

**WOLF TRAP ALTERNATE OPEN WATER PLACEMENT SITE
NORTHERN EXTENSION
DRAFT ENVIRONMENTAL ASSESSMENT
JULY 2019**

**APPENDIX B
ENDANGERED SPECIES ACT COORDINATION**

- Pages 1-2:** Coordination Letter dated 10 April 2019 sent by USACE, Baltimore District to begin consultation with the National Marine Fisheries Service (NMFS)
- Pages 3-19:** Request for Concurrence of a No Re-Initiation Determination from NMFS for the Wolf Trap Alternate Open Water Placement Site Northern Extension
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DEPARTMENT OF THE ARMY
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Planning Division

APR 10 2019

Mr. Mark Murray-Brown
Section 7 Coordinator
Greater Atlantic Regional Fisheries Service
National Oceanic and Atmospheric Administration
55 Great Republic Drive
Gloucester, MA 01930
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Dear Mr. Murray-Brown:

The U.S. Army Corps of Engineers (USACE), Baltimore District, is preparing an Environmental Assessment (EA) regarding a proposed extension of the existing Wolf Trap Alternate Open Water Placement Site (WTAPS) located in the Virginia waters of the Chesapeake Bay, east of Mathews County, Virginia. The WTAPS would be extended to the north, increasing the size of the placement site by approximately 3,900 acres. The WTAPS northern extension (WTAPSNE) would serve as an open water placement site for material dredged primarily from the York Spit Channel, but may also be used as a placement site for other dredging projects in the lower Chesapeake Bay pending evaluation. The purpose of extending the WTAPS northward is to minimize adverse impacts to overwintering female blue crabs, which are more abundant in the current WTAPS site, particularly in the southern portion. The WTAPSNE has been found to provide much less suitable habitat for overwintering female blue crabs. The EA will evaluate the effects to the natural and human environment from placement of dredged material into WTAPSNE. Dredging activities will not be evaluated in the EA, as those impacts were evaluated in the Environmental Impact Statement for the 2005 Baltimore Harbor and Channels (Maryland and Virginia) Dredged Material Management Plan and other previous National Environmental Policy Act (NEPA) documents.

The capacity of the site is over 30 million cubic yards based upon placement of dredged material within the site boundaries up to an approximate depth of -30 feet mean lower low water. For the initial placement cycle, approximately two million cubic yards of dredged material from operation and maintenance of the York Spit Channel would be placed into WTAPSNE, which is expected to occur in the fall of 2019. Dredging would be conducted in one dredging cycle that would last for approximately 4½ months. Dredging and open water placement activities would occur 24 hours per day and seven days a week during any given dredging cycle (mobilization to demobilization of the dredging operation). To minimize adverse impacts to sea turtles, dredging in the York Spit Channel does not occur from September 1 through November 14 in accordance with the National Marine Fisheries Service (NMFS) 2018 Biological Opinion (F/NER/2018/14816), and placement into the WTAPSNE would not occur during this period. After initial placement into WTAPSNE, it is anticipated that approximately 1.5 million cubic yards of dredged material from the York Spit Channel would be placed into the site

approximately every 4 years. WTAPSNE would reach capacity (be full) after approximately 20 cycles of maintenance of the York Spit Channel in about the year 2100.

USACE is preparing the EA in accordance with NEPA. The draft EA is expected to be released to the public in the summer of 2019 and will include a Biological Assessment (BA) that evaluates impacts on federally-listed species under NMFS purview in accordance with the Endangered Species Act. Please review the attached draft BA and provide any comments your agency may have within 30 days of the date of this letter. If you have any questions, please contact Kristina May by email at Kristina.K.May@usace.army.mil or by telephone at 410-962-6100.

Sincerely,



Daniel M. Bierly, P.E.
Chief, Civil Project Development Branch
Planning Division

Enclosure

cc: Brian Hopper, Fishery Biologist, Chesapeake Bay Office, brian.d.hopper@noaa.gov



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Planning Division

May 07, 2019

Michael Asaro, PhD
Protected Resources Division
Greater Atlantic Region Fisheries Office
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
55 Great Republic Drive
Gloucester, MA 01930

Re: Request for Concurrence of a No Re-Initiation Determination for the Wolf Trap Alternate Open Water Placement Site Northern Extension

Dear Dr. Asaro,

This letter is to request Endangered Species Act (ESA) concurrence from your office with our determination that re-initiation is not warranted for the proposed Wolf Trap Alternate Open Water Placement Site Northern Extension (WTAPSNE) located in the Virginia waters of the Chesapeake Bay. We have made the determination under Section 7 of the ESA that the proposed action may affect, but is not likely to adversely affect, those species listed as threatened or endangered by the National Oceanic and Atmospheric Administration, (NOAA) National Marine Fisheries Service (NMFS).

Previously, on March 14, 2018, your office initiated consultation on the Norfolk Harbor Navigation Improvement Project and the Craney Island Eastward Expansion project, with updates to projects included in the 2012 Batch Biological Opinion. The Wolf Trap Alternate Open Water Placement Site (WTAPS)¹ is currently used as a placement site for sediments dredged during routine maintenance dredging of the York Spit Channel. This site was included in the 2012 Batch Opinion and addressed in the Opinion you issued on October 5, 2018, which concluded that the proposed action may adversely affect but is not likely to jeopardize the continued existence of any DPS of Atlantic sturgeon, Kemp's ridley or green sea turtles or the Northwest Atlantic DPS of loggerhead sea turtles and is not likely to adversely affect leatherback sea turtles, hawksbill sea turtles, shortnose sturgeon, fin whales, sei whales, blue whale, sperm whales, and North Atlantic right whales. Furthermore, the disposal of dredge materials were found to be insignificant or

¹ The *existing* dredged material placement is termed "alternate" because it superseded a historical placement site further to the east, closer to the main channel within the Bay. That original site is shown on NOAA navigation charts, but has been inactive for decades and is not relevant to the proposed action.

discountable and, therefore, not likely to adversely affect ESA-listed species under your jurisdiction. The proposed action would establish an extension of the existing WTAPS site to the north, and the nature of the work that would be conducted at the site is very similar to the projects that were the subject of formal consultation; therefore we believe re-initiation is not necessary.

1. Proposed Action

The proposed action would establish an extension of the existing WTAPS site to the north, increasing the size of the placement site by approximately 16km², and is herein referred to as the “WTAPS Northern Extension” (see attachments). WTAPSNE would serve as an open water placement site for dredged material. The purpose of the proposed action is to minimize impacts to overwintering female blue crabs, which are believed to heavily utilize portions of the existing WTAPS site. Available data indicate that the WTAPSNE site, which includes a deeper, muddy channel (hereafter referred to as the “trough”), provides much less suitable habitat for overwintering female blue crabs (Lipcius & Knick. 2016). The WTAPSNE site has been advanced by agencies of the Commonwealth of Virginia, as an alternative to the currently-used WTAPS site, to minimize impacts to blue crabs.

Approximately two million cubic yards of dredged material from operations and maintenance (O&M) of the York Spit Channel would be placed into the WTAPSNE during the initial placement event that is expected to occur in the fall of 2019. Dredged material placement would occur by hopper dumping. Dredged material placement would be conducted in one dredging cycle that would last for approximately 4½ months (approximately 15,000 cubic yards of material dredged per day). After initial placement into the WTAPSNE, it is anticipated that approximately 1.5 million cubic yards of dredged material from the York Spit Channel would be placed into the site during each subsequent dredging cycle, which occurs approximately every 4 years. The capacity of the site was calculated to be over 30 million cubic yards, which assumes infilling with dredged material up to an approximate elevation of -30 feet MLLW. The estimated lifespan of this placement site is roughly 20 dredging cycles, which would occur around the year 2100.

Project vessels expected to be used include one hopper dredge (total capacity can range from 3,600 to 8,600 cubic yards depending on the dredge contractor used), one survey boat and one crew boat. The speed of the hopper dredge is not expected to exceed three knots while transiting from the dredge site to the open water placement site with a full load, and it is expected to operate at a maximum speed of ten knots while empty. To minimize the risk of take and adverse effects to sea turtles, USACE does not perform dredging of the York Spit Channel during September 1 through November 14, and dredged material placement would not occur during this period. Additionally, USACE dredging activities adhere to the applicable Reasonable and Prudent Measures as stipulated in the Biological Opinion for the Construction and Maintenance of Chesapeake Bay Entrance Channels, dated October 5, 2018, to minimize risk to listed species that may be present when dredging is undertaken. An experienced endangered species observer would be present on the vessel at all times.

2. Description of the Action Area

The proposed WTAPSNE project encompasses a rectangular area measuring roughly 6,060 by 28,340 feet (3,900 acres), extending north-northeast from the northern end of the existing WTAPS site. It also includes the extent of the potential turbidity plumes created from open water placement (up to a 6,500-foot radius from the placement location), and the routes travelled by the project vessels from the dredge site to the open water placement site. These areas are expected to encompass all of the direct and indirect effects of the proposed action.

Based on bathymetric surveys conducted by USACE Baltimore District in April, July and August 2017, water depths in the WTAPSNE range from 23 feet to 55 feet mean lower low water (MLLW), with an average depth of 36 feet MLLW. The typical tidal range in the action area is approximately 2.85 feet, although this varies significantly with time of the month (spring and neap tides) as well as due to storm activity, which can create significant storm surges well beyond the normal tidal range. Tides are (semi)diurnal in the Chesapeake Bay, with two high and low tides per day (NMFS Biological Opinion 2018).

The WTAPSNE site bottom is characterized as a flat, relatively featureless plain (termed as bay-stem plains by Wright et al. 1987) with a deep, natural channel or relict channel (termed bay-stem channel by Wright et al. 1987) running roughly north-to-south through the site. Both bottom types are typically composed of mud or fine sand with silt and clay filling interstices, and experience relatively strong near-bottom tidal currents. Bay stem plains are characterized by high densities of tube dwellers including the annelid, *Euclymene zonalis*, the anemone, *Ceriantheopsis sp.* and the amphipod crustacean, *Ampelisca abdita*. The tubes of *Chaetopterus variopedatus* extend 2 to 3 centimeters into the water column. Sediment reworking by *Euclymene zonalis*, a “conveyor-belt” species, produces a hummocky bed surface. Bay-stem channels generally share similar roughness features (Wright et al. 1987), although benthic communities may differ. The trough at WTAPSNE is somewhat bathymetrically isolated by shallower depths at either end, which may limit near-bottom water exchange, and lead to greater seasonal oxygen stress. Virginia Marine Resources Commission (VMRC) identifies no submerged aquatic vegetation (SAV) or shellfish beds located within the footprint or adjacent to the WTAPS North Extension [or WTAPSNE] (VMRC 2019). SAV is typically limited to depths of less than 2 m, and oysters to depths less than 8 m in the Bay (VIMS, 2019), which are shallower than the action area. The area is of significant seasonal importance to female blue crabs (see blue crab discussion below).

Water temperatures in the Chesapeake Bay within the project area fluctuate widely throughout the year, ranging from 1° Celsius (C) in the winter to 29°C in the summer. Changes in water temperature influence where SAV can grow, and when fish and crabs feed, reproduce and migrate (CBP 2019). Salinity in the Chesapeake Bay varies from season to season and year to year depending largely on the amount of freshwater flowing into the bay. Generally, salinity in the lower Chesapeake Bay is characterized as polyhaline (between 18 and 30 parts per thousand (ppt)) (The Center for Conservation Biology 2010). Long-term water quality data for the WTAPSNE site was obtained from the VECOS website. (VIMS 2019 ECOS). Data were used for monitoring station “CB6.3 – Lower West Central Chesapeake Bay”, which is adjacent to the WTAPSNE site. Normal surface salinities within the WTAPSNE site vary from 10 to 24 ppt, with an average of 17.9 ppt. Normal bottom salinities vary from 14 to 28 ppt, with an average of 22.2 ppt.

The project area is within an open bay segment that has been identified in the Virginia Department of Environmental Quality (VADEQ) 2018 Integrated Report as meeting state water quality standards for dissolved oxygen (30-day), during the summer months, but lacks sufficient information for shorter periods, and is therefore remains classified as “impaired.” VADEQ listed the area as not impaired for benthic life (VADEQ 2018). The proposed placement area does, however, lie within about 16 km of waters that have been shown to experience periodic hypoxia (Dauer et al., 1992), and likely remains susceptible to occasional hypoxic conditions at depth during years when conditions promote large Bay “dead zones.”

3. ESA-listed Species Found in Action Area

The federally-listed threatened or endangered species present in or near the proposed action area are listed and described below. This list was verified by contacting NMFS Protected Resource Division Staff (B. Hopper, pers. comm. April 4, 2019). No ESA-listed species critical habitat is located within the action area.

Sea Turtles

Loggerhead Turtle (*Caretta caretta*)

(76 FR 58868; Recovery Plan: NMFS and USFWS 2008)
Northwest Atlantic Distinct Population Segment (DPS)

Green Turtle (*Chelonia mydas*)

(81 FR 20057; Recovery Plan: NMFS and USFWS 1991)
North Atlantic DPS

Leatherback Turtle (*Dermochelys coriacea*)

(35 FR 8491; Recovery Plan: NMFS and USFWS 1992)

Kemp’s ridley Turtle (*Lepidochelys kempii*)

(35 FR 18319; Recovery Plan: NMFS et al. 2011)

Sturgeon

Atlantic Sturgeon (*Acipenser oxyrinchus oxyrinchus*)

(77 FR 5880 and 77 FR 5914; No Recovery Plan)
Gulf of Maine DPS
Carolina DPS
New York Bight DPS
Chesapeake Bay DPS
South Atlantic DPS

Shortnose Sturgeon (*Acipenser brevirostrum*)

(32 FR 4001; Recovery Plan: NMFS 1998)

Sea Turtles

Four species of federally-listed threatened or endangered sea turtles are found seasonally (from May to November) in the Chesapeake Bay (primarily south of Baltimore, Maryland): threatened Northwest Atlantic DPS juvenile, subadult and adult loggerhead sea turtle (*Caretta caretta*), threatened North Atlantic DPS juvenile and adult green sea turtle (*Chelonia mydas*), endangered juvenile Kemp's ridley sea turtle (*Lepidochelys kempii*), and the endangered juvenile and adult leatherback sea turtle (*Dermochelys coriacea*). The Chesapeake Bay is an important foraging area for sea turtles and an important developmental habitat for juvenile sea turtles, particularly loggerheads (GARFO Master ESA Species Table–Sea Turtles; NMFS Biological Opinion 2018).

In general, listed sea turtles are seasonally distributed in coastal U.S. Atlantic waters, migrating to and from habitats extending from Florida to New England, with overwintering concentrations in southern waters. As water temperatures rise in the spring, turtles begin to migrate northward. As water temperatures decline rapidly in the fall, turtles in northern waters begin their southward migration. Sea turtles are expected to be in the vicinity of the action area during the warmer months, typically when water temperatures are above 11°C. This generally coincides with the months of May through November, with the highest concentration of sea turtles present from June through October. Satellite tracking studies of sea turtles in the Northeast U.S. found that foraging turtles mainly occurred in areas where the water depth was between approximately 16 and 49 feet. The action area and the depths preferred by sea turtles do overlap, suggesting that if suitable forage is present, sea turtles may be foraging in the areas where the proposed action would occur (NMFS Biological Opinion 2018).

Atlantic Sturgeon

There are five DPSs of Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*): the New York Bight, Chesapeake Bay, Carolina and South Atlantic DPSs are listed as endangered under the ESA, and the Gulf of Maine DPS is listed as threatened under the ESA. The range of all five DPSs extends along the Atlantic coast from Canada to Cape Canaveral, Florida. The Chesapeake Bay is known to be used by Atlantic sturgeon originating from all five DPSs (NMFS Biological Opinion 2018).

Atlantic sturgeon are well distributed throughout the Chesapeake Bay typically from spring to fall. Atlantic sturgeon spawn in freshwater portions of large rivers. Spawning is known to occur in the following tributaries of the Virginia waters of the Chesapeake Bay: the James River (to Boshers Dam), Appomattox River (tributary of the James River; range not confirmed, but likely up to Battersea Dam), Potomac River (to Little Falls), Rappahannock River (range not confirmed, but likely throughout the entire river) and in the York River (to its confluence with the Mattaponi and Pamunkey Rivers) (GARFO Master ESA Species Table–Atlantic Sturgeon 2018). All of these spawning or potential spawning locations are located outside of the action area. Atlantic sturgeon spawn and develop within natal rivers, therefore eggs and larvae of Atlantic sturgeon would not occur in the action area. Although juvenile Atlantic sturgeon could occasionally venture into the action area year-round, they generally remain within natal rivers or seek winter refuge in overwintering areas, which are not known to occur in the action area (NMFS Biological Opinion 2018). Adult Atlantic sturgeon are more likely to pass through the action area as they move to these rivers to spawn in the spring and then again as they return to the ocean. A fall spawning event has been documented in the James River, and is suspected to also occur in the York and Potomac Rivers.

On August 17, 2017, NMFS published a final rule that designated critical habitat for all five DPSs of Atlantic sturgeon. The rule became effective on September 18, 2017 (82 FR 39160). Critical habitat is defined as specific areas within the geographical areas that are occupied by the species, that contain physical or biological features essential to the conservation of that species, and that may require special management considerations (NOAA 2017). Critical habitat has been designated for the Chesapeake Bay DPS of Atlantic Sturgeon in the following tributaries of the Virginia waters of the Chesapeake Bay: the Nanticoke River, Marshyhope Creek, Potomac River, Rappahannock River, York/Mattaponi/Pamunkey Rivers, and the James River. Atlantic sturgeon critical habitat is not designated in the action area, with the closest designated critical habitats being those for segments of the York and Rappahannock Rivers, both of which are roughly ten miles from the action area.

Shortnose Sturgeon

Shortnose sturgeon occur in large coastal rivers and estuaries along the east coast of North America and Canada. Shortnose sturgeon are rare in the upper Chesapeake Bay and extremely rare in the lower Chesapeake Bay. From 1996 to 2006, research programs that focused on Atlantic sturgeon throughout the Chesapeake Bay provided evidence of the capture of shortnose sturgeon. Only one genetically-verified shortnose sturgeon was documented in the lower Chesapeake Bay at the mouth of the Rappahannock River, and 72 shortnose sturgeon were documented in the upper Chesapeake Bay from 1996 to 2006 (Balazik 2017). Before 1996, there were only 15 published records of shortnose sturgeon in the Chesapeake Bay, and most of these were based on personal observations from the upper Chesapeake Bay during the 1970s and 1980s (NMFS Biological Assessment of Shortnose Sturgeon 2010). A small, remnant spawning population may exist in the Potomac River, as evidence of a single female spawning in the Potomac was reported by Kynard et al. in 2009. One shortnose sturgeon was captured in the James River in 2016. This was the first verified occurrence of shortnose sturgeon inhabiting the James River (Balazik 2017).

Adult shortnose sturgeon use the C&D Canal occasionally to move from the Chesapeake Bay to the Delaware River. Adults may also occur in the Susquehanna River (up to the Conowingo Dam) foraging and potentially overwintering, in the Potomac River (up to Little Falls Dam) foraging, overwintering, and potentially spawning, and foraging in the Rappahannock River (GARFO Master ESA Species Table–Shortnose Sturgeon 2018). Documented modern use of Virginia waters of the Chesapeake Bay is limited to two individual shortnose sturgeon; one captured in 2016 and a second sturgeon (a confirmed gravid female) caught in 2018 (NMFS Biological Opinion 2018).

Movements of individuals between river systems has been documented, but is limited to very few individuals per generation. As with the Atlantic sturgeon, spawning and early life stages of the shortnose sturgeon only occur in freshwater habitats (NMFS Biological Assessment of Shortnose Sturgeon 2010). Therefore, no life stages besides salinity-tolerant adults should occur in the action area. It is possible that migrating or opportunistically feeding shortnose sturgeon may be present in the action area for short periods of time, but lack of established populations in and adjacent to the action area presumably make this less likely than in areas of the Bay closer to where established populations occur.

4. Effects Determination

This section contains USACE's evaluation of the probable effects of the proposed action upon the identified listed species found in the action area. This evaluation is presented based upon the separate stressors that would result from project activities, and that may directly or indirectly affect those species.

Burial from Dredged Material Placement

Dredged material placement would occur via direct dumping of dredged material from the hopper. Each hopper load would be between 3,600 to 8,600 cy in volume, depending on the dredging contractor chosen. Dredged material would consist principally of silts and clays with some sand. When dumped, this material forms a dense, fluidized jet of sediment that rapidly descends to the Bay bottom, covering an area of roughly 100 by 50 feet in size and in thickness from a few inches to a maximum of up to several feet near the center of the deposit. Because the material would be suction dredged, it would not contain any large rocks or clumps of dense, cohesive material that would pose an impact hazard to listed species. Adult sea turtles and Atlantic sturgeon are large animals with strong swimming ability, and USACE is not aware of any reasonable cause for concern that these animals would be vulnerable to direct impacts via burial. Therefore, effects to sea turtles and Atlantic sturgeon from burial during open water placement activities are discountable. While shortnose sturgeon might occur as transients within the action area, their presence is so unlikely that proposed action effects are discountable² (NMFS 2018).

Turbidity from Dredged Material Placement

Placement of dredged material would cause a temporary increase in suspended sediment within portions of the action area. Re-suspended sediment is expected to settle out of the water column within a few hours. During open water placement activities, suspended sediment levels have been reported to be as high as 500 mg/L within 250 feet of the bottom-dump scow, decreasing to background levels (i.e., 15 to 100 mg/L depending on location and sea conditions) within 1,000 to 6,500 feet of the scow. TSS concentrations near the center of the plume created by the placement of dredged material have been observed to reach near background levels in 35 to 45 minutes (NOAA Turbidity and Total Suspended Sediment Effects Table 2017). Transportation activities should not increase turbidity due to the depth of the Chesapeake Bay in the action area, relative to vessel draft.

No information is available on the effects of turbidity on juvenile and adult sea turtles. Sea turtles, as air breathing reptiles, are unlikely to be impacted by temporary increases in turbidity or suspended sediments. Prolonged or excessive sedimentation could make habitat less suitable for sea turtles and hinder their capability to forage, thereby causing turtles to leave or avoid less desirable areas. As sea turtles are highly mobile, they would be able to avoid any sediment plume they encounter with minor movements to alter their course away from the sediment plume. Thus,

² The 2018 NMFS Batch Biological Opinion states: "Given the range of the species (remaining mostly in the river systems, with some coastal migrations between rivers), its general restriction to the Maryland waters of the Chesapeake Bay, and the proposed action occurring within the mainstem of the Virginia waters of the Chesapeake Bay, shortnose sturgeon are expected to be extremely rare in areas where the action may occur. As shortnose sturgeon are extremely unlikely to be present in the action area, except for rare transient occurrences, impacts to this species as a result of the proposed action are discountable."

any direct effect from open water placement activities on sea turtle movements is likely to be immeasurable and therefore insignificant.

The life stages of Atlantic sturgeon most vulnerable to increased sediment are eggs and non-mobile larvae, which are subject to burial and suffocation. As noted above, no sturgeon eggs and/or larvae would be present in the action area. Sturgeon in the action area during open water placement activities may avoid a sediment plume by swimming around it. However, if sturgeon do interact with the plume, expected TSS levels (up to 500 mg/L) are below those shown to have an adverse effect on fish (580 mg/L for the most sensitive species, with 1,000 mg/L more typical) (Burton 1993). Based on this information, the effects of suspended sediment resulting from open water placement activities on Atlantic sturgeon are extremely unlikely; therefore, effects to Atlantic sturgeon from turbidity related to open water placement activities are discountable. While shortnose sturgeon might occur as transients within the action area, their presence is so unlikely that proposed action effects related to turbidity are discountable.

Contaminants

USACE conducted sampling of the York Spit Channel O&M material in June 2013 using methods outlined in the Inland Testing Manual, which is national guidance developed by the U.S. Environmental Protection Agency and USACE. Concentrations of detected analytes in sediment samples from the York Spit Channel was compared to sediment quality guidelines (SQGs) for marine sediments to assess the sediment quality of the material proposed for dredging. SQGs were used to identify potential adverse biological effects associated with contaminated sediments. Threshold effects levels (TELs) typically represent concentrations below which adverse biological effects are rarely observed, while probable effects levels (PELs) typically represent concentrations in the middle of the effects range and above which effects are more frequently observed (EA 2014).

Of the 18 tested metals, 9 of them – arsenic, cadmium, chromium, copper, lead, mercury, nickel, silver, and zinc – have TEL and PEL values. All of the tested metals were detected in each sediment sample from the York Spit Channel; however, none of the concentrations exceeded TEL or PEL concentrations (EA 2014). In addition to comparing sediment results to sediment quality guidelines, the acid volatile sulfide (AVS) / Simultaneously Extracted Metals (SEM) ratio was calculated to assess the bioavailability of the five simultaneously extracted metals included in the analysis (cadmium, copper, lead, nickel, and zinc). The AVS/SEM ratios for sediments from the York Spit Channel indicated that these metals would most likely be bound to organic matter and would not be expected to be bioavailable to aquatic organisms in these locations (EA 2014). None of the tested polycyclic aromatic hydrocarbons (PAHs) were detected in site water, receiving water, or in the standard elutriates samples taken from the York Spit Channel. This indicates that PAHs are tightly bound to sediments and are not likely to be released into the water column during open water placement. Total polychlorinated biphenyls (PCBs) concentrations in the York Spit Channel sediments did not exceed TEL values (EA 2014).

Based on the sampling results, the placement of dredged material from the York Spit Channel into the WTAPS north extension would not be toxic to marine life and would not be likely to cause adverse effects to sea turtles, Atlantic sturgeon or their prey. Metals of concern and PAHs occur at low levels, and would likely settle out onto the bottom remaining adsorbed to sediment and not be released into the water column. Furthermore, the high flushing rate (due to the water exchange and tidal fluctuations) of the Chesapeake Bay is anticipated to minimize potential turbidity plumes

and cause them to be more quickly dispersed, minimizing long term impacts to water quality. Because the dredged material was tested to ensure it is not toxic, effects to sea turtles and Atlantic sturgeon would be too small to be meaningfully measured, detected, or evaluated and are, therefore, insignificant. While shortnose sturgeon might occur as transients within the action area, their presence is so unlikely that proposed action effects related to contaminants are discountable.

Habitat Modification from Open Water Placement

Effects to listed species can be caused by disturbance to the sea floor that reduces the availability of prey species or alters the composition of forage. Open water placement would deposit dredged material onto the existing bottom which could indirectly affect sea turtles and sturgeon by reducing available prey species through the alteration of the existing biotic assemblages.

Green sea turtles forage on SAV. No SAV is present within or adjacent to the action area because it exceeds photic zone depth. Leatherback sea turtles feed on jellyfish. As jellyfish are pelagic species seasonally abundant throughout the middle and lower Bay, impacts of reduction in forage species for leatherback sea turtles from placement of dredged material would be insignificant. Kemp's ridley and loggerhead sea turtles forage on horseshoe crabs, but also consume other crustaceans, sponges, jellyfish, mollusks, snails, fish, fish eggs and SAV. Some species of benthic invertebrates that sturgeon and turtles feed on have limited mobility and could be buried during open water placement activities. Some buried animals would be able to migrate upward through the sediment and reestablish themselves, if near the periphery of the immediate placement area, where the overburden is not too thick to prevent upward migration. Areas where dredged material would be placed are expected to be recolonized by individuals from similar habitats nearby.

While there is likely to be some temporary reduction in the amount of prey in the open water placement area, the action would result in the loss of only a small portion of the available forage in Chesapeake Bay. Therefore, sturgeon and sea turtles opportunistically foraging in the action area would be able to forage in other areas of the Bay, where benthic communities have not been removed or buried. As a result, indirect effects due to habitat modification from open water placement and burial of the existing bottom would be too small to be meaningfully measured or detected, and are therefore insignificant. The proposed action would not affect Atlantic sturgeon critical habitat. While shortnose sturgeon might occur as transients within the action area, their presence is so unlikely that proposed action effects related to habitat modification are discountable.

Vessel Traffic

Project vessels expected to be used include one hopper dredge, one survey boat and one crew boat. These vessels may collide with sea turtles when they are at the surface. Although little is known about a sea turtle's reaction to vessel traffic, it is generally assumed that turtles are more likely to avoid injury from slower moving vessels since the turtle has more time to maneuver and avoid the vessel. The speed of the hopper dredge is not expected to exceed three knots while transiting from the dredge site to the open water placement site with a full load, and it is expected to operate at a maximum speed of ten knots while empty. In addition, the risk of ship strike is influenced by the amount of time the animal remains near the surface of the water. The presence of an experienced endangered species observer who can advise the vessel operator to slow the vessel or maneuver safely when sea turtles are spotted would further reduce the potential risk for interaction with vessels. Atlantic sturgeon are demersal and would not be susceptible to strikes from project

vessels. While shortnose sturgeon might occur as transients within the action area, their presence is so unlikely that proposed action effects related to vessel traffic are discountable.

Conclusions

Based on an analysis of all of the effects described above, the USACE Baltimore District has determined that the proposed placement of dredged material at the Wolf Trap Alternate Open Water Placement Site Northern Extension may affect, but is not likely to adversely affect ESA-listed species. Because the proposed action is essentially equivalent in scope and effect to the placement activities previously evaluated within the 2018 Batch Biological Opinion for the Construction and Maintenance of Chesapeake Bay Entrance Channels, re-initiation of consultation is not warranted. We certify that we have used appropriate scientific and commercial data available to complete this analysis. We request that NMFS concur with this determination.

If you have any questions regarding this matter, please contact Ms. Kristina May by phone at (410) 962-6100 or by email at Kristina.K.May@usace.army.mil.

Sincerely,



Daniel M. Bierly
Chief, Civil Project Development Branch
U.S. Army Corps of Engineers, Baltimore District

Cc: Brian Hopper, NOAA NMFS, Greater Atlantic Region Fisheries Office,
brian.d.hopper@noaa.gov

Attachments:

Maps of the Wolf Trap Alternate Open Water Placement Site Northern Extension (4 pages)

References

Balazik, M. 2017. First verified occurrence of the shortnose sturgeon (*Acipenser brevirostrum*) in the James River, Virginia. NMFS Fishery Bulletin 115:196-200.

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- https://www.greateratlantic.fisheries.noaa.gov/protected/section7/guidance/maps/garfo_master_esa_species_table_-_atlantic_sturgeon_06072018.pdf
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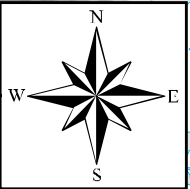
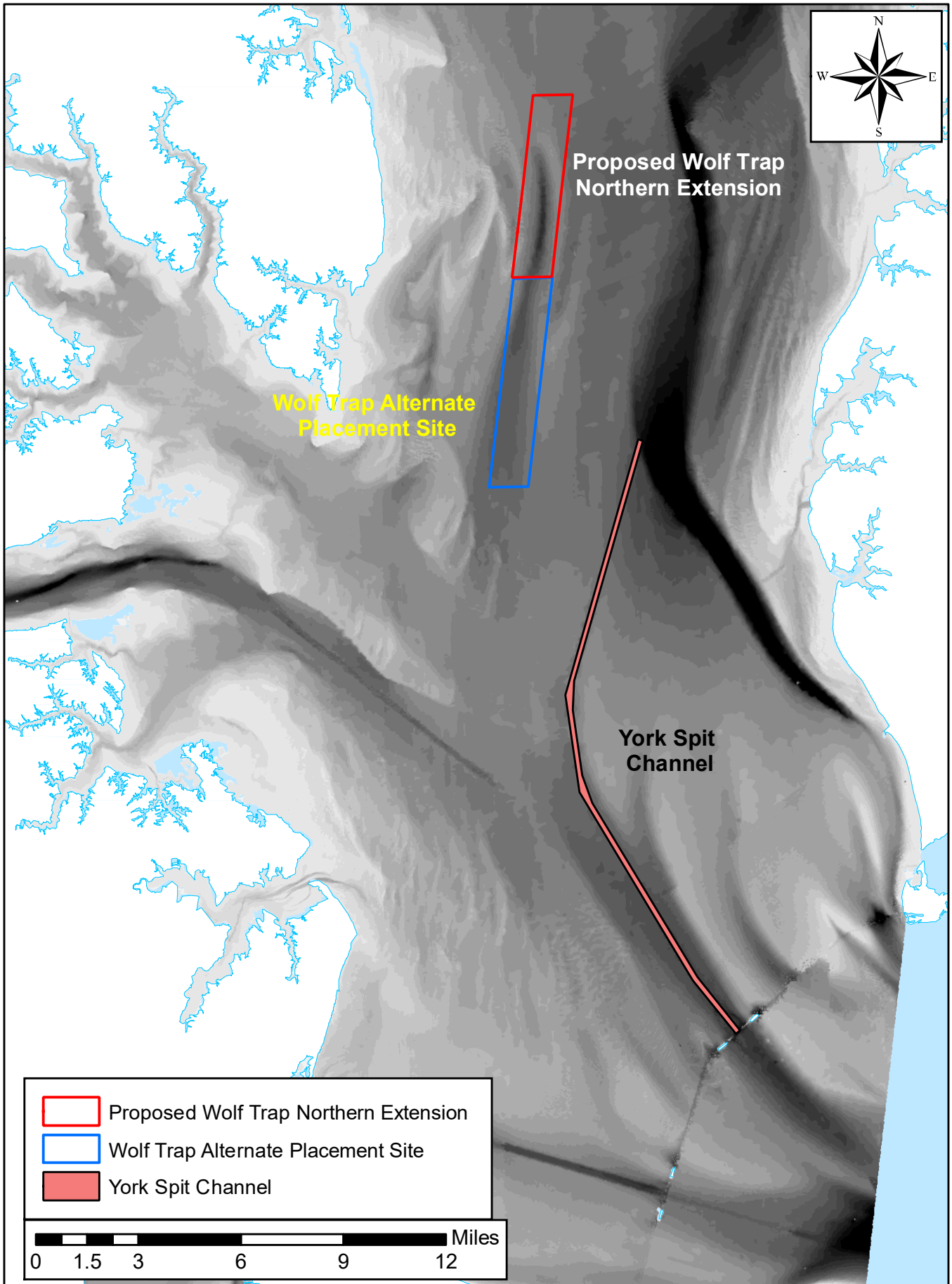
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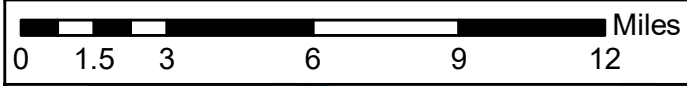


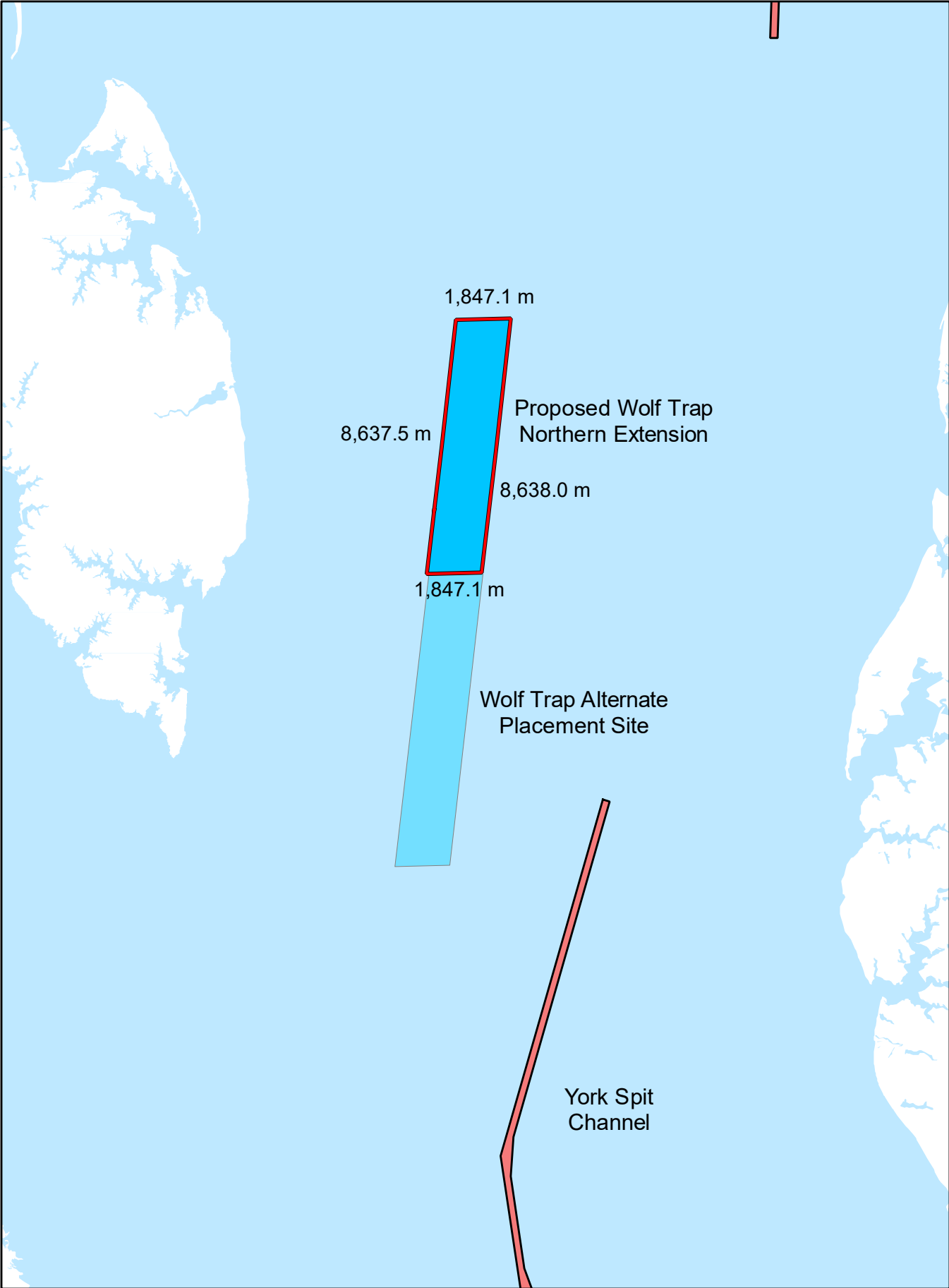
Proposed Wolf Trap
Northern Extension

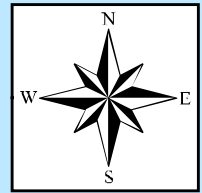
Wolf Trap Alternate
Placement Site

York Spit
Channel

- Proposed Wolf Trap Northern Extension
- Wolf Trap Alternate Placement Site
- York Spit Channel





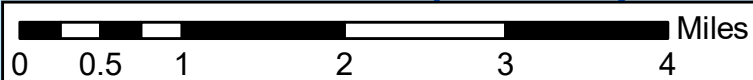
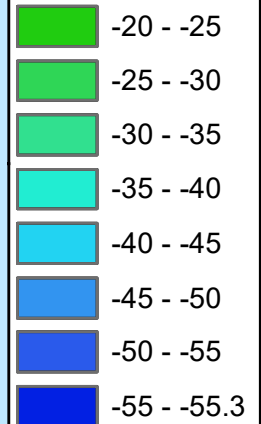


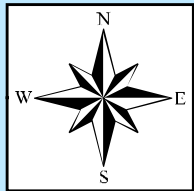
76°09'56.72962"W, 37°26'26"N 76°08'41.58373"W, 37°26'26"N

**Proposed Wolf Trap
Northern Extension**

76°10'45.17785"W, 37°21'48.49069"N 76°09'30.11100"W, 37°21'48.48148"N

**Bathymetry
(in Feet)**





76°09'56.72962"W,
37°26'26"N

76°08'41.58373"W,
37°26'26"N

Proposed Wolf Trap
Northern Extension

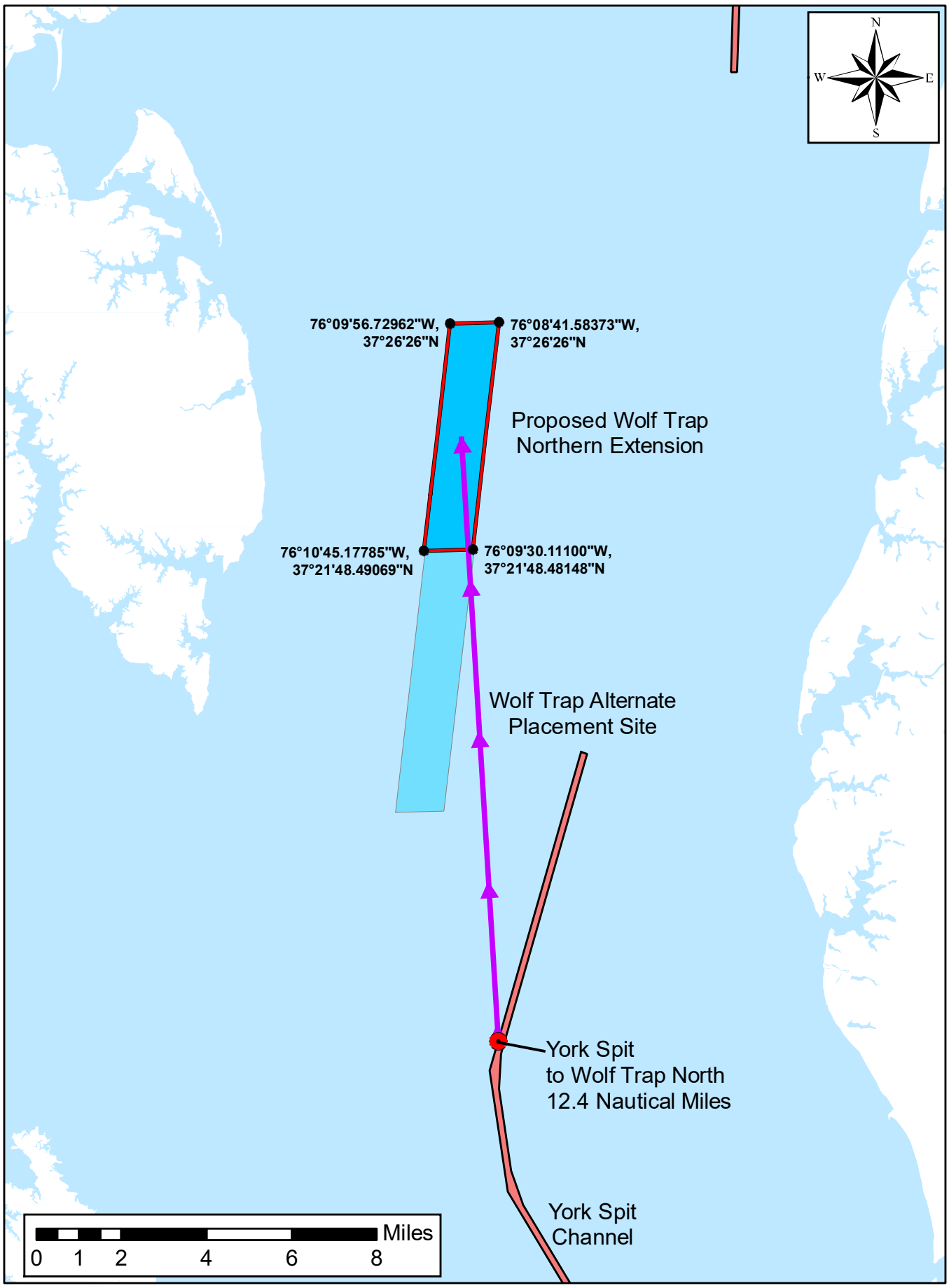
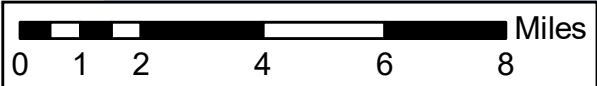
76°10'45.17785"W,
37°21'48.49069"N

76°09'30.11100"W,
37°21'48.48148"N

Wolf Trap Alternate
Placement Site

York Spit
to Wolf Trap North
12.4 Nautical Miles

York Spit
Channel



From: [Brian D Hopper - NOAA Federal](#)
To: [May, Andrew J CIV USARMY CENAB \(USA\)](#)
Cc: [May, Kristina K CIV USARMY CENAB \(USA\)](#)
Subject: Re: [Non-DoD Source] Re: Your suggested revisions to WTAPSNE concurrence letter (UNCLASSIFIED)
Date: Monday, May 6, 2019 11:32:54 AM

Hi Andy and Kristina,

Your emails and letter regarding the Army Corps' proposal to expand the Wolf Trap Alternate Open Water Placement Site requested confirmation that no additional coordination was necessary at this time.

Although shortnose sturgeon, Atlantic sturgeon originating from five listed Distinct Population Segments (DPS), and four species of sea turtles are known to occur in the Chesapeake Bay and its adjacent tributaries and rivers, based on the activities associated with the project, the location of the project, and information you provided in your email and letter, we believe that these species will not be exposed to any direct or indirect effects of the action that have not previously be considered and analyzed. Therefore, we do not believe a re-initiation of consultation in accordance with section 7 of the Endangered Species Act (ESA) is necessary. As such, no further coordination on this activity with the NMFS Protected Resources Division is necessary at this time. Should there be additional changes to the project plans or new information become available that changes the basis for this determination, further coordination should be pursued. Please contact me (410-573-4592 or brian.d.hopper@noaa.gov <<mailto:brian.d.hopper@noaa.gov>>), should you have any questions regarding these comments.

Regards,
-Brian

From: [May, Kristina K CIV USARMY CENAB \(US\)](#)
To: ["VirginiaFieldOffice@fws.gov"](mailto:VirginiaFieldOffice@fws.gov)
Subject: Self-Certification Letter
Date: Thursday, February 14, 2019 2:13:00 PM
Attachments: [Wolf Trap Placement Site Northern Extension Project Review Package.pdf](#)

Please see the attached self-certification letter and project review package for the Wolf Trap Alternate Open Water Placement Site Northern Extension.

Thanks,

Kristina May
Biologist, Planning Division
USACE, Baltimore District
410-962-6100

From: [Virginia Field Office, FW5](#)
To: [May, Kristina K CIV USARMY CENAB \(US\)](#)
Subject: [Non-DoD Source] Out of the Office Re: [EXTERNAL] Self-Certification Letter
Date: Thursday, February 14, 2019 2:25:51 PM

Thank you for submitting your online project package. Due to the government shutdown, we have a backlog of actions to process. As a result, we will review your package within 90 days of receipt, instead of the typical 30 days. If you have submitted an online project review request letter, expect our response within 90 days. If you have submitted an online project review certification letter, you will typically not receive a response from us since the certification letter is our official response. However, if we have additional questions or we do not concur with your determinations, we will contact you during the review period. Thank you for your understanding and patience.



United States Department of the Interior



FISH AND WILDLIFE SERVICE

Virginia Field Office
6669 Short Lane
Gloucester, VA 23061

Date:

Self-Certification Letter

Project Name:

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), and the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c, 54 Stat. 250), as amended (Eagle Act). 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 and Eagle Act conclusions. These conclusions resulted in:

- “no effect” determinations for proposed/listed species and/or proposed/designated critical habitat; and/or
- “may affect, not likely to adversely affect” determinations for proposed/listed species and/or proposed/designated critical habitat; and/or
- “may affect, likely to adversely affect” determination for the Northern long-eared bat (*Myotis septentrionalis*) and relying on the findings of the January 5, 2016 Programmatic Biological Opinion for the Final 4(d) Rule on the Northern long-eared bat; and/or
- “no Eagle Act permit required” determinations for eagles.

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 “no effect” or “not likely to adversely affect” determinations for proposed and listed species and proposed and designated critical habitat; the “may affect” determination for Northern long-eared bat; and/or the “no Eagle Act permit required” determinations for eagles. 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, or bald eagles 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,

A handwritten signature in blue ink that reads "Cynthia A. Schulz". The signature is written in a cursive style and is enclosed in a light blue rectangular box.

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:

February 14, 2019

Consultation Code: 05E2VA00-2019-SLI-2216

Event Code: 05E2VA00-2019-E-05053

Project Name: Wolf Trap Alternate Open Water Placement Site Northern Extension

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: 05E2VA00-2019-SLI-2216

Event Code: 05E2VA00-2019-E-05053

Project Name: Wolf Trap Alternate Open Water Placement Site Northern Extension

Project Type: FILL

Project Description: The proposed action will extend the existing WTAPS to the north, increasing the size of the placement site by approximately 3,900 acres. The WTAPS northern extension will serve as an open water placement site for dredged material. The purpose of extending the WTAPS is to minimize adverse impacts to overwintering female blue crabs. The deeper, muddy channel in the WTAPS northern extension does not provide suitable habitat for overwintering female blue crabs.

Approximately two million cubic yards of dredged material from the York Spit Channel will be placed into the WTAPS northern extension during the initial placement event that is expected to occur in the fall of 2019. Dredging will be conducted in one dredging cycle that will last for approximately 4 ½ months (approximately 15,000 cubic yards of material dredged per day). After initial placement into the WTAPS northern extension, it is anticipated that approximately 1.5 million cubic yards of dredged material will be placed into the site approximately every 4 years. The in-place volume of the site was calculated to be over 30 million cubic yards, using an allowable water depth of 30 feet, which generally matches the bathymetry surrounding the site and would allow placement to surrounding depths. Open water placement into the WTAPS northern extension will not occur from September 1 through November 14 due to a time-of-year restriction for dredging in the York Spit Channel.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/37.40200374080091N76.16205394815069W>



Counties: Mathews, VA

Endangered Species Act Species

There is a total of 1 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 Fisheries¹, 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.

-
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 <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	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.

Species Conclusions Table

Project Name: Wolf Trap Alternate Open Water Placement Site Northern Extension

Date: February 14, 2019

Species / Resource Name	Conclusion	ESA Section 7 / Eagle Act Determination	Notes / Documentation
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	No suitable habitat present	No effect	This species roosts behind loose pieces of bark, within cavities and crevices of live and dead trees, and occasionally in structures like barns during the summer months. In the winter months, this species hibernates in caves and mines, swarming in surrounding wooded areas in the autumn. In the spring, this species migrates between their summer and winter homes. Because the entire action area is located in tidal waters of the Chesapeake Bay, suitable habitat for the northern long-eared bat is absent in the action area.
Critical habitat	No critical habitat present	No effect	
Bald eagle	Unlikely to disturb nesting bald eagles	No effect	No nests within 660'
Bald eagle	Does not intersect with an eagle concentration area	No effect	



Layers

Bald Eagle

VA Eagle Nest Locator

[Zoom to Extents](#)

Most recent data CCB has on bald eagle nest locations in Virginia. Data is largely from two annual aerial flights conducted in winter and spring of all tributaries of the lower Chesapeake Bay and other prominent bodies of water. Reported ground survey data is also included.

[More info](#)

VA Eagle Nest Buffers

Eagle Roosts

Eagle Roost Polygons

Eagle Roost Buffers

Eagle Roosts by Topoquad

Waterbirds

Chesapeake Bay Herons

2013

[Zoom to Extents](#)

Great Blue Heron and Great Egret nesting pairs surveyed by airplane May-June of 2013.

[More info](#)

Colonial Waterbirds 2013

Colonial Waterbirds 2008

Colonial Waterbirds 2003

Osprey

Osprey Watch Nests

Toggle Draw Tools

Generate Link

Print Report

Search

5 km

3 mi

+

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Home

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Full Screen

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