additional Section 106 consultation and investigations will be needed to address potential sea floor disturbance associated with specific nearshore pipeline routes and hopper pump-out locations. These investigations may include use of a shallow seismic profiler, side scan sonar, fathometer, marine survey magnetometer, sub bottom profiler, and electronic positioning system to characterize benthic and sub bottom features.

Should the proposed undertaking result in future construction, the USACE's dredging Contractor will be responsible for identifying and surveying pipeline routes and hopper pump-out locations, allowing for sandy material to be conveyed from proposed offshore sand borrow areas to the beach face. The survey methodology will be coordinated with the North Carolina Office of State Archaeology (OSA), and SHPO, tribes with identified interest, and other applicable consulting parties.

Survey results meeting requirements of 36 CFR 800.11 and a determination of effect on these elements will also be coordinated with the OSA, SHPO, tribes with identified interest, and other applicable consulting parties. Additionally, pursuant to 15A NCAC 07H, survey results will be coordinated with the North Carolina Division of Coastal Management regarding cultural resources.

Any historic property identified within pipeline routes or hopper pump-out areas would be protected by applying a buffer area, precluding sea floor disturbance within the buffer. If necessary, nearshore pipeline routes and hopper pump-out locations would be

relocated to ensure no effect to historic properties. No construction activities would occur within nearshore pipeline routes or hopper pump-out locations until effects to NRHP-eligible historic properties are resolved and consultation under Section 106 of the NHPA is concluded.

Please note that should any previously unknown cultural resources be encountered during future construction of the proposed undertaking, the USACE's District Engineer would be immediately notified so that required coordination can be initiated with the OSA, SHPO, tribes with identified interest, and other applicable consulting parties. BOEM would require the same condition in its negotiated agreement for use of OCS sand resources.

Pursuant to Section 106 of the NHPA (54 U.S.C. § 306108), and its implementing regulations (36 C.F.R. § 800), the proposed undertaking described in the Draft GRR/EA constitutes an undertaking as defined in 36 C.F.R. § 800.16(y). Based upon existing survey data regarding submerged cultural resources associated with the undertaking, previous consultation, and implementation of the avoidance strategy described above and in Section 5.6 of the Draft GRR/EA, the USACE has determined that the proposed undertaking will result in no effect to historic properties determined eligible for listing to the NRHP, archaeological sites, traditional cultural properties, or sacred sites upon implementation of the undertaking, pursuant to 36 CFR 800.4(d).

The USACE requests your comments regarding our determination of effect and/or any other issues of concern associated with the Draft GRR/EA and proposed undertaking described within. We respectfully request that written comments be submitted no later than Wednesday, October 4, 2024. The USACE is also consulting in parallel with the Catawba Indian Nation, the Eastern Band of Cherokee Indians, and the United Keetoowah Band of Cherokee Indians.

Should you require further information or additional time to provide comments, please contact Mr. Justin Bashaw at Justin.P.Bashaw@usace.army.mil or you may call him at (910) 251-4581. Your comments may result in further coordination on an as-needed basis.

Sincerely,

WALTERS.BRET.L.1231196745
Digitally signed by WALTERS.BRET.L.1231196745
Date: 2024.08.29 15:37:48 -04'00'

Bret L. Walters
Chief, Planning and Environmental Branch

North Carolina Department of Natural and Cultural Resources
State Historic Preservation Office
Ramona M. Bartos, Administrator

Governor Roy Cooper
Secretary D. Reid Wilson

Office of Archives and History
Deputy Secretary, Darin J. Waters, Ph.D.

October 8, 2024

Justin Bashaw justin.p.bashaw@usace.army.mil
U.S. Army Corps of Engineers – Wilmington District
Wilmington Regulatory Field Office
69 Darlington Avenue
Wilmington, NC 28403

RE: Beach Renourishment South of Humphrey Ave to north of 9th Street, adjacent to the Atlantic Ocean/AIWW, Surf City, Pender County, ER 20-0050

Dear Mr. Bashaw:

Thank you for your September 3, 2024, submission concerning the above-referenced project. We have reviewed the project and offer the following comments.

While the section of the Area of Potential Effect (APE) comprising the beachfront has been cleared in the past by our office (with a single beach wreck, NTB0001, marked for avoidance), the latest submission includes new offshore borrow areas that have not yet been subject to archaeological review. Due to the high potential for submerged shipwrecks along North Carolina's coast, we therefore recommend a comprehensive maritime archaeological survey for the potential borrow areas noted in the submission.

The purpose of the survey is to identify archaeological sites and make recommendations regarding their eligibility for the National Register of Historic Places (NRHP). This work should be conducted by an experienced archaeologist, who meets the *Secretary of the Interior Professional Qualifications Standards*, as well as the procurement of a State ARPA permit, which is required for any work on state-owned land.

A list of archaeological consultants who have conducted or expressed an interest in contract work in North Carolina is available at https://archaeology.ncdcr.gov/archaeological-consultant-list. The archaeologists listed, or any other experienced archaeologist, may be contacted to conduct the recommended survey. ***Please note that our office requests consultation with the Office of State Archaeology Review Archaeologist to discuss appropriate field methodologies prior to the archaeological field investigation.***

OSA's Archaeological Standards and Guidelines for Background Research, Field Methodologies, Technical Reports, and Curation can be found online at: https://files.nc.gov/dncr-arch/OSA_Guidelines_Dec2017.pdf.

Location: 109 East Jones Street, Raleigh NC 27601 **Mailing Address**: 4617 Mail Service Center, Raleigh NC 27699-4617 **Telephone/Fax**: (919) 814-6570/814-6898

Please note that starting June 30, 2023, OSA will use Citrix ShareFile for archaeological consultants to submit digital archaeological reports and site files for Environmental Review. Consultants should review our ShareFile User Guidelines and submit a ShareFile User Access Form to Kim Urban (kimberly.urban@dncr.nc.gov) to obtain access to ShareFile if they have not already done so.

Additionally, the OSA has changed our Environmental Review report and site form submission requirements. We now require:

- One (1) digital copy of the archaeological survey report, to be sent through ShareFile.
- One (1) digital copy of each NC Site Form(s) with site map(s) for each site that was recorded as part of the archaeological investigation, to be sent through ShareFile. Please submit each site form as a separate document.
- Hard copies of reports will be requested by the OSA once we determine that no further changes to the report are needed. Concurrence letters will not be sent until after we receive the hard copy of the final archaeological survey report.

More information on our Environmental Review submission requirements can be found at: https://archaeology.ncdcr.gov/programs/environmental-review.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, contact Renee Gledhill-Earley, environmental review coordinator, at 919-814-6579 or environmental.review@dncr.nc.gov. In all future communication concerning this project, please cite the above referenced tracking number.

Sincerely,

Renee Gledhill-Earley

for Ramona Bartos, Deputy
State Historic Preservation Officer

cc: Heather Coats, CAMA — heather.coats@deq.nc.gov
Kadisha Molyneaux, SCH, (25-E-0000-0037) — state.clearinghouse@doa.nc.gov
Eric Gasch, USACE — Eric.K.Gasch@usace.army.mil

Location: 109 East Jones Street, Raleigh NC 27601 **Mailing Address**: 4617 Mail Service Center, Raleigh NC 27699-4617 **Telephone/Fax**: (919) 814-6570/814-6898

From: Bashaw, Justin P CIV USARMY CESAW (USA)
To: Walters, Bret L CIV USARMY CESAW (USA); Owens, Jennifer L CIV USARMY CESAW (USA); Keeney, Keith A CIV USARMY CESAW (USA)
Subject: FW: Surf City (ER-20-0050)
Date: Thursday, November 14, 2024 12:26:08 PM
Attachments: Surf City CSRM Borrow Areas.jpg
image001.png
image002.png
image003.png
image004.png
image005.png
image006.png
Archaeological Remote Sensing Survey of Topsail and West Onslow Beaches Offshore Borrow Areas - Hall, 28Dec2004.pdf
Archaeological Remote Sensing Survey of Surf City-North Topsail Beaches Offshore Borrow Areas - Hall, 23Sep2005.pdf
SCNT Remote Sensing Survey - SHPO Concurrence - 3Aug2005.pdf
SCNT FEIS - SHPO Concurrence - 9Feb2010.pdf
FINAL Signed SHPO Letter - SCNT Pipeline Route (ER 20-0050) - 6May2020.pdf
SHPO Response - SCNT Pipeline Route (ER 20-0050) - 15Jun2020.pdf
FINAL SIGNED Surf City GRR-EA NOA and Section 106 Letter - SHPO (ER-20-0050) - 29Aug2024.pdf

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Good afternoon –

FYSA: Following a productive conversation Tuesday (12Nov) with Stephen Atkinson and Will Nassif of the OSA about our Surf City project, **the below email clarifies past Surf City Section 106 reviews/clearances and SHPO consultation** and prompts the SHPO t expect a supplemental letter from us assessing "potential effects to historic properties associated with refinement of dredge cuts within previously surveyed offshore sand borrow areas".

Best,
-Justin

US Army Corps of Engineers

Justin Bashaw
Biologist | Cultural Resources Manager | Ocean Placement Coordinator | Public Involvement Specialist | Tribal Liaison
Environmental Resources Section
USACE Wilmington District
Desk: 910-251-4581
Mobile: 910-973-5321
Email: Justin.P.Bashaw@usace.army.mil
Web: https://www.saw.usace.army.mil/
69 Darlington Avenue
Wilmington, NC 28403

From: Bashaw, Justin P CIV USARMY CESAW (USA) <Justin.P.Bashaw@usace.army.mil>
Sent: Thursday, November 14, 2024 12:14 PM
To: DCR - Environmental_Review <Environmental.Review@dncr.nc.gov>
Cc: Atkinson, Stephen B <stephen.atkinson@dncr.nc.gov>; Nassif, William T <will.nassif@dncr.nc.gov>
Subject: RE: Surf City (ER-20-0050)

Good afternoon –

The supplemental information provided in this email is to inform Section 106 review under ER-20-0005 and follows a productive discussion with Mr. Stephen Atkinson and Mr. Will Nassif on Tuesday, 12Nov2024.

To confirm, all 13 proposed offshore sand borrow areas depicted in Attachment 1 have been previously surveyed and coordinated with your office. No historic properties or resources requiring avoidance have been identified to date within proposed offshore sand borrow areas.

Attachments 2 and 3 are the survey reports associated with the proposed offshore sand borrow areas dated 2004 and 2005, respectively.

Attachment 4 is SHPO's concurrence with the findings of the 2005 survey report, but only covers 7 of the 13 offshore sand borrow areas.

Attachment 5 is SHPO's concurrence ("no comment") with findings of the 2010 Integrated Feasibility Report and Environmental Impact Statement (EIS), Coastal Storm Damage Reduction (CSDR), Surf City and North Topsail Beach, North Carolina. This EIS

included all 13 currently proposed offshore sand borrow areas, and additional offshore sand borrow areas not currently proposed for use.

Attachments 6 and 7 are the USACE's Section 106 review request letter and SHPO responses, respectfully, regarding effects to historic properties in proposed offshore sand borrow areas and for pump-out activities in areas between identified offshore sand borrow areas and the shoreline. Pump-out locations and any associated pipeline routes are yet-to-be determined but would be surveyed and coordinated with the SHPO to ensure no effect to historic properties. The SHPO's review found "*no historic resources which would be affected by the project*" and covered "*the entirety of the areas shown in figures 1 and 2 of [the USACE's] May 6, 2020 letter*".

Attachment 8 is the USACE's most recent Section 106 review request letter regarding the current undertaking (Draft General Re-evaluation Report and Environmental Assessment, Surf City, Onslow and Pender Counties, North Carolina, Coastal Storm Risk Management (CSRM) Project, August 2024).

Note that the USACE continues to assess potential effects to historic properties associated with refinement of dredge cuts within previously surveyed offshore sand borrow areas. The USACE intends to provide the SHPO with a supplemental review request letter under ER-20-0050 to include this information relating refined dredge cuts and geotechnical analyses to potential effects to historic properties. Applicable Federally-recognized tribes will also have an opportunity to review and comment on this information.

Respectfully,
-Justin Bashaw

US Army Corps of Engineers

Justin Bashaw
Biologist | Cultural Resources Manager | Ocean Placement Coordinator | Public Involvement Specialist | Tribal Liaison
Environmental Resources Section
USACE Wilmington District
Desk: 910-251-4581
Mobile: 910-973-5321
Email: Justin.P.Bashaw@usace.army.mil
Web: https://www.saw.usace.army.mil/
69 Darlington Avenue
Wilmington, NC 28403

From: Atkinson, Stephen B <stephen.atkinson@dncr.nc.gov>
Sent: Tuesday, November 12, 2024 4:05 PM
To: Bashaw, Justin P CIV USARMY CESAW (USA) <Justin.P.Bashaw@usace.army.mil>
Cc: Seymour, Brian R CIV USARMY CESAJ (USA) <Brian.R.Seymour@usace.army.mil>; Nassif, William T <will.nassif@dncr.nc.gov>
Subject: [Non-DoD Source] RE: [External] RE: Surf City (ER-20-0050) and Wilmington Harbor 403 (ER-23-1299)

Hi Justin,

Thanks for making time to meet today, I feel like we got a lot accomplished.

Just for my own clarification, I've attached the map I was attempting to share in the meeting. I had difficulty finding the specifics, but if all the borrow areas (at least the ones within our 3 nm limit) have been surveyed archaeologically, then I can/will rescind my previous survey request. If you happen to have a report lying around for that as well, I'd be happy to have a copy.

Thanks,

Stephen Atkinson, MA, RPA
Assistant State Archaeologist – Underwater
UAB Conservator

Underwater Archaeology Branch | Office of State Archaeology
1528 Fort Fisher Boulevard South | Kure Beach, NC 28449
910 251 7325 Office | 910 251 7320 Main
stephen.atkinson@dncr.nc.gov

NC DEPARTMENT OF
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As part of the Department of Natural and Cultural Resources' phased email update, all emails now end with @dncr.nc.gov. Please note my new email address:

stephen.atkinson@dncr.nc.gov Our email addresses may look different, but email performance should not be impacted.

From: Bashaw, Justin P CIV USARMY CESAW (USA) <Justin.P.Bashaw@usace.army.mil>
Sent: Tuesday, November 12, 2024 2:13 PM
To: Atkinson, Stephen B <stephen.atkinson@dncr.nc.gov>
Cc: Seymour, Brian R CIV USARMY CESAJ (USA) <Brian.R.Seymour@usace.army.mil>; Nassif, William T <will.nassif@dncr.nc.gov>
Subject: [External] RE: Surf City (ER-20-0050) and Wilmington Harbor 403 (ER-23-1299)

No worries. This afternoon from 3-4 works for me. I'll send a WebEx meeting invite to us all in a few minutes. I'm not sure if Brian will be attend but let's seize this opportunity for most of us to speak.

-Justin

US Army Corps of Engineers

Justin Bashaw
Biologist | Cultural Resources Manager | Ocean Placement Coordinator | Public Involvement Specialist | Tribal Liaison
Environmental Resources Section
USACE Wilmington District
Desk: 910-251-4581
Mobile: 910-973-5321
Email: Justin.P.Bashaw@usace.army.mil
Web: https://www.saw.usace.army.mil/
69 Darlington Avenue
Wilmington, NC 28403

From: Atkinson, Stephen B <stephen.atkinson@dncr.nc.gov>
Sent: Tuesday, November 12, 2024 1:01 PM
To: Bashaw, Justin P CIV USARMY CESAW (USA) <Justin.P.Bashaw@usace.army.mil>
Cc: Seymour, Brian R CIV USARMY CESAJ (USA) <Brian.R.Seymour@usace.army.mil>; Nassif, William T <will.nassif@dncr.nc.gov>
Subject: [Non-DoD Source] RE: [External] RE: Surf City (ER-20-0050) and Wilmington Harbor 403 (ER-23-1299)

Sorry for the delayed response, I'm happy to jump on a meeting 3-4 today if folks are free. I'll have to verify the other times, (waiting on a potential field visit plan for later this week). Adding in Will Nassif from UAB as well.

Thanks,

Stephen Atkinson, MA, RPA
Assistant State Archaeologist – Underwater
UAB Conservator

Underwater Archaeology Branch | Office of State Archaeology
1528 Fort Fisher Boulevard South | Kure Beach, NC 28449
910 251 7325 Office | 910 251 7320 Main
stephen.atkinson@dncr.nc.gov

NC DEPARTMENT OF
NATURAL AND CULTURAL RESOURCES

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As part of the Department of Natural and Cultural Resources' phased email update, all emails now end with @dncr.nc.gov. Please note my new email address:

stephen.atkinson@dncr.nc.gov Our email addresses may look different, but email performance should not be impacted.

From: Bashaw, Justin P CIV USARMY CESAW (USA) <Justin.P.Bashaw@usace.army.mil>
Sent: Tuesday, November 12, 2024 10:58 AM
To: Atkinson, Stephen B <stephen.atkinson@dncr.nc.gov>
Cc: Seymour, Brian R CIV USARMY CESAJ (USA) <Brian.R.Seymour@usace.army.mil>
Subject: [External] RE: Surf City (ER-20-0050) and Wilmington Harbor 403 (ER-23-1299)

Hey, Stephen –

Do you have availability for a brief conversation this week about the Corps' "Surf City" (ER-20-0050) and "Wilmington Harbor 403" (ER-23-1299) projects?

My availability is limited, but I should be free:

- Tuesday (12Nov) – 1-2pm, 3-4pm
- Wednesday (13Nov) – 8:30am-10:30pm
- Thursday (14Nov) – 2-3pm

For "Surf City" (ER-20-0050), just wanted to be sure we both understand what was said during past consultations, what's been surveyed, what hasn't been surveyed (and when/how it would be), and what "new" Section 106-related info is included in the current report available online here.

For "Wilmington Harbor 403" (ER-23-1299), I was hoping to discuss the status of my organization's the submerged site location data request. I recall that the primary obstacle was legal (an MOA). Has there been movement on this? Is there another means to share these data? Maybe just for the WH 403 project, specifically? The challenge Brian Seymour and I are working through is defining the project's APE. Having the requested data would be helpful.

Thanks!
-Justin

US Army Corps of Engineers

Justin Bashaw
Biologist | Cultural Resources Manager | Ocean Placement Coordinator | Public Involvement Specialist | Tribal Liaison
Environmental Resources Section
USACE Wilmington District

Desk: 910-251-4581
Mobile: 910-973-5321
Email: Justin.P.Bashaw@usace.army.mil
Web: https://www.saw.usace.army.mil/

69 Darlington Avenue
Wilmington, NC 28403

From: Bashaw, Justin P CIV USARMY CESAW (USA)
Sent: Monday, November 4, 2024 10:54 AM

To: Atkinson, Stephen B <stephen.atkinson@dncr.nc.gov>
Subject: RE: Draft General Re-evaluation Report and Environmental Assessment, Surf City, Onslow and Pender Counties, North Carolina, Coastal Storm Risk Management Project, August 2024 (ER-20-0050)

Good morning! –

Do you have any time to chat this week?

My availability is spotty, but this is what my calendar is showing available:

- Tuesday (5Nov) – 2-3pm
- Wednesday (6Nov) – 8:30am-12pm, 1-2pm
- Thursday (7Nov) – 8:30am-12pm, 2-3pm
- Friday (8Nov) – 10am-12pm, 1-3pm

Best,
-Justin

US Army Corps of Engineers

Justin Bashaw
Biologist | Cultural Resources Manager | Ocean Placement Coordinator | Public Involvement Specialist | Tribal Liaison
Environmental Resources Section
USACE Wilmington District
Desk: 910-251-4581
Mobile: 910-973-5321
Email: Justin.P.Bashaw@usace.army.mil
Web: https://www.saw.usace.army.mil/
69 Darlington Avenue
Wilmington, NC 28403

From: Bashaw, Justin P CIV USARMY CESAW (USA) <Justin.P.Bashaw@usace.army.mil>
Sent: Thursday, October 31, 2024 3:58 PM
To: Atkinson, Stephen B <stephen.atkinson@dncr.nc.gov>
Subject: RE: Draft General Re-evaluation Report and Environmental Assessment, Surf City, Onslow and Pender Counties, North Carolina, Coastal Storm Risk Management Project, August 2024 (ER-20-0050)

Hey, Stephen –

Thanks for the response and context. This is a complex project with an iterative consultation history spanning decades, and I'm glad to chat through Teams to help align our understandings. I don't have availability tomorrow, but are you and Will free Monday, Tuesday, or Wednesday (4-6Nov)?

So you're tracking, the Corps intends to provide SHPO with a supplemental review request letter under ER-20-0050 to include info discussing refined dredge cuts, improved geotechnical analyses, and potential intersections with ancient submerged landforms. I anticipate the Corps maintaining its no effect determination. Applicable Federally-recognized tribes will also have an opportunity to review and comment on this same info.

Best,
-Justin

US Army Corps of Engineers

Justin Bashaw
Biologist | Cultural Resources Manager | Ocean Placement Coordinator | Public Involvement Specialist | Tribal Liaison
Environmental Resources Section
USACE Wilmington District
Desk: 910-251-4581
Mobile: 910-973-5321
Email: Justin.P.Bashaw@usace.army.mil
Web: https://www.saw.usace.army.mil/
69 Darlington Avenue
Wilmington, NC 28403

From: Atkinson, Stephen B <stephen.atkinson@dncr.nc.gov>
Sent: Thursday, October 31, 2024 3:46 PM
To: Bashaw, Justin P CIV USARMY CESAW (USA) <Justin.P.Bashaw@usace.army.mil>
Subject: |Non-DoD Source| RE: |External| RE: Draft General Re-evaluation Report and Environmental Assessment, Surf City, Onslow and Pender Counties, North Carolina, Coastal Storm Risk Management Project, August 2024 (ER-20-0050)

Hi Justin,

Terribly sorry on the prolonged reply to this email. My colleague, Will Nassif, attended a meeting on this project last week that I unfortunately missed, but it does indeed seem like there has been some misinterpretation on my part, at least regarding the first phases of the project. Since Will is now brought into the fold on this one, and is more up to speed, perhaps we can set up a quick teams chat to make sure we're all on the same page.

All the best,

Stephen Atkinson, MA, RPA
Assistant State Archaeologist – Underwater
UAB Conservator

Underwater Archaeology Branch | Office of State Archaeology
1528 Fort Fisher Boulevard South | Kure Beach, NC 28449
910 251 7325 Office | 910 251 7320 Main
stephen.atkinson@dncr.nc.gov

NC DEPARTMENT OF
NATURAL AND CULTURAL RESOURCES

As part of the Department of Natural and Cultural Resources' phased email update, all emails now end with @dncr.nc.gov.
Please note my new email address:

stephen.atkinson@dncr.nc.gov Our email addresses may look different, but email performance should not be impacted.

From: Bashaw, Justin P CIV USARMY CESAW (USA) <Justin.P.Bashaw@usace.army.mil>
Sent: Wednesday, October 9, 2024 10:04 AM
To: DCR - Environmental_Review <Environmental.Review@dncr.nc.gov>
Cc: Govoni, Daniel <daniel.govoni@deq.nc.gov>; Coats, Heather <heather.coats@deq.nc.gov>; State Clearinghouse <State.Clearinghouse@doa.nc.gov>; Gledhill-earley, Renee <renee.gledhill-earley@dncr.nc.gov>; Southerly, Chris <chris.southerly@dncr.nc.gov>; Atkinson, Stephen B <stephen.atkinson@dncr.nc.gov>; Walters, Bret L CIV USARMY CESAW (USA) <Bret.L.Walters@usace.army.mil>; Owens, Jennifer L CIV USARMY CESAW (USA) <Jennifer.L.Owens@usace.army.mil>; Gasch, Eric K CIV USARMY CESAW (USA) <Eric.K.Gasch@usace.army.mil>; Piatkowski, Douglas N <Douglas.Piatkowski@boem.gov>
Subject: |External| RE: Draft General Re-evaluation Report and Environmental Assessment, Surf City, Onslow and Pender Counties, North Carolina, Coastal Storm Risk Management Project, August 2024 (ER-20-0050)

Good morning –

Thank you for providing the attached response ("ER-20-0050_reqsurvey") to the Corps' Section 106 review request ("FINAL_SIGNED_Surf_City…"), regarding our DRAFT General Re-evaluation Report and Environmental Assessment (GRR/EA), Surf City, Onslow and Pender Counties, North Carolina, Coastal Storm Risk Management Project (CSRM), August 2024.

There appears to be a misunderstanding between our offices regarding the scope of the proposed undertaking. The attached

"ER-20-0050_reqsurvey" assumes that the Corps' proposed undertaking "*...includes new offshore borrow areas that have not yet been subject to archaeological review.*" This is incorrect. The proposed undertaking intends to use the same offshore sand borrow areas previously coordinated under ER-20-0050. For more in-depth information regarding the currently proposed Surf City CSRM Project please see the DRAFT Surf City GRR/EA available online here. The primary difference between the current DRAFT Surf City GRR/EA and the previously coordinated 2010 Integrated Feasibility Report and Environmental Impact Statement (EIS), Coastal Storm Damage Reduction, Surf City and North Topsail Beach is a reduction in scope (i.e. removal of the North Topsail Beach component).

Surveys of all proposed offshore sand borrow areas have been conducted and previously coordinated with your office. Past responses from your office regarding Corps project proposals and contracted surveys in the Surf City, NC vicinity are attached for reference. Response dates: 3Aug2005, 9Feb2010, 15/16Jun2020.

However, please note that the Corps continues to assess potential effects to historic properties associated with refinement of dredge cuts within previously surveyed offshore sand borrow areas. The Corps intends to provide your office with a supplemental review request letter under ER-20-0050 to include this information relating refined dredge cuts and geotechnical analyses to potential effects to historic properties. Applicable Federally-recognized tribes will also have an opportunity to review and comment on this information.

Respectfully,
-Justin Bashaw

US Army Corps of Engineers

Justin Bashaw
Biologist | Cultural Resources Manager | Ocean Placement Coordinator | Public Involvement Specialist | Tribal Liaison
Environmental Resources Section
USACE Wilmington District
Desk: 910-251-4581
Mobile: 910-973-5321
Email: Justin.P.Bashaw@usace.army.mil
Web: https://www.saw.usace.army.mil/
69 Darlington Avenue
Wilmington, NC 28403

From: DCR - Environmental_Review <Environmental.Review@dncr.nc.gov>
Sent: Tuesday, October 8, 2024 10:33 AM
To: Bashaw, Justin P CIV USARMY CESAW (USA) <Justin.P.Bashaw@usace.army.mil>
Cc: Govoni, Daniel <daniel.govoni@deq.nc.gov>; Coats, Heather <heather.coats@deq.nc.gov>; Gasch, Eric K CIV USARMY CESAW (USA) <Eric.K.Gasch@usace.army.mil>; State Clearinghouse <State.Clearinghouse@doa.nc.gov>
Subject: [Non-DoD Source] Re: [External] Draft General Re-evaluation Report and Environmental Assessment, Surf City, Onslow and Pender Counties, North Carolina, Coastal Storm Risk Management Project, August 2024

Our response is attached. Thank you.

Best,

Devon L. Borgardt (she/her)

Environmental Review Assistant - Project Registrar

State Historic Preservation Office

109 E Jones St MSC 4617 Raleigh, NC 27699

919 814 6586 *office*

DEPARTMENT OF THE ARMY
WILMINGTON DISTRICT CORPS OF ENGINEERS
69 DARLINGTON AVE
WILMINGTON, NC 28403

November 21, 2024

Environmental Resources Section

Mrs. Renee Gledhill-Earley, Environmental Review Coordinator
North Carolina State Historic Preservation Office
4617 Mail Service Center
Raleigh, NC 27699-4617

Re: Draft General Re-evaluation Report and Environmental Assessment, Surf City, Onslow and Pender Counties, North Carolina, Coastal Storm Risk Management Project, August 2024 – ER 20-0050

Dear Mrs. Gledhill-Earley:

Thank you for your October 8, 2024 response letter regarding the U.S. Army Corps of Engineers (USACE), Wilmington District's Draft General Re-evaluation Report and Environmental Assessment, Surf City, Onslow and Pender Counties, North Carolina, Coastal Storm Risk Management (CSRM) Project, August 2024 (Draft GRR/EA). There appears to be a misunderstanding regarding the scope of the proposed undertaking. Your October 8, 2024 response indicates that the USACE's proposed action "…includes new offshore borrow areas that have not yet been subject to archaeological review." This is incorrect. The proposed undertaking proposes to use the same offshore sand borrow areas previously coordinated under ER-20-0050 (Enclosures 2-4). The primary difference between the current Draft GRR/EA and the previously coordinated Integrated Feasibility Report and Environmental Impact Statement (EIS), Coastal Storm Damage Reduction (CSDR), Surf City and North Topsail Beach, North Carolina, December 2010 (IFR/EIS) is a reduction in scope of the proposed action (i.e., removal of the North Topsail Beach component).

To align our understanding of the proposed undertaking and effects to historic properties, the USACE offers the following information and respectfully requests the North Carolina State Historic Preservation Office's (SHPO) review and comment.

The Bureau of Ocean Energy Management (BOEM) is a cooperating agency under the National Environmental Policy Act (NEPA) of 1969, as amended, for this project due to the proposed use of Outer Continental Shelf (OCS) sand resources. BOEM has designated USACE as the lead agency for consultation requirements related to the National Historic Preservation Act (NHPA) Section 106 (36 CFR 800) consultation

but has indicated its intention to act in a consulting role. BOEM may undertake a connected action (i.e., authorize use of the OCS borrow areas) that is related to, but unique from, the USACE's proposed action presented in the Draft GRR/EA.

This letter conveys availability of the Draft GRR/EA, which describes the proposed USACE and BOEM actions and the associated effects to the human environment in accordance with NEPA. This letter also serves to consult on the proposed undertaking and its effects to historic properties considered eligible for listing to the National Register of Historic Places (NRHP) in accordance with Section 106 of the NHPA, as amended, and its regulatory guidance found in 36 CFR 800.

The focus of this Draft GRR/EA is to support the proposed Federal action regarding a CSRM project for the Town of Surf City **only**. The Town of North Topsail Beach was originally part of the project but withdrew from participation prior to the initiation of construction. The Surf City segment would be 6 miles in length versus the originally authorized project length of 9.9 miles that included North Topsail Beach (Enclosure 1). An electronic version of the Draft GRR/EA, including all appendices, is available on the USACE, Wilmington District website at:

https://www.saw.usace.army.mil/Missions/Coastal-Storm-Risk-Management/Surf-City-General-Reevaluation-Report-and-Environmental-Assessment/

The originally authorized project design template and renourishment intervals have not changed from those described in the Integrated Feasibility Report and Environmental Impact Statement (EIS), Coastal Storm Damage Reduction (CSDR), Surf City and North Topsail Beach, North Carolina, December 2010 (IFR/EIS). An electronic version of the 2010 IFR/EIS, including all appendices, is available on the USACE Engineer Research and Development Center website at:

https://erdc-library.erdc.dren.mil/items/7b142f72-c18f-4e4a-a008-5300d62e0904

The beach and berm design consists of a 25-foot-wide sand dune constructed to an elevation of 14 feet above the National American Vertical Datum (NAVD 88) fronted by a 50-foot wide design beach berm constructed to an elevation of 6 feet above NAVD 88. At the project's northeastern extent, a beach placement transition area of 1,000 ft is included at the Surf City/North Topsail Beach town limit. The beach placement transition area at the southwest extent of the project will be within the Surf City town limit. The dune portion of the project will be stabilized against wind losses by planting appropriate native beach grasses. Dredged material for the beach fill would be obtained from portions of 13 previously identified offshore sand borrow areas, located seaward of Topsail Island.

The Draft GRR/EA includes information to supplement past NEPA documents for the Surf City and North Topsail Beach CSDR/CSRM project and discusses changes to the project, including removal of the North Topsail Beach project segment (except for the 1,000 ft transition area), sediment volume refinements, refinements to the borrow

area use plan and proposed dredge cuts within previously identified offshore sand borrow areas, dredging and beach placement timeframes, and environmental monitoring/commitments to avoid or minimize impacts. The proposed action would increase flexibility and efficiencies for initial construction and implement a risk-based process to reduce risks to the most vulnerable species within the project area. Initial project construction associated with the proposed action (i.e., dredging material from offshore sand borrow areas, transporting dredged material to the beach, and placing dredged material on the beach) is to be completed in a single event over 16 continuous months versus over four separate dredging events utilizing a December 1 through March 31 environmental window. Periodic renourishments associated with the proposed action would be accomplished during the beach placement timeframe of November 16 through April 30. The periodic nourishment interval for the project remains at six years.

In the 2010 IFR/EIS and in prior consultation under Section 106 of the NHPA, the USACE determined that the proposed undertaking would have no effect to historic properties listed on, or eligible for listing on, the NRHP. No NRHP-eligible properties have been identified within the offshore sand borrow areas or beach face associated with the proposed undertaking described in the 2010 IFR/EIS and Draft GRR/EA. The 2010 determination of effect was based on the results of a desktop study, side scan sonar and magnetometer surveys conducted within the proposed offshore sand borrow locations, and the scope of activities and potential effects evaluated. The 2010 determination of effect did not consider yet-to-be identified nearshore pipeline routes and hopper pump-out stations, supplemental geophysical data that has since been collected, or other new considerations that are relevant to the undertaking.

Side scan sonar and magnetometer surveys were coordinated with your office, who concurred with the survey findings in a letter dated March 1, 2005 (Enclosure 2). Your office's concurrence letter and the final survey report are included in the 2010 IFR/EIS as Appendix U. Your office provided a response of "no comment" following review of the 2010 IFR/EIS (Enclosure 3). Consultation under Section 106 of the NHPA was re-initiated with your office on June 15, 2020. Your office confirmed that no known historic properties have been recorded within the proposed offshore sand borrow locations based on the available information provided at that time (Enclosure 4). These same efforts are summarized in Section 5.6 of the Draft GRR/EA. This submission and accompanying documentation updates the consultation with new information.

The Area of Potential Effect (APE) described in the Draft GRR/EA for purposes of Section 106 consultation includes all 13 previously identified offshore sand borrow areas (including horizontal and vertical dredge cut extents), the beach face within the town limits of Surf City and a transition of 1,000 ft at the Surf City/North Topsail Beach town limit, and yet-to-be identified nearshore pipeline routes and hopper pump-out stations.

The Draft GRR/EA further addresses potential effects to historic properties within the APE, incorporating by reference the analysis of prehistoric and historic resources from the 2010 IFR/EIS and the results of the aforementioned Section 106 coordination

efforts. The 2010 IFR/EIS acknowledges the potential for prehistoric use of the early Holocene and late Pleistocene shelf area in which the proposed offshore sand borrow areas are located and also acknowledges that the likelihood of encountering intact archaeological sites in these areas is low.

The Draft GRR/EA includes supplemental information in Appendix Q discussing potential intersections among proposed dredge cuts, acceptable sand resources, and remnant paleochannels and related features underlying offshore sand borrow areas. The USACE and BOEM have updated Appendix Q and included it as an enclosure to this letter (Enclosure 5). Information and analyses presented in Enclosure 5 are provided to improve understanding of Section 106 documentation and potential effects to historic properties within the project's APE associated with the proposed undertaking and are based on currently available information.

As described in Enclosure 5, offshore sand borrow areas F, H, and P do not overlay any paleochannels or subsurface deposits of Quaternary age that would have been exposed pre-last glacial maximum (LGM); in comparison, previous geophysical investigations conducted by the USACE identified infilled, remnant paleochannels and related features underlying offshore sand borrow areas A, B, C, D, E, G, J, L, N and O. Offshore sand borrow areas A, E, G, J, L, N, and O overlay paleochannels or subsurface deposits of Quaternary age that would have been exposed pre-LGM, but the interpretation of available information related to these offshore sand borrow areas suggests that there is a low likelihood of directly encountering ancient submerged landforms suitable for possessing archaeological sites or resources. Offshore sand borrow areas B, C, and D require additional subsurface investigation prior to being utilized as sand sources. Should these three sand borrow areas be selected as sources of beach quality material following future geotechnical subsurface investigations, should proposed dredge cuts within these sand borrow areas intersect with any underlying ancient submerged landforms, and should ancient submerged landforms situated within the APE be identified as culturally significant through consultation with your office or other consulting parties, then the USACE will reconsult with interested parties prior to project construction.

The USACE is not aware of any resources to which tribes may ascribe cultural significance within the project's APE. The USACE acknowledges that additional Section 106 consultation and investigations would be needed to address the potential presence of historic properties within specific nearshore pipeline routes and hopper pump-out locations. These investigations may include use of a shallow seismic profiler, side scan sonar, fathometer, marine survey magnetometer, sub bottom profiler, and electronic positioning system to characterize benthic and sub bottom features.

Should the proposed undertaking be constructed, the USACE's dredging contractor would be responsible for identifying and surveying pipeline routes and hopper pump-out locations, allowing for sandy material to be conveyed from proposed offshore sand borrow areas to the beach face. The survey methodology would be coordinated

with the North Carolina Office of State Archaeology (OSA), your office, tribes with identified interest, and other applicable consulting parties.

Survey results for nearshore pipeline routes and hopper pump-out locations would meet the documentation requirements within 36 CFR 800.11 and a determination of effect on these elements would also be coordinated with the OSA, your office, applicable tribes, and other applicable consulting parties. Additionally, pursuant to 15A NCAC 07H, survey results would be coordinated with the North Carolina Division of Coastal Management regarding cultural resources.

Should any historic properties be identified through consultation with your office, tribes, and other applicable consulting parties, the USACE would implement a strategy to avoid impacts to these properties. This strategy would apply within the entirety of the project's APE (i.e., offshore sand borrow areas, beach face, nearshore pipeline routes, and hopper pump-out locations). Historic properties requiring avoidance would be avoided by implementing a buffer area (horizontal and vertical), precluding disturbance within the buffer. Buffer area dimensions, should they be necessary, would also be established through consultation with your office, tribes with identified interest, and other applicable consulting parties. No construction activities potentially impacting NRHP-eligible historic properties identified within the APE and requiring avoidance would occur until effects to those NRHP-eligible historic properties are resolved and consultation under Section 106 of the NHPA is concluded. Additionally, should any previously unknown cultural resources be encountered during construction of the proposed undertaking, the USACE's District Commander would be immediately notified so that required coordination can be initiated with your office, the OSA, tribes with identified interest, and other applicable consulting parties. BOEM would require the same condition in its negotiated agreement for use of OCS sand resources.

Pursuant to Section 106 of the NHPA (54 USC § 306108), and its implementing regulations (36 CFR § 800), the proposed undertaking described in the Draft GRR/EA constitutes an undertaking as defined in 36 CFR § 800.16(y) and may have the potential to affect historic properties, if present. Based on our evaluation of available information, including existing consultation and the supplemental information presented in Section 5.6 of the Draft GRR/EA and Enclosure 5, implementation of the avoidance strategy described above regarding potential effects to historic properties within pipeline routes and hopper pump-out locations, and the opportunity for additional consultation prior to construction within offshore sand borrow areas B, C, and D as described above, if necessary, the USACE has determined that the proposed undertaking will not affect historic properties determined eligible for listing to the NRHP, pursuant to 36 CFR 800.4(d).

We invite your office to comment on the proposed undertaking and our effects determination, and to share information on cultural resources within the APE that may be vital to an improved understanding of the undertaking's effects and impacts and current findings. To date and for your consideration, the USACE is not aware of any resources to which tribes may ascribe cultural significance within the project's APE. We

respectfully request that written comments be submitted no later than 30 days from the date of this letter.

We look forward to working with your office. For your information, the USACE is also consulting in parallel with the Catawba Indian Nation, the Eastern Band of Cherokee Indians, and the United Keetoowah Band of Cherokee Indians. Should you require further information, please contact Mr. Justin Bashaw at Justin.P.Bashaw@usace.army.mil or you may call him at (910) 251-4581. Your comments may result in further coordination on an as-needed basis.

Sincerely,

WALTERS.BRET.L.1231196745 Digitally signed by WALTERS.BRET.L.1231196745 Date: 2024.11.21 16:08:31 -05'00'

Bret L. Walters
Chief, Planning and Environmental Branch

Enclosures

Enclosure 1

Study Area Map

Study Area
Surf City Coastal Storm Risk Management
New River
New River Inlet
North Topsail Beach
Surf City
Surf City Project Limits (6.0 Miles)
New Topsail Inlet
AIWW
ATLANTIC OCEAN
3 NM Boundary
Navigation Channel
Borrow Area
Surf City
North Topsail Beach
Miles
Greensboro
Raleigh
North Carolina
Author: K7EPESMR
Map Date: 9/11/2024
Surf City CSRM

DEPARTMENT OF THE ARMY
WILMINGTON DISTRICT CORPS OF ENGINEERS
69 DARLINGTON AVE
WILMINGTON, NC 28403

November 21, 2024

Wenonah Haire, DMD
Tribal Historic Preservation Officer
Catawba Indian Nation
1536 Tom Steven Road
Rock Hill, SC 29730

Dear Dr. Haire:

The U.S. Army Corps of Engineers (USACE), Wilmington District, Wilmington, North Carolina has prepared the Draft General Re-evaluation Report and Environmental Assessment, Surf City, Onslow and Pender Counties, North Carolina, Coastal Storm Risk Management (CSRM) Project, August 2024 (Draft GRR/EA). This letter conveys availability of the Draft GRR/EA, which describes the proposed action and the associated effects to the human environment in accordance with the National Environmental Policy Act (NEPA) of 1969, as amended. The Draft GRR/EA has been prepared in accordance with the Council on Environmental Quality and USACE requirements for implementing NEPA and addresses the relationship of the proposed action to other applicable Federal and State Laws and Executive Orders. The Draft GRR/EA addresses the proposed action's impacts on resources, including federally listed threatened and endangered species, archaeological, cultural, and historical resources, wetlands, fish and wildlife habitat, and water and air quality. This letter also serves to consult on the proposed undertaking and its effects to historic properties considered eligible for listing to the National Register of Historic Places (NRHP) in accordance with Section 106 of the National Historic Preservation Act (NHPA), as amended, and its regulatory guidance found in 36 CFR 800.

The Bureau of Ocean Energy Management (BOEM) is a cooperating agency under NEPA for this project due to the proposed use of Outer Continental Shelf (OCS) sand resources. The USACE is the project proponent and lead agency for consultation requirements related to the NHPA Section 106 (36 CFR 800) consultation, but has indicated its intention to act in a consulting role. BOEM may undertake a connected action (i.e., authorize use of the OCS borrow areas) that is related to, but unique from, the USACE's proposed action presented in the Draft GRR/EA.

The focus of this Draft GRR/EA is to support the proposed Federal action regarding a CSRM project for the Town of Surf City **only**. The Town of North Topsail Beach was originally part of the project but withdrew from participation prior to the initiation of construction. The Surf City segment would be 6 miles in length versus the

originally authorized project length of 9.9 miles that included North Topsail Beach (Enclosure 1). An electronic version of the Draft GRR/EA, including all appendices, is available on the USACE, Wilmington District website at:

https://www.saw.usace.army.mil/Missions/Coastal-Storm-Risk-Management/Surf-City-General-Reevaluation-Report-and-Environmental-Assessment/

The originally authorized project design template and renourishment intervals have not changed from those described in the Integrated Feasibility Report and Environmental Impact Statement (EIS), Coastal Storm Damage Reduction (CSDR), Surf City and North Topsail Beach, North Carolina, December 2010 (IFR/EIS). An electronic version of the 2010 IFR/EIS, including all appendices, is available on the USACE Engineer Research and Development Center website at:

https://erdc-library.erdc.dren.mil/items/7b142f72-c18f-4e4a-a008-5300d62e0904

The beach and berm design consists of a 25-foot-wide sand dune constructed to an elevation of 14 feet above the National American Vertical Datum (NAVD 88) fronted by a 50-foot wide design beach berm constructed to an elevation of 6 feet above NAVD 88. At the project's northeastern extent, a beach placement transition area of 1,000 ft is included at the Surf City/North Topsail Beach town limit. The beach placement transition area at the southwest extent of the project will be within the Surf City town limit. The dune portion of the project will be stabilized against wind losses by planting appropriate native beach grasses. Dredged material for the beach fill would be obtained from portions of 13 previously identified offshore sand borrow areas, located seaward of Topsail Island.

The Draft GRR/EA includes information to supplement past NEPA documents for the Surf City and North Topsail Beach CSDR/CSRM project and discusses changes to the project, including removal of the North Topsail Beach project segment (except for the 1,000 ft transition area), sediment volume refinements, refinements to the borrow area use plan and proposed dredge cuts within previously identified offshore sand borrow areas, dredging and beach placement timeframes, and environmental monitoring/commitments to avoid or minimize impacts. The proposed action would increase flexibility and efficiencies for initial construction and implement a risk-based process to reduce risks to the most vulnerable species within the project area. Initial project construction associated with the proposed action (i.e., dredging material from offshore sand borrow areas, transporting dredged material to the beach, and placing dredged material on the beach) is to be completed in a single event over 16 continuous months versus over four separate dredging events utilizing a December 1 through March 31 environmental window. Periodic renourishments associated with the proposed action would be accomplished during the beach placement timeframe of November 16 through April 30. The periodic nourishment interval for the project remains at six years.

In the 2010 IFR/EIS and in prior consultation under Section 106 of the NHPA, the USACE determined that the proposed undertaking would have no effect to historic

properties listed on, or eligible for listing on, the NRHP. No NRHP-eligible properties have been identified within the offshore sand borrow areas or beach face associated with the proposed undertaking described in the 2010 IFR/EIS and Draft GRR/EA. The 2010 determination of effect was based on the results of a desktop study, side scan sonar and magnetometer surveys conducted within the proposed offshore sand borrow locations, and the scope of activities and potential effects evaluated. The 2010 determination of effect did not consider yet-to-be identified nearshore pipeline routes and hopper pump-out stations, supplemental geophysical data that has since been collected, or other new considerations that are relevant to the undertaking.

Side scan sonar and magnetometer surveys were coordinated with the North Carolina State Historic Preservation Office (SHPO), who concurred with the survey findings in a letter dated March 1, 2005 (Enclosure 2). The SHPO's concurrence letter and the final survey report are included in the 2010 IFR/EIS as Appendix U. The SHPO provided a response of "no comment" following review of the 2010 IFR/EIS (Enclosure 3). Consultation under Section 106 of the NHPA was re-initiated with the SHPO on June 15, 2020. The SHPO confirmed that no known historic properties have been recorded within the proposed offshore sand borrow locations based on the available information provided at that time (Enclosure 4). These same efforts are summarized in Section 5.6 of the Draft GRR/EA. This submission and accompanying documentation updates the consultation with new information.

The Area of Potential Effect (APE) described in the Draft GRR/EA for purposes of Section 106 consultation includes all 13 previously identified offshore sand borrow areas (including horizontal and vertical dredge cut extents), the beach face within the town limits of Surf City and a transition of 1,000 ft at the Surf City/North Topsail Beach town limit, and yet-to-be identified nearshore pipeline routes and hopper pump-out stations.

The Draft GRR/EA further addresses potential effects to historic properties within the APE, incorporating by reference the analysis of prehistoric and historic resources from the 2010 IFR/EIS and the results of the aforementioned Section 106 coordination efforts. The 2010 IFR/EIS acknowledges the potential for prehistoric use of the early Holocene and late Pleistocene shelf area in which the proposed offshore sand borrow areas are located and also acknowledges that the likelihood of encountering intact archaeological sites in these areas is low.

The Draft GRR/EA includes supplemental information in Appendix Q discussing potential intersections among proposed dredge cuts, acceptable sand resources, and remnant paleochannels and related features underlying offshore sand borrow areas. The USACE and BOEM have updated Appendix Q and included it as an enclosure to this letter (Enclosure 5). Information and analyses presented in Enclosure 5 are provided to improve understanding of Section 106 documentation and potential effects to historic properties within the project's APE associated with the proposed undertaking and are based on currently available information.

As described in Enclosure 5, offshore sand borrow areas F, H, and P do not overlay any paleochannels or subsurface deposits of Quaternary age that would have been exposed pre-last glacial maximum (LGM); in comparison, previous geophysical investigations conducted by the USACE identified infilled, remnant paleochannels and related features underlying offshore sand borrow areas A, B, C, D, E, G, J, L, N and O. Offshore sand borrow areas A, E, G, J, L, N, and O overlay paleochannels or subsurface deposits of Quaternary age that would have been exposed pre-LGM, but the interpretation of available information related to these offshore sand borrow areas suggests that there is a low likelihood of directly encountering ancient submerged landforms suitable for possessing archaeological sites or resources. Offshore sand borrow areas B, C, and D require additional subsurface investigation prior to being utilized as sand sources. Should these three sand borrow areas be selected as sources of beach quality material following future geotechnical subsurface investigations, should proposed dredge cuts within these sand borrow areas intersect with any underlying ancient submerged landforms, and should ancient submerged landforms situated within the APE be identified as culturally significant through consultation with your tribe or other consulting parties, then the USACE will reconsult with interested parties prior to project construction.

The USACE is not aware of any resources to which tribes may ascribe cultural significance within the project's APE. The USACE acknowledges that additional Section 106 consultation and investigations would be needed to address the potential presence of historic properties within specific nearshore pipeline routes and hopper pump-out locations. These investigations may include use of a shallow seismic profiler, side scan sonar, fathometer, marine survey magnetometer, sub bottom profiler, and electronic positioning system to characterize benthic and sub bottom features.

Should the proposed undertaking be constructed, the USACE's dredging contractor would be responsible for identifying and surveying pipeline routes and hopper pump-out locations, allowing for sandy material to be conveyed from proposed offshore sand borrow areas to the beach face. The survey methodology would be coordinated with the North Carolina Office of State Archaeology (OSA) and SHPO, your tribe, should you wish to participate, and other applicable consulting parties.

Survey results for nearshore pipeline routes and hopper pump-out locations would meet the documentation requirements within 36 CFR 800.11 and a determination of effect on these elements would also be coordinated with the OSA and SHPO, your tribe, should you wish to receive survey results, and other applicable consulting parties. Additionally, pursuant to 15A NCAC 07H, survey results would be coordinated with the North Carolina Division of Coastal Management regarding cultural resources.

Should any historic properties be identified through consultation with your tribe, the OSA and SHPO, and other applicable consulting parties, the USACE would implement a strategy to avoid impacts to these properties. This strategy would apply within the entirety of the project's APE (i.e., offshore sand borrow areas, beach face, nearshore pipeline routes, and hopper pump-out locations). Historic properties requiring

avoidance would be avoided by implementing a buffer area (horizontal and vertical), precluding disturbance within the buffer. Buffer area dimensions, should they be necessary, would also be established through consultation with your tribe, the OSA and SHPO, and other applicable consulting parties. No construction activities potentially impacting NRHP-eligible historic properties identified within the APE and requiring avoidance would occur until effects to those properties are resolved and consultation under Section 106 of the NHPA is concluded. Additionally, should any previously unknown historic properties requiring avoidance be encountered during construction of the proposed undertaking, the USACE's District Commander would be immediately notified so that required coordination can be initiated with the OSA and SHPO, tribes with identified interest, and other applicable consulting parties. BOEM would require the same condition in its negotiated agreement for use of OCS sand resources.

Pursuant to Section 106 of the NHPA (54 USC § 306108), and its implementing regulations (36 CFR § 800), the proposed undertaking described in the Draft GRR/EA constitutes an undertaking as defined in 36 CFR § 800.16(y) and may have the potential to affect historic properties, if present. Based on our evaluation of available information, including existing consultation and the supplemental information presented in Section 5.6 of the Draft GRR/EA and Enclosure 5, implementation of the avoidance strategy described above regarding potential effects to historic properties within pipeline routes and hopper pump-out locations, and the opportunity for additional consultation prior to construction within offshore sand borrow areas B, C, and D as described above, if necessary, the USACE has determined that the proposed undertaking will not affect historic properties determined eligible for listing to the NRHP, pursuant to 36 CFR 800.4(d).

We invite your tribe to comment on the proposed undertaking and our effects determination, and to share information on resources, natural and cultural, within the APE that may be vital to an improved understanding of the undertaking's effects and impacts and warrant revision of our current findings. To date, the USACE is not aware of any resources to which tribes may ascribe cultural significance within the project's APE. We will keep this information confidential per Section 304 of the NHPA. We respectfully request that written comments be submitted no later than 30 days from the date of this letter.

We look forward to working with your tribe. For your information, the USACE is also consulting in parallel with the Eastern Band of Cherokee Indians, the United Keetoowah Band of Cherokee Indians, and the SHPO. Should you require further information or additional time to provide comments, please contact Mr. Justin Bashaw at Justin.P.Bashaw@usace.army.mil or you may call him at (910) 251-4581. Your comments may result in further coordination on an as-needed basis. If within 30 days of the date of this letter we do not receive written comments from your tribe regarding the proposed undertaking or our effects determination, or regarding a request for additional information or time with which to provide comments, we will respectfully assume that your tribe has no comments to offer at this time.

Sincerely,

WALTERS.BRET.L.1231196745 Digitally signed by WALTERS.BRET.L.1231196745 Date: 2024.11.22 07:08:43 -05'00'

Bret L. Walters
Chief, Planning and Environmental Branch

Enclosures

Enclosure 1

Study Area Map

Study Area
Surf City Coastal Storm Risk Management
New River
New River Inlet
North Topsail Beach
Surf City
Surf City Project Limits
(6.0 Miles)
AIWW
New Topsail Inlet
ATLANTIC OCEAN
A
B
C
D
E
F
G
H
J
L
N
O
P
3 NM Boundary
Navigation Channel
Borrow Area
Surf City
North Topsail Beach
Miles
Greensboro
Raleigh
North Carolina
Author: K7EPESMR
Map Date: 9/11/2024
Surf City CSRM
Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere

DEPARTMENT OF THE ARMY
WILMINGTON DISTRICT CORPS OF ENGINEERS
69 DARLINGTON AVE
WILMINGTON, NC 28403

November 21, 2024

Russell Townsend
Tribal Historic Preservation Officer
Eastern Band of Cherokee Indians
P.O. Box 41927
Cherokee, NC 28719

Dear Mr. Townsend:

The U.S. Army Corps of Engineers (USACE), Wilmington District, Wilmington, North Carolina has prepared the Draft General Re-evaluation Report and Environmental Assessment, Surf City, Onslow and Pender Counties, North Carolina, Coastal Storm Risk Management (CSRM) Project, August 2024 (Draft GRR/EA). This letter conveys availability of the Draft GRR/EA, which describes the proposed action and the associated effects to the human environment in accordance with the National Environmental Policy Act (NEPA) of 1969, as amended. The Draft GRR/EA has been prepared in accordance with the Council on Environmental Quality and USACE requirements for implementing NEPA and addresses the relationship of the proposed action to other applicable Federal and State Laws and Executive Orders. The Draft GRR/EA addresses the proposed action's impacts on resources, including federally listed threatened and endangered species, archaeological, cultural, and historical resources, wetlands, fish and wildlife habitat, and water and air quality. This letter also serves to consult on the proposed undertaking and its effects to historic properties considered eligible for listing to the National Register of Historic Places (NRHP) in accordance with Section 106 of the National Historic Preservation Act (NHPA), as amended, and its regulatory guidance found in 36 CFR 800.

The Bureau of Ocean Energy Management (BOEM) is a cooperating agency under NEPA for this project due to the proposed use of Outer Continental Shelf (OCS) sand resources. The USACE is the project proponent and lead agency for consultation requirements related to the NHPA Section 106 (36 CFR 800) consultation, but has indicated its intention to act in a consulting role. BOEM may undertake a connected action (i.e., authorize use of the OCS borrow areas) that is related to, but unique from, the USACE's proposed action presented in the Draft GRR/EA.

The focus of this Draft GRR/EA is to support the proposed Federal action regarding a CSRM project for the Town of Surf City **only**. The Town of North Topsail Beach was originally part of the project but withdrew from participation prior to the initiation of construction. The Surf City segment would be 6 miles in length versus the

originally authorized project length of 9.9 miles that included North Topsail Beach (Enclosure 1). An electronic version of the Draft GRR/EA, including all appendices, is available on the USACE, Wilmington District website at:

https://www.saw.usace.army.mil/Missions/Coastal-Storm-Risk-Management/Surf-City-General-Reevaluation-Report-and-Environmental-Assessment/

The originally authorized project design template and renourishment intervals have not changed from those described in the Integrated Feasibility Report and Environmental Impact Statement (EIS), Coastal Storm Damage Reduction (CSDR), Surf City and North Topsail Beach, North Carolina, December 2010 (IFR/EIS). An electronic version of the 2010 IFR/EIS, including all appendices, is available on the USACE Engineer Research and Development Center website at:

https://erdc-library.erdc.dren.mil/items/7b142f72-c18f-4e4a-a008-5300d62e0904

The beach and berm design consists of a 25-foot-wide sand dune constructed to an elevation of 14 feet above the National American Vertical Datum (NAVD 88) fronted by a 50-foot wide design beach berm constructed to an elevation of 6 feet above NAVD 88. At the project's northeastern extent, a beach placement transition area of 1,000 ft is included at the Surf City/North Topsail Beach town limit. The beach placement transition area at the southwest extent of the project will be within the Surf City town limit. The dune portion of the project will be stabilized against wind losses by planting appropriate native beach grasses. Dredged material for the beach fill would be obtained from portions of 13 previously identified offshore sand borrow areas, located seaward of Topsail Island.

The Draft GRR/EA includes information to supplement past NEPA documents for the Surf City and North Topsail Beach CSDR/CSRM project and discusses changes to the project, including removal of the North Topsail Beach project segment (except for the 1,000 ft transition area), sediment volume refinements, refinements to the borrow area use plan and proposed dredge cuts within previously identified offshore sand borrow areas, dredging and beach placement timeframes, and environmental monitoring/commitments to avoid or minimize impacts. The proposed action would increase flexibility and efficiencies for initial construction and implement a risk-based process to reduce risks to the most vulnerable species within the project area. Initial project construction associated with the proposed action (i.e., dredging material from offshore sand borrow areas, transporting dredged material to the beach, and placing dredged material on the beach) is to be completed in a single event over 16 continuous months versus over four separate dredging events utilizing a December 1 through March 31 environmental window. Periodic renourishments associated with the proposed action would be accomplished during the beach placement timeframe of November 16 through April 30. The periodic nourishment interval for the project remains at six years.

In the 2010 IFR/EIS and in prior consultation under Section 106 of the NHPA, the USACE determined that the proposed undertaking would have no effect to historic

properties listed on, or eligible for listing on, the NRHP. No NRHP-eligible properties have been identified within the offshore sand borrow areas or beach face associated with the proposed undertaking described in the 2010 IFR/EIS and Draft GRR/EA. The 2010 determination of effect was based on the results of a desktop study, side scan sonar and magnetometer surveys conducted within the proposed offshore sand borrow locations, and the scope of activities and potential effects evaluated. The 2010 determination of effect did not consider yet-to-be identified nearshore pipeline routes and hopper pump-out stations, supplemental geophysical data that has since been collected, or other new considerations that are relevant to the undertaking.

Side scan sonar and magnetometer surveys were coordinated with the North Carolina State Historic Preservation Office (SHPO), who concurred with the survey findings in a letter dated March 1, 2005 (Enclosure 2). The SHPO's concurrence letter and the final survey report are included in the 2010 IFR/EIS as Appendix U. The SHPO provided a response of "no comment" following review of the 2010 IFR/EIS (Enclosure 3). Consultation under Section 106 of the NHPA was re-initiated with the SHPO on June 15, 2020. The SHPO confirmed that no known historic properties have been recorded within the proposed offshore sand borrow locations based on the available information provided at that time (Enclosure 4). These same efforts are summarized in Section 5.6 of the Draft GRR/EA. This submission and accompanying documentation updates the consultation with new information.

The Area of Potential Effect (APE) described in the Draft GRR/EA for purposes of Section 106 consultation includes all 13 previously identified offshore sand borrow areas (including horizontal and vertical dredge cut extents), the beach face within the town limits of Surf City and a transition of 1,000 ft at the Surf City/North Topsail Beach town limit, and yet-to-be identified nearshore pipeline routes and hopper pump-out stations.

The Draft GRR/EA further addresses potential effects to historic properties within the APE, incorporating by reference the analysis of prehistoric and historic resources from the 2010 IFR/EIS and the results of the aforementioned Section 106 coordination efforts. The 2010 IFR/EIS acknowledges the potential for prehistoric use of the early Holocene and late Pleistocene shelf area in which the proposed offshore sand borrow areas are located and also acknowledges that the likelihood of encountering intact archaeological sites in these areas is low.

The Draft GRR/EA includes supplemental information in Appendix Q discussing potential intersections among proposed dredge cuts, acceptable sand resources, and remnant paleochannels and related features underlying offshore sand borrow areas. The USACE and BOEM have updated Appendix Q and included it as an enclosure to this letter (Enclosure 5). Information and analyses presented in Enclosure 5 are provided to improve understanding of Section 106 documentation and potential effects to historic properties within the project's APE associated with the proposed undertaking and are based on currently available information.

As described in Enclosure 5, offshore sand borrow areas F, H, and P do not overlay any paleochannels or subsurface deposits of Quaternary age that would have been exposed pre-last glacial maximum (LGM); in comparison, previous geophysical investigations conducted by the USACE identified infilled, remnant paleochannels and related features underlying offshore sand borrow areas A, B, C, D, E, G, J, L, N and O. Offshore sand borrow areas A, E, G, J, L, N, and O overlay paleochannels or subsurface deposits of Quaternary age that would have been exposed pre-LGM, but the interpretation of available information related to these offshore sand borrow areas suggests that there is a low likelihood of directly encountering ancient submerged landforms suitable for possessing archaeological sites or resources. Offshore sand borrow areas B, C, and D require additional subsurface investigation prior to being utilized as sand sources. Should these three sand borrow areas be selected as sources of beach quality material following future geotechnical subsurface investigations, should proposed dredge cuts within these sand borrow areas intersect with any underlying ancient submerged landforms, and should ancient submerged landforms situated within the APE be identified as culturally significant through consultation with your tribe or other consulting parties, then the USACE will reconsult with interested parties prior to project construction.

The USACE is not aware of any resources to which tribes may ascribe cultural significance within the project's APE. The USACE acknowledges that additional Section 106 consultation and investigations would be needed to address the potential presence of historic properties within specific nearshore pipeline routes and hopper pump-out locations. These investigations may include use of a shallow seismic profiler, side scan sonar, fathometer, marine survey magnetometer, sub bottom profiler, and electronic positioning system to characterize benthic and sub bottom features.

Should the proposed undertaking be constructed, the USACE's dredging contractor would be responsible for identifying and surveying pipeline routes and hopper pump-out locations, allowing for sandy material to be conveyed from proposed offshore sand borrow areas to the beach face. The survey methodology would be coordinated with the North Carolina Office of State Archaeology (OSA) and SHPO, your tribe, should you wish to participate, and other applicable consulting parties.

Survey results for nearshore pipeline routes and hopper pump-out locations would meet the documentation requirements within 36 CFR 800.11 and a determination of effect on these elements would also be coordinated with the OSA and SHPO, your tribe, should you wish to receive survey results, and other applicable consulting parties. Additionally, pursuant to 15A NCAC 07H, survey results would be coordinated with the North Carolina Division of Coastal Management regarding cultural resources.

Should any historic properties be identified through consultation with your tribe, the OSA and SHPO, and other applicable consulting parties, the USACE would implement a strategy to avoid impacts to these properties. This strategy would apply within the entirety of the project's APE (i.e., offshore sand borrow areas, beach face, nearshore pipeline routes, and hopper pump-out locations). Historic properties requiring

avoidance would be avoided by implementing a buffer area (horizontal and vertical), precluding disturbance within the buffer. Buffer area dimensions, should they be necessary, would also be established through consultation with your tribe, the OSA and SHPO, and other applicable consulting parties. No construction activities potentially impacting NRHP-eligible historic properties identified within the APE and requiring avoidance would occur until effects to those properties are resolved and consultation under Section 106 of the NHPA is concluded. Additionally, should any previously unknown historic properties requiring avoidance be encountered during construction of the proposed undertaking, the USACE's District Commander would be immediately notified so that required coordination can be initiated with the OSA and SHPO, tribes with identified interest, and other applicable consulting parties. BOEM would require the same condition in its negotiated agreement for use of OCS sand resources.

Pursuant to Section 106 of the NHPA (54 USC § 306108), and its implementing regulations (36 CFR § 800), the proposed undertaking described in the Draft GRR/EA constitutes an undertaking as defined in 36 CFR § 800.16(y) and may have the potential to affect historic properties, if present. Based on our evaluation of available information, including existing consultation and the supplemental information presented in Section 5.6 of the Draft GRR/EA and Enclosure 5, implementation of the avoidance strategy described above regarding potential effects to historic properties within pipeline routes and hopper pump-out locations, and the opportunity for additional consultation prior to construction within offshore sand borrow areas B, C, and D as described above, if necessary, the USACE has determined that the proposed undertaking will not affect historic properties determined eligible for listing to the NRHP, pursuant to 36 CFR 800.4(d).

We invite your tribe to comment on the proposed undertaking and our effects determination, and to share information on resources, natural and cultural, within the APE that may be vital to an improved understanding of the undertaking's effects and impacts and warrant revision of our current findings. To date, the USACE is not aware of any resources to which tribes may ascribe cultural significance within the project's APE. We will keep this information confidential per Section 304 of the NHPA. We respectfully request that written comments be submitted no later than 30 days from the date of this letter.

We look forward to working with your tribe. For your information, the USACE is also consulting in parallel with the Catawba Indian Nation, the United Keetoowah Band of Cherokee Indians, and the SHPO. Should you require further information or additional time to provide comments, please contact Mr. Justin Bashaw at Justin.P.Bashaw@usace.army.mil or you may call him at (910) 251-4581. Your comments may result in further coordination on an as-needed basis. If within 30 days of the date of this letter we do not receive written comments from your tribe regarding the proposed undertaking or our effects determination, or regarding a request for additional information or time with which to provide comments, we will respectfully assume that your tribe has no comments to offer at this time.

Sincerely,

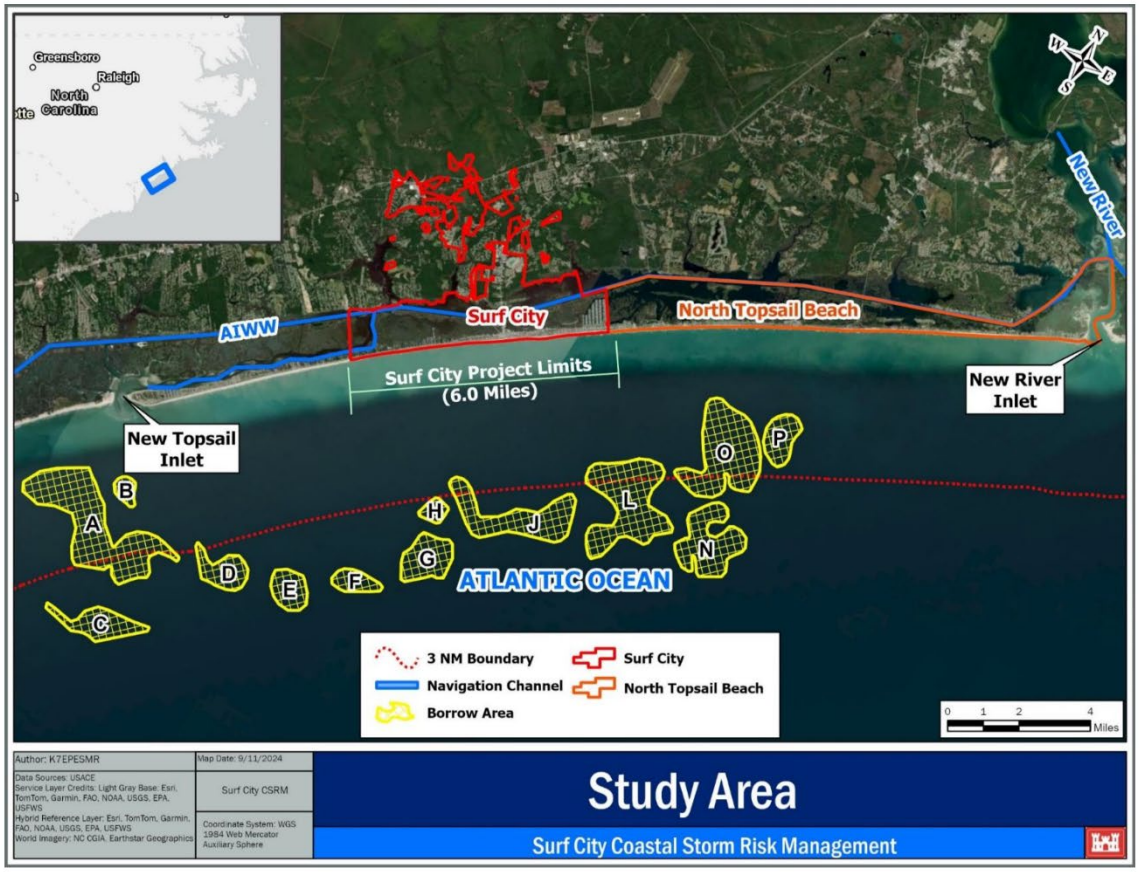
WALTERS.BRET.L.1231196745
Digitally signed by WALTERS.BRET.L.1231196745
Date: 2024.11.22 07:09:41 -05'00'

Bret L. Walters
Chief, Planning and Environmental Branch

Enclosures

Enclosure 1

Study Area Map


Greensboro
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AIWW
Surf City
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Surf City Project Limits
(6.0 Miles)
New Topsail Inlet
New River Inlet
A
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J
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N
O
P
ATLANTIC OCEAN
3 NM Boundary
Navigation Channel
Borrow Area
Surf City
North Topsail Beach
0 1 2 4
Miles
Author: K7EPESMR
Map Date: 9/11/2024
Data Sources: USACE
Service Layer Credits: Light Gray Base: Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, USFWS
Hybrid Reference Layer: Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, USFWS
World Imagery: NC OGIA, Earthstar Geographics
Surf City CSRM
Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere
Study Area
Surf City Coastal Storm Risk Management

DEPARTMENT OF THE ARMY
WILMINGTON DISTRICT CORPS OF ENGINEERS
69 DARLINGTON AVE
WILMINGTON, NC 28403

November 21, 2024

Roger Cain
Tribal Historic Preservation Officer
United Keetoowah Band of Cherokee Indians
P.O. Box 746
Tahlequah, OK 74465

Dear Mr. Cain:

The U.S. Army Corps of Engineers (USACE), Wilmington District, Wilmington, North Carolina has prepared the Draft General Re-evaluation Report and Environmental Assessment, Surf City, Onslow and Pender Counties, North Carolina, Coastal Storm Risk Management (CSRM) Project, August 2024 (Draft GRR/EA). This letter conveys availability of the Draft GRR/EA, which describes the proposed action and the associated effects to the human environment in accordance with the National Environmental Policy Act (NEPA) of 1969, as amended. The Draft GRR/EA has been prepared in accordance with the Council on Environmental Quality and USACE requirements for implementing NEPA and addresses the relationship of the proposed action to other applicable Federal and State Laws and Executive Orders. The Draft GRR/EA addresses the proposed action's impacts on resources, including federally listed threatened and endangered species, archaeological, cultural, and historical resources, wetlands, fish and wildlife habitat, and water and air quality. This letter also serves to consult on the proposed undertaking and its effects to historic properties considered eligible for listing to the National Register of Historic Places (NRHP) in accordance with Section 106 of the National Historic Preservation Act (NHPA), as amended, and its regulatory guidance found in 36 CFR 800.

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originally authorized project length of 9.9 miles that included North Topsail Beach (Enclosure 1). An electronic version of the Draft GRR/EA, including all appendices, is available on the USACE, Wilmington District website at:

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The beach and berm design consists of a 25-foot-wide sand dune constructed to an elevation of 14 feet above the National American Vertical Datum (NAVD 88) fronted by a 50-foot wide design beach berm constructed to an elevation of 6 feet above NAVD 88. At the project's northeastern extent, a beach placement transition area of 1,000 ft is included at the Surf City/North Topsail Beach town limit. The beach placement transition area at the southwest extent of the project will be within the Surf City town limit. The dune portion of the project will be stabilized against wind losses by planting appropriate native beach grasses. Dredged material for the beach fill would be obtained from portions of 13 previously identified offshore sand borrow areas, located seaward of Topsail Island.

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properties listed on, or eligible for listing on, the NRHP. No NRHP-eligible properties have been identified within the offshore sand borrow areas or beach face associated with the proposed undertaking described in the 2010 IFR/EIS and Draft GRR/EA. The 2010 determination of effect was based on the results of a desktop study, side scan sonar and magnetometer surveys conducted within the proposed offshore sand borrow locations, and the scope of activities and potential effects evaluated. The 2010 determination of effect did not consider yet-to-be identified nearshore pipeline routes and hopper pump-out stations, supplemental geophysical data that has since been collected, or other new considerations that are relevant to the undertaking.

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As described in Enclosure 5, offshore sand borrow areas F, H, and P do not overlay any paleochannels or subsurface deposits of Quaternary age that would have been exposed pre-last glacial maximum (LGM); in comparison, previous geophysical investigations conducted by the USACE identified infilled, remnant paleochannels and related features underlying offshore sand borrow areas A, B, C, D, E, G, J, L, N and O. Offshore sand borrow areas A, E, G, J, L, N, and O overlay paleochannels or subsurface deposits of Quaternary age that would have been exposed pre-LGM, but the interpretation of available information related to these offshore sand borrow areas suggests that there is a low likelihood of directly encountering ancient submerged landforms suitable for possessing archaeological sites or resources. Offshore sand borrow areas B, C, and D require additional subsurface investigation prior to being utilized as sand sources. Should these three sand borrow areas be selected as sources of beach quality material following future geotechnical subsurface investigations, should proposed dredge cuts within these sand borrow areas intersect with any underlying ancient submerged landforms, and should ancient submerged landforms situated within the APE be identified as culturally significant through consultation with your tribe or other consulting parties, then the USACE will reconsult with interested parties prior to project construction.

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Survey results for nearshore pipeline routes and hopper pump-out locations would meet the documentation requirements within 36 CFR 800.11 and a determination of effect on these elements would also be coordinated with the OSA and SHPO, your tribe, should you wish to receive survey results, and other applicable consulting parties. Additionally, pursuant to 15A NCAC 07H, survey results would be coordinated with the North Carolina Division of Coastal Management regarding cultural resources.

Should any historic properties be identified through consultation with your tribe, the OSA and SHPO, and other applicable consulting parties, the USACE would implement a strategy to avoid impacts to these properties. This strategy would apply within the entirety of the project's APE (i.e., offshore sand borrow areas, beach face, nearshore pipeline routes, and hopper pump-out locations). Historic properties requiring

avoidance would be avoided by implementing a buffer area (horizontal and vertical), precluding disturbance within the buffer. Buffer area dimensions, should they be necessary, would also be established through consultation with your tribe, the OSA and SHPO, and other applicable consulting parties. No construction activities potentially impacting NRHP-eligible historic properties identified within the APE and requiring avoidance would occur until effects to those properties are resolved and consultation under Section 106 of the NHPA is concluded. Additionally, should any previously unknown historic properties requiring avoidance be encountered during construction of the proposed undertaking, the USACE's District Commander would be immediately notified so that required coordination can be initiated with the OSA and SHPO, tribes with identified interest, and other applicable consulting parties. BOEM would require the same condition in its negotiated agreement for use of OCS sand resources.

Pursuant to Section 106 of the NHPA (54 USC § 306108), and its implementing regulations (36 CFR § 800), the proposed undertaking described in the Draft GRR/EA constitutes an undertaking as defined in 36 CFR § 800.16(y) and may have the potential to affect historic properties, if present. Based on our evaluation of available information, including existing consultation and the supplemental information presented in Section 5.6 of the Draft GRR/EA and Enclosure 5, implementation of the avoidance strategy described above regarding potential effects to historic properties within pipeline routes and hopper pump-out locations, and the opportunity for additional consultation prior to construction within offshore sand borrow areas B, C, and D as described above, if necessary, the USACE has determined that the proposed undertaking will not affect historic properties determined eligible for listing to the NRHP, pursuant to 36 CFR 800.4(d).

We invite your tribe to comment on the proposed undertaking and our effects determination, and to share information on resources, natural and cultural, within the APE that may be vital to an improved understanding of the undertaking's effects and impacts and warrant revision of our current findings. To date, the USACE is not aware of any resources to which tribes may ascribe cultural significance within the project's APE. We will keep this information confidential per Section 304 of the NHPA. We respectfully request that written comments be submitted no later than 30 days from the date of this letter.

We look forward to working with your tribe. For your information, the USACE is also consulting in parallel with the Catawba Indian Nation, the Eastern Band of Cherokee Indians, and the SHPO. Should you require further information or additional time to provide comments, please contact Mr. Justin Bashaw at Justin.P.Bashaw@usace.army.mil or you may call him at (910) 251-4581. Your comments may result in further coordination on an as-needed basis. If within 30 days of the date of this letter we do not receive written comments from your tribe regarding the proposed undertaking or our effects determination, or regarding a request for additional information or time with which to provide comments, we will respectfully assume that your tribe has no comments to offer at this time.

Sincerely,

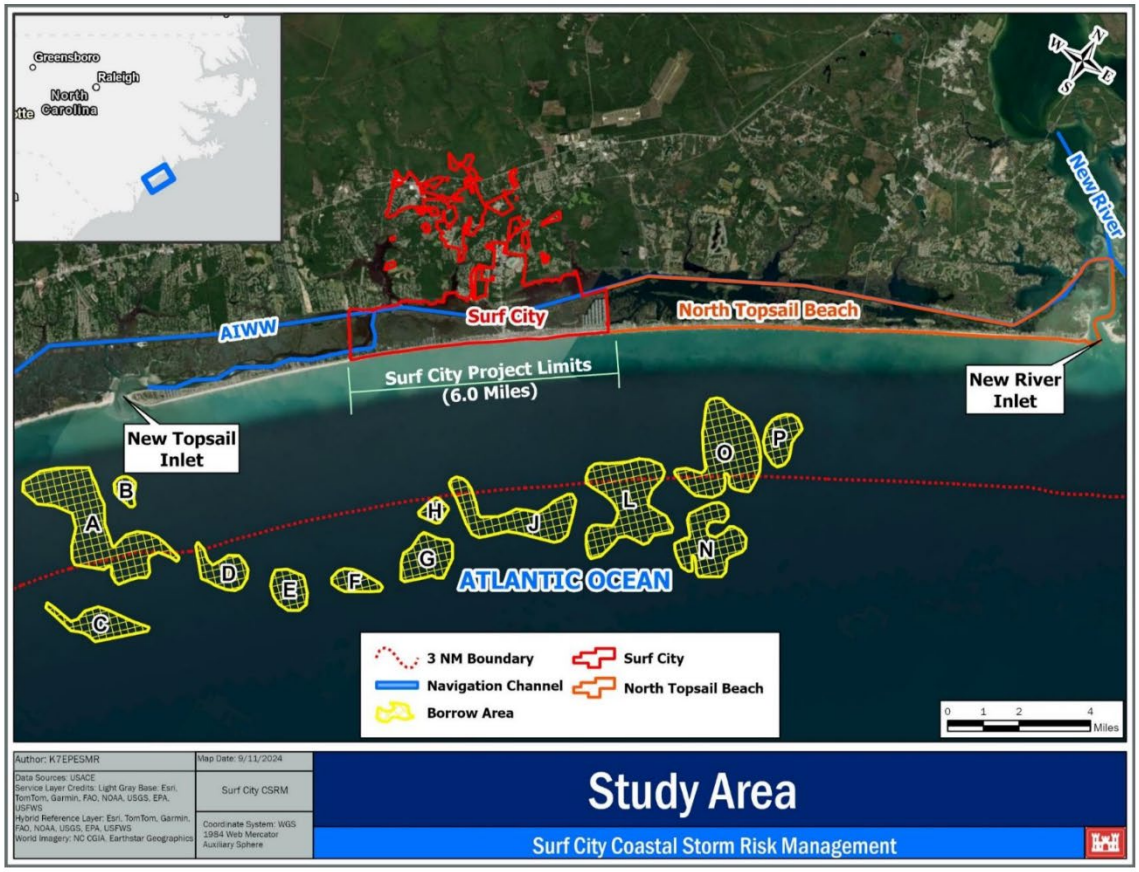
WALTERS.BRET.L.1231196745 Digitally signed by WALTERS.BRET.L.1231196745 Date: 2024.11.22 07:10:51 -05'00'

Bret L. Walters
Chief, Planning and Environmental Branch

Enclosures

Enclosure 1

Study Area Map


Greensboro
Raleigh
North Carolina
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ATLANTIC OCEAN
3 NM Boundary
Navigation Channel
Borrow Area
Surf City
North Topsail Beach
0 1 2 4
Miles
Author: K7EPESMR
Map Date: 9/11/2024
Data Sources: USACE
Service Layer Credits: Light Gray Base: Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, USFWS
Hybrid Reference Layer: Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, USFWS
World Imagery: NC OGIA, Earthstar Geographics
Surf City CSRM
Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere
Study Area
Surf City Coastal Storm Risk Management

North Carolina Department of Natural and Cultural Resources
State Historic Preservation Office
Ramona M. Bartos, Administrator

Governor Roy Cooper
Secretary D. Reid Wilson

Office of Archives and History
Deputy Secretary, Darin J. Waters, Ph.D.

December 6, 2024

Justin Bashaw
U.S. Army Corps of Engineers – Wilmington District
Wilmington Regulatory Field Office
69 Darlington Avenue
Wilmington, NC 28403
justin.p.bashaw@usace.army.mil

Re: Beach Renourishment South of Humphrey Ave to north of 9th Street, adjacent to the Atlantic Ocean/AIWW, Surf City, Pender County, 25-E-0000-0037, ER 20-0050

Dear Mr. Bashaw:

Thank you for your October 9, 2024, submission concerning the above-referenced project. We have reviewed the project and offer the following comments.

The updated project submission indicates that the offshore borrow areas designated for this renourishment effort have in fact been surveyed for the presence of archaeological resources in 2005 and 2010 respectively, and that no known historic properties have been recorded within said proposed offshore sand borrow locations. Based on the information provided, we therefore rescind our previous request for an archaeological survey and the project may proceed as planned. Please note however that the Area of Potential Effect (APE) still contains the beach wreck NTB0001, which continue to be marked for avoidance.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, contact Renee Gledhill-Earley, environmental review coordinator, at 919-814-6579 or environmental.review@dncr.nc.gov. In all future communication concerning this project, please cite the above referenced tracking number.

Sincerely,

Renee Gledhill-Earley

for Ramona Bartos, Deputy
State Historic Preservation Officer

Location: 109 East Jones Street, Raleigh NC 27601 **Mailing Address**: 4617 Mail Service Center, Raleigh NC 27699-4617 **Telephone/Fax**: (919) 814-6570/814-6898

From: Caitlin Rogers
To: Bashaw, Justin P CIV USARMY CESAW (USA)
Subject: [Non-DoD Source] Re: Draft GRR/EA
Date: Friday, January 10, 2025 9:48:31 AM
Attachments: image001.png
image002.png

Yes, that is draft I'm referring too.

Hawuh (Thank you),

Caitlin Rogers
Catawba Nation
Cultural Division Programs Manager
Tribal Historic Preservation Office
1536 Tom Steven Road
Rock Hill, SC 29730

803-328-2427 ext. 226

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From: Bashaw, Justin P CIV USARMY CESAW (USA) <Justin.P.Bashaw@usace.army.mil>
Sent: Friday, January 10, 2025 9:14 AM
To: Caitlin Rogers <Caitlin.Rogers@catawba.com>
Subject: RE: Draft GRR/EA

Good morning, ~~Ms. Rogers~~ Caitlin –

Thanks to you and the Catawba Indian Nation for your review and response. For the sake of records clarity, would you mind confirming that the Draft GRR/EA you refer to in this email thread is the "Draft General Re-evaluation Report and Environmental Assessment, Surf City, Onslow and Pender Counties, North Carolina, CSRM Project".

Respectfully,
-Justin

US Army Corps of Engineers

Justin Bashaw
Biologist | Cultural Resources Manager | Ocean Placement Coordinator | Public Involvement Specialist | Tribal Liaison
Environmental Resources Section
USACE Wilmington District

Desk: 910-251-4581
Mobile: 910-973-5321
Email: Justin.P.Bashaw@usace.army.mil
Web: https://www.saw.usace.army.mil/

69 Darlington Avenue
Wilmington, NC 28403

From: Caitlin Rogers <Caitlin.Rogers@catawba.com>
Sent: Thursday, January 9, 2025 1:51 PM
To: Bashaw, Justin P CIV USARMY CESAW (USA) <Justin.P.Bashaw@usace.army.mil>
Subject: [Non-DoD Source] Draft GRR/EA

The Catawba have no concerns with the draft. If you have any questions or need anything else let me know.

Hawuh (Thank you),

Caitlin Rogers
Catawba Nation

Cultural Division Programs Manager
Tribal Historic Preservation Office
1536 Tom Steven Road
Rock Hill, SC 29730

803-328-2427 ext. 226

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