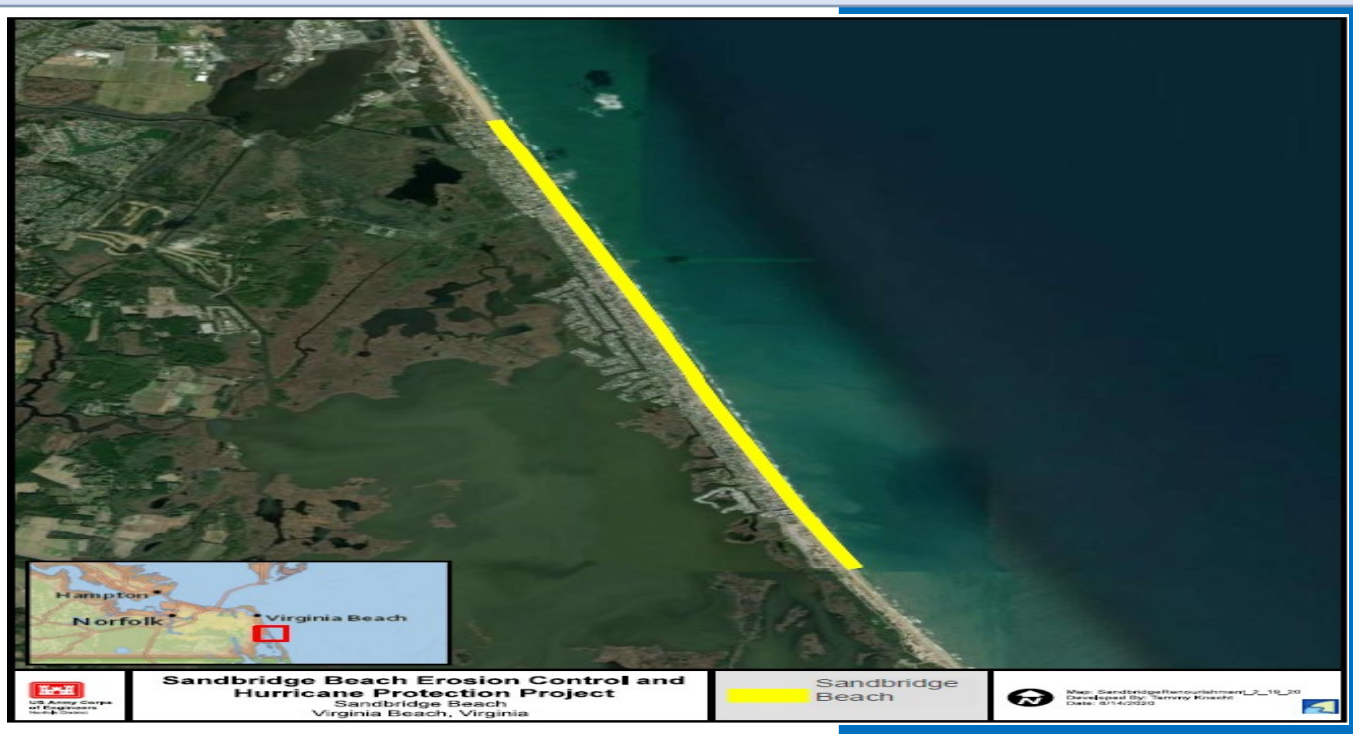
Programmatic Environmental Assessment

LOW-IMPACT ALTERATIONS CONDUCTED BY NONFEDERAL SPONSORS OR INDEPENDENT REQUESTORS TO SANDBRIDGE BEACH EROSION CONTROL & HURRICANE PROTECTION PROJECT

Virginia Beach, Virginia



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17 December 2020

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1.0 Project purpose and need

The purpose of this Environmental Assessment (EA) is to programmatically address a variety of requests from property owners for minor and low impact activities that alter the Sandbridge Beach Erosion Control and Hurricane Protection Project (the "Project"), a U. S. Army Corps of Engineers Civil Works project. The authority to grant permission for temporary or permanent use, occupation or alteration of any U.S. Army Corps of Engineers (USACE) civil works project is contained in Section 14 of the Rivers and Harbors Act of 1899, as amended, codified at 33 U.S.C. 408 ("Section 408"). Many proposed alterations to Civil Works projects also require a USACE regulatory permit in compliance with Section 10 of the Rivers and Harbors Act (33 USC § 403) and/or Section 404 of the Clean Water Act (33 USC§ 1344) (Section 404/10). USACE regulatory permits that are issued include a NEPA assessment to support a permit decision prior to issuance. However, some proposed alterations do not require a Section 404/10 permit but must still be reviewed with a decision documented and approved by the USACE in accordance with NEPA and Section 408. This EA will allow the District to analyze environmental impacts for proposed actions that are generally related in scope through a Programmatic Environmental Assessment and Decision Document that can be applied to each individual 408 permission. Addressing proposed and future 408 activities through a Programmatic EA will expedite the current review and decision process, reduce fund requirements (labor) and increase residents' ability to expedite projects for maintenance and construction of structural features.
Section 408 authorizes the Secretary of the Army, on the recommendation of the Chief of Engineers, to grant permission for the alteration or occupation or use of a USACE project if the Secretary determines that the activity will not be injurious to the public interest and will not impair the usefulness of the project. The Secretary of the Army's authority under Section 408 has been delegated to the USACE, Chief of Engineers. The USACE Chief of Engineers has further delegated the authority to the USACE, Directorate of Civil Works, Division and District Commanders, and supervisory Division Chiefs depending upon the nature of the proposed activity.

Sand maintenance

Sand from Sandbridge Beach is continuously migrating through natural processes onto residents' properties such as yards, decks, and pools. Residents frequently propose to remove excess sand that has migrated onto private property and place the sand back onto Sandbridge Beach to maintain their properties. Maintenance may also be required for non-sand marine debris that migrates through natural processes onto private property and may require removal for disposal.

Structural features

Property owners at the Project have requested and are expected to continue to request authorization to construct and maintain a variety of surface or subsurface structures on private property that require Section 408 coordination. Structures may include but are not limited to bulkheads, piles, decks, pools, storage sheds, landscaping, or other residential structural features. Structures may be constructed and maintained for various purposes including protection of property, safety, improvements to meet local or state codes, aesthetics, and recreation.

This EA will only consider the environmental impacts of sand maintenance activities and structural features that may be constructed or maintained at Sandbridge Beach and that require Section 408 coordination.

1.1 Federal project authority

The Project is authorized by the Water Resources Development Acts of 1974, 1992, and 2000, as amended. Section 101 (22) of Public Law 102-580 authorized a beach erosion control and hurricane protection project consistent with the Chief of Engineers report dated 29 June 1992. Section 338 of Public Law 106-541 (WRDA 2000) authorized the provision of 50 years of periodic nourishment beginning in 1998 and ending in 2048.

1.2 Project location

The actions being considered for this programmatic assessment are located in Sandbridge Beach, Virginia Beach, Virginia. Sandbridge Beach is located on a barrier island along coastal southeast Virginia that separates the Atlantic Ocean on the east from Back Bay, a shallow freshwater sound, to the west. It is a residential community of mostly year-round residents, rental properties, and summer homes located approximately 5 miles south of Virginia Beach's "resort strip." Several major storms, nor'easters, and hurricanes have struck the area in past years, causing severe losses of sand and coastal flooding; the oceanfront is susceptible to wave attack on the beach berm and dunes. Sandbridge Beach extends from the U.S. Naval Fleet Anti-Air Warfare Training Center at Dam Neck to the north to Back Bay National Wildlife Refuge to the south.

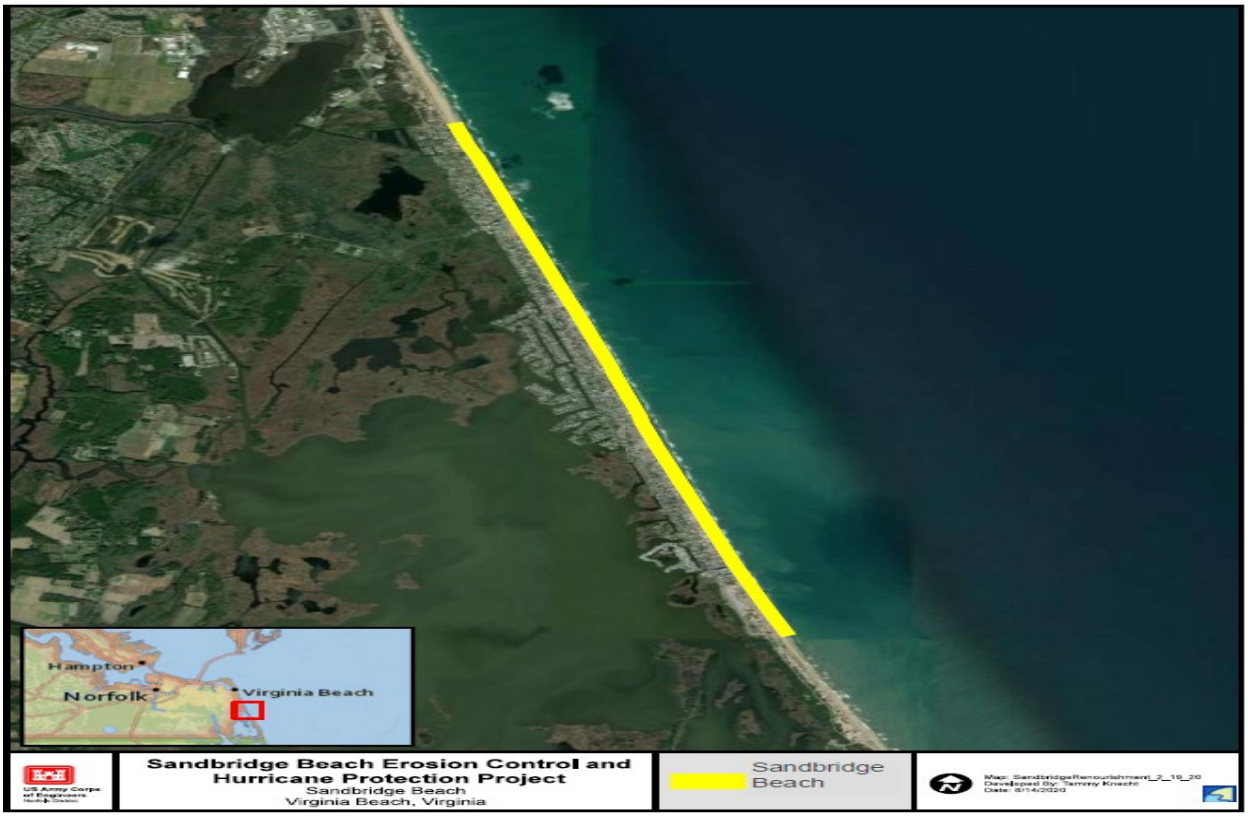

Figure 1. Sandbridge Beach Erosion Control and Hurricane Protection Project

1.3 Project need or opportunity

The proposed alterations are minor and low impact activities (sand maintenance and structural features). These actions are needed to ensure that residential areas can be used continually and continue to be safe.

1.4 Decisions to be made

This EA will programmatically evaluate the general category of actions described in Section 1.0 in order to support Section 408 coordination and decision-making. This EA will document and evaluate the proposed alternatives to accomplish that goal. The No Action Alternative and proposed alternatives will be studied in detail to determine the Least Environmentally Damaging Preferred Alternative (LEDPA).

2.0 Proposed action and alternative

The alternatives described below were evaluated against the project purposes and the environmental impacts considered.

Alternative A (No Action Alternative): Under the No Action Alternative, the District would not programmatically approve the proposed low-impact alterations at Sandbridge beach. The No Action Alternative will mean that maintenance work or construction of other structural features at residential properties at Sandbridge will continue to require individual NEPA documentation of environmental impacts for minor and low impact activities. Individual consultations will take more time to be completed for NEPA preparation and consultation of environmental impacts (at least 60 days). In light of this additional time and program-related budgetary constraints, this could result in the alteration not being timely reviewed and therefore not being constructed.

Sand maintenance activities
It is expected that removal of excess sand covering private property at Sandbridge Beach will continue to be necessary in order for residents to have full use of their property. Such sand removal is anticipated to require Section 408 coordination.

Structural features
Additionally, it is expected that maintenance and construction of surface and subsurface structural features will continue to be necessary to protect residential properties from storms, for recreational purposes, for safety reasons, for local and state code compliance, and/or for other purposes. Such structures may include but are not limited to bulkheads, piles, decks, pools, storage sheds, landscaping, or other structural features. It is anticipated that these maintenance and construction activities will require Section 408 coordination.

Alternative B (Programmatic EA for Sand Maintenance and Structural Feature activities): Alternative B will allow the District to analyze environmental impacts for proposed actions discussed in Alternative A that are generally related in scope through a Programmatic Environmental Assessment and Decision Document that can be applied to each individual 408 permission. Addressing proposed and future activities for minor and low impact actions through

a Programmatic EA will expedite the current process, reduce fund requirements (labor) and increase residents' ability to expedite projects for maintenance and construction of structural features.

3.0 Issues and basis for choice

Based upon the impact analysis conducted within this EA, Alternative B is the Preferred Alternative. This plan is expected to best meet the objectives and constraints of the Proposed Action with minimal negative impacts and reduction of labor and time. Thus insuring that residents do not have to wait an additional 60 days for NEPA preparation and coordination and are able to execute activities in a timely manner.

Sand maintenance activities will likely consist of the use of compact skid steer loaders, compact excavators, compact utility vehicles, compact tractors, and other small hydraulic equipment (e.g. Bobcat brand type equipment) to move the sand that has migrated into the residential property back into the beach.

Construction of other structural features on private property such as a bulkhead, may consist of the installation or driving of bulkhead piles, walers, anchors, tie-backs, and caps. Other structures on private property may include general installation of residential structural features including dwellings, storage, or landscape features, localized excavation and land disturbance.

Means and methods
Sand maintenance activities will likely consist of the use of compact skid steer loaders, compact excavators, compact utility vehicles, compact tractors, and other small hydraulic equipment (e.g. Bobcat brand type equipment) to move the sand that has migrated into the residential property back into the beach. Construction of other structural features on private property such as a bulkhead, may consist of the installation or driving of bulkhead piles, walers, anchors, tie-backs, and caps. Other structures on private property may include general installation of residential structural features including dwellings, storage, or landscape features, localized excavation and land disturbance.

4.0 Affected environment and environmental effects

The affected environment is located within the confines of the Project and is for minor and low impact projects conducted by residential property owners. All proposed activities will take place landward of mean high water (MHW).

4.1 Aesthetics

Visual and aesthetic features include a wide beach with a dune system along much of the project length and residential community. Overall, the entire length of the project can be considered aesthetically pleasing to those who enjoy the view of a residential seashore. During the summer months, tourists arrive for ocean and bayfront activities such as swimming, surfing, fishing, and entertainment. Project impacts would be temporary, minor, and localized.

4.2 Noise

Noise levels in the area are typical of recreational and beach activities. Noise levels fluctuate with the highest levels usually occurring during the spring and summer months due to increased tourism, boating, vessel traffic, fishing, and coastal activities. Project impacts would be temporary, minor, and localized.

4.3 Air Quality

Concentrations of air pollutants in the Sandbridge Beach area, except ozone, are within the national ambient air quality standards (NAAQS). No impacts are anticipated.

4.4 Vegetation

Vegetation within the footprint would typically consist of planted shrubs and grasses and dune grasses. Effects would be temporary and minor. Disturbed vegetation should recover in one to two growing seasons. Restoration (planting) may be necessary in some cases. Any dune vegetation removed would be re-installed on the dune crest and face, to the greatest extent practicable.

4.5 Dunes

Dune protection is carried out pursuant to the Coastal Primary Sand Dune Protection Act and is intended to prevent destruction or alteration of primary dunes. This program is administered by the Marine Resources Commission (Virginia Code §28.2-1400 through §28.2-1420).

Residents cannot remove sand or excavate dunes outside of their property line. However, the property line extends to the public beach easement in most cases and often includes the dunes. Seaward of the bulkhead, the property owners can excavate up to a 15 ft area. This consists of digging into the backside of the dune. This action requires that residents must replant the backside of the dune and add additional plantings to the seaward facing side of the dune and maintain a 2:1 slope as required by the City of Virginia Beach permit. Project impacts would be localized and minor.

4.6 Cultural Resources

Within the 5 miles of Sandbridge Beach there are ten residential properties identified as architectural resources adjacent to the Sandbridge Beach. Of these properties only two have proposed actions. One of them is to place the sand that has migrated into a residential property back into the beach. The other proposed action is for the construction of a bulkhead. Construction of structural features may result in the need to excavate which would occur on private property. As previously stated, the proposed impacts would be minor and low impact. Additionally, the proposed projects would relocate sand out to areas considered within the federal project. USACE has determined that given the nature of the activities and the Department of Historic Resource's (DHR) concurrence with USACE's previous determination of no adverse effect [DHR file number 2007-0458], additional Section 106 consultation is not necessary.

4.7 Land Disturbance

Sand maintenance activities would typically consist of less than one acre of soil/sand disturbance. Excess sand (e.g. a non-cohesive soil particle) that has migrated into residential property would be placed back into Sandbridge Beach. Structural features activities such as bulkheads, piles, decks, pools, storage sheds, landscaping, or other structural features constructed on residential property

would also typically result in less than one acre of land/soil disturbance. The proposed projects would not change land use. No impacts are anticipated.

4.8 Non-point Source Pollution Control
Virginia's Erosion and Sediment Control Law requires soil-disturbing projects to be designed to reduce soil erosion and to decrease inputs of chemical nutrients and sediments to the Chesapeake Bay, its tributaries, and other rivers and waters of the Commonwealth. No impacts are anticipated.

4.9 Point Source Pollution Control
Point source pollution control is accomplished through the implementation of the National Pollutant Discharge Elimination System permit program established pursuant to Section 402 of the Federal Clean Water Act and administered in Virginia as the Virginia Pollutant Discharge Elimination System permit program. The proposed construction activities have no potential to introduce pollutants into a storm water system, as none exists in the vicinity of the project. Therefore, no environmental impacts are anticipated.

4.10 Threatened and Endangered Species
USACE, Norfolk District, is currently working with USFWS for the Endangered Species Act Section 7 Consultation and final determinations are pending. Preliminary review of this action identified species on the U.S. Fish and Wildlife Service (USFWS) List of Threatened and Endangered Species in Virginia. The following list identifies the Federally listed species that may occur during certain times of year along the Atlantic Coast of southern Virginia:

Mammals
T - Northern Long-eared Bat (Myotis septentrionalis)

Birds
E - Roseate tern (*Sterna dougallii dougallii);* Atlantic coast
T - Piping plover *(Charadrius melodus);* non-Great Lakes watershed
T - Red knot (*Calidris canutus rufa)*

Turtles
T - Loggerhead sea turtle *(Caretta caretta);* Northwest Atlantic DPS
T - Green sea turtle *(Chelonia mydas);* North Atlantic DPS
E - Leatherback sea turtle *(Dermochelys coriacea)*
E - Hawksbill sea turtle *(Eretmochelys imbricate)*
E - Kemp's ridley sea turtle *(Lepidochelys kempii)*

5.0 Description of environmental impacts of proposed actions

The proposed activities are minor and short in duration. The proposed activities will cause temporary, insignificant, and localized impacts within the affected environment for resources addressed in section 4 with the exception of threatened and endangered species, nesting sea turtles (refer to "ESA Section 7 Determination Table" for details). Placement of sand along the beach between May 15 through November 15 has the potential to impact loggerhead, Kemp's ridley, and/or green sea turtle nests. In the future, placement of sand along the beach also has the potential

to impact leatherback sea turtle nests. However, most sand management activities are expected to be completed outside of tourist season which coincides with nesting season. If sand management activities must be done during turtle nesting season, conservation measures can be implemented to prevent adverse impacts to the species. For example, project activities shall be prohibited and no project related lighting shall remain on from dusk until 8:00 am from May 15 through November 15 to prevent impacts to nesting females. Back Bay National Wildlife Refuge conducts daily turtle nesting surveys at dawn throughout nesting season. If a nest or crawl is discovered, it is either relocated or sectioned off by qualified staff and volunteers. Project activities can be postponed until the area has been cleared by a qualified turtle patrol. If a nest is sectioned off in the area where sand placement will occur, no sand shall be placed on the civil works project within a 500 ft buffer of the nest and no equipment or vehicles shall be driven on the civil works project within a 50 ft buffer of the nest. Any sand placed on the beach during nesting season shall also be graded so that it is level with the existing gradient and ruts from equipment shall be smoothed to eliminate the risk of trapping a turtle in the ruts. Therefore, it is anticipated that the proposed activities will have minimal impacts on listed species.

Table 1. Species Conclusion Table for this project

Endangered Species Act (ESA) Section 7 Determination Table

Project Name: Low-Impact Alterations to Sandbridge Beach Erosion Control & Hurricane Protection Project Conducted by Nonfederal Sponsors or Independent Requestors

Date: 19 August 2020

Consultation Code: 05E2VA00-2020-SLI-5402

* USACE, Norfolk District, is currently working with USFWS for the Endangered Species Act Section 7 Consultation and final determinations are pending.

Species / Resource Name	Habitat/Species Presence in Action Area	Sources of Info	ESA Section 7 Determination	Project Elements that Support Determination
Insert name of species or resource as listed on Official Species List.	*Indicate if suitable habitat and species are present in the Action Area (see examples in Step 5).*	*Explain what info suitable habitat/species presence is based on.*	*Using reasoning and decision tables in Step 5, select determination for each species (e.g. no effect, not likely to adversely affect, or likely to adversely affect).*	*Explain which project elements may impact the habitat or individuals of each species and any Avoidance and Minimization Measures being implemented.*
Northern long-eared bat (*Myotis septentrionalis*)	No suitable habitat present	Dkey; VDGIF	No effect; Covered by 4(d) Rule	All project activities will be conducted on Sandbridge Beach or on adjacent private property where no trees or hibernacula are present. The habitat for the Northern long-eared bat is not present within the project area, therefore the proposed project will not impact the species (see attached map).
Piping plover (*Charadrius melodus*)	Critical habitat not present	50 CFR Part 17; USFWS ECOS; Virginia DWR, Cornell Lab of Ornithology	Not likely to adversely affect	In the 1950's, Sandbridge Beach was developed and houses were built across foredunes leaving no natural protective barrier for nesting birds. The construction

				and development lead to the disappearance of several nesting populations including the piping plover. Piping plovers are rarely observed on or near the public portion of Sandbridge Beach. Piping plovers are not known to nest or overwinter on Sandbridge Beach currently. They breed and forage mostly on the Eastern Shore of Virginia from March to October. All project activities will be conducted on Sandbridge Beach or on adjacent private property. The only activity on the public portion of Sandbridge Beach will be the movement of excess sand from private residences. The sand will not be placed below the high tide line where this species is likely to forage. It is not likely individuals of this species will be exposed to one or more consequences of the project activities. Any effects to foraging or migrating piping plovers as a result of low impact project activities would be minor, temporary and discountable.

Red Knot (*Calidris canutus rufa*)	Suitable habitat present, species present (rarely)	USFWS ECOS, Virginia DWR, Center for Conservation Biology, Cornell Lab of Ornithology	Not likely to adversely affect	In the 1950's, Sandbridge Beach was developed and houses were built across foredunes leaving no natural protective barrier for nesting birds. While the habitat is present; historically, red knots rarely utilize Sandbridge Beach to forage and rest before migrating to their breeding grounds. All project activities will be conducted on Sandbridge Beach or on adjacent private property. The only activity on the public portion of Sandbridge Beach will be the movement of excess sand from private residences. The sand will not be placed below the high tide line where this species is likely to forage. It is not likely individuals of this species will be exposed to one or more consequences of the project activities. Any effects to foraging or migrating red knots as a result of low impact project activities would be minor, temporary and discountable.
Roseate tern (*Sterna dougallii dougallii*)	Suitable habitat present, species present (rarely)	USFWS ECOS, Virginia DWR, Cornell Lab of Ornithology	Not likely to adversely affect	Roseate terns are not known to nest or overwinter on Sandbridge Beach and are considered a rare visitor to the

				mid-Atlantic. Roseate terns nest on barrier islands in hollows or under dense vegetation, typically in colonies with common terns. All project activities will be conducted on Sandbridge Beach or on adjacent private property. The only activity on the public portion of Sandbridge Beach will be the movement of excess sand from private residences. The sand will not be placed below the high tide line where this species is likely to forage. It is not likely individuals of this species will be exposed to one or more consequences of the project activities. Any effects to foraging or migrating roseate terns as a result of low impact project activities would be minor, temporary and discountable.
Loggerhead sea turtle (*Caretta caretta*)	Species present	USFWS ECOS, VDGIF, Widecast Technical Report No. 9,	Not likely to adversely affect	In Virginia, loggerhead sea turtles are found throughout the Chesapeake Bay, barrier islands off the Eastern Shore, and off the coast in the Atlantic Ocean. Loggerheads are a marine species that spend most of their time in the ocean and estuaries where they feed, breed, and migrate. Loggerheads nest in

				small numbers along Virginia's coast from May through November. Historical nesting records from VDGIF document 15 total loggerhead nests and 8 total loggerhead false crawls within the project area from 1970 through 2019. Dam Neck beach outside of the project area and to the south had a total of 6 loggerhead nests and total of 2 loggerhead false crawls from 1970 through 2019. Back Bay National Wildlife Refuge outside of the project area and to the north had a total of 61 loggerhead nests and 22 loggerhead false crawls from 1970 through 2019. All project activities will be conducted on Sandbridge Beach or on adjacent private property. The only activity on the public portion of Sandbridge Beach will be the movement of excess sand from private residences. The movement of sand from private residences to the public portion of Sandbridge Beach has the potential to impact nesting sea turtles during nesting season. However, minimization

				and avoidance conservation measures shall be implemented to avoid impacts to nesting sea turtles. Back Bay National Wildlife Refuge manages daily dawn turtle patrols for Sandbridge Beach. If a nest is discovered, qualified staff make the decision to relocate or leave the nest in place. The nest is then caged, marked, and roped off to protect the nest from predators and beach goers. During sea turtle nesting season (May through November), we shall indicate that project activities shall not be conducted from dusk until 8 am. If a nest has been sectioned off, no sand shall be placed or equipment be driven anywhere around the nest to prevent disturbance. Any ruts from equipment used on the beach shall be smoothed out and no equipment shall be stored on the beach throughout the night from May through November. With these measures in place, loggerhead sea turtles are not likely to be exposed to one or

				more consequences of the project activities.
Kemp's ridley sea turtle (*Lepidochelys kempii*)	Species present	USFWS ECOS, VDGIF	Not likely to adversely affect	Adult and sub-adult Kemp's ridleys primarily occupy nearshore habitats that contain muddy or sandy bottoms where prey can be found. Kemp's ridleys are the second most common sea turtle in Virginia waters. They are found throughout the Chesapeake Bay, barrier islands off the Eastern Shore, and off the coast in the Atlantic Ocean. In recent years, two Kemp's ridley nests have been discovered in Virginia. Historical nesting records from VDGIF document 0 total Kemp's ridley nests and 0 total Kemp's ridley false crawls within the project area from 1970 through 2019. Dam Neck beach outside of the project area and to the south had a total of 1 Kemp's ridley nest and total of 0 Kemp's ridley false crawls from 1970 through 2019. Back Bay National Wildlife Refuge outside of the project area and to the north had a total of 0 Kemp's ridley nests and 0 Kemp's ridley false crawls from 1970 through 2019.

				All project activities will be conducted on Sandbridge Beach or on adjacent private property. The only activity on the public portion of Sandbridge Beach will be the movement of excess sand from private residences. The movement of sand from private residences to the public portion of Sandbridge Beach has the potential to impact nesting sea turtles during nesting season. However, minimization and avoidance conservation measures shall be implemented to avoid impacts to nesting sea turtles. Back Bay National Wildlife Refuge manages daily dawn turtle patrols for Sandbridge Beach. If a nest is discovered, qualified staff make the decision to relocate or leave the nest in place. The nest is then caged, marked, and roped off to protect the nest from predators and beach goers. During sea turtle nesting season (May through November), we shall indicate that project activities shall not be conducted from dusk until 8 am.

				If a nest has been sectioned off, no sand shall be placed or equipment be driven anywhere around the nest to prevent disturbance. Any ruts from equipment used on the beach shall be smoothed out and no equipment shall be stored on the beach throughout the night from May through November. With these measures in place, Kemp's ridley sea turtles are not likely to be exposed to one or more consequences of the project activities.
Green sea turtle (*Chelonia mydas*)	Species present	USFWS ECOS, VDGIF	Not likely to adversely affect	Green turtles are generally found in fairly shallow waters (except when migrating) inside reefs, bays, and inlets. The turtles are attracted to lagoons and shoals with an abundance of marine grass and algae. Open beaches with a sloping platform and minimal disturbance are required for nesting. Green turtles have strong nesting site fidelity and often make long distance migrations between feeding grounds and nesting beaches. Since 2005, a couple of green sea turtles have made Virginia their nesting beach. Historical nesting records from VDGIF

				document 1 total Green nest and 0 total Green false crawls within the project area from 1970 through 2019. Dam Neck beach outside of the project area and to the south had a total of 0 Green nests and 1 Green false crawl. Back Bay National Wildlife Refuge outside of the project area and to the north had a total of 1 Green nest and 0 Green false crawls from 1970 through 2019. All project activities will be conducted on Sandbridge Beach or on adjacent private property. The only activity on the public portion of Sandbridge Beach will be the movement of excess sand from private residences. The movement of sand from private residences to the public portion of Sandbridge Beach has the potential to impact nesting sea turtles during nesting season. However, minimization and avoidance conservation measures shall be implemented to avoid impacts to nesting sea turtles.

				Back Bay National Wildlife Refuge manages daily dawn turtle patrols for Sandbridge Beach. If a nest is discovered, qualified staff make the decision to relocate or leave the nest in place. The nest is then caged, marked, and roped off to protect the nest from predators and beach goers. During sea turtle nesting season (May through November), we shall indicate that project activities shall not be conducted from dusk until 8 am. If a nest has been sectioned off, no sand shall be placed or equipment be driven anywhere around the nest to prevent disturbance. Any ruts from equipment used on the beach shall be smoothed out and no equipment shall be stored on the beach throughout the night from May through November. With these measures in place, Green sea turtles are not likely to be exposed to one or more consequences of the project activities.
Leatherback sea turtle (*Dermochelys coriacea*)	Suitable habitat present, species not present	USFWS ECOS, VDGIF	Not likely to adversely affect	The leatherback is the most pelagic of the sea turtles. Adult females require sandy nesting beaches backed with vegetation

				and sloped sufficiently so the distance to dry sand is limited. Their preferred beaches have proximity to deep water and generally rough seas. Leatherbacks are not currently known to nest in Virginia. However, North Carolina has recently documented leatherback nesting sites. With suitable habitat present, it is not unwarranted to consider Virginia as a potential future nesting site for leatherback sea turtles. All project activities will be conducted on Sandbridge Beach or on adjacent private property. The only activity on the public portion of Sandbridge Beach will be the movement of excess sand from private residences. The movement of sand from private residences to the public portion of Sandbridge Beach has the potential to impact nesting sea turtles during nesting season. However, minimization and avoidance conservation measures shall be implemented to avoid impacts to current and potential future nesting sea turtle species.

				Back Bay National Wildlife Refuge manages daily dawn turtle patrols for Sandbridge Beach. If a nest is discovered, qualified staff make the decision to relocate or leave the nest in place. The nest is then caged, marked, and roped off to protect the nest from predators and beach goers. During sea turtle nesting season (May through November), we shall indicate that project activities shall not be conducted from dusk until 8 am. If a nest has been sectioned off, no sand shall be placed or equipment be driven anywhere around the nest to prevent disturbance. Any ruts from equipment used on the beach shall be smoothed out and no equipment shall be stored on the beach throughout the night from May through November. With these measures in place, potential future nesting leatherback sea turtles are not likely to be exposed to one or more consequences of the project activities.

Hawksbill sea turtle (*Eretmochelys imbricata*)	No suitable habitat present	USFWS ECOS, VDGIF, VAQS Stranding Record	No effect	Hawksbills frequent rocky areas, coral reefs, shallow coastal areas, lagoons or oceanic islands, and narrow creeks and passes. They are seldom seen in water deeper than 65 feet. Hatchlings are often found floating in masses of sea plants, and nesting may occur on almost any undisturbed deep-sand beach in the tropics. Adult females are able to climb over reefs and rocks to nest in beach vegetation. Hawksbill sea turtles rarely make it to Virginia waters due to unsuitable habitat and lack of primary food sources. The stranding record supports the rarity of this species with less than 4 documented hawksbill strandings in Virginia historically. There will be no in water impacts for project activities. The habitat for the nesting hawksbill sea turtle is not present within the project area, therefore the proposed project will not impact the species

6.0 Cumulative effects

Cumulative effects are defined in 40 CFR 1508.7 as those effects that result from: the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. The primary goal of cumulative effects analysis is to determine the magnitude and significance of the environmental consequences of the Proposed Action in the context of cumulative effects of other past, present, and future actions.

The Proposed Actions are expected to increase the usability, aesthetics, recreation, and safety of residential property owners. The cumulative negative effects of the Proposed Actions would be insignificant and any impacts would be temporary. These projects are minor and short in duration actions with temporary, localized, and insignificant effects.

7.0 Unavoidable adverse environmental effects

Environmental effects for each resource are discussed above. Adverse environmental effects associated with implementing the Preferred Alternative are expected to be localized and temporary. Temporary and localized adverse impacts may occur during construction due to noise caused by skid steer equipment, pile driving, and other construction activities; however, significant impacts are not expected. Potential environmental effects would be limited in spatial extent to the immediate residential project area.

8.0 Conflicts and controversy

Over the lifetime of the maintenance of the Sandbridge Beach Erosion Control and Hurricane Protection Project, considerable interest has been generated among local and regional stakeholders. The Corps and the City continually strives to include all interested parties in its decision-making process and will continue to consider all issues that arise.

9.0 Environmental commitments

The Corps commits to avoiding, minimizing, or mitigating adverse effects. Consideration of practicable means to avoid or minimize environmental effects were incorporated into the Preferred Alternative.

Appendix A
Consultation documentation

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Virginia Field Office
6669 Short Lane
Gloucester, VA 23061

Date: 2 September 2020

Self-Certification Letter

Project Name: Low-Impact Alterations to Sandbridge Beach Erosion Control & Hurricane Protection Project Conducted by Nonfederal Sponsors or Independent Requestors

Dear Applicant:

Thank you for using the U.S. Fish and Wildlife Service (Service) Virginia Ecological Services online project review process. By printing this letter in conjunction with your project review package, you are certifying that you have completed the online project review process for the project named above in accordance with all instructions provided, using the best available information to reach your conclusions. This letter, and the enclosed project review package, completes the review of your project in accordance with the Endangered Species Act of 1973 (16 U.S.C. 1531-1544, 87 Stat. 884), as amended (ESA). This letter also provides information for your project review under the National Environmental Policy Act of 1969 (P.L. 91-190, 42 U.S.C. 4321-4347, 83 Stat. 852), as amended. A copy of this letter and the project review package must be submitted to this office for this certification to be valid. This letter and the project review package will be maintained in our records.

The species conclusions table in the enclosed project review package summarizes your ESA conclusions. These conclusions resulted in:

- "no effect" determinations for proposed/listed species and/or proposed/designated critical habitat; and/or
- Action may affect the northern long-eared bat; however, any take that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR § 17.40(o) [as determined through the Information, Planning, and Consultation System (IPaC) northern long-eared bat assisted determination key]; and/or
- "may affect, not likely to adversely affect" determinations for proposed/listed species and/or proposed/designated critical habitat.

We certify that use of the online project review process in strict accordance with the instructions provided as documented in the enclosed project review package results in reaching the appropriate determinations. Therefore, we concur with the determinations described above for proposed and listed species and proposed and designated critical habitat. Additional coordination with this office is not needed.

Candidate species are not legally protected pursuant to the ESA. However, the Service encourages consideration of these species by avoiding adverse impacts to them. Please contact this office for additional coordination if your project action area contains candidate species.

Should project plans change or if additional information on the distribution of proposed or listed species, proposed or designated critical habitat becomes available, this determination may be reconsidered. This certification letter is valid for 1 year.

Information about the online project review process including instructions and use, species information, and other information regarding project reviews within Virginia is available at our website http://www.fws.gov/northeast/virginiafield/endspecies/project_reviews.html. If you have any questions, please contact Troy Andersen of this office at (804) 824-2428.

Sincerely,

Cindy Schulz
Field Supervisor
Virginia Ecological Services

Enclosures - project review package

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Virginia Ecological Services Field Office
6669 Short Lane
Gloucester, VA 23061-4410
Phone: (804) 693-6694 Fax: (804) 693-9032
http://www.fws.gov/northeast/virginiafield/

In Reply Refer To: August 05, 2020
Consultation Code: 05E2VA00-2020-SLI-5402
Event Code: 05E2VA00-2020-E-14981
Project Name: Low-Impact Alterations to Sandbridge Beach Erosion Control & Hurricane Protection Project

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*). Any activity proposed on National Wildlife Refuge lands must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered

species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Virginia Ecological Services Field Office
6669 Short Lane
Gloucester, VA 23061-4410
(804) 693-6694

Project Summary

Consultation Code: 05E2VA00-2020-SLI-5402

Event Code: 05E2VA00-2020-E-14981

Project Name: Low-Impact Alterations to Sandbridge Beach Erosion Control & Hurricane Protection Project

Project Type: ** OTHER **

Project Description: Low-Impact Alterations to Sandbridge Beach Erosion Control & Hurricane Protection Project Conducted by Nonfederal Sponsors or Independent Requestors

The purpose of this coordination is to programmatically address minor and low impact activities that alter Sandbridge Beach U . S. Army Corps of Engineers Civil Works project. Many proposed alterations to Civil Works projects require a USACE regulatory permit in compliance with Section 10 of the Rivers and Harbors Act (33 USC § 403) and/or Section 404 of the Clean Water Act (33 USC§ 1344) (Section 404/10). Those USACE regulatory permits that are issued and include NEPA assessment to support a permit decision prior to issuance. However, some proposed alterations do not require a Section 404/10 permit, but must still be reviewed, a decision documented, and approved by the USACE in accordance with the National Environmental Policy Act and Section 408.

Maintenance
The sand from the beach is continuously migrating through natural processes into residents properties such as yards, decks, and pools. Residents are proposing to remove excess sands that have migrated onto private property and place the sands back into Sandbridge Beach to maintain their properties.

Structural Features
Property owners at Sandbridge Beach have and are expected to continue to request authorization to construct and maintain a variety of surface or subsurface structures on private property that require Section 408 coordination for the civil works project. Structures may include but are not limited to bulkheads, piles, decks, pools, storage sheds, or other structural features. Structures may be constructed and maintained for various purposes including protection of property, safety, improvements to meet local or state codes, aesthetics and recreation.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/36.728408805673375N75.9364474018069W

Counties: Virginia Beach, VA

Endangered Species Act Species

There is a total of 9 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Birds

NAME	STATUS
Piping Plover *Charadrius melodus* Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered. There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6039	Threatened
Red Knot *Calidris canutus rufa* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened
Roseate Tern *Sterna dougallii dougallii* Population: Northeast U.S. nesting population No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2083	Endangered

Reptiles

NAME	STATUS
Green Sea Turtle *Chelonia mydas* Population: North Atlantic DPS There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6199	Threatened
Hawksbill Sea Turtle *Eretmochelys imbricata* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3656	Endangered
Kemp's Ridley Sea Turtle *Lepidochelys kempii* There is **proposed** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/5523	Endangered
Leatherback Sea Turtle *Dermochelys coriacea* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1493	Endangered
Loggerhead Sea Turtle *Caretta caretta* Population: Northwest Atlantic Ocean DPS There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1110	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

USFWS National Wildlife Refuge Lands And Fish Hatcheries

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

Low-Impact Alterations to Sandbridge Beach Erosion Control & Hurricane Protection Project Conducted by Nonfederal Sponsors or Independent Requestors

Consultation Code: 05E2VA00-2020-SLI-5402

The purpose of this coordination is to programmatically address minor and low impact activities that alter the Sandbridge Beach Erosion Control and Hurricane Protection Project, a U.S. Army Corps of Engineers Civil Works project. Many proposed alterations to Civil Works projects require a USACE regulatory permit in compliance with Section 10 of the Rivers and Harbors Act (33 USC § 403) (Section 408) and/or Section 404 of the Clean Water Act (33 USC§ 1344) (Section 404/10). Those USACE regulatory permits that are issued include NEPA assessment to support a permit decision prior to issuance. However, some proposed alterations do not require a Section 404/10 permit, but must still be reviewed, a decision documented, and approved by the USACE in accordance with the National Environmental Policy Act and Section 408. Section 408 authorizes the Secretary of the Army, on the recommendation of the Chief of Engineers, to grant permission for the alteration or occupation or use of a USACE project if the Secretary determines that the activity will not be injurious to the public interest and will not impair the usefulness of the project.

The Secretary of the Army's authority under Section 408 has been delegated to the USACE, Chief of Engineers. The USACE Chief of Engineers has further delegated the authority to the USACE, Directorate of Civil Works, Division and District Commanders, and supervisory Division Chiefs depending upon the nature of the proposed activity.

Project Location

The activities under consideration are located at Sandbridge Beach, Virginia Beach, Virginia. Sandbridge Beach is located on a barrier island along coastal southeast Virginia that separates the Atlantic Ocean on the east from Back Bay, a shallow freshwater sound, to the west. It is a residential community of mostly year-round residents, rental properties, and summer homes located approximately 5 miles south of Virginia Beach's "resort strip." Several major storms, nor'easters, and hurricanes have struck the area in past years, causing severe losses of sand and coastal flooding; the oceanfront is susceptible to wave attack on the beach berm and dunes. Sandbridge Beach extends from the U.S. Naval Fleet Anti-Air Warfare Training Center at Dam Neck to the north to Back Bay National Wildlife Refuge to the south.

Project Description

Sand Maintenance Activities

The sand from the beach is continuously migrating through natural processes into resident's properties such as yards, decks, and pools. Residents are proposing to remove excess sands that have migrated onto private property and place the sands back onto Sandbridge Beach to maintain their properties. Residents apply for a Sandbridge General Sand Management Permit through the

City of Virginia Beach that authorizes property owners to excavate sand within the limits of their property and place it on the beach provided it meets the permit requirements (see Appendix D for permit conditions). The Sandbridge General Sand Management Permit is valid for three years, and residents can remove sand multiple times within the three-year period.

Means and Methods

Historically, residents use the same contractor to remove sand from their properties, but there is no contractor requirement. The City of Virginia Beach and contractors conducting work at Sandbridge Beach indicated a skid steer loader, also known as a Bobcat, is the typical equipment used to relocate and grade the sand from the dune to mean high water. The City of Virginia Beach indicated that equipment used for these projects must access the area via the property either to the right or left of the house. Equipment is not permitted to drive along the beach to access residential properties. Equipment is only permitted access to the area of the beach immediately in front of the property to place and grade the sand. There are specific occasions when a property is narrow and located directly next to a public access. In this specific circumstance, equipment may be permitted to utilize a single public access to access only the adjacent property. The City of Virginia Beach specifies in the Sand Management General Permit that the sand must meet the requirements for beach quality sand.

The quantity of sand removed from each property depends on several variables: coastal storm activity, property size, and whether the private property has previously conducted sand removal. Contractors indicated the average amount of sand removed from a single property is around 100 cubic yards (cy) of material. However, if the sand has never been removed from the property, the quantity of sand could be significantly more. Sand quantities may be higher at times as a result of sand migration from coastal storm events where higher energy processes mobilize sands from the existing beach area to residential properties. Larger properties and significant coastal storm events could require the removal of between 2,500 to 5,000 cy.

Structural Activities

Property owners adjacent to the Sandbridge Beach Erosion Control and Hurricane Protection Project have and are expected to continue to request authorization to construct and maintain a variety of surface or subsurface structures on private property that require Section 408 coordination for the civil works project. Structures may include but are not limited to bulkheads, piles, decks, patios, pools, landscaping, stairs, storage sheds, pavilions (ie. gazebos, pergolas), fences or other structural features. Structures may be constructed and maintained for various purposes including protection of property, safety, improvements to meet local or state codes, aesthetics, and recreation. USACE, Norfolk District, will review these structural activities and determine whether they have the ability to alter the civil works project in a way that could be injurious to the public interest or will impair the usefulness of the civil works project.

If USACE, Norfolk District, determines the structural activity will not alter the civil works project, 408 permission will not be required. For example, the request involves constructing a deck on private property that does not abut the boundary of the civil works project, does not require

placement of excess sand onto the civil works project, and does not require access to the property via the civil works project.

If USACE, Norfolk District, determines the structural activity does have the potential to alter the civil works project, a 408 permission would be required for any activities that alter the civil works project. For example, the request involves building a deck on private property that does not abut the civil works project but requires sand placement on the civil works project. In this example, USACE, Norfolk District, would be issuing the 408 permission for only the activities (sand placement) with the potential to alter the civil works project.

Means and Methods

The construction equipment required is dependent on the structural activity. All structural activities are conducted within the limits of the private property. Pool construction typically requires a small excavator and/or a skid steer loader. Bulkhead construction typically requires two excavators, one with a pile driver with a vibratory head attachment and the second with a 10 to 12 feet auger attachment. The City of Virginia Beach and contractors conducting regular work on Sandbridge properties indicated the bulkheads are typically constructed with timber pilings, but the type of pilings is not limited to timber. Other construction activities are anticipated to be completed by hand with small tools such as shovels, hand augers, post hole diggers, etc. The City of Virginia Beach does offer a separate permit for walkways from the private property to the beach. These walkways are limited to a set of stairs that are built flush against the bulkhead. The City of Virginia Beach indicated these are basic stairs that do not extend very far beyond the bulkhead and are not lighted.

Equipment used for the structural projects are required to access the area via the private property either to the right or left of the house. Equipment is not permitted to drive along the beach to access residential properties. Equipment is only permitted access to the area of the beach immediately in front of the property to place and grade any sand removed during these projects (refer to "Maintenance" section above). There are specific occasions when a property is narrow and located directly next to a public access. In this specific circumstance, equipment may be permitted to utilize a single public access to access only the adjacent property.

Environmental Impacts

The proposed activities are minor and short in duration. The proposed activities will cause temporary and insignificant impacts within the affected environment with the exception of nesting sea turtles (refer to "ESA Section 7 Determination Table" for details). Placement of sand along the beach between May 15 through November 15 has the potential to impact loggerhead, Kemp's ridley, and/or green sea turtle nests. In the future, placement of sand along the beach also has the potential to impact leatherback sea turtle nests. Historically, leatherback sea turtles do not nest in Virginia; however, the appropriate nesting habitat is present and leatherback sea turtle nests have occurred nearby in North Carolina.

Lighting Effects
"Light pollution on nesting beaches is detrimental to sea turtles because it alters critical nocturnal behaviors, namely, their choice of nesting sites, their return path to the sea after nesting, and how hatchlings find the sea after emerging" (Witherington, Martin, and Trindell, 2014). There is evidence that some types of artificial lighting on nesting beaches has the potential to deter nesting females from leaving the ocean to nest. Artificial lighting involved in the sand maintenance activities is limited to the lights affixed to the skid steer loader or similar equipment. All structural activities occur within the limits of private property, excluding a staircase to the beach. The City of Virginia Beach permits this action and only allows staircases that are flush against the bulkhead of the private property. The staircases are not permitted to be lighted or extend more than ten feet beyond the bulkhead. The structural activities could involve additional temporary construction lights affixed to equipment or temporary construction lights within the limits of the private property.

Ground Disturbance
If conducted during sea turtle nesting season, sand maintenance activities (beach driving and grading) has the potential to: disturb, bury and/or crush incubating eggs, trap hatchlings in ruts after they emerge from their nest(s), and/or alter the sand composition and nest(s) temperatures. Structural activities are not anticipated to occur outside of the limits of the private property, except the construction of a staircase and the specific occasion when a property is both narrowly accessible and located directly adjacent to a public access.

Visual and Auditory Disturbances
Visual and auditory disturbances have the potential to disturb and/or deter nesting female sea turtles from accessing the nesting site. In addition, visual and auditory disturbances could disturb or disorient hatchlings emerging from the nest causing them to travel in the wrong direction and subject themselves to additional predation or death by exposure. Noise levels from the project activities range from approximately 60 dB (small power tools, light construction activities) to 100 dB (activities including pile driving with vibratory or impact pile drivers for smaller timber or steel pilings). The visual and auditory disturbances as a result of project activities are anticipated to be localized, temporary, and short in duration.

Conservation Measures

The City of Virginia Beach indicated most sand maintenance activities are expected to be completed outside of tourist season which coincides with nesting season. However, storm events and/or other circumstances could raise the need for property owners to conduct sand maintenance activities during sea turtle nesting season (May 15 through November 15). Structural activities have the potential to be completed at any time of the year. Conservation measures can be implemented to prevent adverse impacts to sea turtles.

Lighting Effects
From May 15 through November 15, sand maintenance and structural activities shall be prohibited and no construction lights shall remain on from dusk until 08:00 am to prevent lighting impacts from skid steer loaders, temporary construction lights, and other equipment lighting to nesting females and hatchlings. Lighting effects are expected to be minimal, temporary, and localized.

Ground Disturbances
Back Bay National Wildlife Refuge conducts daily turtle nesting surveys at dawn throughout sea turtle nesting season. If a nest or crawl is discovered, it is either relocated or sectioned off by qualified staff and volunteers. Between May 15 and November 15, sand maintenance and structural activities shall be prohibited from dusk until 8:00 am after the area has been cleared by a qualified turtle patrol. If a nest is sectioned off in the area where sand maintenance activities will occur, no sand shall be placed on the civil works project within a 500 ft buffer of the nest and no equipment shall be driven on the civil works project within a 50 ft buffer around the perimeter of the nest. Any sand placed on the beach during nesting season shall also be graded so that it is level with the existing gradient and ruts from equipment shall be smoothed to eliminate the risk of trapping a turtle in the ruts. Regarding sand composition, the City of Virginia Beach specifies in the Sand Management General Permit that the sand must meet the requirements for beach quality sand. Therefore, ground disturbance impacts are expected to be minimal, temporary, and localized.

Visual and Auditory Disturbances
From May 15 through November 15, sand maintenance and structural activities shall be prohibited from dusk until 08:00 am to prevent auditory and visual impacts to potential nesting females and emerging hatchlings. Visual and auditory disturbances are expected to be minimal, temporary, and localized.

With the implementation of the above stated conservation measures, impacts to nesting sea turtles as a result of project activities should be negligible.

References

Witherington, B. E., R. E.Martin, and R. N. Trindell. 2014. Understanding, Assessing, and Resolving Light-Pollution Problems on Sea Turtle Nesting Beaches. Florida Fish and Wildlife Conservation FWRI Technical Report TR-2, Version 2

Endangered Species Act (ESA) Section 7 Determination Table

Project Name: Low-Impact Alterations to Sandbridge Beach Erosion Control & Hurricane Protection Project Conducted by Nonfederal Sponsors or Independent Requestors

Date: 19 August 2020

Consultation Code: 05E2VA00-2020-SLI-5402

Species / Resource Name	Habitat/Species Presence in Action Area	Sources of Info	ESA Section 7 Determination	Project Elements that Support Determination
Insert name of species or resource as listed on Official Species List.	*Indicate if suitable habitat and species are present in the Action Area (see examples in Step 5).*	*Explain what info suitable habitat/species presence is based on.*	*Using reasoning and decision tables in Step 5, select determination for each species (e.g. no effect, not likely to adversely affect, or likely to adversely affect).*	*Explain which project elements may impact the habitat or individuals of each species and any Avoidance and Minimization Measures being implemented.*
Northern long-eared bat (*Myotis septentrionalis*)	No suitable habitat present	Dkey; VDGIF	No effect; Covered by 4(d) Rule	All project activities will be conducted on Sandbridge Beach or on adjacent private property where no trees or hibernacula are present. The habitat for the Northern long-eared bat is not present within the project area, therefore the proposed project will not impact the species (see attached map).
Piping plover (*Charadrius melodus*)	Critical habitat not present	50 CFR Part 17; USFWS ECOS; Virginia DWR, Cornell Lab of Ornithology	Not likely to adversely affect	In the 1950's, Sandbridge Beach was developed and houses were built across foredunes leaving no natural protective barrier for nesting birds. The construction and development lead to the disappearance of several nesting populations including the piping plover. Piping plovers are rarely observed on or near the public portion of Sandbridge Beach. Piping plovers are not

				known to nest or overwinter on Sandbridge Beach currently. They breed and forage mostly on the Eastern Shore of Virginia from March to October. All project activities will be conducted on Sandbridge Beach or on adjacent private property. The only activity on the public portion of Sandbridge Beach will be the movement of excess sand from private residences. The sand will not be placed below the high tide line where this species is likely to forage. It is not likely individuals of this species will be exposed to one or more consequences of the project activities. Any effects to foraging or migrating piping plovers as a result of low impact project activities would be minor, temporary and discountable.
Red Knot (*Calidris canutus rufa*)	Suitable habitat present, species present (rarely)	USFWS ECOS, Virginia DWR, Center for Conservation Biology, Cornell Lab of Ornithology	Not likely to adversely affect	In the 1950's, Sandbridge Beach was developed and houses were built across foredunes leaving no natural protective barrier for nesting birds. While the habitat is present; historically, red knots rarely utilize Sandbridge Beach to forage and rest before migrating to their breeding grounds. All project activities will be conducted on Sandbridge Beach or on adjacent private property. The only activity on the public

				portion of Sandbridge Beach will be the movement of excess sand from private residences. The sand will not be placed below the high tide line where this species is likely to forage. It is not likely individuals of this species will be exposed to one or more consequences of the project activities. Any effects to foraging or migrating red knots as a result of low impact project activities would be minor, temporary and discountable.
Roseate tern (*Sterna dougallii dougallii*)	Suitable habitat present, species present (rarely)	USFWS ECOS, Virginia DWR, Cornell Lab of Ornithology	Not likely to adversely affect	Roseate terns are not known to nest or overwinter on Sandbridge Beach and are considered a rare visitor to the mid-Atlantic. Roseate terns nest on barrier islands in hollows or under dense vegetation, typically in colonies with common terns. All project activities will be conducted on Sandbridge Beach or on adjacent private property. The only activity on the public portion of Sandbridge Beach will be the movement of excess sand from private residences. The sand will not be placed below the high tide line where this species is likely to forage. It is not likely individuals of this species will be exposed to one or more consequences of the project activities. Any effects to foraging or migrating roseate terns as a result of low impact

				project activities would be minor, temporary and discountable.
Loggerhead sea turtle (*Caretta caretta*)	Species present	USFWS ECOS, VDGIF, Widecast Technical Report No. 9,	Not likely to adversely affect	In Virginia, loggerhead sea turtles are found throughout the Chesapeake Bay, barrier islands off the Eastern Shore, and off the coast in the Atlantic Ocean. Loggerheads are a marine species that spend most of their time in the ocean and estuaries where they feed, breed, and migrate. Loggerheads nest in small numbers along Virginia's coast from May through November. Historical nesting records from VDGIF document 15 total loggerhead nests and 8 total loggerhead false crawls within the project area from 1970 through 2019. Dam Neck beach outside of the project area and to the south had a total of 6 loggerhead nests and total of 2 loggerhead false crawls from 1970 through 2019. Back Bay National Wildlife Refuge outside of the project area and to the north had a total of 61 loggerhead nests and 22 loggerhead false crawls from 1970 through 2019. All project activities will be conducted on Sandbridge Beach or on adjacent private property. The only activity on the public portion of Sandbridge Beach will

				be the movement of excess sand from private residences. The movement of sand from private residences to the public portion of Sandbridge Beach has the potential to impact nesting sea turtles during nesting season. However, minimization and avoidance conservation measures shall be implemented to avoid impacts to nesting sea turtles. Back Bay National Wildlife Refuge manages daily dawn turtle patrols for Sandbridge Beach. If a nest is discovered, qualified staff make the decision to relocate or leave the nest in place. The nest is then caged, marked, and roped off to protect the nest from predators and beach goers. During sea turtle nesting season (May through November), we shall indicate that project activities shall not be conducted from dusk until 8 am. If a nest has been sectioned off, no sand shall be placed or equipment be driven anywhere around the nest to prevent disturbance. Any ruts from equipment used on the beach shall be smoothed out and no equipment shall be stored on the beach throughout the night from May through November. With these measures in place, loggerhead sea turtles are not

				likely to be exposed to one or more consequences of the project activities.
Kemp's ridley sea turtle (*Lepidochelys kempii*)	Species present	USFWS ECOS, VDGIF	Not likely to adversely affect	Adult and sub-adult Kemp's ridleys primarily occupy nearshore habitats that contain muddy or sandy bottoms where prey can be found. Kemp's ridleys are the second most common sea turtle in Virginia waters. They are found throughout the Chesapeake Bay, barrier islands off the Eastern Shore, and off the coast in the Atlantic Ocean. In recent years, two Kemp's ridley nests have been discovered in Virginia. Historical nesting records from VDGIF document 0 total Kemp's ridley nests and 0 total Kemp's ridley false crawls within the project area from 1970 through 2019. Dam Neck beach outside of the project area and to the south had a total of 1 Kemp's ridley nest and total of 0 Kemp's ridley false crawls from 1970 through 2019. Back Bay National Wildlife Refuge outside of the project area and to the north had a total of 0 Kemp's ridley nests and 0 Kemp's ridley false crawls from 1970 through 2019. All project activities will be conducted on Sandbridge Beach or on adjacent private property. The only activity on the public

				portion of Sandbridge Beach will be the movement of excess sand from private residences. The movement of sand from private residences to the public portion of Sandbridge Beach has the potential to impact nesting sea turtles during nesting season. However, minimization and avoidance conservation measures shall be implemented to avoid impacts to nesting sea turtles. Back Bay National Wildlife Refuge manages daily dawn turtle patrols for Sandbridge Beach. If a nest is discovered, qualified staff make the decision to relocate or leave the nest in place. The nest is then caged, marked, and roped off to protect the nest from predators and beach goers. During sea turtle nesting season (May through November), we shall indicate that project activities shall not be conducted from dusk until 8 am. If a nest has been sectioned off, no sand shall be placed or equipment be driven anywhere around the nest to prevent disturbance. Any ruts from equipment used on the beach shall be smoothed out and no equipment shall be stored on the beach throughout the night from May through November. With these measures in place,

				Kemp's ridley sea turtles are not likely to be exposed to one or more consequences of the project activities.
Green sea turtle (*Chelonia mydas*)	Species present	USFWS ECOS, VDGIF	Not likely to adversely affect	Green turtles are generally found in fairly shallow waters (except when migrating) inside reefs, bays, and inlets. The turtles are attracted to lagoons and shoals with an abundance of marine grass and algae. Open beaches with a sloping platform and minimal disturbance are required for nesting. Green turtles have strong nesting site fidelity and often make long distance migrations between feeding grounds and nesting beaches. Since 2005, a couple of green sea turtles have made Virginia their nesting beach. Historical nesting records from VDGIF document 1 total Green nest and 0 total Green false crawls within the project area from 1970 through 2019. Dam Neck beach outside of the project area and to the south had a total of 0 Green nests and 1 Green false crawl. Back Bay National Wildlife Refuge outside of the project area and to the north had a total of 1 Green nest and 0 Green false crawls from 1970 through 2019. All project activities will be conducted on Sandbridge Beach or on adjacent private property.

				The only activity on the public portion of Sandbridge Beach will be the movement of excess sand from private residences. The movement of sand from private residences to the public portion of Sandbridge Beach has the potential to impact nesting sea turtles during nesting season. However, minimization and avoidance conservation measures shall be implemented to avoid impacts to nesting sea turtles. Back Bay National Wildlife Refuge manages daily dawn turtle patrols for Sandbridge Beach. If a nest is discovered, qualified staff make the decision to relocate or leave the nest in place. The nest is then caged, marked, and roped off to protect the nest from predators and beach goers. During sea turtle nesting season (May through November), we shall indicate that project activities shall not be conducted from dusk until 8 am. If a nest has been sectioned off, no sand shall be placed or equipment be driven anywhere around the nest to prevent disturbance. Any ruts from equipment used on the beach shall be smoothed out and no equipment shall be stored on the beach throughout the night from May through November. With

				these measures in place, Green sea turtles are not likely to be exposed to one or more consequences of the project activities.
Leatherback sea turtle (*Dermochelys coriacea*)	Suitable habitat present, species not present	USFWS ECOS, VDGIF	Not likely to adversely affect	The leatherback is the most pelagic of the sea turtles. Adult females require sandy nesting beaches backed with vegetation and sloped sufficiently so the distance to dry sand is limited. Their preferred beaches have proximity to deep water and generally rough seas. Leatherbacks are not currently known to nest in Virginia. However, North Carolina has recently documented leatherback nesting sites. With suitable habitat present, it is not unwarranted to consider Virginia as a potential future nesting site for leatherback sea turtles. All project activities will be conducted on Sandbridge Beach or on adjacent private property. The only activity on the public portion of Sandbridge Beach will be the movement of excess sand from private residences. The movement of sand from private residences to the public portion of Sandbridge Beach has the potential to impact nesting sea turtles during nesting season. However, minimization and avoidance conservation measures shall be implemented

				to avoid impacts to current and potential future nesting sea turtle species. Back Bay National Wildlife Refuge manages daily dawn turtle patrols for Sandbridge Beach. If a nest is discovered, qualified staff make the decision to relocate or leave the nest in place. The nest is then caged, marked, and roped off to protect the nest from predators and beach goers. During sea turtle nesting season (May through November), we shall indicate that project activities shall not be conducted from dusk until 8 am. If a nest has been sectioned off, no sand shall be placed or equipment be driven anywhere around the nest to prevent disturbance. Any ruts from equipment used on the beach shall be smoothed out and no equipment shall be stored on the beach throughout the night from May through November. With these measures in place, potential future nesting leatherback sea turtles are not likely to be exposed to one or more consequences of the project activities.
Hawksbill sea turtle (*Eretmochelys imbricata*)	No suitable habitat present	USFWS ECOS, VDGIF, VAQS Stranding Record	No effect	Hawksbills frequent rocky areas, coral reefs, shallow coastal areas, lagoons or oceanic islands, and narrow creeks and passes. They are seldom seen

				in water deeper than 65 feet. Hatchlings are often found floating in masses of sea plants, and nesting may occur on almost any undisturbed deep-sand beach in the tropics. Adult females are able to climb over reefs and rocks to nest in beach vegetation. Hawksbill sea turtles rarely make it to Virginia waters due to unsuitable habitat and lack of primary food sources. The stranding record supports the rarity of this species with less than 4 documented hawksbill strandings in Virginia historically. There will be no in water impacts for project activities. The habitat for the nesting hawksbill sea turtle is not present within the project area, therefore the proposed project will not impact the species

Appendix A

USFWS Verification Letter, Programmatic Biological Opinion on Final 4(d) Rule for the Northern Long-eared Bat and Activities Excepted from Take Prohibitions

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Virginia Ecological Services Field Office
6669 Short Lane
Gloucester, VA 23061-4410
Phone: (804) 693-6694 Fax: (804) 693-9032
http://www.fws.gov/northeast/virginiafield/

In Reply Refer To: August 05, 2020
Consultation Code: 05E2VA00-2020-TA-5402
Event Code: 05E2VA00-2020-E-14984
Project Name: Low-Impact Alterations to Sandbridge Beach Erosion Control & Hurricane Protection Project

Subject: Verification letter for the 'Low-Impact Alterations to Sandbridge Beach Erosion Control & Hurricane Protection Project' project under the January 5, 2016, Programmatic Biological Opinion on Final 4(d) Rule for the Northern Long-eared Bat and Activities Excepted from Take Prohibitions.

Dear Shannon Reinheimer:

The U.S. Fish and Wildlife Service (Service) received on August 05, 2020 your effects determination for the 'Low-Impact Alterations to Sandbridge Beach Erosion Control & Hurricane Protection Project' (the Action) using the northern long-eared bat (*Myotis septentrionalis*) key within the Information for Planning and Consultation (IPaC) system. This IPaC key assists users in determining whether a Federal action is consistent with the activities analyzed in the Service's January 5, 2016, Programmatic Biological Opinion (PBO). The PBO addresses activities excepted from "take"[1] prohibitions applicable to the northern long-eared bat under the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

Based upon your IPaC submission, the Action is consistent with activities analyzed in the PBO. The Action may affect the northern long-eared bat; however, any take that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o). Unless the Service advises you within 30 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that the PBO satisfies and concludes your responsibilities for this Action under ESA Section 7(a)(2) with respect to the northern long-eared bat.

Please report to our office any changes to the information about the Action that you submitted in IPaC, the results of any bat surveys conducted in the Action area, and any dead, injured, or sick northern long-eared bats that are found during Action implementation. If the Action is not completed within one year of the date of this letter, you must update and resubmit the information required in the IPaC key.

This IPaC-assisted determination allows you to rely on the PBO for compliance with ESA Section 7(a)(2) only for the northern long-eared bat. It **does not** apply to the following ESA-protected species that also may occur in the Action area:

- Green Sea Turtle, *Chelonia mydas* (Threatened)
- Hawksbill Sea Turtle, *Eretmochelys imbricata* (Endangered)
- Kemp's Ridley Sea Turtle, *Lepidochelys kempii* (Endangered)
- Leatherback Sea Turtle, *Dermochelys coriacea* (Endangered)
- Loggerhead Sea Turtle, *Caretta caretta* (Threatened)
- Piping Plover, *Charadrius melodus* (Threatened)
- Red Knot, *Calidris canutus rufa* (Threatened)
- Roseate Tern, *Sterna dougallii dougallii* (Endangered)

If the Action may affect other federally listed species besides the northern long-eared bat, a proposed species, and/or designated critical habitat, additional consultation between you and this Service office is required. If the Action may disturb bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act is recommended.

---

[1]Take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct [ESA Section 3(19)].

Action Description
You provided to IPaC the following name and description for the subject Action.

1. Name

Low-Impact Alterations to Sandbridge Beach Erosion Control & Hurricane Protection Project

2. Description

The following description was provided for the project 'Low-Impact Alterations to Sandbridge Beach Erosion Control & Hurricane Protection Project':

> Low-Impact Alterations to Sandbridge Beach Erosion Control & Hurricane Protection Project Conducted by Nonfederal Sponsors or Independent Requestors
>
> The purpose of this coordination is to programmatically address minor and low impact activities that alter Sandbridge Beach U . S. Army Corps of Engineers Civil Works project. Many proposed alterations to Civil Works projects require a USACE regulatory permit in compliance with Section 10 of the Rivers and Harbors Act (33 USC § 403) and/or Section 404 of the Clean Water Act (33 USC§ 1344) (Section 404/10). Those USACE regulatory permits that are issued and include NEPA assessment to support a permit decision prior to issuance. However, some proposed alterations do not require a Section 404/10 permit, but must still be reviewed, a decision documented, and approved by the USACE in accordance with the National Environmental Policy Act and Section 408.
>
> Maintenance
> The sand from the beach is continuously migrating through natural processes into residents properties such as yards, decks, and pools. Residents are proposing to remove excess sands that have migrated onto private property and place the sands back into Sandbridge Beach to maintain their properties.
>
> Structural Features
> Property owners at Sandbridge Beach have and are expected to continue to request authorization to construct and maintain a variety of surface or subsurface structures on private property that require Section 408 coordination for the civil works project. Structures may include but are not limited to bulkheads, piles, decks, pools, storage sheds, or other structural features. Structures may be constructed and maintained for various purposes including protection of property, safety, improvements to meet local or state codes, aesthetics and recreation.

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/36.728408805673375N75.9364474018069W

Determination Key Result

This Federal Action may affect the northern long-eared bat in a manner consistent with the description of activities addressed by the Service's PBO dated January 5, 2016. Any taking that may occur incidental to this Action is not prohibited under the final 4(d) rule at 50 CFR §17.40(o). Therefore, the PBO satisfies your responsibilities for this Action under ESA Section 7(a)(2) relative to the northern long-eared bat.

Determination Key Description: Northern Long-eared Bat 4(d) Rule

This key was last updated in IPaC on May 15, 2017. Keys are subject to periodic revision.

This key is intended for actions that may affect the threatened northern long-eared bat.

The purpose of the key for Federal actions is to assist determinations as to whether proposed actions are consistent with those analyzed in the Service's PBO dated January 5, 2016.

Federal actions that may cause prohibited take of northern long-eared bats, affect ESA-listed species other than the northern long-eared bat, or affect any designated critical habitat, require ESA Section 7(a)(2) consultation in addition to the use of this key. Federal actions that may affect species proposed for listing or critical habitat proposed for designation may require a conference under ESA Section 7(a)(4).

Determination Key Result

This project may affect the threatened Northern long-eared bat; therefore, consultation with the Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.) is required. However, based on the information you provided, this project may rely on the Service's January 5, 2016, *Programmatic Biological Opinion on Final 4(d) Rule for the Northern Long-Eared Bat and Activities Excepted from Take Prohibitions* to fulfill its Section 7(a)(2) consultation obligation.

Qualification Interview

1. Is the action authorized, funded, or being carried out by a Federal agency?

   Yes

2. Have you determined that the proposed action will have "no effect" on the northern long-eared bat? (If you are unsure select "No")

   No

3. Will your activity purposefully **Take** northern long-eared bats?

   No

4. [Semantic] Is the project action area located wholly outside the White-nose Syndrome Zone?

   Automatically answered
   No

5. Have you contacted the appropriate agency to determine if your project is near a known hibernaculum or maternity roost tree?

   Location information for northern long-eared bat hibernacula is generally kept in state Natural Heritage Inventory databases – the availability of this data varies state-by-state. Many states provide online access to their data, either directly by providing maps or by providing the opportunity to make a data request. In some cases, to protect those resources, access to the information may be limited. A web page with links to state Natural Heritage Inventory databases and other sources of information on the locations of northern long-eared bat roost trees and hibernacula is available at www.fws.gov/midwest/endangered/mammals/nleb/nhisites.html.

   Yes

6. Will the action affect a cave or mine where northern long-eared bats are known to hibernate (i.e., hibernaculum) or could it alter the entrance or the environment (physical or other alteration) of a hibernaculum?

   No

7. Will the action involve Tree Removal?

   No

Project Questionnaire

If the project includes forest conversion, report the appropriate acreages below. Otherwise, type ‘0’ in questions 1-3.

1. Estimated total acres of forest conversion:

0

2. If known, estimated acres of forest conversion from April 1 to October 31

0

3. If known, estimated acres of forest conversion from June 1 to July 31

0

If the project includes timber harvest, report the appropriate acreages below. Otherwise, type ‘0’ in questions 4-6.

4. Estimated total acres of timber harvest

0

5. If known, estimated acres of timber harvest from April 1 to October 31

0

6. If known, estimated acres of timber harvest from June 1 to July 31

0

If the project includes prescribed fire, report the appropriate acreages below. Otherwise, type ‘0’ in questions 7-9.

7. Estimated total acres of prescribed fire

0

8. If known, estimated acres of prescribed fire from April 1 to October 31

0

9. If known, estimated acres of prescribed fire from June 1 to July 31

0

If the project includes new wind turbines, report the megawatts of wind capacity below. Otherwise, type ‘0’ in question 10.

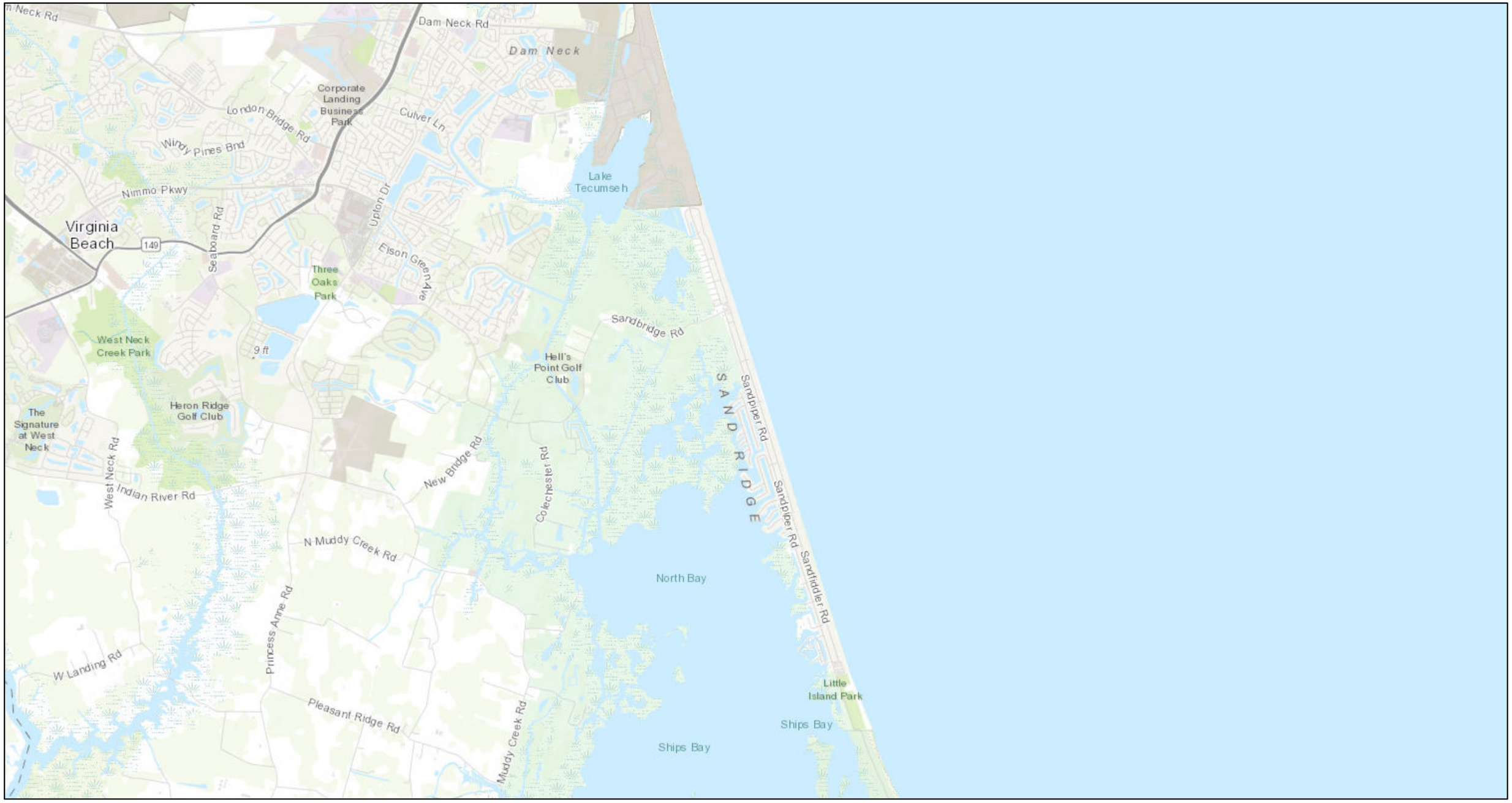
10. What is the estimated wind capacity (in megawatts) of the new turbine(s)?

0

Appendix B

Northern Long-eared Bat Locations and Roost Trees

NLEB Locations and Roost Trees



8/20/2020, 11:46:59 AM

1:72,224

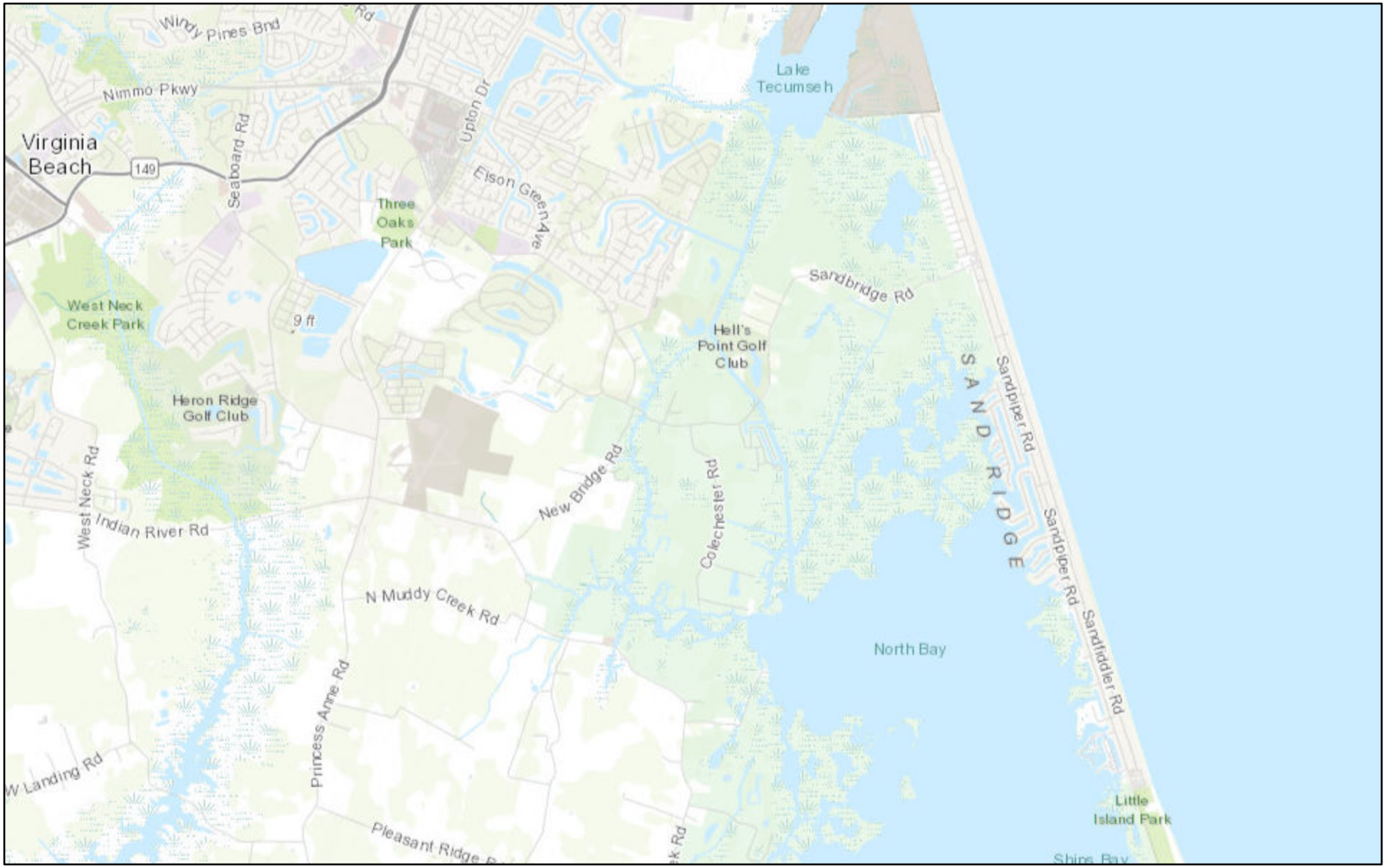
0 0.75 1.5 3 mi

0 1 2 4 km

Appendix C

Critical Habitat Presence near Sandbridge Beach Erosion Control & Hurricane Protection Project

Critical Habitat Sandbridge Beach



August 20, 2020

1:72,224

0 0.5 1 2 mi

0 0.75 1.5 3 km

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS,