DRAFT

Environmental Assessment

for

Small Unit Inland Training in the Virginia Capes Range Complex

APPENDICES

April 2018

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A.1 Essential Fish Habitat Consultation

USFF letter to National Marine Fisheries Service Regarding Essential Fish Habitat

DEPARTMENT OF THE NAVY
U.S. FLEET FORCES COMMAND
1562 MITSCHER AVENUE SUITE 250
NORFOLK VA 23551-2487

5090
Ser N46/073
June 28, 2017

Ms. Karen Greene, Mid-Atlantic Field Office Supervisor
Habitat Conservation Division, Greater Atlantic Region Fisheries Office
National Marine Fisheries Service
James J. Howard Marine Sciences Laboratory
74 Magruder Road
Highlands, NJ 07732

SUBJECT: ESSENTIAL FISH HABITAT ASSESSMENT FOR UNITED STATES NAVY'S VIRGINIA CAPES INLAND TRAINING

The United States Navy (Navy) provided a correction to notification of essential fish habitat (EFH) assessment to your office via a letter dated May 8, 2017 (Ser N46/043). In that letter, we stated that the Navy would no longer be preparing an EFH assessment specific to the Virginia Capes Inland Training Environmental Assessment (VITEA), which evaluates inland training in the Hampton Roads fleet concentration area, inshore of the Navy's Virginia Capes Range Complex. With two exceptions, water-based training activities, once part of VITEA, have been shifted to the Navy's more comprehensive Atlantic Fleet Training and Testing Environmental Impact Statement (EIS)/Overseas EIS which is currently in development. One exception is training activity on Jones Pond within Cheatham Annex (York County, Virginia). No EFH exists at this location. The other exception is training activity on a segment of the Southern Branch of the Elizabeth River (City of Chesapeake, Virginia). After further evaluation of the training activity at this location, Navy has determined that the VITEA training activities on the Southern Branch of the Elizabeth River necessitate the preparation of an EFH assessment. Therefore, an EFH assessment is contained in the Draft VITEA and enclosed herewith.

In accordance with consultation requirements of §305(b) of the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. 1855(b)), the Navy will consult as appropriate on any new actions as they develop. My point of contact for this matter is Mr. Greg Thompson. He can be reached at (757) 836-6938 or via email at: gregory.s.thompson2@navy.mil.

Sincerely,

Elizabeth Nashold
Director, Fleet Installations and Environment
and Deputy Chief of Staff

Enclosure: Essential Fish Habitat Assessment for the VITEA

ESSENTIAL FISH HABITAT ASSESSMENT
VIRGINIA CAPES INLAND TRAINING

1. INTRODUCTION

This document presents the findings of the Essential Fish Habitat (EFH) assessment conducted for Virginia Capes (VACAPES) Inland Training, as required by the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) of 1976, as amended through 2007 (16 United States Code [U.S.C.] §§ 1801 et seq.). The objective of this EFH assessment is to describe how Virginia Capes Inland Training may affect EFH designated by the National Marine Fisheries Service (NMFS) for the inland training study area in Hampton Roads, Virginia. The United States Navy (Navy) intends to carry out the action described in Section 2 below, in accordance with section 5013 and 5062 of Title 10, United States Code (U.S.C.).

2. DESCRIPTION OF THE ACTION AND ACTION AREA

The Navy is evaluating the proposed VACAPES inland training within the VACAPES Inland Training Environmental Assessment (VITEA). The Proposed Action is to conduct United States Fleet Forces (USFF) expeditionary training events (Table 1) in the inland areas of the VACAPES Range Complex of the Hampton Roads fleet concentration area located in southeastern Virginia. The purpose for the Proposed Action is to maintain Navy readiness by continuing to execute current types of inland training (land-based and inland waterway) at current levels and in current locations; accommodate changes in annual frequency of training; support future training requirements; achieve and sustain readiness of ships and squadrons; and support the acquisition and implementation of advanced military technology into the fleet. The need for the Proposed Action is to prepare combat-capable forces that are ready to deploy worldwide for prompt and sustained combat incident to operations at sea consistent with Title 10, United States Code section 5062.

Enclosure

Table 1: Primary Inland Training Activities in the VACAPES Inland Training Environmental Assessment Study Area - Brief Description

Primary Training Event Activity	*Description*
Beach landings[1]	The landing of vessels, movement of troops, and use of equipment on the beach or dunes.
Equipment use	Use of equipment (e.g., generators) to support training; only equipment producing emissions or noise are analyzed (i.e., handheld devices not included).
Explosives on land	Detonations occurring on land, primarily for explosive ordnance disposal training.
Personnel movement	Movement of troops in undeveloped areas, either in and around a training area or between training areas. Does not include troops aboard a vessel or moving on foot along established roads.
Underwater movement[2]	Movement of devices that operate underwater (e.g., remotely operated vehicles [controlled remotely by a human operator]). Submarine training is included in the *Atlantic Fleet Training and Testing EIS/OEIS*.
Vehicle movement	Movement of land tactical vehicles to and from a training location and vehicle use at the training location.
Vessel movement[3]	Movement of vessels to and from a training location and vessel use at the training location.
Weapons firing – blank fire	Firing of small (.50 caliber or less) and medium (greater than .50 caliber and up to 56 mm) arms weapons using cartridges that contain gunpowder but no bullet or projectile; a shell is expended at the point of fire. There is a 200-foot stand-off distance from boats and personnel during all training events when using blank fire.
Weapons firing – non-lethal training ammunition	Firing of non-lethal training ammunition (e.g., marking cartridges). Does not include use of explosives.

[1] Aspects of beach landings occurring in the ocean are included in the Atlantic Fleet Training and Testing EIS/OEIS. And the intertidal portion of the landing beaches would be considered EFH, but there would be no adverse impact anticipated based on naturally disturbed condition of the sediment.

[2] Underwater movements occur only at Jones Pond at the Cheatham Annex (York County, Virginia). No EFH is present at this location.

[3] This event occurs only on the Southern Branch of the Elizabeth River (Chesapeake, Virginia) and is the only event primary training event activity relevant to the EFH assessment.

Enclosure

The Proposed Action Study Area (Figure 1) comprises the inland areas of the VACAPES Range Complex in the Hampton Roads fleet concentration area and includes Navy installations and non-Navy owned training areas that support USFF training requirements. The VITEA Study Area includes eight Navy-owned training areas as listed below:

1. Joint Expeditionary Base (JEB) Little Creek
2. JEB Fort Story
3. Dam Neck Annex (and neighboring Camp Pendleton State Military Reservation)
4. Naval Auxiliary Landing Field Fentress
5. Northwest Annex
6. St. Juliens Creek Annex
7. Naval Weapons Station Yorktown
8. Cheatham Annex

Inland training events occur at all of the Navy installations listed above. The non-Navy–owned training areas that support USFF training requirements in the study area are listed below:

1. First Landing State Park
2. Southern Branch of the Elizabeth River (a portion of the Atlantic Intracoastal Waterway shown on Figure 1)

Enclosure

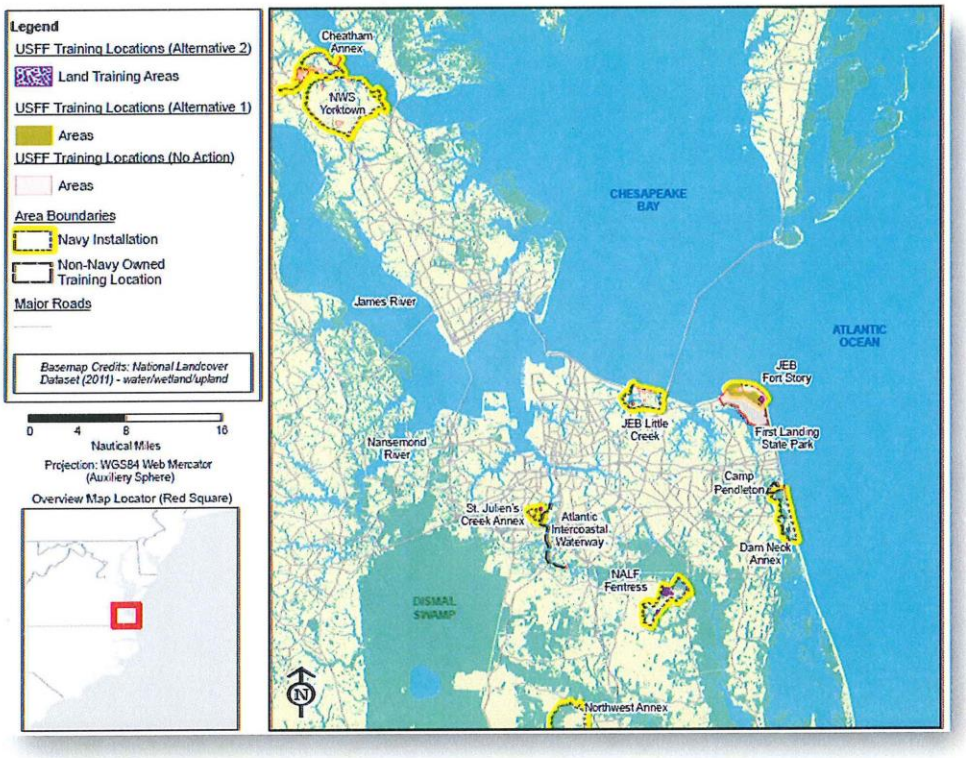

Figure 1: Virginia Capes Inland Training Environmental Assessment Project Locations

3. EFH DESIGNATIONS

Two bodies of water are included within the Proposed Action Study Area (i.e., Jones Pond on Cheatham Annex and a segment of the Southern Branch of the Elizabeth River). Jones Pond contains no EFH because it is a freshwater impoundment. An evaluation of the project location in the Southern Branch of the Elizabeth River (see Figure 2) determined that EFH is present for the following species/management units (and life stages):

a. Sandbar Shark (Habitat Areas of Potential Concern [HAPC])[1]
b. Atlantic Butterfish (adult, juvenile)

[1] According to draft Amendment 10 to the Atlantic Highly Migratory Species FMP, currently under review, no species covered in the plan, including the sandbar shark, have designated EFH or HAPC that intersect the training portion of the Southern Branch of the Elizabeth River (National Marine Fisheries Service, 2016). Draft Amendment 10 to the 2006 Consolidated Atlantic Highly Migratory Species FMP: EFH. Available from http://www.nmfs.noaa.gov/sfa/hms/documents/fmp/am10/index.html. Accessed in December 2016.

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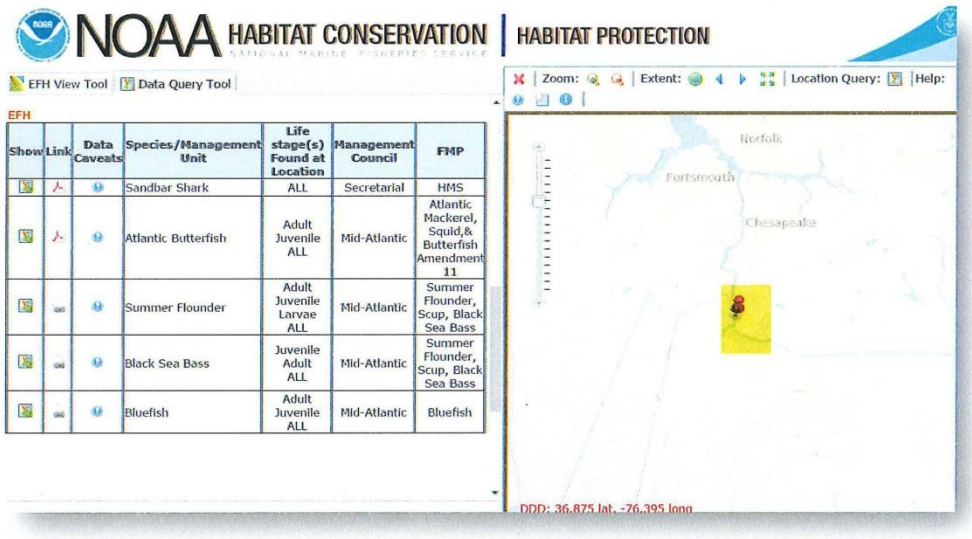
c. Summer Flounder
   1. EFH (adult, juvenile, larvae)
   2. HAPC (adult, juvenile) - All native species of macroalgae, seagrasses, and freshwater and tidal macrophytes in any size bed, as well as loose aggregations
d. Black Sea Bass (adult, juvenile)
e. Bluefish (adult, juvenile)

See Footnote 1 below for caveat regarding recent Sandbar Shark EFH map changes.



Show	Link	Data Caveats	Species/Management Unit	Life stage(s) Found at Location	Management Council	FMP
			Sandbar Shark	ALL	Secretarial	HMS
			Atlantic Butterfish	Adult Juvenile ALL	Mid-Atlantic	Atlantic Mackerel, Squid,& Butterfish Amendment 11
			Summer Flounder	Adult Juvenile Larvae ALL	Mid-Atlantic	Summer Flounder, Scup, Black Sea Bass
			Black Sea Bass	Juvenile Adult ALL	Mid-Atlantic	Summer Flounder, Scup, Black Sea Bass
			Bluefish	Adult Juvenile ALL	Mid-Atlantic	Bluefish

Figure 2: EFH in the Vicinity of the Southern Branch of the Elizabeth River Training Location

Key: Highlighted area depicts segment of the Southern Branch of the Elizabeth River project location.

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4. ASSESSMENT

Navy training on the segment of the Southern Branch of the Elizabeth River may occur up to 30 times each year. Training involves movements along the river by groups of 4 to 8 various small motorized vessels, ranging in length from 16 to 53 feet. On an annual basis, training may consist of up to 1,980 hours of vessel movement along the river, and expenditure of 144,000 blank rounds and casings (an estimated 21,600 casings of which may go uncaptured in the vessel and instead be expended into the water). Up to 50 percent of the vessel movement (990 hours) is conducted at high-speeds (> 10 knots) in the main channel. Approximately 12 personnel per boat will disembark into the water close to the shoreline during the insertion/extraction phase of the training. Vessels may approach the near-shore environment, but personnel do not move onto the shore.

Vessel movement and personnel insertion/extraction activities have the potential to temporarily increase water column turbidity by making contact with and/or disturbing sediments on the bottom as well as by the generation of surface wakes and propeller wash during vessel movements. Increased turbidity decreases the amount of light penetrating the water, stressing submerged aquatic vegetation through reduced photosynthesis. Turbidity also affects the ability of oysters to filter feed because high sediment loads trigger oysters to stop filtering, stressing the oyster and limiting growth (Gonda-King et al., 2010) and can impact a fish's ability to see and feed as well as damage and clog gills.

Incidental contact with the bottom potentially occurs during vessel movement in shallow waters where the hull, propeller, or other appurtenance make contact with the bottom. As part of the insertion/extraction training events, vessels are intentionally grounded and personnel disembarked into shallow water thus impacting both the sediments and the water column in the immediate vicinity of the event. Interactions with the sediments and shoreline by both the vessels and personnel would increase water column turbidity and have an adverse effect on soft bottom and water column habitats designated as EFH. However, the increase in turbidity would be minor and temporary, lasting between several hours up to a day depending on conditions, and localized to the immediate training area and a small distance downstream. There would be no long-term reduction in the quantity or quality of substrate or water column habitat resulting from training activities.

During the personnel insertion and extraction portion of the training events, vessels would be intentionally grounded along the shoreline for short periods of time. A small stretch of the river bottom is typically exposed during low tide on which the vessels will ground. During periods of high tide, however, the vessels need to ground in the salt marsh, composed primarily of saltmarsh cordgrass (*Spartina alterniflora*), that lines the edges of the river and which is designated as summer flounder HAPC. As a result, small sections of tidal wetland vegetation would periodically be impacted. In most cases, the wetland vegetation would be flattened in the immediate vicinity of the grounding, but would recover shortly following the conclusion of the training event. However, in some rare cases, the marsh grass may be damaged or uprooted in small areas leading to a longer recovery period of weeks to months. Grounding of vessels in the marsh during training events may result in short-term, minimal, and highly localized impacts to salt marsh habitats designated as HAPC for summer flounder.

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Vessels conducting high speed defensive tactical maneuvers would also potentially impact designated EFH within the river. When transiting a sheltered area with unprotected shoreline (e.g., no rip-rap or bulkheads), the excessive wake generated during the maneuvers may contribute to the gradual increase in shoreline erosion over time. In addition, the erosion of the shoreline may also temporarily increase water column turbidity in the immediate area. Recorded times for turbidity levels to return to normal as a result of boating activities ranges from 5 to 24 hours (Asplund, 2000). Tidal wetland vegetation may also be impacted by vessel movement if excessive wake is generated during training. Excessive wake would potentially increase water column turbidity of wetlands during flood tides, and during ebb tides it would potentially cause erosion of sediment that the cordgrass is rooted in. Overall, high speed vessel maneuvers may adversely affect water column and soft sediment habitats designated as EFH, but any impacts to these habitats would be temporary in duration (several hours to a day), minimal, and localized. In addition, these activities may also result in a minor, long-term reduction in the quantity or quality of tidal macrophyte habitat as a result of potential shoreline erosion. However, as the area is continuously subjected to wake effects from thousands of recreational and commercial vessels annually, the Navy's contribution to the shoreline erosion due to high speed defensive tactical maneuvers (which represent a very small proportion of the overall vessel traffic along the Southern Branch of the Elizabeth River) would be extremely minor.

Blank weapons firing from vessels results in a small percentage of brass casings incidentally entering the water. Casings are captured and retained to the greatest extent possible in catch cans. Casings that escape capture strike the water at varying angles and disperse from the point of entry when sinking to the bottom. Dense accumulations of casings on the bottom are not likely. The present state of the river bottom in the assessment area with regards to accumulated debris is not known. Putatively, casings could convert areas of soft mud bottom into a coarse hard bottom. Encrusting algae or sedentary invertebrates may colonize the casings if sufficient flow and nutrients or suspended food particles exist and they are not buried by sedimentation. If there is sufficient oxygen, the casings might corrode over time and disintegrate. The primary constituents of brass casings are copper and zinc, typically with less than one percent tin and lead added to inhibit corrosion and dezincification (U.S. Environmental Protection Agency, 2001). The most likely scenario, however, is that the casings would be buried by tidal action, shoaling, and sedimentation from canals draining developments and agricultural lands. As a result, blank weapons firing may result in short-term, minimal impacts to soft bottoms designated as EFH in small, localized areas.

5. CONCLUSION

Based upon the above assessment of impacts associated with river vessel movements, personnel insertion/extraction, and blank weapons fire, the Navy determines that the Proposed Action will result in minimal adverse effect to EFH and HAPC found within the Southern Branch of the Elizabeth River.

Enclosure

6. REFERENCES

Asplund, T.R. (2000). *The Effects of Motorized Watercraft on Aquatic Ecosystems*. Wisconsin Department of Natural Resources, Bureau of Integrated Science Services and University of Wisconsin-Madison, Water Chemistry Program.

Gonda-King, Liahna M., Andrew G. Keppel, Michael A Kuschner, and Christopher N. Rodkey. (2010). *The Relation of Sedimentation to Growth Rate in the Eastern Oyster (Crassostrea virginica)*. St. Mary's College of Maryland Department of Biology.

United States Environmental Protection Agency, (2001). *Report on the Corrosion of Certain Alloys*. Prepared by the Office of Prevention, Pesticides, and Toxic Substances; and Office of Information Analysis and Access.

Enclosure

National Marine Fisheries Service response to USFF letter Regarding Essential Fish Habitat

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
GREATER ATLANTIC REGIONAL FISHERIES OFFICE
55 Great Republic Drive
Gloucester, MA 01930-2276

December 8, 2017

Ms. Elizabeth Nashold
Director, Fleet Installations and Environment
Deputy Chief of Staff
Department of the Navy
U.S. Fleet Forces Command
1562 Mitscher Ave., Suite 205
Norfolk, VA 23551-2487

Dear Ms. Nashold:

We have reviewed the essential fish habitat (EFH) assessment submitted June 28, 2017, for the United States Navy's Virginia Capes (VACAPES) Inland Training, which includes training activities within the proposed action study area in the Hampton Roads fleet concentration area, including Navy installations and non-Navy owned training areas not included under the recently prepared Atlantic Fleet Training and Testing (AFTT) Environmental Impact Statement (EIS). The purpose of the VACAPES inland training is to maintain Navy readiness through continued inland training exercises to achieve and sustain readiness and prepare combat-capable forces.

The VACAPES inland training includes two water-based expeditionary training events, the first occurring in Jones Pond at the Navy's Cheatham Annex, located in James City County, Virginia and the second along portions of the Southern Branch of the Elizabeth River in the City of Chesapeake, Virginia in the vicinity of St. Julian's Annex.

As you know, Jones Pond is a non-tidal, freshwater impoundment and therefore not designated as EFH. Portions of the Southern Branch of the Elizabeth River are designated as EFH for 10 federally managed species. In addition, portions of the Southern Branch of the Elizabeth River have also been designated as a habitat area of particular concern (HAPC) for sandbar shark and summer flounder.

The EFH designation in the Southern Branch of the Elizabeth River is based upon the salinity mixing zone boundary, as depicted in the National Estuarine Inventory data atlas (USDOC, NOAA, NOS, Vol. 1, 1985) and extends from its confluence with Hampton Roads to the Hampton Roads Beltway, I-664, High Rise Bridge. For geographic reference, St. Julian's Annex is located north of the I-664, High Rise Bridge, approximately 2 nm downstream.

The training activities described in the EFH assessment that occur along the Southern Branch of the Elizabeth River include vessel movement to and from training locations and vessel operations associated with personnel insertion/extraction activities along the shoreline. Training on the Southern Branch of the Elizabeth River typically involves movements of 4 to 8 small

vessels of various lengths (16 to 53 ft.) and will occur up to 30 times annually, totaling up to 1,980 hours of vessel movements. Depending on tide stage, vessels may operate in shallow water and be intentionally grounded onto the river bottom and/or shoreline, impacting subtidal and intertidal benthos habitat and flattening fringing tidal marsh vegetation during training.

Anticipated impacts to EFH resulting from Navy training activities along the Southern Branch of the Elizabeth River include increased turbidity in the water column and impacts to subtidal and intertidal sediments, benthos and fringe marsh habitat. All potential impacts resulting from training activities are anticipated to be temporary and relatively minor in nature.

Following a review of the information provided in the EFH assessment, we concur with your determination that Virginia Capes (VACAPES) Inland Training activities along the Southern Branch of the Elizabeth River will not substantially adversely affect EFH, or sandbar shark and summer flounder HAPC and have no conservation recommendations to provide. Please note this EFH determination does not address threatened and endangered species under the purview of NOAA Fisheries. Therefore, please contact Mr. Brian Hopper, Protected Resources Division (410-573-4592 or brian.d.hopper@noaa.gov) regarding federally listed Atlantic sturgeon and sea turtles.

If the project changes in such a manner that it affects the basis for this determination or new information becomes available, further EFH consultation must be re-initiated pursuant to 50 CFR 600.920 (j). If you have any further questions please feel free to contact Mr. David O'Brien in our Virginia field office (804-684-7828 or david.l.o'brien@noaa.gov).

Sincerely,

Karen Greene
Mid-Atlantic Field Offices Supervisor
Habitat Conservation Division

cc: gregory.s.thompson2@navy.mil
carter.watterson@navy.mil

A.2 Endangered Species Act (ESA) Section 7 Consultation

USFF letter to National Marine Fisheries Service regarding Endangered and Threatened Species and Critical Habitats

DEPARTMENT OF THE NAVY
U.S. FLEET FORCES COMMAND
1562 MITSCHER AVENUE SUITE 250
NORFOLK VA 23551-2487

5090
Ser N46/079
August 17, 2017

Ms. Kimberly Damon-Randal
National Marine Fisheries Service
Protected Resources Division
55 Great Republic Drive
Gloucester, MA 01930

Dear Ms. Damon-Randal:

This letter is to request Endangered Species Act (ESA) concurrence from your office for the proposed United States Department of the Navy (Navy) expeditionary training in the inland areas of the Virginia Capes Range Complex of the Hampton Roads fleet concentration area.

We have made the determination that the proposed activity may affect, but is not likely to adversely affect, any species listed as threatened or endangered by National Marine Fisheries Service under the ESA of 1973, as amended. Our supporting analysis is provided in the enclosed informal consultation package.

We look forward to your timely review of and concurrence with the Navy's determination. Our point of contact for this matter is Mr. Greg Thompson who may be reached at 757-836-6938 or gregory.s.thompson2@navy.mil.

Sincerely,

Elizabeth Nashold
Director, Fleet Installations and Environment
and Deputy Chief of Staff

Enclosure: Informal Consultation Package

Informal Consultation Package for United States Fleet Forces Inland Training within the Virginia Capes Range Complex, Hampton Roads Fleet Concentration Area, Virginia

July 2017

Prepared by:

United States Department of the Navy

UNCLASSIFIED

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Informal Consultation Package for United States Fleet Forces Inland Training within the Virginia Capes Range Complex

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1.0 INTRODUCTION

This consultation package analyzes the existing and proposed USFF expeditionary training within the inland portions of the Virginia Capes Range Complex, in the Hampton Roads Fleet Concentration Area, Virginia.

This consultation package was prepared in compliance with section 7(a)(2) of the federal Endangered Species Act (ESA) of 1973 (16 United States Code [U.S.C.] 1531–1544, as amended) and used the best scientific and commercial information available to assess the risks posed to the listed species and/or critical habitat(s) if the proposed action were to be implemented. The ESA requires that federal agencies "insure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of designated critical habitat."

Section 7(a)(2) of the ESA implementing regulations requires federal agencies to consult with the U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS), collectively known as "the Services," regarding species protected under this act.

This consultation package constitutes the U.S. Department of the Navy's analysis of potential effects on species protected under the ESA within NMFS's jurisdiction (i.e., Atlantic sturgeon), as required by section 7(a)(2) of the ESA implementing regulations. The Navy has initiated a separate ESA section 7(a)(2) consultation for the same action with the USFWS for species under their jurisdiction.

The purpose of the consultation package is to:

- Meet the requirements of section 7(a)(2) of the ESA (50 Code of Federal Regulations [CFR] part 402).
- Evaluate the effects of the proposed action on listed species and/or their critical habitat that are known to be or could be present within the action area.
- Request concurrence from NMFS with the Navy's effect determinations for listed species.

2.0 DESCRIPTION OF THE ACTION AND ACTION AREA

The Navy is evaluating the proposed VACAPES inland training within the VACAPES Inland Training Environmental Assessment (VITEA). The Proposed Action is to conduct United States Fleet Forces (USFF) expeditionary training events (Table 1) in the inland areas of the VACAPES Range Complex of the Hampton Roads fleet concentration area located in southeastern Virginia. The purpose for the Proposed Action is to maintain Navy readiness by continuing to execute current types of inland training (land-based and inland waterway) at current levels and in current locations; accommodate changes in annual frequency of training; support future training requirements; achieve and sustain readiness of ships and squadrons; and support the acquisition and implementation of advanced military technology into the fleet. The need for the Proposed Action is to prepare combat-capable forces that are ready to deploy

worldwide for prompt and sustained combat incident to operations at sea consistent with Title 10, United States Code section 5062.

Table 1: Primary Training Event Activities

Primary Training Event Activity	*Description*
Beach landings	The landing of vessels, movement of troops, and use of equipment on the beach or dunes.
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Personnel movement	Movement of troops in undeveloped areas, either in and around a training area or between training areas. Does not include troops aboard a vessel or aircraft or moving on foot along established roads.
Underwater movement	Movement of devices that operate underwater (e.g., remotely operated vehicles [controlled remotely by a human operator]). Submarine training is included in the *Atlantic Fleet Training and Testing EIS/OEIS*.
Vehicle movement	Movement of land tactical vehicles to and from a training location and vehicle use at the training location.
Vessel movement	Movement of motorized vessels to and from a training location and motorized vessel use at the training location. Does not include non-motorized vessel movement such as kayaks and canoes.
Weapons firing – blank fire	Firing of small (.50 caliber or less) and medium (greater than .50 caliber and up to 56 mm) arms weapons using cartridges that contain gunpowder but no bullet or projectile; a shell is expended at the point of fire. There is a 200-foot stand-off distance from boats and personnel during all training events when using blank fire.
Weapons firing – non-lethal training ammunition	Firing of non-lethal training ammunition (e.g., marking cartridges). Does not include use of explosives.

The Proposed Action Study Area (Figure 1) comprises the inland areas of the VACAPES Range Complex in the Hampton Roads fleet concentration area and includes Navy installations and non-Navy owned training areas that support USFF training requirements. The VITEA Study Area includes eight Navy-owned training areas as listed below:

1. Joint Expeditionary Base (JEB) Little Creek
2. JEB Fort Story
3. Dam Neck Annex (and neighboring Camp Pendleton State Military Reservation)
4. Naval Auxiliary Landing Field (NALF) Fentress
5. Northwest Annex
6. St. Juliens Creek Annex
7. Naval Weapons Station (NWS) Yorktown
8. Cheatham Annex

Inland training events occur at all of the Navy installations listed above. The non-Navy–owned training areas that support USFF training requirements in the study area are listed below:

1. First Landing State Park
2. Southern Branch of the Elizabeth River (a portion of the Atlantic Intracoastal Waterway shown on Figure 1).

Of the 10 locations listed above, only the Southern Branch of the Elizabeth River (See Detail - Figure 2) provides habitat wherein ESA-protected species under NMFS jurisdiction may be present (i.e., Atlantic sturgeon). Training in this location consists of the following event: Unit Level Training Readiness Assessment – Certification (Full Mission Profile). This event is described as: Personnel train in high speed, defensive tactical boat maneuvers while deploying ground forces during insertion and extraction exercises. The event may occur up to 30 times each year under the Proposed Action. The event involves stressors such as vessel movements, personnel movements, and weapons firing-blank fire. During the insertion/extraction portion of the exercise, forces egress from the vessel into shallow water without moving onto the shore and then ingress back into the vessel.

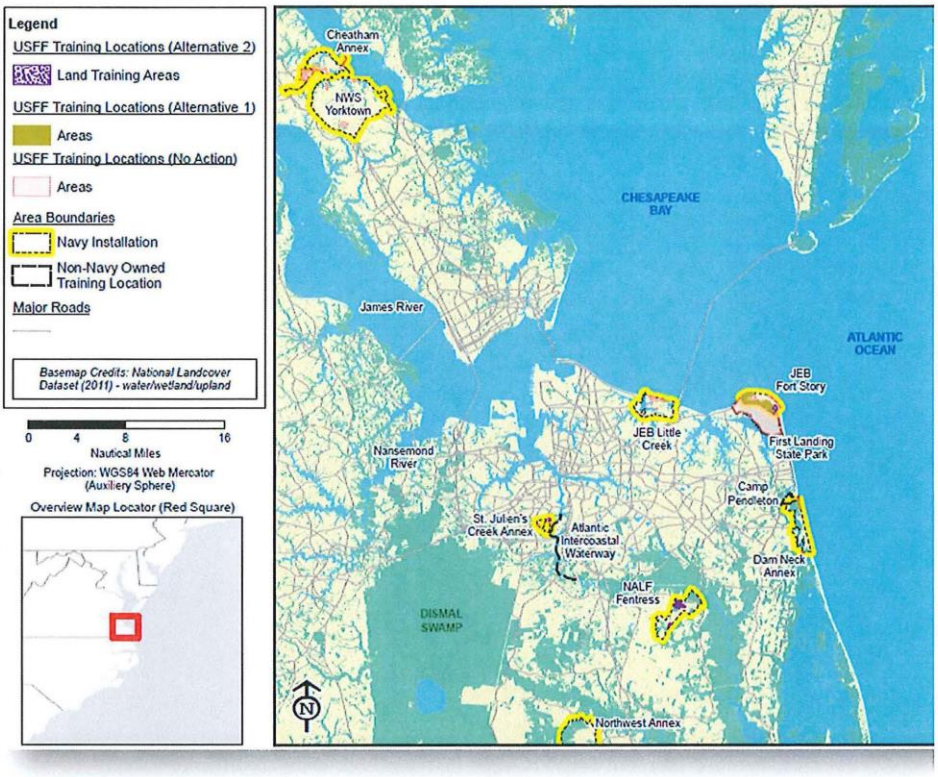

Figure 1: Virginia Capes Inland Training Environmental Assessment Project Locations

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Informal Consultation Package

VITEA
JULY 2017

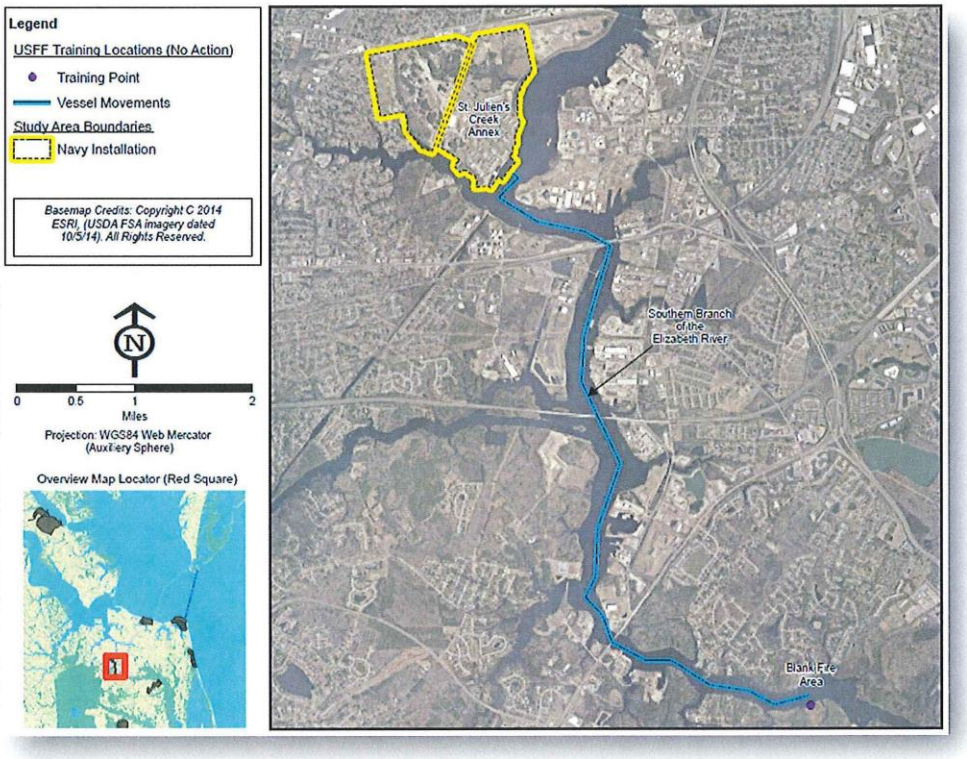

Figure 2: Southern Branch of the Elizabeth River Training Segment

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3.0 ESA-PROTECTED SPECIES

Two fish species protected under the ESA may occur within the study area. The Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*) occurs in portions of the Chesapeake Bay and the nearshore Atlantic Ocean at many times of the year and may occur in the Southern Branch of the Elizabeth River. Critical habitat is currently not designated for the Atlantic sturgeon, although the National Marine Fisheries Service (NMFS) proposed critical habitat in 2016. The shortnose sturgeon (*Acipenser brevirostrum*) occurs in the northern to middle portion of the Chesapeake Bay approximately to the Potomac River. Shortnose sturgeons are considered extralimital in the lower Chesapeake Bay region, with only one documented occurrence in the James River (NMFS, 1998). The species is, therefore, highly unlikely to occur in the Southern Branch of the Elizabeth River and is not discussed further in this document.

The Navy recently funded a multi-year tracking study to examine Atlantic sturgeon occurrence patterns in the lower Chesapeake Bay, with an emphasis on areas of military useage (Hager, 2015). Acoustic receivers were placed in the York River watershed, Hampton Roads, Elizabeth River, mouth of the Chesapeake Bay, and nearshore Atlantic waters. In general, study results confirmed the Chesapeake Bay region's importance to the species' sustainability. The fish detected varied in age structure, and periods of extended occupation were noted within the Bay and its tributaries.

The Atlantic sturgeon occurs in the Chesapeake Bay system and is abundant year-round near Naval Station Norfolk. Juveniles, sub-adults, and adults are found in this area throughout the year. The species spawns in the James and York rivers. Atlantic sturgeons also occur in the Elizabeth River. However, based on telemetry data of tagged fish, they do not appear to use the Elizabeth River as extensively as the James or York rivers (Hager, 2015). There is currently no evidence that the Elizabeth River or Atlantic Intracoastal Waterway are being used as a passage between the Chesapeake Bay area and North Carolina waters, but that does not rule out the possibility that transient individuals could be found in the Southern Branch of the Elizabeth River.

4.0 EFFECTS OF THE ACTION

Physical Strike

Comparatively less mobile fish such as sturgeons are more susceptible to vessel strikes, particularly during high speed operations. Although sturgeons are generally considered to occur near the bottom, individuals may be found near the surface at times. For example, Brown and Murphy (2010) and Balazik et al. (2012) have reported numerous Atlantic sturgeon mortalities due to vessel strikes in the Delaware River estuary and upstream areas of the James River, respectively. Numerous ship strikes of Atlantic sturgeon have also been documented throughout much of the lower Chesapeake Bay, including around the mouth of the James River (Virginia Commonwealth University, unpublished data). Atlantic sturgeon occurrence has not been studied specifically in the portion of the Southern Branch of the Elizabeth River where blank-fire and associated vessel movement are conducted. Atlantic sturgeons are known to be present in the vicinity of Naval Station Norfolk, near the mouth of the Elizabeth River, throughout the year. Available telemetry data indicate that tagged adult sturgeons do not move far into the Elizabeth River, nor spend much time in the river (Hager, 2015). Likewise, telemetry data from North Carolina indicate that few fish have been observed moving into the Elizabeth River to the south of the training

area via the Intracoastal Waterway (Michael Loeffler, North Carolina Division of Marine Fisheries, personal communication). However, sturgeons have not been captured and tagged in the Elizabeth River, and receivers capable of detecting tagged individuals have not been deployed in the Southern Branch. Therefore, although available data suggest the likelihood of occurrence is low, there is potential for Atlantic sturgeon to use the Southern Branch of the Elizabeth River, particularly earlier life stages that spend much of their time in estuarine and riverine systems. Based on vessel strike mortality documented in other nearby areas such as the Chesapeake Bay and James River, any sturgeons present in training areas and located near the surface could be struck by moving vessels. The potential for impact would be greater during activities associated with high-speed vessel movement (e.g., tactical maneuvers, insertion/extraction exercises), when fish would have less time to react to an approaching vessel. However, due to the low probability for Atlantic sturgeon to be present in the training area based on available telemetry data from both Virginia and North Carolina and the low occurrence rate of the training, the likelihood of strike occurring would be discountable. The Navy has determined that vessel movement during live fire training activities may affect, but is not likely to adversely affect, Atlantic sturgeon.

Ingestion

Atlantic sturgeons that may be present in the Southern Branch of the Elizabeth River have the potential to ingest small-caliber shell casings that sink to the bottom. Adults and subadults are more likely to ingest an item than juveniles due to the size of the fish's mouth relative to the casings. Sturgeons feed on benthic organisms such as crustaceans (e.g., amphipods, shrimps), worms, molluscs, and some fish, primarily by sucking prey from the substrate. Therefore, casings on the bottom or within the substrate could possibly be mistaken for a food item or could be incidentally taken along with other food items. An encounter with a casing would not necessarily lead to ingestion or swallowing of the item, as a fish might "taste" the item and then expel it. However, the hard body parts of some natural sturgeon prey items could increase the likelihood of ingestion due to similarity of physical characteristics. Sharp edges of the casings could cause physical distress by tearing or cutting the mouth, throat, or stomach. If the casing is large relative to the fish's size, it may block the throat or obstruct the flow of waste through the digestive system. Ingestion of foreign objects could lead to disruption of a fish's normal feeding behavior, which could be sublethal or lethal. However, ingestion would not necessarily cause injury. Relatively small, smooth objects such as small-caliber casings could pass through the digestive tract without causing harm and, considering the typical diet of sturgeon, this would be anticipated to be the case. Sturgeon routinely consume molluscs, such as clams and other hard-shelled organisms, as part of their diet and pass the shell through their digestive tract with no complication. Overall, given that the number of sturgeon present in the area at any given time is expected to be extremely low combined with the low probably of a sturgeon ingesting a casing should it encounter one, the likelihood of such an event occurring would be largely discountable. As a result, the Navy has determined that blank-weapons fire training activities may affect, but are not likely to adversely affect, Atlantic sturgeon.

5.0 DETERMINATION

Table 2 provides the Species Conclusion Table.

Table 2: Species Conclusion Table

Species / Resource Name	Conclusion	ESA Section 7 Determination	Notes/Documentation
Atlantic sturgeon* (*Acipenser oxyrinchus oxyrinchus*)	Suitable habitat present.	Not likely to adversely affect	Suitable habitat exists but based on survey data, it is likely that any individuals observed on-site in the Southern Branch of the Elizabeth River would be rare and considered transient individuals.

** Includes the following five distinct population segments (DPS): New York Bight DPS, Chesapeake Bay DPS, Carolina DPS, South Atlantic DPS, and Gulf of Maine DPS.*

6.0 LITERATURE CITED

Balazik, M. T.; Reine, K. J.; Spells, A. J.; Fredrickson, C. A.; Fine, M. L.; Garman, G. C.; McIninch, S. P. 2012. The potential for vessel interactions with adult Atlantic sturgeon in the James River, Virginia. North American Journal of Fisheries Management. Pages 1062–1069.

Brown, J. J.; Murphy, G. W. 2010. Atlantic sturgeon vessel-strike mortalities in the Delaware estuary. Fisheries. Pages 72-83.

Hager, C. 2015. Telemetry Tracking of Atlantic Sturgeon in the Lower Chesapeake Bay: Annual Progress Report for 2014. Submitted to Naval Facilities Engineering Command (NAVFAC) Atlantic, Norfolk, Virginia, under Contract No. N62470-10-3011, Task Order XE19, issued to HDR Inc., Norfolk, Virginia. Submitted by Chesapeake Scientific, LLC, Hampton Roads, Virginia. June 1.

NMFS. 1998. Recovery Plan for the Shortnose Sturgeon (Acipenser brevirostrum).

Virginia Commonwealth University. Unpublished Data.

USFF updated letter to National Marine Fisheries Service regarding Endangered and Threatened Species and Critical Habitats

-----Original Message-----
From: Watterson, Carter CIV NAVFAC LANT, EV
Sent: Friday, December 15, 2017 12:17 PM
To: brian.d.hopper@noaa.gov
Cc: Thompson, Gregory S CIV USFF, N46; Butts, Jeffery CIV NAVFAC LANT, EV; mark.murray-brown@noaa.gov; christine.vaccaro@noaa.gov
Subject: FW: [Non-DoD Source] VACAPES Inland Training - ESA sec 7 coordination

Brian,

Attached please find the updated informal consultation package covering the Navy's Virginia Capes Inland Training. As we discussed on the phone, the original informal consultation package was submitted to your office on 17 August 2017 and our timeline is getting a little tight for getting everything completed. We appreciate your assistance with finalizing the consultation. If you have any questions or need anything further, please don't hesitate to contact us.

Regards,
Carter

J. Carter Watterson
Senior Marine Resources Specialist
U.S. Department of the Navy
Naval Facilities Engineering Command, Atlantic
6506 Hampton Blvd | Norfolk, VA | 23508-1278
757.322.8137 Office
262-8137 DSN
757.322.4805 Fax
carter.watterson@navy.mil

-----Original Message-----
From: Brian D Hopper - NOAA Federal [mailto:brian.d.hopper@noaa.gov]
Sent: Monday, December 11, 2017 10:46 AM
To: Thompson, Gregory S CIV USFF, N46
Cc: Mark Murray-Brown; Christine Vaccaro - NOAA Federal
Subject: Re: [Non-DoD Source] VACAPES Inland Training - ESA sec 7 coordination

Hi Greg,

Thanks again for sending the MS word version of your letter. Chris and I have reviewed it and provided some comments in the attached version. Overall, it looks very good. I think the comments are pretty straightforward and hopefully won't be difficult to address. Basically, we were looking for some clarification regarding the action area because the letter identifies several facilities where inland training events occur, but the activity the letter focuses on seems to be just in the Southern Branch of the Elizabeth River. We wanted to confirm this with you because if there are in water activities at other facilities then we would need to consider impacts to additional species (e.g., sea turtles, maybe whales). We think it would be a good idea to include a discussion of turbidity effects in your effects analysis and also offered some suggested revision to your analysis of vessel traffic. Finally, I added a conclusion paragraph from a template letter that is found (along with some other guidance) on the GARFO section 7 website: https://www.greateratlantic.fisheries.noaa.gov/protected/section7/guidance/consultation/

Please let me know if you have any questions.

-Brian

On Fri, Dec 8, 2017 at 12:30 PM, Thompson, Gregory S CIV USFF, N46 <gregory.s.thompson2@navy.mil> wrote:

Brian,

Attached is the Word version that you requested.

v/r,
Gregory S. Thompson
USFF Environmental
1562 Mitscher Ave., Suite 250
Norfolk, VA 23551
(757) 836 6938
FAX (757) 836 7439
gregory.s.thompson2@navy.mil

-----Original Message-----
From: Brian D Hopper - NOAA Federal [mailto:brian.d.hopper@noaa.gov <mailto:brian.d.hopper@noaa.gov>
]
Sent: Thursday, December 07, 2017 2:16 PM
To: Thompson, Gregory S CIV USFF, N46
Cc: Mark Murray-Brown; Christine Vaccaro - NOAA Federal
Subject: [Non-DoD Source] VACAPES Inland Training - ESA sec 7 coordination

Hi Greg,

I have your request for consultation regarding the above referenced activity. I am working on it right now and sincerely apologize for the delay. I'll let you know if I have any questions.

Regards,
-Brian

--

Brian D. Hopper
Protected Resources Division
NOAA Fisheries
Greater Atlantic Regional Fisheries Office
177 Admiral Cochrane Dr.

Annapolis, MD 21401
(410) 573-4592 <tel:%28410%29%20573-4592>
Brian.D.Hopper@noaa.gov <mailto:brian.d.hopper@noaa.gov > >
http://www.greateratlantic.fisheries.noaa.gov/ <http://www.greateratlantic.fisheries.noaa.gov/>
<

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Brian.D.Hopper@noaa.gov <mailto:brian.d.hopper@noaa.gov> http://www.greateratlantic.fisheries.noaa.gov/

Informal Consultation Package for United States Fleet Forces Inland Training within the Virginia Capes Range Complex, Hampton Roads Fleet Concentration Area, Virginia

July 2017

Prepared by:

United States Department of the Navy

UNCLASSIFIED

1

Informal Consultation Package for United States Fleet Forces Inland Training within the Virginia Capes Range Complex

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LIST OF TABLES AND FIGURES

1.0 INTRODUCTION

This consultation package analyzes the existing and proposed USFF expeditionary training within the inland portions of the Virginia Capes Range Complex, in the Hampton Roads Fleet Concentration Area, Virginia.

This consultation package was prepared in compliance with section 7(a)(2) of the federal Endangered Species Act (ESA) of 1973 (16 United States Code [U.S.C.] 1531–1544, as amended) and used the best scientific and commercial information available to assess the risks posed to the listed species and/or critical habitat(s) if the proposed action were to be implemented. The ESA requires that federal agencies "insure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of designated critical habitat."

Section 7(a)(2) of the ESA implementing regulations requires federal agencies to consult with the U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS), collectively known as "the Services," regarding species protected under this act.

This consultation package constitutes the U.S. Department of the Navy's analysis of potential effects on species protected under the ESA within NMFS's jurisdiction, as required by section 7(a)(2) of the ESA implementing regulations. The Navy has initiated a separate ESA section 7(a)(2) consultation for the same action with the USFWS for species under their jurisdiction.

The purpose of the consultation package is to:

- Meet the requirements of section 7(a)(2) of the ESA (50 Code of Federal Regulations [CFR] part 402).
- Evaluate the effects of the proposed action on listed species and/or their critical habitat that are known to be or could be present within the action area.
- Request concurrence from NMFS with the Navy's effect determinations for listed species.

2.0 DESCRIPTION OF THE ACTION AND ACTION AREA

The Navy is evaluating the proposed VACAPES inland training within the VACAPES Inland Training Environmental Assessment (VITEA). The Proposed Action is to conduct United States Fleet Forces (USFF) expeditionary training events (Table 1) in the inland areas of the VACAPES Range Complex of the Hampton Roads fleet concentration area located in southeastern Virginia. The purpose for the Proposed Action is to maintain Navy readiness by continuing to execute current types of inland training (land-based and inland waterway) at current levels and in current locations; accommodate changes in annual frequency of training; support future training requirements; achieve and sustain readiness of ships and squadrons; and support the acquisition and implementation of advanced military technology into the fleet. The need for the Proposed Action is to prepare combat-capable forces that are ready to deploy

worldwide for prompt and sustained combat incident to operations at sea consistent with Title 10, United States Code section 5062.

Table 1: Primary Training Event Activities

Primary Training Event Activity	*Description*
Beach landings	The landing of vessels, movement of troops, and use of equipment on the beach or dunes.
Equipment use	Use of equipment (e.g., generators) to support training; only equipment producing emissions or noise are analyzed (i.e., handheld devices not included).
Explosives on land	Detonations occurring on land, primarily for explosive ordnance disposal (EOD) training.
Personnel movement	Movement of troops in undeveloped areas, either in and around a training area or between training areas. Does not include troops aboard a vessel or aircraft or moving on foot along established roads.
Underwater movement	Movement of devices that operate underwater (e.g., remotely operated vehicles [controlled remotely by a human operator]). Submarine training is included in the *Atlantic Fleet Training and Testing EIS/OEIS*.
Vehicle movement	Movement of land tactical vehicles to and from a training location and vehicle use at the training location.
Vessel movement	Movement of motorized vessels to and from a training location and motorized vessel use at the training location. Does not include non-motorized vessel movement such as kayaks and canoes.
Weapons firing – blank fire	Firing of small (.50 caliber or less) and medium (greater than .50 caliber and up to 56 mm) arms weapons using cartridges that contain gunpowder but no bullet or projectile; a shell is expended at the point of fire. There is a 200-foot stand-off distance from boats and personnel during all training events when using blank fire.
Weapons firing – non-lethal training ammunition	Firing of non-lethal training ammunition (e.g., marking cartridges). Does not include use of explosives.

The Proposed Action Study Area (Figure 1) comprises the inland areas of the VACAPES Range Complex in the Hampton Roads fleet concentration area and includes Navy installations and non-Navy owned training areas that support USFF training requirements. The VITEA Study Area includes eight Navy-owned training areas as listed below:

1. Joint Expeditionary Base (JEB) Little Creek
2. JEB Fort Story
3. Dam Neck Annex (and neighboring Camp Pendleton State Military Reservation)
4. Naval Auxiliary Landing Field (NALF) Fentress
5. Northwest Annex
6. St. Juliens Creek Annex
7. Naval Weapons Station (NWS) Yorktown
8. Cheatham Annex

Inland training events occur at all of the Navy installations listed above. The non-Navy–owned training areas that support USFF training requirements in the study area are listed below:

1. First Landing State Park
2. Southern Branch of the Elizabeth River (a portion of the Atlantic Intracoastal Waterway shown on Figure 1).

Of the 10 locations listed above, only activities in the Southern Branch of the Elizabeth River (See Detail - Figure 2) present a pathway to effects in the aquatic environment and/or provide habitat wherein ESA-protected species under NMFS jurisdiction may be present (i.e., Atlantic sturgeon). All other sites will only have activities located entirely on land with no in-water components. Training in this location consists of the following event: Unit Level Training Readiness Assessment – Certification (Full Mission Profile). This event is described as: Personnel train in high speed, defensive tactical boat maneuvers while deploying ground forces during insertion and extraction exercises. The event may occur up to 30 times each year under the Proposed Action. The event involves stressors such as vessel movements, personnel movements, and weapons firing-blank fire. During the insertion/extraction portion of the exercise, forces egress from the vessel into shallow water without moving onto the shore and then ingress back into the vessel.

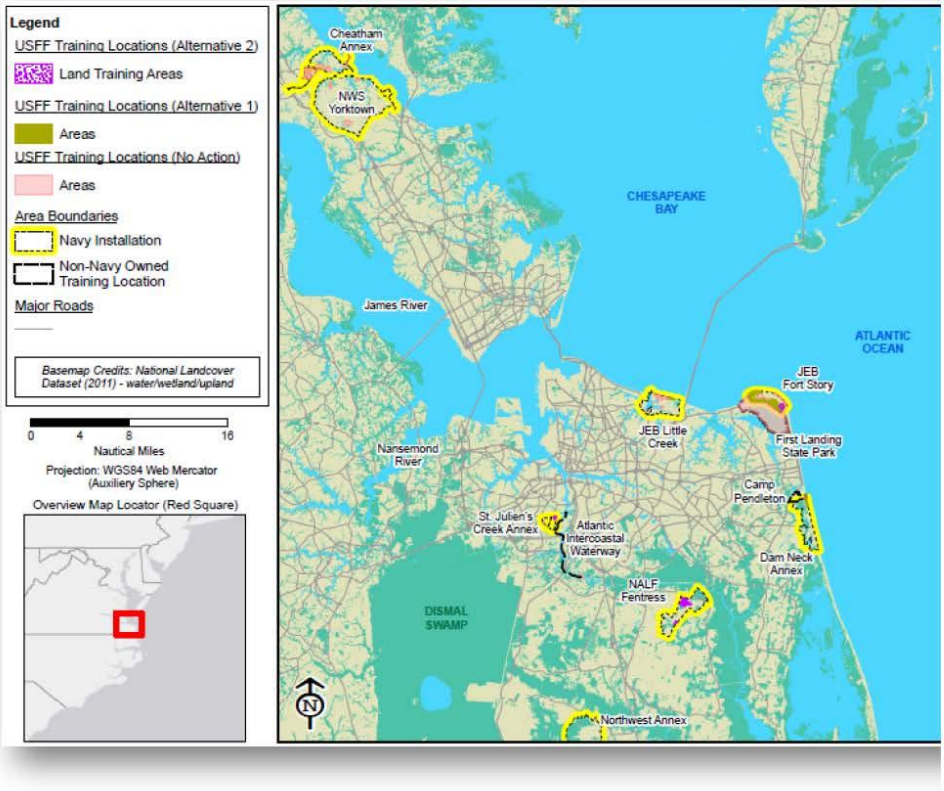

Figure 1: Virginia Capes Inland Training Environmental Assessment Project Locations

6

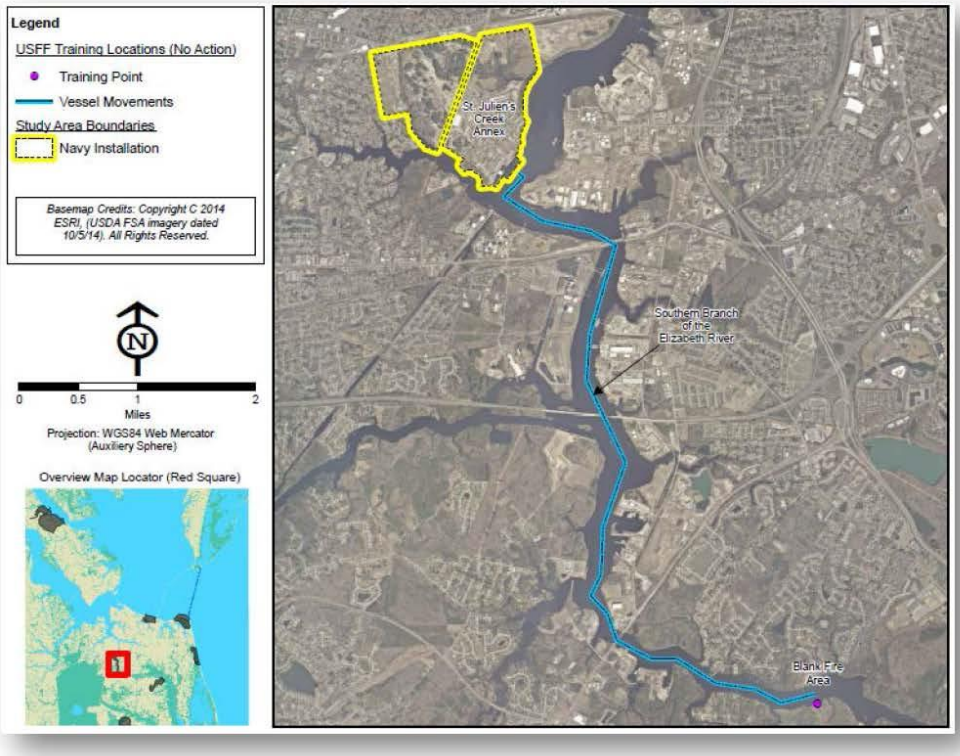

Figure 2: Southern Branch of the Elizabeth River Training Segment

3.0 ESA-PROTECTED SPECIES

Two fish species protected under the ESA may occur within the study area. The Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*) occurs in portions of the Chesapeake Bay and the nearshore Atlantic Ocean at many times of the year and may occur in the Southern Branch of the Elizabeth River. Critical habitat is currently not designated for the Atlantic sturgeon, although the National Marine Fisheries Service (NMFS) proposed critical habitat in 2016. The shortnose sturgeon (*Acipenser brevirostrum*) occurs in the northern to middle portion of the Chesapeake Bay approximately to the Potomac River. Shortnose sturgeons are considered extralimital in the lower Chesapeake Bay region, with only one documented occurrence in the James River (NMFS, 1998). The species is, therefore, highly unlikely to occur in the Southern Branch of the Elizabeth River and is not discussed further in this document.

The Navy recently funded a multi-year tracking study to examine Atlantic sturgeon occurrence patterns in the lower Chesapeake Bay, with an emphasis on areas of military useage (Hager, 2015). Acoustic receivers were placed in the York River watershed, Hampton Roads, Elizabeth River, mouth of the Chesapeake Bay, and nearshore Atlantic waters. In general, study results confirmed the Chesapeake Bay region's importance to the species' sustainability. The fish detected varied in age structure, and periods of extended occupation were noted within the Bay and its tributaries.

The Atlantic sturgeon occurs in the Chesapeake Bay system and is abundant year-round near Naval Station Norfolk. Juveniles, sub-adults, and adults are found in this area throughout the year. The species spawns in the James and York rivers. Atlantic sturgeons also occur in the Elizabeth River. However, based on telemetry data of tagged fish, they do not appear to use the Elizabeth River as extensively as the James or York rivers (Hager, 2015). There is currently no evidence that the Elizabeth River or Atlantic Intracoastal Waterway are being used as a passage between the Chesapeake Bay area and North Carolina waters, but that does not rule out the possibility that transient individuals could be found in the Southern Branch of the Elizabeth River.

4.0 EFFECTS OF THE ACTION

Physical Strike

Comparatively less mobile fish such as sturgeons are more susceptible to vessel strikes, particularly during high speed operations. Although sturgeons are generally considered to occur near the bottom, individuals may be found near the surface at times. For example, Brown and Murphy (2010) and Balazik et al. (2012) have reported numerous Atlantic sturgeon mortalities due to vessel strikes in the Delaware River estuary and upstream areas of the James River, respectively. Numerous ship strikes of Atlantic sturgeon have also been documented throughout much of the lower Chesapeake Bay, including around the mouth of the James River (Virginia Commonwealth University, unpublished data). Atlantic sturgeon occurrence has not been studied specifically in the portion of the Southern Branch of the Elizabeth River where blank-fire and associated vessel movement are conducted. Atlantic sturgeons are known to be present in the vicinity of Naval Station Norfolk, near the mouth of the Elizabeth River, throughout the year. Available telemetry data indicate that tagged adult sturgeons do not move far into the Elizabeth River, nor spend much time in the river (Hager, 2015). Likewise, telemetry data from North Carolina

indicate that few fish have been observed moving into the Elizabeth River to the south of the training area via the Intracoastal Waterway (Michael Loeffler, North Carolina Division of Marine Fisheries, personal communication). However, sturgeons have not been captured and tagged in the Elizabeth River, and receivers capable of detecting tagged individuals have not been deployed in the Southern Branch. Therefore, although available data suggest the likelihood of occurrence is low, there is potential for Atlantic sturgeon to use the Southern Branch of the Elizabeth River, particularly earlier life stages that spend much of their time in estuarine and riverine systems. Based on vessel strike mortality documented in other nearby areas such as the Chesapeake Bay and James River, any sturgeons present in training areas and located near the surface could be struck by moving vessels. The potential for impact would be greater during activities associated with high-speed vessel movement (e.g., tactical maneuvers, insertion/extraction exercises), when fish would have less time to react to an approaching vessel. However, due to the low probability for Atlantic sturgeon to be present in the training area based on available telemetry data from both Virginia and North Carolina and the low occurrence rate of the training, the likelihood of strike occurring would be insignificant. In our analysis we considered three elements: (1) the existing baseline conditions, (2) the action and what it adds to existing baseline conditions, and (3) new baseline conditions (the existing baseline conditions and the action together). In the Southern Branch of the Elizabeth River, proposed vessel traffic is the same as under baseline conditions, and the proposed project is not likely to adversely affect ESA-listed species (i.e., Atlantic sturgeon) for the following reasons:

- Proposed vessel use in the project area will not increase the risk that any vessel in the area will strike an individual, or will increase it to such a small extent that the effect of the action (i.e., any increase in risk of a strike caused by the project) cannot be meaningfully measured or detected.
- The baseline risk of a vessel strike within the Southern Branch of the Elizabeth River is unknown.
- The increase in traffic associated with the proposed project is extremely small.
- During the project activities, a minimal number of project vessels will be added to the baseline. The addition of project vessels will also be intermittent, temporary, and restricted to a small portion of the overall action area on any given day.

As such, any increased risk of a vessel strike caused by the project will be too small to be meaningfully measured or detected. As a result, the effect of the action on the risk of a vessel strike in the action area is insignificant. The Navy has determined that vessel movement during live fire training activities may affect, but is not likely to adversely affect, Atlantic sturgeon.

Ingestion

Atlantic sturgeons that may be present in the Southern Branch of the Elizabeth River have the potential to ingest small-caliber shell casings that sink to the bottom. Adults and subadults are more likely to ingest an item than juveniles due to the size of the fish's mouth relative to the casings. Sturgeons feed on benthic organisms such as crustaceans (e.g., amphipods, shrimps), worms, molluscs, and some fish, primarily by sucking prey from the substrate. Therefore, casings on the bottom or within the substrate could possibly be mistaken for a food item or could be incidentally taken along with other food items. An encounter with a casing would not necessarily lead to ingestion or swallowing of the item, as a fish might "taste" the item and then expel it. However, the hard body parts of some natural sturgeon prey

items could increase the likelihood of ingestion due to similarity of physical characteristics. Sharp edges of the casings could cause physical distress by tearing or cutting the mouth, throat, or stomach. If the casing is large relative to the fish's size, it may block the throat or obstruct the flow of waste through the digestive system. Ingestion of foreign objects could lead to disruption of a fish's normal feeding behavior, which could be sublethal or lethal. However, ingestion would not necessarily cause injury. Relatively small, smooth objects such as small-caliber casings could pass through the digestive tract without causing harm and, considering the typical diet of sturgeon, this would be anticipated to be the case. Sturgeon routinely consume molluscs, such as clams and other hard-shelled organisms, as part of their diet and pass the shell through their digestive tract with no complication. Overall, given that the number of sturgeon present in the area at any given time is expected to be extremely low combined with the low probably of a sturgeon ingesting a casing should it encounter one, the likelihood of such an event occurring would be largely discountable. As a result, the Navy has determined that blank-weapons fire training activities may affect, but are not likely to adversely affect, Atlantic sturgeon.

Turbidity

As previously mentioned, based on acoustic telemetry data collected by the Navy, Atlantic sturgeon are not anticipated to be present in the Southern Branch of the Elizabeth River. On the rare occasion that one should occur in the vicinity during Navy training activities, it would likely vacate the area. Navy activities involving beaching vessels and inserting personnel into shallow water shoreline areas will likely increase turbidity levels in the vicinity of the action lasting between an hour up to a day depending on conditions. As sturgeon generally occur in turbid environments, any localized areas of increased turbidity would not restrict or affect a sturgeons normal activities. Atlantic sturgeon are not visual predators, instead using their barbels and other senses to detect prey in the sediments. Therefore, increases in turbidity would also not impact their ability to find and consume prey within the affected areas. As a result, the Navy has determined that increases in turbidity resulting from Navy training activities may affect, but is not likely to adversely affect, Atlantic sturgeon.

5.0 DETERMINATION

Based on the analysis that all effects of the proposed action will be insignificant and/or discountable, we have determined that the Proposed Action is not likely to adversely affect any listed species or critical habitat under NMFS' jurisdiction. We certify that we have used the best scientific and commercial data available to complete this analysis. We request your concurrence with this determination (Table 2).

Table 2: Species Conclusion Table

Species / Resource Name	Conclusion	ESA Section 7 Determination	Notes/Documentation
Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*)	Suitable habitat present.	Not likely to adversely affect	Suitable habitat exists but based on survey data, it is likely that any individuals observed on-site in the Southern Branch of the Elizabeth River would be rare and considered transient individuals.

6.0 LITERATURE CITED

Balazik, M. T.; Reine, K. J.; Spells, A. J.; Fredrickson, C. A.; Fine, M. L.; Garman, G. C.; McIninch, S. P. 2012. The potential for vessel interactions with adult Atlantic sturgeon in the James River, Virginia. North American Journal of Fisheries Management. Pages 1062–1069.

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Hager, C. 2015. Telemetry Tracking of Atlantic Sturgeon in the Lower Chesapeake Bay: Annual Progress Report for 2014. Submitted to Naval Facilities Engineering Command (NAVFAC) Atlantic, Norfolk, Virginia, under Contract No. N62470-10-3011, Task Order XE19, issued to HDR Inc., Norfolk, Virginia. Submitted by Chesapeake Scientific, LLC, Hampton Roads, Virginia. June 1.

NMFS. 1998. Recovery Plan for the Shortnose Sturgeon (*Acipenser brevirostrum*).

Virginia Commonwealth University. Unpublished Data.

National Marine Fisheries Service response to USFF letter regarding Endangered and Threatened Species and Critical Habitats

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
GREATER ATLANTIC REGIONAL FISHERIES OFFICE
55 Great Republic Drive
Gloucester, MA 01930-2276

DEC 19 2017

Elizabeth Nashold
Director
Fleet Installation and Environment
Department of the Navy
U.S. Fleet Forces Command
1562 Mitscher Avenue, Suite 250
Norfolk, VA 23551-2487

Re: Virginia Capes Range Complex Inland Training Activities

Dear Ms. Nashold:

We have completed our consultation under section 7 of the Endangered Species Act (ESA) in response to your letter dated August 17, 2017 and supplemental documents received on December 15, 2017, regarding the above-referenced proposed project. We reviewed your consultation request document and related materials. Based on our knowledge and your materials, we concur with your conclusion that the proposed action is not likely to adversely affect any NMFS ESA-listed species. Therefore, no further consultation pursuant to section 7 of the ESA is required.

We generally agree with your application of the terms "insignificant" and "discountable" to each of the effects that you analyzed, and that your analysis of the effects of the action when added to baseline conditions supports your "not likely to adversely affect" determination. However, we would like to provide the following clarification. We would like to clarify that, although we agree with your conclusion that the effects from a temporary increase in turbidity are not likely to adversely affect sturgeon, it is because any effects on sturgeon caused by the temporary disturbance of habitat are extremely unlikely, and, therefore, discountable.

Reinitiation of consultation is required and shall be requested by the Federal agency or by the Service, where discretionary Federal involvement or control over the action has been retained or is authorized by law and: (a) If new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered in the consultation; (b) If the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this consultation; or (c) If a new species is listed or critical habitat designated that may be affected by the identified action. No take is anticipated or exempted. If there is any incidental take of a listed species, reinitiation would be required. Should you have any questions about this correspondence please contact

Brian D. Hopper at (410) 573-4592 or by email at brian.d.hopper@noaa.gov. For questions related to Essential Fish Habitat, please contact David O'Brien with our Habitat Conservation Division at (804) 684-7828or by email at david.l.o'brien@noaa.gov.

Sincerely,

Julia E. Crocker

Julia E. Crocker
Acting Assistant Regional Administrator
for Protected Resources

EC: O'Brien, NMFS/HCD
Thompson, USN
PCTS: NER-2017-14566
File Code: H:\Section 7 Team\Section 7\Non-Fisheries\Navy\Informal\2017\VACAPES Inland Training

2

USFF letter to U.S. Fish and Wildlife Service regarding Protected Species and Critical Habitats

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Virginia Field Office
6669 Short Lane
Gloucester, VA 23061

Date: July 5, 2017

Self-Certification Letter

Project Name: VACAPES Inland Training Environmental Assessment

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.

Applicant Page 2

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,

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: May 31, 2017
Consultation Code: 05E2VA00-2015-SLI-3232
Event Code: 05E2VA00-2017-E-06504
Project Name: VACAPES Inland Training Enivironmental Assessment

Subject: Updated 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

This project's location is within the jurisdiction of multiple offices. Expect additional species list documents from the following office:

Raleigh Ecological Services Field Office
Post Office Box 33726
Raleigh, NC 27636-3726
(919) 856-4520

Project Summary

Consultation Code: 05E2VA00-2015-SLI-3232

Event Code: 05E2VA00-2017-E-06504

Project Name: VACAPES Inland Training Enivironmental Assessment

Project Type: MILITARY OPERATIONS / MANEUVERS

Project Description: The Navy is in the process of evaluating various inland training actions at Naval Installations, other DOD Installations, and non-DOD properties within Southeaster Virginia. As part of this analysis, the Navy will evaluate training actions and determine, what if any, natural resource impacts may be incurred.

Project Location:

Approximate location of the project can be viewed in Google Maps:
https://www.google.com/maps/place/36.95396671958456N76.19511001072532W

Counties: Camden, NC | Currituck, NC | Gates, NC | Chesapeake, VA | Gloucester, VA | Hampton, VA | Isle of Wight, VA | James City, VA | Mathews, VA | Newport News, VA | Norfolk, VA | Northampton, VA | Poquoson, VA | Portsmouth, VA | Suffolk, VA | Surry, VA | Virginia Beach, VA | Williamsburg, VA | York, VA

Endangered Species Act Species

There is a total of 12 threatened, endangered, or candidate species on your 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. See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area. Please contact the designated FWS office if you have questions.

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: except Great Lakes watershed There is a **final** critical habitat designated for this species. Your location is outside the designated 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
Red-cockaded Woodpecker *(Picoides borealis)* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7614	Endangered
Roseate Tern *(Sterna dougallii dougallii)* Population: northeast U.S. nesting pop. No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2083	Endangered

Reptiles

NAME	STATUS
Hawksbill Sea Turtle *(Eretmochelys imbricata)* There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3656	Endangered
Kemp's Ridley Sea Turtle *(Lepidochelys kempii)* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5523	Endangered
Leatherback Sea Turtle *(Dermochelys coriacea)* There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1493	Endangered
Loggerhead Sea Turtle *(Caretta caretta)* Population: Northwest Atlantic Ocean DPS There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1110	Threatened

Insects

NAME	STATUS
Northeastern Beach Tiger Beetle *(Cicindela dorsalis dorsalis)* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8105	Threatened

Flowering Plants

NAME	STATUS
Seabeach Amaranth *(Amaranthus pumilus)* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8549	Threatened
Small Whorled Pogonia *(Isotria medeoloides)* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1890	Threatened

Critical habitats

There are no critical habitats within your project area.

USFWS National Wildlife Refuges And Fish Hatcheries

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.

Due to your project's size, the list below may be incomplete, or the acreages reported may be inaccurate. For a full list, please contact the local U.S. Fish and Wildlife office or visit https://www.fws.gov/refuges/refugelocatormaps.
The following FWS National Wildlife Refuges and Fish Hatcheries lie fully or partially within your project area:

FACILITY NAME	ACRES
Eastern Shore Of Virginia National Wildlife Refuge **Eastern Shore Of Virginia National Wildlife Refuge** 5003 Hallet Circle Cape Charles, VA 23310-1128 (757) 331-2760 https://www.fws.gov/refuges/profiles/index.cfm?id=51650	2,740
Fisherman Island National Wildlife Refuge **Fisherman Island National Wildlife Refuge** C/o Eastern Shore Of Virginia Nwr 5003 Hallet Circle Cape Charles, VA 23310-1128 (757) 331-2760 https://www.fws.gov/refuges/profiles/index.cfm?id=51651	4,350
Great Dismal Swamp National Wildlife Refuge **Great Dismal Swamp National Wildlife Refuge** 3100 Desert Road Suffolk, VA 23434-8973 (757) 986-3705 https://www.fws.gov/refuges/profiles/index.cfm?id=51580	212,000
Nansemond National Wildlife Refuge **Nansemond National Wildlife Refuge** C/o Great Dismal Swamp Nwr 3100 Desert Road Suffolk, VA 23434-8973 (757) 986-3705 https://www.fws.gov/refuges/profiles/index.cfm?id=51581	847

Back Bay National Wildlife Refuge 17,300

Back Bay National Wildlife Refuge
1324 Sandbridge Road
Virginia Beach, VA 23456-4023
(757) 301-7329

https://www.fws.gov/refuges/profiles/index.cfm?id=51510

Plum Tree Island National Wildlife Refuge 6,130

Plum Tree Island National Wildlife Refuge
C/o Eastern Virginia Rivers Nwr, Southern Division
11116 Kimages Road
Charles City, VA 23030-2844
(804) 829-9020

https://www.fws.gov/refuges/profiles/index.cfm?id=51512

Mackay Island National Wildlife Refuge 1,810

Mackay Island National Wildlife Refuge
Post Office Box 39
Knotts Island, NC 27950-0039
(252) 429-3100

https://www.fws.gov/refuges/profiles/index.cfm?id=41660

Project Review Package for United States Fleet Forces Inland Training within the Virginia Capes Range Complex, Hampton Roads Fleet Concentration Area, Virginia

July 2017

Prepared by:

United States Department of the Navy

UNCLASSIFIED

1

Project Review Package for United States Fleet Forces Inland Training within the Virginia Capes Range Complex

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LIST OF TABLES AND FIGURES

1.0 INTRODUCTION

This consultation package analyzes the existing and proposed USFF expeditionary training within the inland portions of the Virginia Capes (VACAPES) Range Complex, in the Hampton Roads Fleet Concentration Area, Virginia.

This consultation package was prepared in compliance with section 7(a)(2) of the federal Endangered Species Act (ESA) of 1973 (16 United States Code [U.S.C.] 1531–1544, as amended) and used the best scientific and commercial information available to assess the risks posed to the listed species and/or critical habitat(s) if the Proposed Action were to be implemented. The ESA requires that federal agencies "insure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of designated critical habitat."

Section 7(a)(2) of the ESA implementing regulations requires federal agencies to consult with the U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS), collectively known as "the Services," regarding species protected under this act.

This consultation package constitutes the U.S. Department of the Navy's analysis of potential effects on species protected under the ESA within USFWS's jurisdiction, as required by section 7(a)(2) of the ESA implementing regulations. The Navy has initiated a separate ESA section 7(a)(2) consultation for the same action with the NMFS for species under their jurisdiction.

The purpose of the consultation package is to:

- Meet the requirements of section 7(a)(2) of the ESA (50 Code of Federal Regulations [CFR] part 402).
- Evaluate the effects of the Proposed Action on listed species and/or their critical habitat that are known to be or could be present within the Study Area (also known as the Action Area).
- Request concurrence from USFWS with the Navy's effect determinations for listed species.

2.0 DESCRIPTION OF THE ACTION AND ACTION AREA

The Navy prepared the VACAPES Inland Training Environmental Assessment (VITEA) to evaluate proposed inland training within the VITEA Study Area (Figure 1). The Proposed Action is to conduct United States Fleet Forces (USFF) expeditionary training events (Table 1) in the inland areas of the VACAPES Range Complex of the Hampton Roads fleet concentration area located in southeastern Virginia. The purpose for the Proposed Action is to maintain Navy readiness by continuing to execute current types of inland training (land-based and inland waterway) at current levels and in current

locations; accommodate changes in annual frequency of training; support future training requirements; achieve and sustain readiness of ships and squadrons; and support the acquisition and implementation of advanced military technology into the fleet. The need for the Proposed Action is to prepare combat-capable forces that are ready to deploy worldwide for prompt and sustained combat incident to operations at sea consistent with Title 10, United States Code section 5062.

Table 1: Primary Training Event Activities

Primary Training Event Activity	*Description*
Beach landings	The landing of vessels, movement of troops, and use of equipment on the beach or dunes.
Equipment use	Use of equipment (e.g., generators) to support training; only equipment producing emissions or noise are analyzed (i.e., handheld devices not included).
Explosives on land	Detonations occurring on land, primarily for explosive ordnance disposal (EOD) training.
Personnel movement	Movement of troops in undeveloped areas, either in and around a training area or between training areas. Does not include troops aboard a vessel or aircraft or moving on foot along established roads.
Underwater movement	Movement of devices that operate underwater (e.g., remotely operated vehicles [controlled remotely by a human operator]). Submarine training is included in the *Atlantic Fleet Training and Testing EIS/OEIS*.
Vehicle movement	Movement of land tactical vehicles to and from a training location and vehicle use at the training location.
Vessel movement	Movement of motorized vessels to and from a training location and motorized vessel use at the training location. Does not include non-motorized vessel movement such as kayaks and canoes.
Weapons firing – blank fire	Firing of small (.50 caliber or less) and medium (greater than .50 caliber and up to 56 mm) arms weapons using cartridges that contain gunpowder but no bullet or projectile; a shell is expended at the point of fire. There is a 200-foot stand-off distance from boats and personnel during all training events when using blank fire.
Weapons firing – non-lethal training ammunition	Firing of non-lethal training ammunition (e.g., marking cartridges). Does not include use of explosives.

The VITEA Proposed Action Study Area (Figure 1) comprises the inland areas of the VACAPES Range Complex in the Hampton Roads fleet concentration area and includes Navy installations and non-Navy owned training areas that support USFF training requirements. The Study Area includes eight Navy-owned training areas as listed below:

1. Joint Expeditionary Base (JEB) Little Creek
2. JEB Fort Story
3. Dam Neck Annex (and neighboring Camp Pendleton State Military Reservation)
4. Naval Auxiliary Landing Field (NALF) Fentress
5. Northwest Annex
6. St. Juliens Creek Annex
7. Naval Weapons Station (NWS) Yorktown
8. Cheatham Annex

Inland training events occur at all of the Navy installations listed above. The non-Navy–owned training areas that support USFF training requirements in the Study Area are listed below:

1. First Landing State Park
2. Southern Branch of the Elizabeth River (a portion of the Atlantic Intracoastal Waterway shown on Figure 1).

JEB Fort Story, JEB Little Creek, and Dam Neck Annex and Camp Pendleton support primary training event activities (as shown in Table 1) that occur in both beach/dune habitat and inland habitats. NALF Fentress, Northwest Annex, St. Juliens Creek Annex, First Landing State Park, NWS Yorktown, and Cheatham Annex support primary training event activities that take place in inland habitats. Cheatham Annex and the Southern Branch of the Elizabeth River support some water-based primary training event activities.

Training that utilizes beach habitats would be restricted to unvegetated portions of the beach. Training activities that require traversing primary dunes would be completed using existing access points. Vehicles training at inland areas would typically use existing roads and trails. Signs and fencing to limit access to sensitive areas would be utilized. In addition, natural resource managers may use Integrated Natural Resources Management Plans (INRMPs) and annual INRMP reviews to assess the management of established special interest areas.

Project Review Package

VITEA
JULY 2017

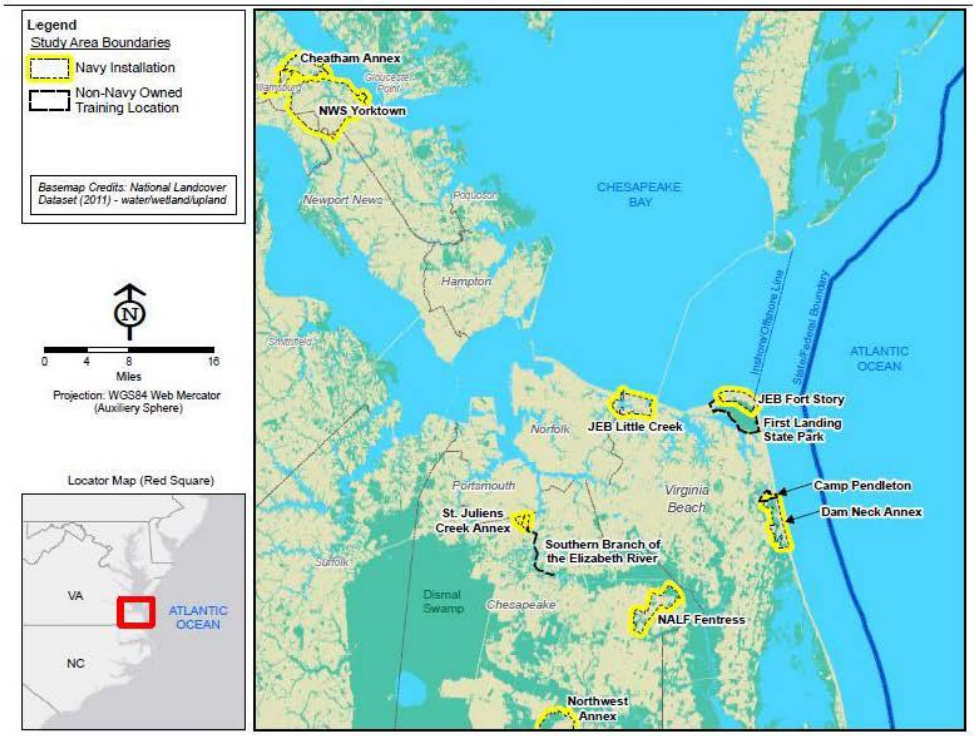

Figure 1: Virginia Capes Inland Training Environmental Assessment Project Locations

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3.0 OFFICIAL SPECIES LIST

See Official Species List dated 31 May 2017(earlier document in this project review package).

4.0 DETERMINATIONS

Tables 2 and 3 at the end of this section contain the determinations for all species listed on the Official Species List obtained from the USFWS Virginia Field Office using the Information Planning and Conservation (IPaC) system on May 31, 2017 (Consultation Code: 05EVA00-2015-SLI-3232). Table 2 summarizes the Navy's overall species effects determinations and Table 3 parses out the determinations for each training location. Figure 1 shows the specific individual installation and non-installation training locations within the Study Area. Because the IPaC selection encompasses a broader area than the training locations, five species (Red-Cockaded woodpecker (*Picoides borealis*), Seabeach amaranth (*Amaranthus pumilus*), northeastern beach tiger beetle (*Cicindela dorsalis dorsalis*), hawksbill sea turtle (*Eretmochelys imbricata*) and leatherback sea turtle (*Dermochelys coriacea* are included in the official species list provided by the USFWS, but these species are not located within any of the individual training locations included in the Proposed Action. Those species with potential overlap with the Proposed Action training areas are described in greater detail below along with the potential effects of the Proposed Action.

4.1 Small Whorled Pogonia (*Isotria medeoloides*)

NWS Yorktown and Cheatham Annex are in the historical range of the small whorled pogonia, and both installations contain appropriate habitats for the species. Habitat preferences include older hardwood stands of beech, birch, maple, oak, and hickory with an open understory, acidic soils, and a leaf layer (USFWS, 2016a). Though within the historical range, the species has not been confirmed present at NWS Yorktown or Cheatham Annex. Pursuant to the ESA, the Proposed Action at NWS Yorktown would have no effect on the small whorled pogonia.

Physical disturbance associated with personnel movement, vehicle movement, explosives on land, and weapons firing (non-lethal training ammunition) will occur in training areas that are primarily paved surfaces, mowed lawns, and mowed old fields outside of any the potential habitats for this species. In addition, vehicles training at inland areas would be restricted to existing roads and trails. Signs and fencing to limit access to sensitive areas would be utilized. In addition, annual monitoring by installation Natural Resources staff would be employed to identify potential impacts before they become an issue.

4.2 Piping Plover (*Charadrius melodus*)

JEB Little Creek, JEB Fort Story, and Dam Neck Annex include appropriate foraging habitats and are in the range of the piping plover. Based on survey data, it is likely that any individuals observed on-site would be rare occurrences and considered transient individuals (Navy, 2015). No federally threatened or endangered bird species have been documented at JEB Little Creek, including the piping plover. A March and April 2013 survey at JEB Fort Story documented only one transient piping plover. Considering the survey results, there is a low likelihood that the piping plover would occur regularly at JEB Little Creek

or JEB Fort Story. The piping plover has been observed along the beaches of Dam Neck Annex, most recently on April 8, 2013; however, there is no documentation of this species nesting at the installation (Beatty, 2003; Schaeffer, 2013). Based on the following discussion of physical strike and noise stressors, the Navy has determined that the Proposed Action may affect, but is not likely to adversely affect, the piping plover.

Physical strike associated with beach landings, vehicle movement, explosives on land, and weapons firing (non-lethal training ammunition) have the potential to impact birds; however, generally birds, including piping plovers, are very responsive, alert, and mobile and should easily avoid personnel and vehicle movements by relocating to another area. The fact that piping plovers are rarely sighted in surveys and have not been observed nesting on these Study Area beaches makes physical strike unlikely.

Noise associated with vehicle movement, operation of generators, use of explosives, and simulated weapons fire all have the potential to disrupt vocal communications and startle birds during daily activities. However, the higher than normal ambient sound caused by ocean surf and/or the urban and suburban setting of the base may lessen disturbance by habituating birds to noise. Wildlife has been shown to habituate to blast noise (including that from cannon fire and bombing ranges) (Larkin et al., 1996). In addition, most noise events would be localized and occur for a relatively short period of time (minutes to hours).

4.3 Red Knot (*Calidris canutus*)

JEB Little Creek, JEB Fort Story, and Dam Neck Annex include appropriate foraging habitats and are in the range of the red knot. However, red knot breeds in northern Canada and Alaska and winter in South America, only using the Atlantic coast during fall and spring migratory movements (NPR.org, 2014). Installation red knot observation data is not available, though there is potential for presence on the beach tidal flats of the Study Area installations during the red knot's long migration. Incidental sightings and Christmas Bird Count records indicate that the red knot is a fairly regular, if infrequent, visitor to the Tidewater area. It is likely that any individuals observed on-site in the Study Area would be rare occurrences and considered transient individuals. There has been no nesting documented in the Study Area. Noise during beach-based events would be localized and occur for a relatively short period of time (minutes to hours). Thus, the Navy has determined that the Proposed Action may affect, but is not likely to adversely affect the red knot.

4.4 Roseate Tern (*Sterna dougallii dougallii*)

JEB Little Creek, JEB Fort Story, and Dam Neck Annex include appropriate foraging habitats and are in the range of roseate terns. The birds nest on small barrier islands, often at ends or breaks. The North American subspecies is divided into two separate breeding populations; one in the northeastern U.S. and Nova Scotia and another in the southeastern U.S. and Caribbean. Roseate terns are most common in the central portion of this range, from Massachusetts to Long Island, New York (USFWS, 2011a). No roseate terns have been observed at any of the installations. Based on the foregoing, the Navy has determined that the Proposed Action would have no effect on the roseate tern.

4.5 Northern Long-Eared Bat (*Myotis septentrionalis*)

Large wooded tracts within the Study Area offer potential summer habitat for northern long-eared bats, which have been documented at most of the installations associated with the Proposed Action. Under the ESA, the final 4(d) rule for the northern long-eared bat prohibits incidental take for activities that occur within 0.25 miles of any known hibernacula at any time of year or activities that involve cutting or destroying known maternity roost trees or any other trees within a 150-foot radius during the pup season (June 1 – July 31). All other incidental take is allowed. This project does not propose any tree removal, is not located within a 150-foot radius of any documented maternity roost trees, and does not occur within 0.25 mile of any hibernacula. With the exception of First Landing State Park, based on the stressors of physical strike and noise (discussed below) associated with Proposed Action primary training event activities, the Proposed Action may affect, but is not likely to adversely affect, the northern long-eared bat. The Navy is relying on the findings of the Programmatic Biological Opinion on Final 4(d) Rule for the Northern Long-Eared Bat and Activities Excepted from Take Prohibitions (January 5, 2016) to fulfill its project-specific ESA section 7 responsibilities.

Physical strike associated with beach landings, vehicle movement, explosives on land, and weapons firing (non-lethal training ammunition) have the potential to impact bats; however, generally bats are very responsive, alert, and mobile and should easily avoid vehicle movements.

Noise associated with vehicle movement, operation of generators, use of explosives, and simulated weapons fire all have the potential to startle bats. However, the higher normal ambient sound caused by the urban and suburban setting of most of the installations may lessen disturbance by habituating bats to noise. In addition, most noise events would be localized and occur for a relatively short period of time (minutes to hours). Furthermore, the majority of training, especially weapons firing occurs during daylight hours when bats are not active. Training at First Landing State Park does not present a noise stressor as it entails personnel movements (e.g., jogging) along the park trails.

4.6 Sea turtles (*Caretta caretta, Chelonia mydas, Lepidochelys kempi)*

Sea turtle nesting does not occur at all training locations within the Study Area. Sea turtles are known to occur in the Atlantic Ocean and/or Chesapeake Bay waters offshore from JEB Fort Story, Dam Neck Annex, Camp Pendleton State Military Reservation, and JEB Little Creek, but sea turtles come ashore to nest only at some of these bases. Nesting has not been recorded at Camp Pendleton or JEB Little Creek. Of the five sea turtle species listed in Table 2 and 3, only three have been documented to nest on training beaches in the VITEA Study Area . No nesting by the hawksbill sea turtle (*Eretmochelys imbricata*) or leatherback sea turtle (*Dermochelys coriacea*) has been documented on training beaches in the VITEA Study Area. Therefore, the following discussion is applicable only to the three species of sea turtles known to nest on training beaches (i.e., loggerhead sea turtle [*Caretta caretta*], green sea turtle [*Chelonia mydas*], and Kemp's ridley sea turtle [*Lepidochelys kempi*]).

SOPs have been developed at JEB Fort Story and Dam Neck Annex/Camp Pendleton for implementing and conducting beach surveys for sea turtle nesting and strandings. These procedures are expected to minimize potential impacts to nesting activities and sea turtles. JEB Little Creek does not have a sea turtle monitoring program because no nesting has occurred on those beaches since data collection efforts began

in 1970. However, other protocols for beach landings have been developed and include lookout requirements during beach landings that would provide additional protection for nesting sea turtles and hatchlings. Sea turtle nest monitoring and management guidelines for JEB Fort Story and Dam Neck Annex/Camp Pendleton are based on the Back Bay National Wildlife Refuge Sea Turtle Management Program (USFWS, 2011b) and the Navy's SOPs for Sea Turtles at Dam Neck Annex (Navy, 2015 and USFWS 2016b). Each of those SOPs is summarized below. Additionally, all protocols, BMPs, and mitigation measures will be followed as written in the Sea Turtle Management Biological Assessment for JEB Fort Story that was submitted to USFWS in May 2016.

JEB Fort Story:

- Morning patrols are conducted from 1 June through 31 August by Back Bay National Wildlife Refuge volunteers (USFWS, 2011b). All-terrain vehicles may be used on beaches where beach driving is already permitted.
- If a turtle crawl is found, patrollers must determine whether the crawl resulted in a nest and document the location and date of the crawl, regardless of whether a nest is found or not.
- A nest may be relocated if it is found below the mean high tide line, if it is in an area where there is a likelihood that vehicles will run over the nest even with signage and markers installed, or if it is in an area where intense artificial lighting would cause the hatchlings to become disoriented.
- Nests that are left in situ are marked with reflectors, signs and flagging tape out to approximately 9.8 feet away to prevent nests from being run over by vehicles or inadvertently disturbed. They are also protected by a predator exclosure that allows for unattended hatching and release of hatchlings.
- In situ nests are monitored daily near the hatch window to determine if they will successfully hatch.
- After hatching is completed, the nests are excavated and evaluated to determine the number and condition of hatched eggs, unhatched eggs, and young turtles.

Dam Neck Annex/Camp Pendleton:

- Morning patrols are conducted from 15 May through 31 August by NAS Oceana Natural Resources Staff on all-terrain vehicles or other four-wheel drive vehicle approved.
- Patrollers must attend training sessions for patrol procedures and all-terrain vehicle safety.
- If patrols start before daylight, headlights of vehicles will be covered with red filters. No white lights of any kind are permitted.
- If a turtle crawl is found, patrollers will determine if there is a nest and document the time and location of the nest. Nesting activities must be reported immediately to the Back Bay National Wildlife Refuge and the installation Natural Resources Manager. Together, the Back Bay National Wildlife Refuge biologist and installation Natural Resources Manager will determine whether the nest can be left in place (in situ) or should be relocated.
- Relocation may be necessary if the nest is at risk from several wash-overs during high tide events, high levels of public use around the nest, if it is in a location susceptible to erosion or near a sloughing escarpment and may potentially get buried, or any other reason determined by the Back Bay National Wildlife Refuge biologist and installation Natural Resources Manager.

- If a nest is left in situ, the perimeter of the nesting area is marked with wire flags, cordoned off with flagging, and surrounded by informational signs and reflectors to educate the public and deter human disturbance.
- Nests will be checked daily to ensure no unauthorized disturbance has occurred, determine if hatching has commenced, and document signs of predatory disturbance and plant or pest invasion.
- Two to three weeks after hatchlings have emerged and no more signs of hatching are present, the nest will be excavated and data will be collected.

Potential impacts to sea turtle nesting from training activities on beach areas of JEB Little Creek, JEB Fort Story, and Dam Neck Annex are expected to only occur between the months of May through October, when female sea turtles approach the beach to lay their eggs, while eggs are incubating, and when hatchlings emerge from the nests and enter the water. Nesting activities primarily occur at night, aside from Kemp's ridley sea turtles that nest during the day. The majority of training activities may occur year round at all locations. Only some activities, such as beach landings, would occur at night. Due to the seasonal occurrence of sea turtles and nests on the beaches of the Study Area compared to year-round occurrence of training activities, the potential for overlap between training activities proposed under each alternative and sea turtle presence and nesting activities would be limited. In addition only small numbers of sea turtle nests have been documented on beaches within the Study Area. Historical records indicate the following false crawls and nesting:

- Zero sea turtle nests have been recorded on JEB Little Creek.
- From 1970, when data collection efforts began, through 2017, three loggerhead sea turtle false crawls and three loggerhead nests have been documented at JEB Fort Story.
- Two sea turtles species, loggerhead and Kemp's ridley, have successfully nested on Dam Neck Annex beaches. Between 1970, when data collection efforts began, and July 2017, four loggerhead sea turtle nests and three false crawls were documented. The most recent loggerhead sea turtle nesting activity at Dam Neck Annex included two nests that were documented in June and July of 2017. The incubation period for both nests at the time of this consultation submission is ongoing so nesting success is not yet known. Before the 2017 nests, the last loggerhead sea turtle nesting at Dam Neck Annex was recorded in 2002 The first recorded Kemp's ridley nesting in Virginia occurred on Dam Neck Annex beaches in June 2012 and successfully hatched in August. The state's second Kemp's ridley nest was recorded in 2014 outside of Study Area beaches in False Cape State Park. No sea turtle nests have been observed on neighboring Camp Pendleton State Military Reservation, although one nest was documented to the north on Croatan Beach in 2015.
- No green sea turtle nests have been recorded on Study Area beaches; however one green sea turtle nest was reported south of Dam Neck Annex on nearby Sandbridge Beach in 2005.

These foregoing considerations may reduce the potential level of exposure to the various stressors associated with each primary training event activity, compared to other biological resources that occur year round within the Study Area.

Beach landings by amphibious vessels and vehicle movements could result in direct impacts if vessels or vehicles strike a nesting female or if they are driven over nests, compacting the sand over the eggs,

possibly crushing the eggs and killing pre-emergent hatchlings or striking hatchlings that are transiting from the nest to the water. The potential for direct strike of a sea turtle from non-lethal training ammunition that would lead to injury or mortality is negligible.

Amphibious vessels that transit across land and water may temporarily modify the beach area, but are not expected to produce deep ruts in the sand that could preclude nesting in that area or entrap hatchlings attempting to reach the water. Small boats that land on the beach would not go much farther than the mean high water line and would not approach potential nesting habitat areas located further inland, between the mean high water line and the sand dune line. In addition, as stated in the SOPs, sea turtle nests found below the mean high water line would be relocated, as they would be considered at risk of washing out during a high tide event. Conducting training activities at night would make it more difficult to detect and avoid a female sea turtle or hatchlings on the beach. Specifically, nighttime beach landings that occur between May and August annually may potentially disrupt sea turtle nesting activities, causing a female to abandon nesting attempts or become disoriented after laying her nest. Nighttime beach landings occurring from August through the end of October annually also have the potential to disrupt emerging hatchlings from reaching the water. Displacement of sand from amphibious vehicles may create ruts in the sand, preventing hatchlings from reaching the water, or may obscure sea turtle nesting activity, preventing new nests from being found during daily sea turtle patrols at JEB Fort Story and Dam Neck Annex/Camp Pendleton. Lookouts used during beach landings would inform the installation of any sea turtle sightings, which would help prevent the possibility of missing a nest during daily patrols. In addition, since nests are monitored daily near the hatch window to determine if they will successfully hatch, the potential for hatchlings to be present on the beach would be known, and these areas would be avoided. Therefore, no impacts to individual sea turtles are anticipated, and population-level impacts would not occur as a result of beach landings.

Vehicle movements may also result in physical strikes to nesting females, nests, or hatchlings. Other potential impacts to nesting sea turtles and hatchlings would consist of alteration of potential nesting habitat, destruction of nests, disruption of nesting activities, and obstruction of hatchlings returning to the water. Vehicle movements may create deep ruts in the sand that could temporarily alter the beach, making the area unsuitable for nesting immediately after training activities have been conducted. The implementation of SOPs would reduce the potential for physical strike from vehicle movements because sea turtle nests would be visibly marked and avoided. Lookouts used during vehicle movements would inform the installation of any sea turtle sightings, which would help prevent the possibility of missing a nest during daily patrols. In addition, since nests are monitored daily near the hatch window to determine if they will successfully hatch, the potential for hatchlings to be present on the beach would be known and these areas would be avoided. Therefore, vehicle movements would not result in impacts to individual sea turtles, and population-level impacts would not occur.

Physical strike by personnel movements are not considered likely because a nesting female sea turtle on the beach is large enough to be seen and easily avoided. Human presence from personnel movements during training events occurring within sea turtle nesting season may disturb nesting activities and cause disorientation of adult females and hatchlings. The implementation of SOPs would reduce the potential for direct impacts from personnel movements because sea turtle nests would be visibly marked and avoided and the use of lookouts would provide protection to nesting females and hatchlings because personnel would avoid nesting sea turtles and hatchlings during movements. In addition, given the

infrequency of training activities that involve personnel and vehicle movements on the beach throughout the year, permanent impacts to potential nesting habitats are not anticipated. No impacts to individual sea turtles are anticipated from personnel movements, and no population impacts would occur.

The potential for direct strike of a sea turtle from non-lethal training ammunition (e.g., paintballs) that would lead to injury or mortality is negligible as it occurs with low frequency at JEB Fort Story (28 events on Omaha Beach) and Dam Neck Annex (76 events on North Beach). In addition, personnel would not fire any weapons if a female sea turtle or hatchling is observed in close proximity. Therefore, no impacts to individual sea turtles are anticipated as a result of weapons firing activities and population-level impacts would not occur.

Primary beach landing activities that would produce noise levels with the potential to impact sea turtles include landing craft air cushion (LCAC) operations. These training activities would generate localized temporary increases in noise levels, up to a 92-dBA sound exposure level at a distance of 300 feet when operating at high power, which may potentially result in hearing loss for humans and could impact nesting sea turtles and hatchlings on the beach areas in close proximity to LCAC operations. In addition, amphibious vehicle operations would occur for a relatively short period of time (minutes to hours). These in-air noise sources may result in a behavioral response including a startle response by nesting females or hatchlings, disruption of nesting activities, or avoidance of a potential nesting area. Training activities that involve LCAC operations would have to be conducted at the same time that a sea turtle would approach or be present on the beach for a potential impact to occur. The likelihood of encountering a sea turtle during LCAC beach landings is considered low since these training activities would occur infrequently throughout the year. Furthermore, noise from LCAC operations would only result in a short-term response, such as a startle response or temporary avoidance of an area by the affected individual. Normal behaviors and nesting activities are expected to resume once the LCAC has left the area or has powered down. Therefore, impacts to individuals would be temporary, minor, and recoverable once LCAC operations have ceased, and no long-term impacts to individual sea turtles would occur. The use of lookouts during LCAC operations would reduce the potential for noise impacts to nesting females and hatchlings because individuals would be avoided. In addition, given the infrequency of training activities that involve LCAC operations, permanent abandonment of the beach by sea turtles would not occur; therefore, long-term population-level impacts are not anticipated.

Noise generated by vehicle movements on or near the beach areas may harass sea turtles or disrupt nesting activities. Noise from vehicles will not occur at levels that would result in injurious impacts. However, noise from vehicle movements could become a source of deterrence to sea turtles during sea turtle nesting season. Potential impacts from vehicle noise may consist of a startle response or avoidance of an area, which could preclude a female from laying a nest. Training activities involving vehicle movements would have to occur at the same time, within the vicinity of a sea turtle approaching the beach, and generate enough noise to elicit a response in order for a potential impact to occur. Impacts to sea turtles would primarily result in a short-term response, such as a startle response or temporary avoidance of an area. Normal behaviors and nesting activities are expected to resume once the vehicles have left the area or have powered down. Therefore, impacts to individuals would be temporary, minor, and recoverable, and no long-term impacts to individual sea turtles would occur. Furthermore, since training events involving vehicle movements on the beach would occur infrequently and for short

durations of time (minutes to hours), these actions are not expected to have long-term population-level impacts to sea turtles.

Noise generated by blank firing and non-lethal training ammunition on or near the beach areas have the potential to impact sea turtles by causing startle responses or threat escape responses that could disrupt nesting activities. In-air noise levels associated with blank firing and non-lethal training ammunition could result in hearing loss to humans and could similarly impact sea turtles on the beach in close proximity to these activities. However, as previously stated, personnel would not fire weapons if a sea turtle is observed during training activities, eliminating the possibility of sea turtles being exposed to noise levels that would result in physiological impacts. Behavioral impacts may potentially occur if a sea turtle is not observed in the immediate vicinity but is within hearing of range of blank-fire and non-lethal ammunition training activities. Sea turtles are assumed to exhibit no more than a brief startle response to any individual explosive or bursts of explosives. If an event has a longer duration of explosive use, such as firing events with multiple bursts of blank gunnery rounds, sea turtles may exhibit a response beyond an initial startle, such as actively avoiding the area or abandoning a nesting attempt. Furthermore, training events involving firing of blanks and non-lethal training ammunition on beach areas would occur infrequently and the likelihood of a sea turtle being in the same area where weapons firing activities is also considered low. Normal behaviors and nesting activities are expected to resume once the weapons firing activities have ceased. Therefore, impacts to individual sea turtles would be temporary, minor, and recoverable, limited to short-term responses from short bursts of noise and no long-term impacts to individuals would occur. In addition, training activities involving weapons firing would not have population-level impacts to sea turtles.

4.7 West Indian manatee (*Trichechus manatus*)

Manatees are found primarily along the coast of Florida, the Gulf Coast and the Caribbean (National Wildlife Federation, 2017; USFWS, 2017). In the summer months, manatees can migrate as far north as Rhode Island. However, they have little tolerance for cold water because of their low metabolism and lack of insulating body fat. A manatee nicknamed "Chessie" made news by migrating from Florida into the Chesapeake Bay in 1994 and again in 2011 (Save the Manatee Club, Inc., 2011). In 1995, Chessie migrated to Rhode Island and then back to Florida. In 1996, Chessie was spotted in Portsmouth, Virginia and in 2001, Chessie was sighted in Chesapeake, Virginia at the Great Bridge Locks. Despite the re-appearance of Chessie in Hampton Roads, sightings of West Indian manatees in the Chesapeake Bay area are considered rare.

In the VITEA Study Area, manatees have the potential to be found in the Atlantic Intracoastal Waterway / Southern Branch of the Elizabeth River in the late spring, summer and fall. However, manatees would not be expected to be within the Atlantic Intracoastal Waterway or the Southern Branch of the Elizabeth River for extended periods of time because of the lack of forage and unfavorable water temperatures. Thus the potential for a vessel strike is highest during these times. There is low to no potential for vessel strike during the winter months. The Navy uses highly qualified operators on small vessels to maintain awareness of the surrounding environment, including observance of the waterway for marine mammals as well as objects in the water. Navy vessel operators practice safe navigation, travel at a safe speed, and are trained to take proper action to avoid collisions. As a result, the Navy has determined that the Proposed Action would have no effect on the West Indian manatee.

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Table 2: Species Conclusion Summary Table

Species/Resource Name	Conclusion	ESA Section 7/ Eagle Act Determination*	Notes/Documentation
Seabeach amaranth (*Amaranthus pumilus*)	Species not present.	Not Applicable	This species has not been documented at any of the training locations included in the Proposed Action.
Red-cockaded woodpecker (*Picoides borealis*)	Species not present.	Not Applicable	This species has not been documented at any of the training locations included in the Proposed Action.
Northeastern beach tiger beetle (*Cicindela dorsalis dorsalis*)	Species not present.	Not Applicable	This species is not present at any of the training locations included in the Proposed Action.
Hawksbill sea turtle (*Eretmochelys imbricata*)	Suitable habitat present. Species not present.	Not Applicable	Hawksbill sea turtle nests have not been documented on the installations included in the Proposed Action.
Leatherback sea turtle (*Dermochelys coriacea*)	Suitable habitat present. Species not present.	Not Applicable	Leatherback sea turtle nests have not been documented on the installations included in the Proposed Action.

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Table 3: Species Conclusion Summary Table (Continued)

Species/Resource Name	Conclusion	ESA Section 7/ Eagle Act Determination*	Notes/Documentation
Small whorled pogonia (*Isotria medeoloides*)	Suitable habitat present, species not present.	No effect	NWS Yorktown and Cheatham Annex are in the historical range for small whorled pogonia, however, the species has not been confirmed present at these areas.
Roseate tern (*Sterna dougallii dougallii*)	Suitable habitat present, species not present.	No effect	No roseate terns have been observed at any of the installations included in the Proposed Action.
West Indian manatee (*Trichechus manatus*)	Suitable habitat present.	No effect	The Proposed Action will only include in-water activities on the Southern Branch of the Elizabeth River. Activities will be consistent with baseline conditions of current ongoing Navy operations. Qualified Navy operators are required to observe waterways for manatees and adhere to low speed postings in known manatee areas.
Critical habitat	No critical habitat for any species on species list is present.	No effect	See species list

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Table 4: Species Conclusion Summary Table (Continued)

Species/Resource Name	Conclusion	ESA Section 7/ Eagle Act Determination*	Notes/Documentation
Piping plover (*Charadrius melodus*)	Species occurrence is rare. Suitable habitat present.	Not likely to adversely affect	Based on survey data, it is likely that any individuals observed on-site would be rare and considered transient individuals. There has been no documentation of the species nesting at any of the installations included in the Proposed Action.
Northern long-eared bat (*Myotis septentrionalis*)	Species present. Suitable habitat present.	Not likely to adversely affect	The Proposed Action does not include tree removal. Relying upon the findings of the 1/5/2016 Programmatic Biological Opinion for Final 4(d) Rule on the Northern Long-Eared Bat and Activities Excepted from Take Prohibitions to fulfill our project-specific section 7 responsibilities.
Red knot (*Calidris canutus rufa*)	Species occurrence is rare. Suitable habitat present.	Not likely to adversely affect	Installation red knot observation data is not available, though potential for presence on beach tidal flats of Study Area installations during long migration. No nesting in Study Area.
Loggerhead sea turtle (*Caretta caretta*)	Species present. Suitable habitat present.	Not likely to adversely affect	Morning patrols for nesting crawls are conducted at applicable installations from 1 June through 31 August by Navy natural resources staff and trained Back Bay National Wildlife Refuge volunteers. All SOPs will be adhered to as defined in the 2016 Biological Opinion issued by the USFWS for Dam Neck Annex, and the Back Bay National Wildlife Refuge Sea Turtle Management Program for Fort Story. All protocols, BMPs, and mitigation measures will be followed as written in the Sea Turtle Management BA for JEB Fort Story submitted to USFWS May 2016.

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Table 5: Species Conclusion Summary Table (Continued)

Species/Resource Name	Conclusion	ESA Section 7/ Eagle Act Determination*	Notes/Documentation
Green sea turtle (*Chelonia mydas*)	Species present. Suitable habitat present.	Not likely to adversely affect	Morning patrols for nesting crawls are conducted at applicable installations from 1 June through 31 August by Navy natural resources staff and trained Back Bay National Wildlife Refuge volunteers. All SOPs will be adhered to as defined in the 2016 Biological Opinion issued by the USFWS for Dam Neck Annex, and the Back Bay National Wildlife Refuge Sea Turtle Management Program for Fort Story. All protocols, BMPs, and mitigation measures will be followed as written in the Sea Turtle Management BA for JEB Fort Story submitted to USFWS May 2016.
Kemp's ridley sea turtle (*Lepidochelys kempi*)	Species present. Suitable habitat present.	Not likely to adversely affect	Morning patrols for nesting crawls are conducted collectively at applicable installations from 1 June through 31 August by Navy natural resources staff and trained Back Bay National Wildlife Refuge volunteers. All SOPs will be adhered to as defined in the 2016 Biological Opinion issued by the USFWS for Dam Neck Annex, and the Back Bay National Wildlife Refuge Sea Turtle Management Program for Fort Story. All protocols, BMPs, and mitigation measures will be followed as written in the Sea Turtle Management BA for JEB Fort Story submitted to USFWS May 2016.

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Table 6: Species Conclusion Summary Table (Continued)

Species/Resource Name	Conclusion	ESA Section 7/Eagle Act Determination*	Notes/Documentation
Bald eagle (*Haliaeetus leucocephalus*)	Unlikely to disturb nesting bald eagles	No Eagle Act permit required	Proposed Action activities are not within 660' of a nest and are not within an eagle concentration area.

Table 7: Effects Determinations for Individual Training Locations

Species	*JEB Little Creek*	*JEB Fort Story*	*Dam Neck Annex and Camp Pendleton*	*NALF Fentress*	*NW Annex*	*St. Juliens Creek Annex*	*NWS Yorktown*	*Cheat-ham Annex*	*First Landing State Park*	*Southern Branch of the Elizabeth River*
Small whorled pogonia	NP	NP	NP	NP	NP	NP	NE	NE	NP	NP
Piping plover	NE	NLAA	NLAA	NP	NP	NP	NP	NP	NP	NP
Red knot	NE	NLAA	NLAA	NP	NP	NP	NP	NP	NP	NP
Roseate tern	NE	NE	NE	NP	NP	NP	NP	NP	NP	NP
Northern long-eared bat	NLAA	NLAA	NLAA	NLAA	NLAA	NLAA	NLAA	NLAA	NE	NLAA
Loggerhead sea turtle	NE	NLAA	NLAA	NP	NP	NP	NP	NP	NP	NP
Green sea turtle	NE	NE	NLAA	NP	NP	NP	NP	NP	NP	NP
Kemp's ridley sea turtle	NE	NLAA	NLAA	NP	NP	NP	NP	NP	NP	NP
West Indian manatee	NP	NP	NP	NP	NP	NP	NP	NP	NP	NE

Key: NLAA = May Affect, Not Likely to Adversely Affect; NE = No Effect; NP = Not Present.

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5.0 LITERATURE CITED

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U.S. Fish and Wildlife Service confirmation of submittal receipt

-----Original Message-----
From: Virginia Field Office, FW5 [mailto:virginiafieldoffice@fws.gov]
Sent: Friday, August 25, 2017 11:49 AM
To: Thompson, Gregory S CIV USFF, N46
Subject: [Non-DoD Source] Confirmation of Project Receipt Re: Self-Certification Letter submittal for VACAPES Inland Training Environmental Assessment

Thanks for submitting your online project package. We will review your package within 30 days of receipt. If you have submitted an online project review request letter, expect our response within 30 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.

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A.3 National Historic Preservation Act (NHPA) Section 106 Consultation

USFF letter to Virginia Division of Historical Resources

Electronic Project Information Exchange (ePIX)
State Historic Preservation Office
PROJECT MEMO

This electronic form is to be used for the submission of new projects only. Before using this form, please understand that the information being requested is important to our review. Incomplete information may lead to delays in the review of your project. Please read all questions carefully and respond as completely as possible.

SECTION I. CONTACT INFORMATION

SECTION II. GENERAL PROJECT INFORMATION

Project Name Proposed United States Fleet Forces Inland Training, VITEA

Agency Project Number 17-23-00

Associated DHR File Number

Street Address, if applicable

Independent Cities and/or Counties (multiple cities/counties are allowed):

Select City/County City of Virginia Beach, City of Chesapeake, York County and James City County

SECTION III. PROJECT DESCRIPTION and CURRENT AND PAST LAND USE

We need to know as much as possible about the project that is being proposed as well as the current condition of the property. In the fields below, you will be required to provide descriptions that are no longer than 2000 characters. Additional and more detailed information can be uploaded and attached at the end of the application.

Project Description (2000 word/characters limit)

U.S. Department of the Navy (Navy) is proposing an undertaking to continue and accommodate certain changes to United States Fleet Forces training events taking place in the inland areas of the Virginia Capes (VACAPES) Range Complex of the Hampton Roads fleet concentration area of Virginia. The inland training study area encompasses ten (10) primary training locations including Navy installations as well as non-Navy owned properties. The Navy is currently preparing a draft Environmental Assessment (EA) to assess potential environmental impacts associated with the proposed undertaking. The Navy is evaluating three alternatives including the No Action Alternative, Alternative 1, and Alternative 2. The Preferred Alternative is Alternative 2, which includes a continuation of existing/baseline training events, plus the addition of certain new training events, increasing the frequency of one training event, and conducting certain events in new training locations within the boundary of Navy installations.

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The eight (8) Navy-owned training locations are:

1. Joint Expeditionary Base (JEB) Little Creek, Norfolk, Virginia
2. JEB Fort Story, Virginia Beach, Virginia
3. Dam Neck Annex and portions of Camp Pendleton (state-owned facility), Virginia Beach, Virginia
4. Naval Auxiliary Landing Field (NALF) Fentress, Chesapeake, Virginia
5. Northwest Annex, Chesapeake, Virginia
6. St. Juliens Creek Annex, Chesapeake, Virginia
7. Naval Weapons Station (NWS) Yorktown, York County, Virginia and James City County, Virginia
8. Cheatham Annex, York County, Virginia

The non-Navy-owned training locations are:

1. First Landing State Park, Virginia Beach, Virginia
2. Southern Branch of Elizabeth River, Chesapeake, Virginia

The proposed action is more fully described in the attached enclosure (1) and (2). Enclosure (1) includes summary information for the proposed undertaking and enclosure (2) provides figures showing the direct and indirect area of potential effects (APEs) of the proposed undertaking.

How many acres does the project encompass?

Number of Acres Unknown acreage including all or portions of eight Navy installations and two non-Navy-owned training areas further specified on the maps/figures included in Enclosure 2.

Please describe the current condition and/or land use of the project area (e.g. paved parking lot, plowed field).

Existing training areas and ranges on Navy installations; existing trails at First Landing State Park and existing waters within a segment of the Southern Branch of the Elizabeth River.

Please describe any previous modifications to the property, including ground disturbance.

In general, the existing training areas and ranges on the Navy installations have been previously altered with training activities and the construction of various training and range facilities such as roads, trails, runways, landing zones, berms, shooting ranges, driving courses, mock villages, and demolition pits.

Work involving buildings or structures

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- **Does the project involve the rehabilitation, addition to, alteration, or demolition of any building or structure over 50 years of age?** YES
- **Buildings Over 50 Years Y/N/Unknown** YES
- **If yes, please describe the work that is proposed in detail. Current photographs of affected building or structure, architectural or engineering drawings, project specifications and maps may be uploaded at the end of the application.**

See Enclosure 1 and 2 for further information related to the proposed undertaking and the historic buildings and structures within the direct and indirect APEs.

Work involving ground disturbance

- **Is there any ground-disturbance that is part of this project?** YES
- **Ground Disturbance Y/N/Unknown** YES
- **If yes, describe the nature and horizontal extent of ground-disturbing activities, including construction, demolition, and other proposed disturbance. Plans, engineering drawings, and maps may be uploaded on the next page at the end of the application.**

  Ground-disturbing activities consist of physical disturbance associated with beach landings, personnel movement, explosives on land, and vehicle movement. See Enclosure 1 and 2 for further information related to the proposed undertaking.

- **What is the depth of the ground disturbance? If there are several components to the project, such as new building, utility trenches, and parking facilities, provide the approximate depth of each component.**

  The depth of the associated ground disturbance is unknown; however, in looking at each type of physical disturbance the proposed training areas have been previously disturbed with prior training and/or construction activities.

- **How large is the area where ground-disturbing activities will take place? (in acres)** See figures in Enclosure 2 for ground disturbance areas.

SECTION IV. AREA OF POTENTIAL EFFECT (APE)

The Area of Potential Effects (APE) is defined as the geographic area or areas within which a project may directly or indirectly cause changes in the character or use of historic properties, if they exist. It is not necessary for an historic property to be present in order to define an APE.

An example of a direct effect is the demolition of an historic building while an indirect effect would be the alteration of an historic setting resulting from the construction of a communications tower or the introduction of noise as the result of the construction of factory. An area such as the footprint of a proposed building is obviously within the APE, but you must also

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consider visual effects on the property and the limits of all ground-disturbing activity. So, any project may have two APEs - one for direct effects and one for indirect effects.

Please see our guidance on Defining Your APE for more detailed information on defining direct and indirect APEs. If you are using DHR's Data Sharing System, you should indicate the APE on the DSS map. For instructions on how to do this, consult the DSS general use guidelines.

Please provide a brief summary of and justification for the APE and upload your APE map at the end of the application. The written boundary description must match the submitted APE map.

The APE for the proposed undertaking was determined through an analysis to identify training activities stressors with potential to impact cultural resources. The stressors identified consist of: physical disturbance associated with beach landings, personnel movement, explosives on land, and vehicle movement, and noise associated with vehicle movement, explosives on land and weapons firing.

Based on the identified stressors, a direct and indirect APE were determined for each training location. The direct APE is defined by the physical location of the training activity such as the defined training area or range where a training activity will occur. The indirect APE is defined by the overall boundary of Navy or non-Navy property and/or adjacent historic properties to capture noise associated with vehicle movement, explosives on land and weapons firing. Refer to figures in Enclosure 2 for location of APEs for each training location.

SECTION V. CONSULTING PARTIES AND PUBLIC INVOLVEMENT

The views of the public, Indian tribes and other consulting parties (e.g. local governments, local historical societies, affected property owners, etc.) that may have an interest in historic properties that may be affected by the project are essential to informed decision-making. In some cases, the public involvement necessary for other environmental reviews such as that under the National Environmental Policy Act (NEPA) may be sufficient for the Section 106 process, but the manner in which the public is involved must reflect the nature and complexity of the proposed project and its effects on historic resources.

What consulting parties have you identified that have an interest in this project? Please describe your previous and future efforts to involve consulting parties.

DHR
City of Norfolk Planning Department
City of Chesapeake Planning Department
City of Virginia Beach Planning Department & Historic Preservation Commission
City of Portsmouth Planning Department
City of Yorktown Planning Department
Colonial National Park, National Park Service
Preservation Virginia
State Parks – First Landing State Park

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Army National Guard – Camp Pendleton
Lincoln Military Housing – Yorktown
Balfour Beatty Housing – JEB Fort Story
U.S. Coast Guard – JEB Fort Story

Please provide information on any previous or future efforts to involve the public, including public hearings, public notices, and other efforts.

During the Environmental Assessment development, the Navy will involve the public and federal and state agencies as required by NEPA and other planning and environmental review procedures required by state and federal law. USFF will make the Draft EA available for review and comment by the public and interested groups via the USFF environmental website (estimated in Summer 2017). Public comments received by USFF will be considered before making a final agency decision. The Navy will accomplish all required federal, state, and local natural resource agency coordination, consultation, and permit applications. Correspondence with these entities is presented in an EA Appendix.

SECTION VI. PREVIOUSLY IDENTIFIED HISTORIC RESOURCES

In order for this application to be considered complete, you must determine if there are any known historic resources in the APE and provide this information to us.

Has any portion of the APE been previously surveyed for archaeological and/or architectural resources? YES.

If yes, describe and provide the names of any reports that you are aware of.

Hampton Roads Regional ICRMP and cultural resources surveys contained in the status of knowledge section for each of the Navy installations, VCRIS, and the National Register database for non-Navy property.

Are there any previously recorded archaeological sites or architectural resources, including historic districts or battlefields within the APE? YES

ATTACHMENTS. APE Map, photographs, reports, etc. – same information include with letters

1) Project Description
2) Figures of APEs

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Enclosure (1)
Project Information

Proposed United States Fleet Forces Inland Training

Location: Inland areas of the Virginia Capes Range Complex of the Hampton Roads Fleet Concentration Area (Southeastern Virginia)

1 ENCLOSURE (1)

I. Proposed Undertaking:

The proposed undertaking consists of the continuation of and accommodation of certain changes to United States Fleet Forces (USFF) training events in the inland areas of the Virginia Capes (VACAPES) Range Complex in the Hampton Roads fleet concentration area located in southeastern Virginia. The inland training study area of the VACAPES Range Complex encompasses ten (10) primary training locations including Navy installations as well as non-Navy owned properties.

The eight (8) Navy-owned training locations are:

1. Joint Expeditionary Base (JEB) Little Creek, Norfolk, Virginia
2. JEB Fort Story, Virginia Beach, Virginia
3. Dam Neck Annex and portions of Camp Pendleton (state-owned facility), Virginia Beach, Virginia
4. Naval Auxiliary Landing Field (NALF) Fentress, Chesapeake, Virginia
5. Northwest Annex, Chesapeake, Virginia
6. St. Juliens Creek Annex, Chesapeake, Virginia
7. Naval Weapons Station (NWS) Yorktown, Yorktown, Virginia
8. Cheatham Annex, Yorktown, Virginia

The non-Navy-owned training locations are:

1. First Landing State Park, Virginia Beach, Virginia
2. Southern Branch of the Elizabeth River, Virginia

Within the overall inland training study area, several types of training activities will occur and are listed and generally described in Table 1 below. The primary training events conducted vary by location as described in Table 2.

Table 1. Primary Training Event Activities

Primary Training Event Activity	*Description*
Beach landings	The landing of vessels, movement of troops, and use of equipment on the beach or dunes.
Equipment use	Use of equipment (e.g., generators) to support training; only equipment producing emissions or noise are analyzed (i.e., handheld devices not included).
Explosives on land	Detonations occurring on land, primarily for explosive ordnance disposal training.
Personnel movement	Movement of troops in undeveloped areas, either in and around a training area or between training areas. Does not include troops aboard a vessel or aircraft or moving on foot along established roads.
Underwater movement	Movement of devices that operate underwater (e.g., remotely operated vehicles [controlled remotely by a human operator]).
Vehicle movement	Movement of land tactical vehicles to and from a training location and vehicle use at the training location.
Vessel movement	Movement of vessels to and from a training location and vessel use at the training location.
Weapons firing – blank fire	Firing of small (.50 caliber or less) and medium (greater than .50 caliber and up to 56 mm) arms weapons using cartridges that contain gunpowder but no bullet or projectile; a shell is expended at the point of fire. There is a 200-foot stand-off distance from boats and

Primary Training Event Activity	*Description*
	personnel during all training events when using blank fire.
Weapons firing – non-lethal training ammunition	Firing of non-lethal training ammunition (e.g., marking cartridges). Does not include use of explosives.

Key: mm = millimeter

The Navy is currently preparing a draft Environmental Assessment (EA) to assess potential environmental impacts associated with the proposed undertaking. The Navy is evaluating three alternatives including the No Action Alternative, Alternative 1, and Alternative 2.

- **No Action Alternative** - The No Action Alternative is to continue the current level and intensity of inland training events within the study area (i.e., baseline/continuing training events).
- **Alternative 1** - Alternative 1 includes the events analyzed under the No Action Alternative as well as additional Explosive Ordnance Disposal (EOD), maritime prepositioning, expeditionary and mine countermeasure training required to meet emerging training requirements. The events analyzed under Alternative 1 would occur at the same locations as the events in the No Action Alternative. Including these additional events would meet Navy readiness requirements into the foreseeable future.
- **Alternative 2 (Preferred Alternative)** - Alternative 2 includes the same training events that occur on the Navy-owned and non-Navy-owned training areas under Alternative 1, as well as training events at additional, Navy-owned, locations. The alternate locations used in Alternative 2 would provide increased flexibility and diversity of training environments throughout the Hampton Roads fleet concentration area, and would meet Navy readiness requirements into the foreseeable future.

As noted above, the Preferred Alternative is Alternative 2.

The list of training events and quantities per training location is provided below in Table 2.

Table 2. Training Activities at Each Location

Key: NEW = net explosive weight; No. = number.

Joint Expeditionary Base Little Creek

Location	*Primary Training Event Activity*	*Contributing platform, equipment, or weapon*	*Annual Quantity*							
			No Action Alternative			*Alternative 1 (difference from the No Action Alternative)*			*Alternative 2 (difference from Alternative 1)*		
			No. of Events	**Physical Disturbance**	**Noise**	**No. of Events**	**Physical Disturbance**	**Noise**	**No. of Events**	**Physical Disturbance**	**Noise**
Land–Beaches/Dunes	Beach Landings	amphibious and small vessels	50	348 landings	348 landings						
	Explosives on Land	demolition materials and charge				2	1 event (2 detonations with a maximum NEW of 1.25 pounds); 1 event (5 detonations with a maximum NEW of 2 pounds; 2 detonations with a maximum NEW of 1.25 pounds)	1 event (2 detonations with a maximum NEW of 1.25 pounds); 1 event (5 detonations with a maximum NEW of 2 pounds; 2 detonations with a maximum NEW of 1.25 pounds)			
	Personnel Movement		815	6,978 people		2	48 people				
	Vehicle Movement	tactical and non-tactical vehicles	815	3,560 hours	3,560 hours	2	1 hr	1 hr			
	Personnel Movement		24	1,800 people							
	Weapons Firing - Blank	small caliber	6	595,400 rounds	595,400 rounds						

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ENCLOSURE (1)

Joint Expeditionary Base Fort Story

Location	*Primary Training Event Activity*	*Contributing platform, equipment, or weapon*	*Annual Quantity*									
			No Action Alternative			*Alternative 1 (difference from the No Action Alternative)*			*Alternative 2 (difference from Alternative 1)*			
			No. of Events	Physical Disturbance	Noise	No. of Events	Physical Disturbance	Noise	No. of Events	Physical Disturbance	Noise
Land – Beaches/ Dunes	Beach Landings	amphibious and small vessels	55	439 landings	439 landings	3	165 landings	165 landings			
	Personnel Movement		478	6,662 people		79	2,268 people				
	Vehicle Movement	tactical and non-tactical vehicles	412	4,735 hours	5,245 hours	79	3,171 hours	4,611 hours			
	Weapons Firing – Blank-Fire	small caliber	28		1,400 rounds	76		22,952 rounds			
	Weapons Firing – Non-Lethal Training Ammunition	paintball gun	28		2,800 rounds	76		15,200 rounds			
Land – Non-Beaches/ Dunes	Personnel Movement		346	5,150 people		480	10,560 people		56	784 people	
	Explosives on Land	demolition materials and charge	108	• 80 events (average 8 detonations/event with maximum NEW of 1.25 pounds) • 28 events (1 detonation/event with maximum NEW of 2 pounds)	• 80 events (average 8 detonations/event with maximum NEW of 1.25 pounds) • 28 events (1 detonation/event with maximum NEW of 2 pounds)	556	• 240 events (average 9 detonations/event with maximum NEW of 0.2 pounds) • 240 events (average 13 detonations/event with maximum NEW of 1.25 pounds) • 76 events (1 detonation/event with maximum NEW of 1.25 pounds; 1 detonation/event with maximum NEW of 2 pounds)	• 240 events (average 9 detonations/event with maximum NEW of 0.2 pounds) • 240 events (average 13 detonations/event with maximum NEW of 1.25 pounds) • 76 events (1 detonation/event with maximum NEW of 1.25 pounds; 1 detonation/event with maximum NEW of 2 pounds)	56	• 56 events (1 detonation/event maximum NEW 1.25 pounds; 1 detonation/event maximum NEW 2 pounds)	• 56 events (1 detonation/event maximum NEW 1.25 pounds; 1 detonation/event maximum NEW 2 pounds)
	Vehicle Movement	tactical and non-tactical vehicles	362	9,587 hours	9,587 hours	240	60 hours	60 hours	56	3,640 hours	3,640 hours
	Weapons Firing – Blank-Fire	small caliber	192		4,868 rounds	480		5,280 rounds	56		2,912 rounds
	Weapons Firing – Non-Lethal Training Ammunition	paintball gun	84		8,400 rounds				56		5,600 rounds

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ENCLOSURE (1)

Dam Neck Annex and Camp Pendleton

Location	*Primary Training Event Activity*	*Contributing platform, equipment, or weapon*	*Annual Quantity*							
			No Action Alternative			*Alternative 1 (difference from the No Action Alternative)*			*Alternative 2 (difference from Alternative 1)*	
			No. of Events	**Physical Disturbance**	**Noise**	**No. of Events**	**Physical Disturbance**	**Noise**	**No. of Events**	**Physical Disturbance**	**Noise**
Land – Beaches/ Dunes	Beach Landings	amphibious	22	380 landings	380 landings						
	Personnel Movement		103	1,454 people		76	1,368 people				
	Vehicle Movement	tactical and non-tactical vehicles	64	3,715 hours	3,781 hours	76	291 hours	291 hours			
	Weapons Firing – Blank-Fire	small caliber				76		7,600 rounds			
	Weapons Firing – Non-Lethal Training Ammunition	paintball gun				76		30,400 rounds			
Land – Non- Beaches/ Dunes	Personnel Movement		28	560 people							
	Weapons Firing – Blank-Fire	small caliber	28		1,400 rounds						

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ENCLOSURE (1)

NALF Fentress

Location	*Primary Training Event Activity*	*Contributing platform, equipment, or weapon*	*Annual Quantity*								
			No Action Alternative			*Alternative 1 (difference from the No Action Alternative)*			*Alternative 2 (difference from Alternative 1)*		
			No. of Events	**Physical Disturbance**	**Noise**	**No. of Events**	**Physical Disturbance**	**Noise**	**No. of Events**	**Physical Disturbance**	**Noise**
Land – Non- Beaches/ Dunes	Equipment Use	diesel generators							4		6,300 hours
	Personnel Movement		90	1,800 people					4	1,493 people	
	Vehicle Movement	tactical and non-tactical vehicles	90	4,500 hours	4,500 hours				4	1,072 hours	1,072 hours
	Weapons Firing – Blanks	Small arms	90		4,500 rounds				4		12,800 rounds
	Weapons Firing – Non-Lethal Training Ammunition	Paintball gun	90		9,000 rounds						

Northwest Annex

Location	*Primary Training Event Activity*	*Contributing platform, equipment, or weapon*	*Annual Quantity*								
			No Action Alternative			*Alternative 1 (difference from the No Action Alternative)*			*Alternative 2 (difference from Alternative 1)*		
			No. of Events	**Physical Disturbance**	**Noise**	**No. of Events**	**Physical Disturbance**	**Noise**	**No. of Events**	**Physical Disturbance**	**Noise**
Land – Non- Beaches/ Dunes	Personnel Movement		170	1,190 people							
	Vehicle Movement	tactical and non-tactical vehicles	170	510 hours	510 hours						

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ENCLOSURE (1)

St. Juliens Creek Annex

Location	*Primary Training Event Activity*	*Contributing platform, equipment, or weapon*	*Annual Quantity*							
			No Action Alternative			*Alternative 1 (difference from the No Action Alternative)*			*Alternative 2 (difference from Alternative 1)*		
			No. of Events	**Physical Disturbance**	**Noise**	**No. of Events**	**Physical Disturbance**	**Noise**	**No. of Events**	**Physical Disturbance**	**Noise**
Land – Non- Beaches/ Dunes	Equipment Use	diesel generator	17		21,948 hours						
	Personnel Movement		17	4,843 people					28	392 people	
	Vehicle Movement	tactical and non-tactical vehicles	16	4,527 hours	4,527 hours				28	1,890 hours	1,890 hours
	Weapons Firing – Blank-Fire	Small arms	11		35,200 rounds						

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ENCLOSURE (1)

Naval Weapons Station Yorktown

Location	*Primary Training Event Activity*	*Contributing platform, equipment, or weapon*	*Annual Quantity*									
			No Action Alternative				*Alternative 1 (difference from the No Action Alternative)*			*Alternative 2 (difference from Alternative 1)*		
			No. of Events	**Physical Disturbance**	**Noise**		**No. of Events**	**Physical Disturbance**	**Noise**	**No. of Events**	**Physical Disturbance**	**Noise**
Land – Non- Beaches/ Dunes	Equipment Use	diesel generators	8		2,016 hours							
	Explosives on Land	demolition materials and charge	104	104 events (average 13 detonations/event with maximum NEW of 25 pounds)	104 events (average 13 detonations/event with maximum NEW of 25 pounds)							
	Personnel Movement		104	1,560 people								
	Vehicle Movement	tactical and non-tactical vehicles	228	27,192 hours	27,192 hours							
	Weapons Firing – Blanks	Small arms	162		29,452 rounds							
	Weapons Firing – Non-Lethal Training Ammunition	Paintball gun	50		5,000 rounds							

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ENCLOSURE (1)

Cheatham Annex

Location	*Primary Training Event Activity*	*Contributing platform, equipment, or weapon*	*Annual Quantity*									
			No Action Alternative			*Alternative 1 (difference from the No Action Alternative)*			*Alternative 2 (difference from Alternative 1)*			
			No. of Events	**Physical Disturbance**	**Noise**	**No. of Events**	**Physical Disturbance**	**Noise**	**No. of Events**	**Physical Disturbance**	**Noise**
Land – Non- Beaches/ Dunes	Equipment Use	Diesel generator	99		74,380 hours						
	Personnel Movement		32	11,585 people							
	Vehicle Movement	tactical and non-tactical vehicles	62	8,683 hours	8,683 hours						
	Weapons Firing – Blanks	small arms	28		82,400 rounds						
Water and Adjacent Shoreline	Personnel Movement		1	24 people							
	Underwater Movement	remotely operated vehicles	1		8 hours						

First Landing State Park

Location	*Primary Training Event Activity*	*Contributing platform, equipment, or weapon*	*Annual Quantity*					
			No Action Alternative		*Alternative 1 (difference from the No Action Alternative)*		*Alternative 2 (difference from Alternative 1)*	
			No. of Events	**Physical Disturbance**	**No. of Events**	**Physical Disturbance**	**No. of Events**	**Physical Disturbance**
Land – Non- Beaches/ Dunes	Personnel Movement		12	592 people				

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ENCLOSURE (1)

Southern Branch of Elizabeth River

Location	*Primary Training Event Activity*	*Contributing platform, equipment, or weapon*	*Annual Quantity*								
			No Action Alternative			*Alternative 1 (difference from the No Action Alternative)*			*Alternative 2 (difference from Alternative 1)*		
			No. of Events	Physical Disturbance	Noise	No. of Events	Physical Disturbance	Noise	No. of Events	Physical Disturbance	Noise
Water and Adjacent Shoreline	Personnel Movement		30	2,160 people							
	Seafloor/ River Bottoms	small vessels	30	30 nosing into shoreline							
	Vessel Movement	small vessels	30		1,980 hours						
	Weapons Firing - Blanks	small caliber	30		144,000 rounds						

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ENCLOSURE (1)

II. Area of Potential Effect:

The area of potential effect (APE) for historic properties is defined as the geographic area or areas within which an undertaking may cause change in the character or use of historic properties present. The APE for the proposed undertaking was determined through an analysis to identify training activities stressors with potential to impact cultural resources. The stressors identified consist of: physical disturbance associated with beach landings, personnel movement, explosives on land, and vehicle movement, and noise associated with vehicle movement, explosives on land, and weapons firing.

Based on the identified stressors, a direct and indirect APE were determined for each training location. The direct APE is defined by the physical location of the training activity such as the defined training area or range where a training activity will occur. The indirect APE is defined by the overall boundary of Navy or non-Navy property and/or adjacent historic properties to capture noise associated with vehicle movement, explosives on land and weapons firing. Refer to figures in Enclosure 2 for location of APEs for each training location.

III. Historic Properties within the Area of Potential Effect:

The Navy conducted inventories of historic properties at all of the Navy installations associated with the proposed undertaking to identify historic properties that are listed or eligible for listing in the National Register of Historic Places. For the two training locations not owned by the Navy, the Navy consulted the National Register of Historic Places on-line information from the National Park Service, the Virginia Cultural Resources Information System, and the National Oceanic and Atmospheric Administration shipwreck databases (Electronic Navigation Chart and Automated Wreck and Obstruction Information System). Specific information related to each training location is provided below with figures in Enclosure 2 to represent the APE and identify historic properties within the APE.

Joint Expeditionary Base (JEB) Little Creek, Norfolk, Virginia:

There are no identified historic properties at JEB Little Creek.

JEB Fort Story, Virginia Beach, Virginia:

JEB Fort Story consists of the listed Fort Story Historic District and one individually eligible resource. The Fort Story Historic District consists of 84 contributing resources that portray the significance of coastal defense facilities constructed from 1916 through the deactivation of the Nike Missile Battery in 1974. Building 591, the Norfolk Southern Train Station, was built in 1902 and is individually eligible due to its association with the development of the Cape Henry community of Virginia Beach.

In addition to the Navy-owned resources there are several architectural resources that are not owned by the Navy within the boundaries of JEB Fort Story. Those resources are as follows:

a. Building 734 (Weather Bureau/Cape Henry House) constructed ca. 1918 as a weather bureau. Owned by Balfour Beatty Communities, Building 734 is individually eligible due to its role in marine weather observation and recordation and its architectural features.

b. The "Old" Cape Henry Lighthouse, the first lighthouse built by the federal government, was constructed in 1792. Owned by Preservation Virginia, the "Old" Cape Henry Lighthouse was designated a National Historic Landmark on January 29, 1964.

c. The "New" Cape Henry Lighthouse, also known as the Cape Henry (Second Tower) Light Station, was built in 1881. Owned by the USCG and part of the USCG reservation at JEB Little Creek-Fort Story, the "New" Cape Henry Lighthouse was listed in the National Register of Historic Places on December 2, 2002.

d. Cape Henry Memorial Cross is a stone cross that was erected in 1935 by the Daughters of American Colonists to memorialize the First Landing at Cape Henry. Located within the Cape Henry Memorial, a National Historic Park located on a parcel of land at JEB Fort Story that is owned by the National Park Service, the cross is considered National Register of Historic Places-eligible. The Cape Henry Memorial is a component of the Colonial National Historical Park, which is comprised of a number of nationally significant properties in the Historic Triangle of Jamestown, Colonial Williamsburg, and Yorktown (National Park Service, 2011d).

In addition to the historic architectural resources, there are identified archaeological sites and areas that require archaeological investigation within the installation boundaries.

Dam Neck Annex and portions of adjoining Camp Pendleton (state-owned facility), Virginia Beach, Virginia

Dam Neck Annex consists of a potentially eligible historic district composing three buildings that were utilized as the former Surface-Launched Guided Missile School. The resources and the district are currently being further evaluated. In addition, there are identified archaeological sites within the installation boundaries.

Camp Pendleton (a state-owned military facility) is located adjacent to Dam Neck Annex to the north. Camp Pendleton consists of the Camp Pendleton Historic District, which contains 121 contributing buildings and structures and eight additional contributing sites, which include six cultural landscapes, including 600 feet of beachfront and the Rifle Range, just behind the beach. The historic district is listed on the National Register. There are no identified archaeological resources within the training location defined by Camp Pendleton.

Naval Auxiliary Landing Field (NALF) Fentress, Chesapeake, Virginia

There are no historic architectural resources at NALF Fentress. There are identified archaeological resources within the boundaries of the installation.

Northwest Annex, Chesapeake, Virginia

There are no historic architectural resources at Northwest Annex. There are identified archaeological resources within the boundaries of the installation.

St. Juliens Creek Annex, Chesapeake, Virginia

St. Juliens Creek Annex consists of the eligible St. Juliens Creek Annex Historic District. The historic district encompasses 43 contributing resources related to the World War I industrial complex associated with the production and storage of naval munitions. There are identified archaeological resources within the boundaries of the installation.

Naval Weapons Station (NWS) Yorktown, Yorktown, Virginia

NWS Yorktown encompasses two Navy-owned resources including the listed Kiskiak Historic Property and the potentially eligible Skiffe's Creek historic district. The Kiskiak Historic Property consists of the Lee House, the oldest building owned by the Navy, and is one of the few documented buildings in Virginia dating to the first half of the eighteenth century. Listed in the National Register of Historic Places along with 265 surrounding acres in 1969, this typical "gentry house" is a one-and-a-half-story brick dwelling laid in Flemish bond, with a molded water table and two massive interior chimneys. This property is both a historic building and an archaeological site. In addition, the potentially eligible Skiffe's Creek historic district consists of 46 resources associated with the Cold War mission of the installation. The resources and the district are being further evaluated. There are identified archaeological resources within the boundaries of the installation.

In addition to the Navy-owned resources there are a couple architectural resources that are not owned by the Navy within the boundaries of NWS Yorktown or immediately adjacent to the installation. Those resources are as follows:

a. Mason's Row Historic District encompasses nine (9) houses that were constructed during the interwar period at NWS Yorktown. The district is eligible for inclusion due to the architecture of the resources. The properties are currently owned by Lincoln Military Housing.

b. The Colonial Parkway, part of the Colonial National Historic Park, is a 23-mile scenic roadway stretching from the York River at Yorktown to the James River at Jamestown. It connects Virginia's historic triangle: Jamestown, Williamsburg, and

Yorktown. It passes along the northeastern shoreline boundary of NWS Yorktown. It is owned by the National Park Service.

Cheatham Annex, Yorktown, Virginia

There are no historic architectural resources at Cheatham Annex. There are identified archaeological resources within the boundaries of the installation. Within the proposed training area, the Navy performed an in-house pedestrian survey and identified above-ground archaeological features dating to the early 20th century associated with the U.S. Penniman Shell Loading Plant, a linear Civil War earthwork, and relocated site 44YO0464.

In addition to the Navy-owned resources, the Colonial Parkway (mentioned under NWS Yorktown) passes along the southern boundary of the main portion of the installation and the northern boundary of Training Area F.

First Landing State Park, Virginia Beach, Virginia

First Landing State Park, previously known as Seashore State Park Historic District, is situated in Virginia Beach, Virginia on the Chesapeake Bay at Cape Henry. To the south of State Road 60 is a majority of the lands associated with the park. This area is swampland and reflects the natural beauty of what was originally called "the Desert." This area features cypress and live oak trees along with the extensive trail system developed by an all-African-American Civilian Conservation Corps in 1933-1940. The park is a National Natural Landmark and is listed in the National Register of Historic Places. At the southeast end of the park is a boat ramp and secondary beach along Linkhorn Bay at the Narrows. Within the main body of the park are five Civilian Conservation Corps-era overnight cabins. The most notable feature of the park is the landforms, trails and natural beauty. Contributing resources within the Property include eight buildings, six archaeological sites, and 10 structures. The contributing resources include the Circulation System, various cabins and cabin area; campgrounds and picnic areas; beach areas; a trail system; the former restaurant, kitchen and bath house; the Superintendent's House; and a bunk house. First Landing State Park/Seashore State Park is eligible for its association with the Civilian Conservation Corps and state park development in Virginia, and its integrity of design in its park plan and buildings.

Southern Branch of Elizabeth River segment, Virginia

Southern Branch of Elizabeth River segment is part of the Atlantic Intracoastal Waterway. No previously identified National Register-eligible or -listed submerged shipwreck sites or other underwater sites are present within the vicinity of the vessel movement routes that may be used during the course of existing and proposed training activities in this segment of the Atlantic Intracoastal Waterway.

IV. Assessment of Effects on Identified Historic Properties

Since historic properties exist within the APEs for each training location, it is necessary to assess potential effects of the proposed undertaking. Potential project effects were assessed based upon the guidelines specified in the Section 106 regulations, as published in the Federal Register under 36 CFR Part 800.

The Navy analyzed two training activity stressors as follows: 1. physical disturbance associated with beach landings, personnel movement, explosives on land, and vehicle movements; and 2. noise associated with vehicle movement, explosives on land and weapons firing. These stressors were analyzed in relation to the historic properties within the defined APEs for each training location.

In analyzing the physical disturbance associated with existing and proposed training activities, the Navy assessed the direct APE of the training activity and the presence of historic properties at each of the ten training locations. The analysis for each of the training locations is provided below.

1. *JEB Little Creek*

   There are no identified historic properties within the direct APE at JEB Little Creek based on previous cultural resources investigations; therefore, the existing and proposed training activities with physical disturbance will have no effect on historic properties.

2. *JEB Fort Story*

   Portion of the training area is located within the Fort Story Historic District; and Building 807 and 900 and the Nike Site are designated as training locations. No other contributing resources of the historic district will be directly impacted with the existing and proposed training activities. Additionally, none of the non-Navy historic properties located at JEB Fort Story will be directly impacted as a result of the existing and proposed training activities.

   The Nike Site, Building 807, and Building 900 are contributing resources of the Fort Story Historic District and the proposed training activities will have no physical impact on the contributing resources. Any future alterations or modifications to the resources to support training activities will be reviewed by the Navy Cultural Resources Manager as a separate undertaking and consultation as per 36 CFR 800 will occur as appropriate.

   There is one identified potentially eligible archaeological site within the TA Inchon Beach training area at JEB Fort Story (44VB0061). The site will not be impacted by the training. There are no identified eligible or potentially eligible archaeological sites within the other training areas. The training areas and explosive training area are located in areas with archaeological sensitivity that have not undergone Phase 1 archaeological survey. The explosive training area encompasses a large area as shown in Enclosure 2 with the APE figure for JEB Fort Story; however, the actual physical disturbance area associated

with the explosive training occurs in a smaller footprint. Within the explosive training area, there are explosive pits with berms that are utilized (see photograph below). These explosive pits already exist and no new pits are proposed as part of this undertaking. The existing explosive pits have been previously disturbed and it is unlikely intact, significant archaeological resources exist within these areas.

Photograph of an explosive pit at JEB FS.

As for the remaining aspects of the physical disturbance including beach landings, personnel movement and vehicle movement, the areas of these existing and proposed training activities are primarily located in wetlands, active migrating dunes with no archaeological integrity, and beach areas. The Navy reviewed the 2014 Archaeological Disturbance Assessment completed by SEARCH in 2014 and compared the training areas with the maps and information related to the soils and prior disturbance at JEB Fort Story. In summary, the training areas are contained in areas of tidal marshes; beach ridge and dune formations actively influenced by winds and tides; and the shoreline (see figure on next page from the 2014 disturbance assessment). In addition, several areas of the training areas were previously surveyed by the Army:

1. TA SATEC – surveyed in 2005 (DHR: VB-110)
2. TA Utah Beach – portion surveyed in 2009 (not submitted to SHPO as project did not go forward)
3. TA Wilderness – portion surveyed in 2006 (DHR:VB-118)

17 ENCLOSURE (1)

Figure 2.5. Geographic association of soils on JEB Fort Story.

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ENCLOSURE (1)

Based on the disturbance assessment, the training areas are located primarily in Level III disturbance areas with portions in Level I and Level II. However, the Level I and Level II areas are located in tidal marshes/wetland areas, dune formations, and beaches as shown in the soil figure in the previous page.

After a review of the information in the disturbance assessment and the understanding that the proposed training activities will not exceed the depths of previous disturbance caused by training over time (approximately 18 inches), the physical disturbance associated with personnel and vehicle movement and beach landings, will have no adverse effect on historic properties. If during training activities, archaeological resources are discovered activities within the immediate vicinity of the find will stop and the Navy cultural resources manager will be notified. The Navy will then follow the procedures for inadvertent discoveries as outlined in the Regional Integrated Cultural Resources Management Plan for Naval Installations in Hampton Roads, Virginia (ICRMP).

3. *Dam Neck Annex and portions of Camp Pendleton (state-owned facility)*

There are no identified historic properties within the direct APE at Dam Neck Annex; therefore, the existing and proposed training activities with physical disturbance will have no effect on historic properties.

The training areas at Camp Pendleton are located within the Camp Pendleton Historic District in particular the 600 feet of beachfront which is considered a cultural landscape. No improvements or alterations to the beach area are proposed as part of this undertaking. Any future alterations or modifications to this area to support training activities will be reviewed by the Navy Cultural Resources Manager and consultation as per 36 CFR 800 will occur as appropriate. There are no identified archaeological resources within the training areas and the areas have undergone Phase 1 archaeological survey. The existing and proposed training activities at Camp Pendleton with physical disturbance will have no adverse effect on historic properties.

4. *Naval Auxiliary Landing Field (NALF) Fentress*

There are no identified historic properties within the direct APE at NALF Fentress. There is one portion of a training area located within an area considered archaeologically sensitivity as a Phase 1 archaeological survey has not occurred. However, the existing and proposed vehicle convoy training activities will occur on abandoned runways and existing paved surfaces while bunkers and landing zones can be scheduled for low impact camping. There will be no physical disturbance occurring in areas that have not been previously disturbed. Therefore, the existing and proposed training activities with physical disturbance at NALF Fentress will have no effect on historic properties.

5. *Northwest Annex, Chesapeake, Virginia*

There are no identified historic properties within the direct APE at Northwest Annex based on previous cultural resources investigations; therefore, the existing and proposed training activities with physical disturbance will have no effect on historic properties.

6. *St. Juliens Creek Annex, Chesapeake, Virginia*

There are no identified historic properties within the direct APE at St. Juliens Creek Annex based on previous cultural resources investigations; therefore, the existing and proposed training activities with physical disturbance will have no effect on historic properties.

7. *Naval Weapons Station (NWS) Yorktown, Yorktown, Virginia*

A portion of the TAA (Driving Course) is located within the potentially eligible Skiffe's Creek Historic District; however, no physical disturbance will occur to any of the contributing resources of the district. Any future alterations or modifications to the TAA (Driving Course) to support training activities will be reviewed by the Navy Cultural Resources Manager and consultation as per 36 CFR 800 will occur as appropriate.

The three training areas at NWS Yorktown associated with physical disturbance are located in areas considered archaeologically sensitive and have not received Phase 1 archaeological investigations. Existing and proposed training activities at the TAA (Driving Course) will occur on existing paved surfaces and no physical disturbance will occur in areas that have not been previously disturbed. The existing and proposed training activities at the Home Station Training Lanes will be limited to personnel movement and vehicle movement. No physical disturbance generated by training activities.

The Explosive Ordnance Disposal Demolition Range is an existing range for explosive training. Although the area is marked as requiring Phase 1 survey, the Navy believes no further testing is warranted in this area as previous disturbance has occurred from the construction of the range as well as the operations of explosive training.

The existing and proposed training activities associated with physical disturbance will have no adverse effect on historic properties.

8. *Cheatham Annex*

There are no historic architectural resources within the direct APE at Cheatham Annex. There are no identified eligible or potentially eligible archaeological resources within the training areas at Cheatham Annex based on previous cultural resources investigations. There is portion of one training area, Barrack and Field Training Zones, located within an area considered archaeologically sensitive as a Phase 1 archaeological investigation has not occurred. Navy archaeologists performed a pedestrian survey and identified above-ground archaeological features.

The Navy has programmed for a Phase 1 archaeological survey to fulfill Section 110 requirements. Until such a survey can be funded, the Navy will implement best management practices to avoid impact to the identified above-ground features, to include the following: a) vehicular activity shall be limited to existing established roads/trails; and b) the above-ground features will be avoided during training activities.

The existing and proposed training activities with physical disturbance will have no adverse effect on historic properties.

9. *First Landing State Park*

The existing and proposed training activities to occur at First Landing State Park are limited to personnel movement and all movements occur on existing roads and trails. The training area is located within the Seashore State Park Historic District and the circulation system/trail system is a contributing resource to the district. However, no alterations or modifications will occur to the existing roads and trails for this proposed undertaking.

With regards to archaeological resources the personnel movement will occur within areas previously disturbed by the construction and establishment of the roads and trails.

The existing and proposed training activities associated with physical disturbance will have no adverse effect on historic properties.

10. *Southern Branch of the Elizabeth River Segment*

Existing and proposed training activities on the Southern Branch of the Elizabeth River consist of vessel movements in the channel and up to the shoreline. Training activities will interact with the waterway shoreline when ground forces are deployed during insertion and extraction exercises at suitable undeveloped locations along the route. There are no identified eligible or potentially eligible archaeological sites located along the shoreline or the route for this training area. The Camp E.W. Young Historic District is located along the shoreline; however, the existing and proposed training activity will not impact any of the contributing resources of the district.

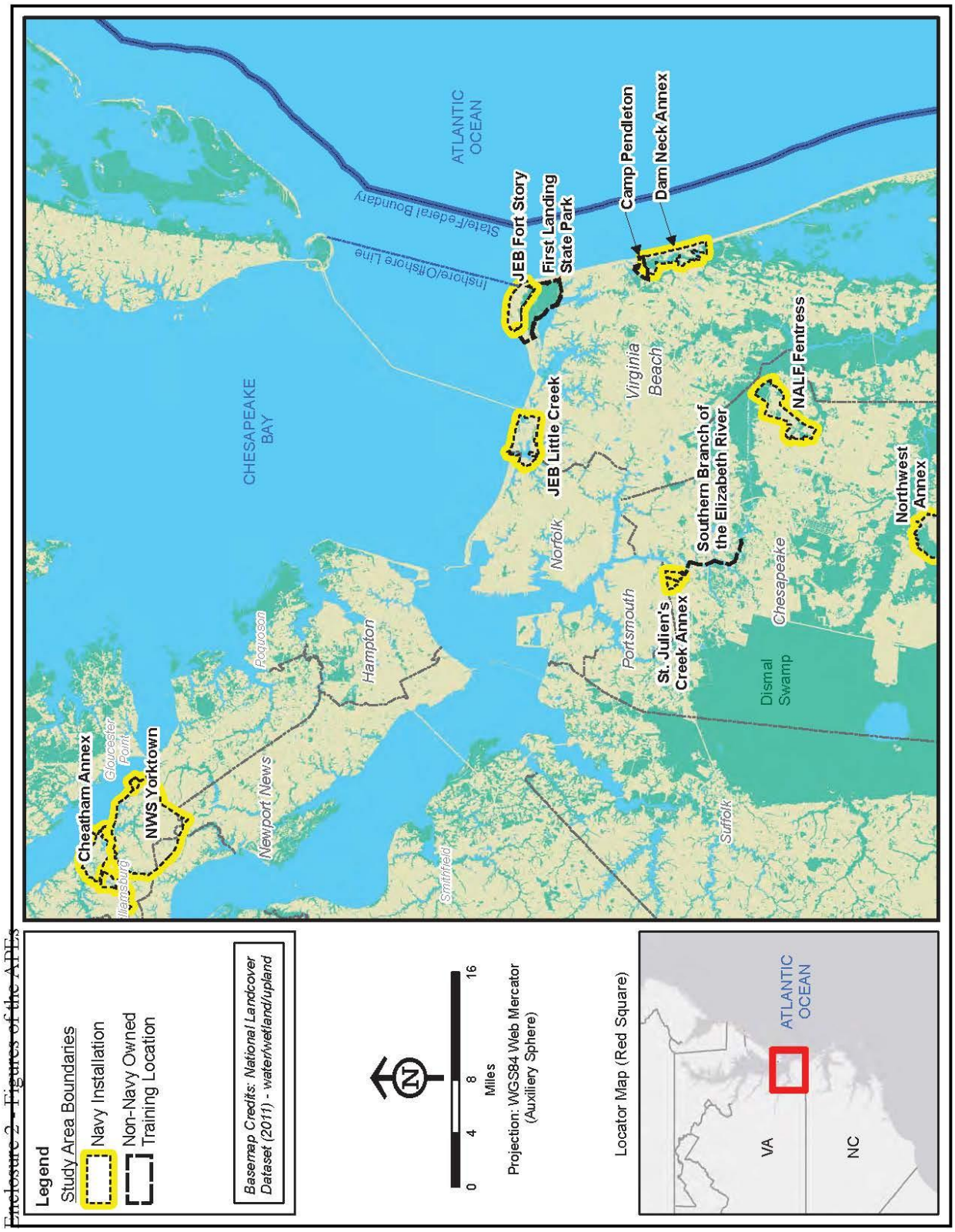
The existing and proposed training activities associated with physical disturbance will have no adverse effect on historic properties.

With regard to noise impacts, the Navy has determined no direct impact on historic properties at any of the training locations are expected to result from the existing and proposed training activities associated with vehicle movement, explosives on land, and weapon firing. Scientific studies of the effects of noise and vibration on historic properties have considered potential impacts on historic buildings, prehistoric structures, water tanks, archaeological cave/shelter sites, and rock art. These studies have concluded that overpressures generated by detonations of small amounts of explosives were well below established damage thresholds (U.S. Army Center for Health Promotion and Preventive Medicine, 2005). Although there may be an increase in

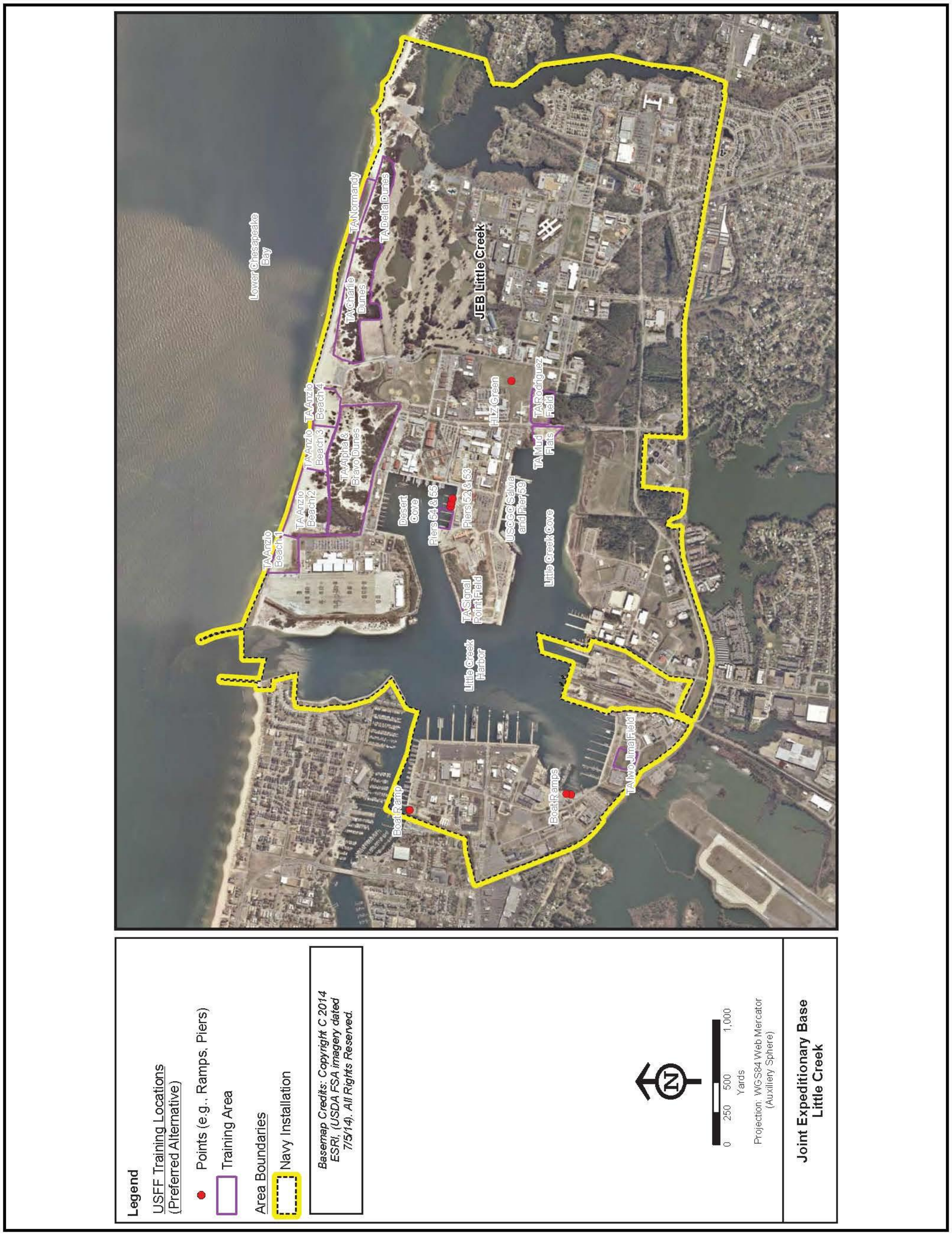
subsonic noise associated with beach landings, vehicle movement, and weapons firing, and an increase in the occurrence of explosives training under the preferred alternative at some training locations, it would not be of sufficient magnitude to impact historic properties at or adjacent to the training locations. Additionally, the proposed training activities are consistent with historical and ongoing Navy operations at the training locations; and therefore, noise associated with training activities has long been an element of the setting of the National Register of Historic Places-listed or –eligible properties, including when they were evaluated and determined eligible for National Register of Historic Places listing. Therefore, no indirect impacts on historic properties are expected to result from the noise generated by existing and proposed training activities at all locations.

In addition, the Navy does not anticipate any impacts to shipwrecks and/or underwater obstructions that may be located within the vicinity of the vessel movement routes during the course of existing and proposed training activities. There are no identified National Register of Historic Places shipwrecks or other underwater obstructions within the areas of the beach landings and vessel movement routes including the Southern Branch of the Elizabeth River training location.

Based on the analysis, the Navy has determined there will be no adverse effect on historic properties for the proposed undertaking of continuation of and accommodation of certain changes to USFF training events in the inland areas of the VACAPES Range Complex in the Hampton Roads fleet concentration area located in southeastern Virginia. The proposed undertaking will not alter, directly or indirectly, any of the characteristics of the identified historic properties that qualify the properties for inclusion in the National Register of Historic Places in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.



Enclosure 2 - Figures of the APEs


Lower Chesapeake Bay
JEB Little Creek
TA Normandy
TA Delta Dunes
TA Charlie Dunes
TA Anzio Beach 4
TA Anzio Beach 3
TA Alpha & Bravo Dunes
TA Anzio Beach 2
TA Anzio Beach 1
Desert Cove
Piers 54 & 55
Piers 52 & 53
USCG Salvia and Pier 59
TA Signal Point Field
Little Creek Cove
Little Creek Harbor
HLZ Green
TA Rodriguez Field
TA Mud Flats
TA Iwo Jima Field
Boat Ramp
Boat Ramps
Legend
USFF Training Locations (Preferred Alternative)
Points (e.g., Ramps, Piers)
Training Area
Area Boundaries
Navy Installation
Basemap Credits: Copyright C 2014 ESRI, (USDA FSA imagery dated 7/5/14). All Rights Reserved.
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Yards
Projection: WGS84 Web Mercator (Auxiliary Sphere)
Joint Expeditionary Base Little Creek


Colonial NHP
Battle of the Capes
Historic District
(National Park Service)
Cape Henry Lighthouse
(Preservation Virginia)
Cape Henry
Lightstation (USCG)
TA Inchon
Beach
TA Wilderness
JEB Fort
Story
Fort Story
Historic District
Bldg 609 (casemate)
TA Nike Site
HLZ Hotel
TA Utah
Warfare Village
Range 1 –
Navy EOD Demo
First Landing State Park
TA Omaha Beach
Bldg 609
TA SATFC
TA Utah
Beach II
TA Utah Beach
Legend
Cultural Resources
Historic Site
Historic District
Cultural Resource Potential Area
USFF Training Locations
(Preferred Alternative)
Points (e.g., Ramps, Piers)
Training Area
Explosive Training Area
Area Boundaries
Navy Installation
Non-Navy Owned
Training Location
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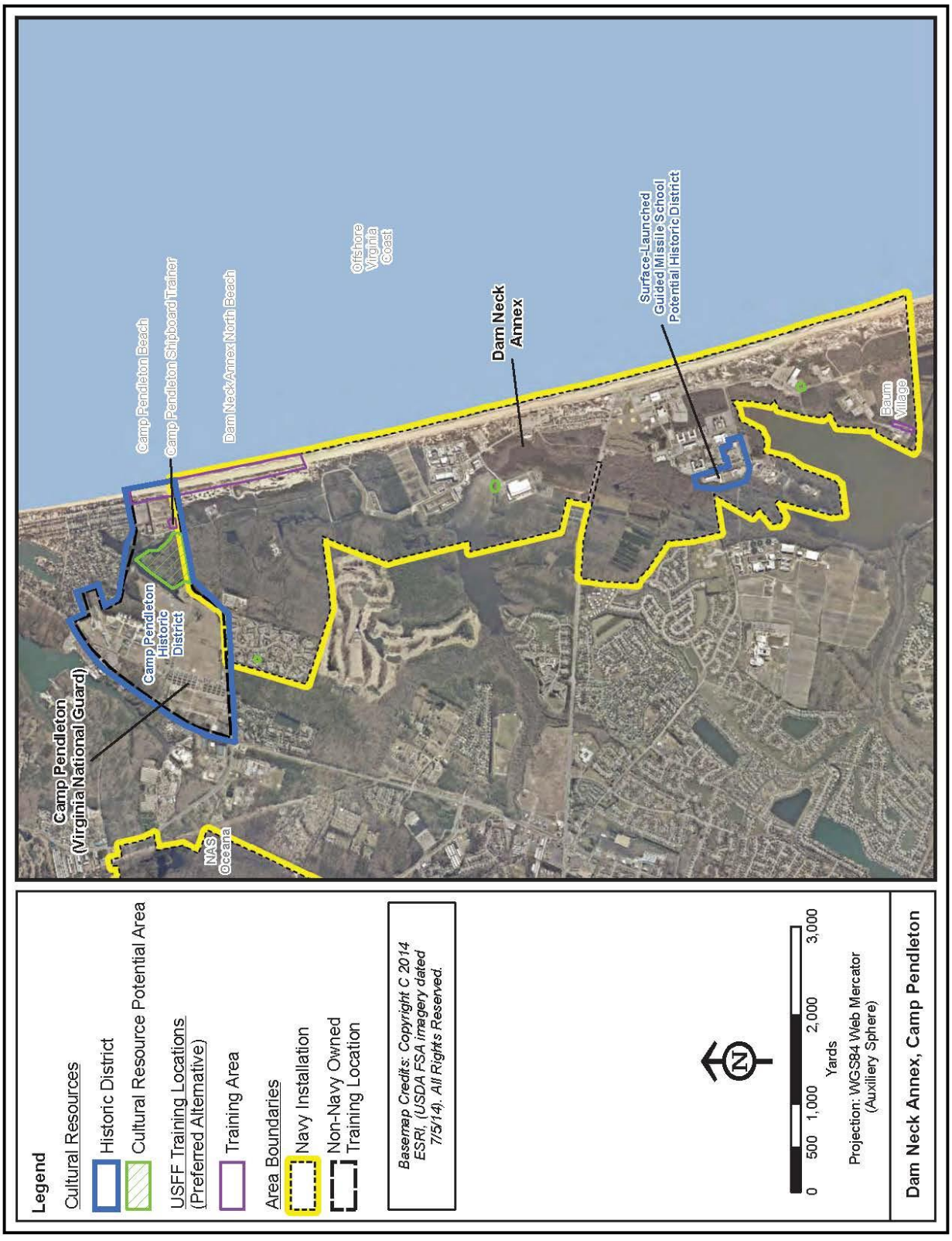
Projection: WGS84 Web Mercator
(Auxiliery Sphere)
Joint Expeditionary Base
Fort Story


Camp Pendleton (Virginia National Guard)
Camp Pendleton Historic District
Camp Pendleton Beach
Camp Pendleton Shipboard Trainer
Dam Neck Annex North Beach
NAS Oceana
Offshore Virginia Coast
Dam Neck Annex
Surface-Launched Guided Missile School Potential Historic District
Baum Village
Legend
Cultural Resources
Historic District
Cultural Resource Potential Area
USFF Training Locations (Preferred Alternative)
Training Area
Area Boundaries
Navy Installation
Non-Navy Owned Training Location
Basemap Credits: Copyright © 2014 ESRI, (USDA FSA imagery dated 7/5/14). All Rights Reserved.
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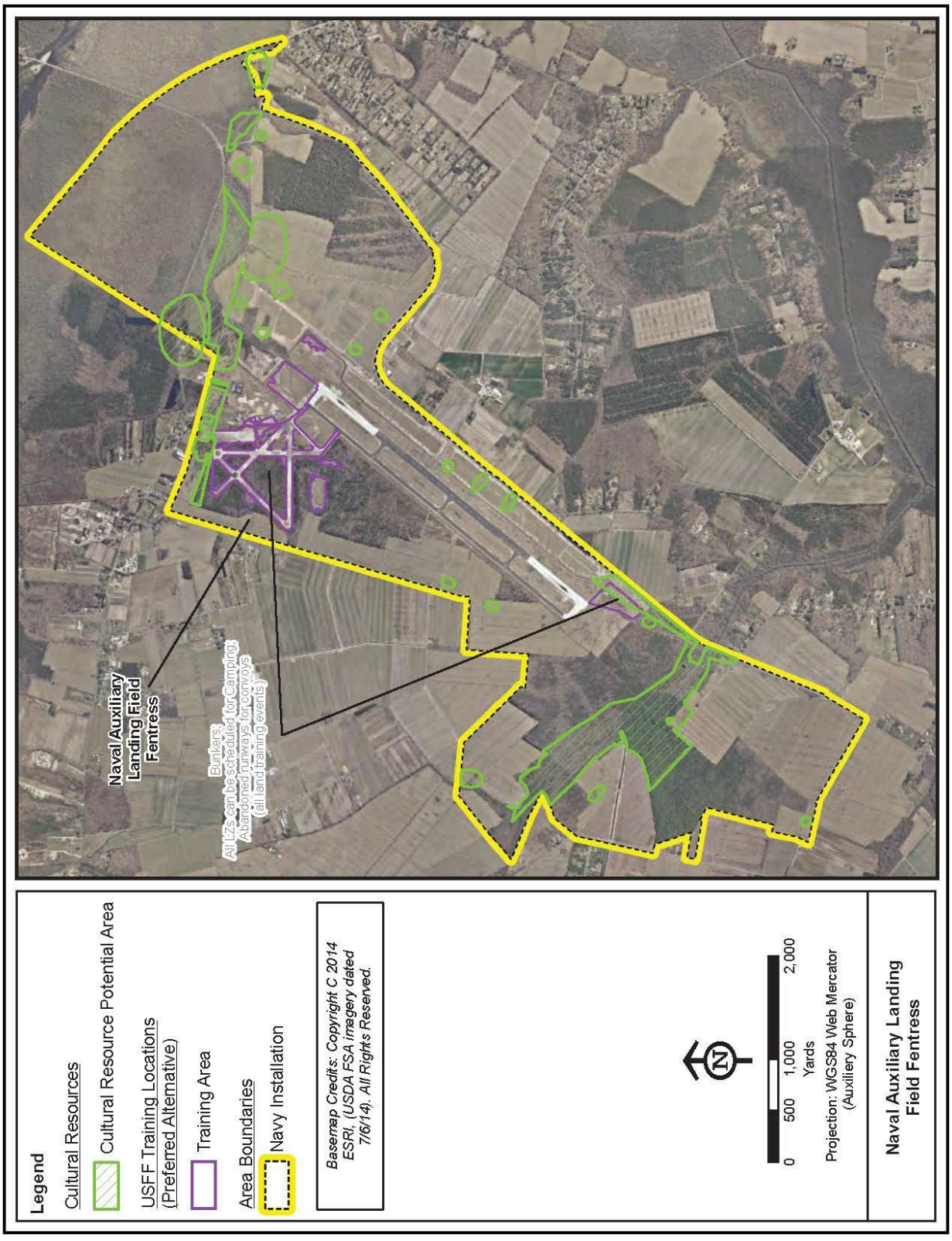
Projection: WGS84 Web Mercator (Auxiliery Sphere)
Dam Neck Annex, Camp Pendleton


Naval Auxiliary Landing Field Fentress
Bunkers
All LZs can be scheduled for Camping
Abandoned runways for convoys
(all land training events)
Legend
Cultural Resources
Cultural Resource Potential Area
USFF Training Locations
(Preferred Alternative)
Training Area
Area Boundaries
Navy Installation
Basemap Credits: Copyright © 2014 ESRI, (USDA FSA imagery dated 7/6/14). All Rights Reserved.
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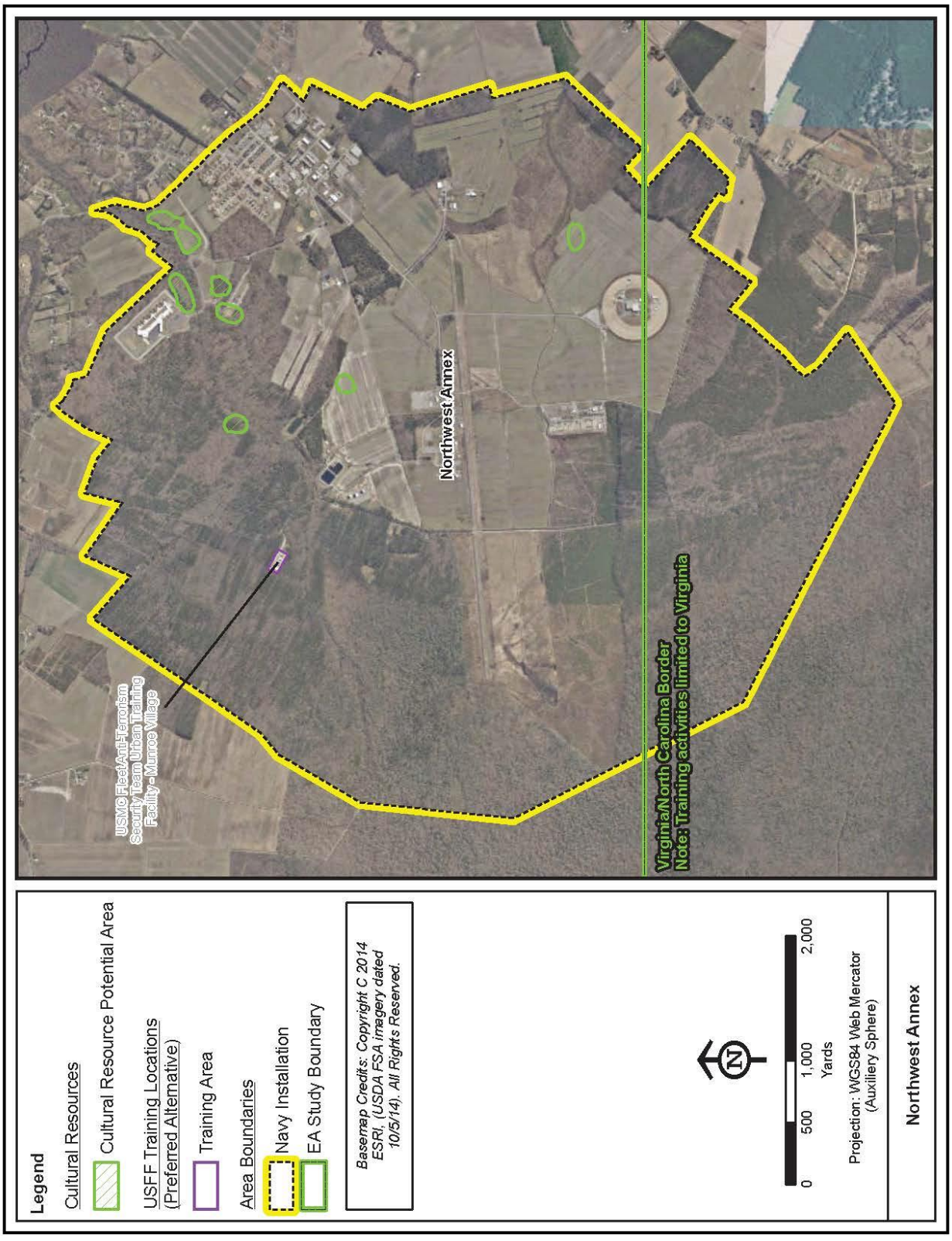
Projection: WGS84 Web Mercator (Auxiliary Sphere)
Naval Auxiliary Landing Field Fentress


Legend
Cultural Resources
Cultural Resource Potential Area
USFF Training Locations
(Preferred Alternative)
Training Area
Area Boundaries
Navy Installation
EA Study Boundary
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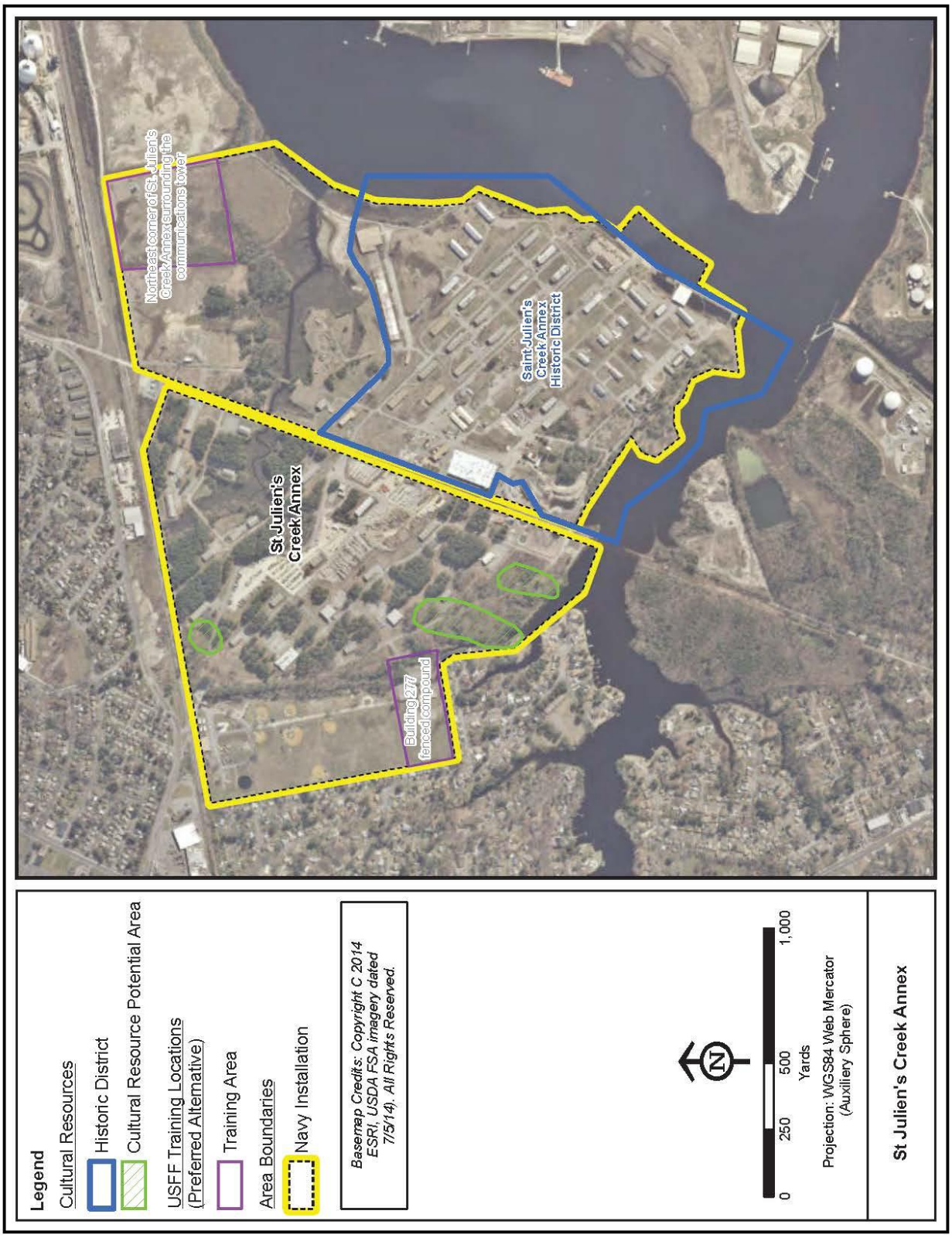
Projection: WGS84 Web Mercator (Auxiliery Sphere)
Northwest Annex
Northwest Annex
USMC Fleet Anti-Terrorism Security Team Urban Training Facility - Munroe Village
Virginia/North Carolina Border
Note: Training activities limited to Virginia


Northeast corner of St. Julien's Creek Annex surrounding the communications tower
Saint Julien's Creek Annex Historic District
St. Julien's Creek Annex
Building 277 fenced compound
Legend
Cultural Resources
Historic District
Cultural Resource Potential Area
USFF Training Locations (Preferred Alternative)
Training Area
Area Boundaries
Navy Installation
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Projection: WGS84 Web Mercator (Auxiliery Sphere)
St Julien's Creek Annex


Explosives Handling Pier
Mason's Row Historic Property Historic District
Colonial NHP Yorktown Battlefield Historic District(NPS)
Home Station Training Lanes
Colonial NHP Yorktown Battlefield Historic District(NPS)
Kiskiak Historic Property Historic District
Colonial NHP Colonial Parkway Historic District(NPS)
Cheatham Annex
Colonial NHP Yorktown Battlefield Historic District(NPS)
Yorktown EOD Demolition Range
TAA (Diving Course)
Skiffe's Creek Historic District
Naval Weapons Station Yorktown
Legend
Cultural Resources
Historic District
Cultural Resource Potential Area
USFF Training Locations (Preferred Alternative)
Training Area
Area Boundaries
Navy Installation
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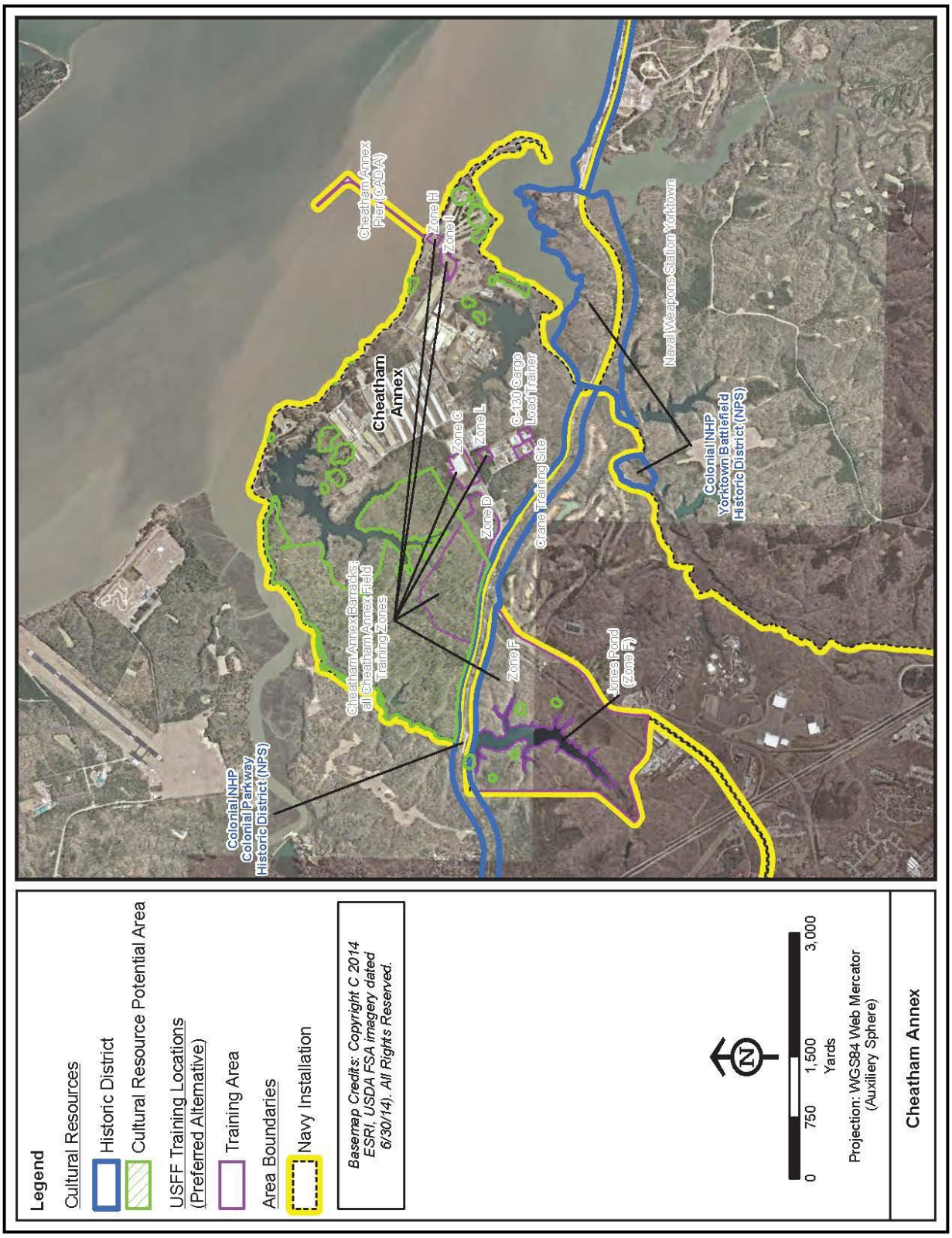
Projection: WGS84 Web Mercator (Auxiliery Sphere)
Naval Weapons Station Yorktown


Legend
Cultural Resources
Historic District
Cultural Resource Potential Area
USFF Training Locations
(Preferred Alternative)
Training Area
Area Boundaries
Navy Installation
Basemap Credits: Copyright © 2014 ESRI, USDA FSA imagery dated 6/30/14). All Rights Reserved.
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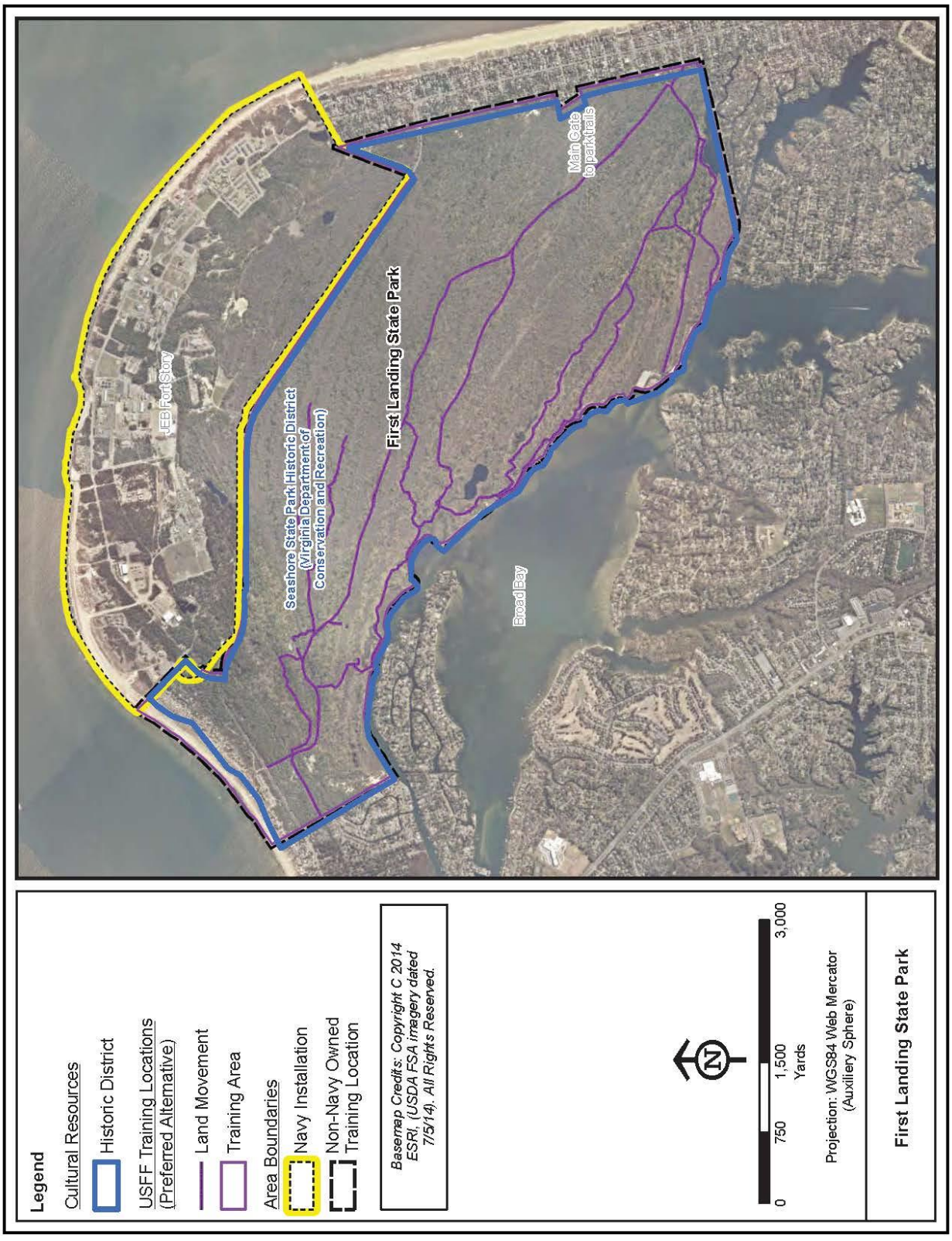
Projection: WGS84 Web Mercator (Auxiliery Sphere)
Cheatham Annex
Cheatham Annex Pier (CADA)
Zone H
Zone I
Cheatham Annex
Zone G
Zone L
C-130 Cargo Load Trainer
Crane Training Site
Zone D
Cheatham Annex Barracks and Cheatham Annex Field Training Zones
Zone F
Jones Pond (Zone F)
Naval Weapons Station Yorktown
Colonial NHP Yorktown Battlefield Historic District (NPS)
Colonial NHP Colonial Parkway Historic District (NPS)


Legend
Cultural Resources
Historic District
USFF Training Locations (Preferred Alternative)
Land Movement
Training Area
Area Boundaries
Navy Installation
Non-Navy Owned Training Location
Basemap Credits: Copyright © 2014 ESRI, (USDA FSA imagery dated 7/5/14). All Rights Reserved.
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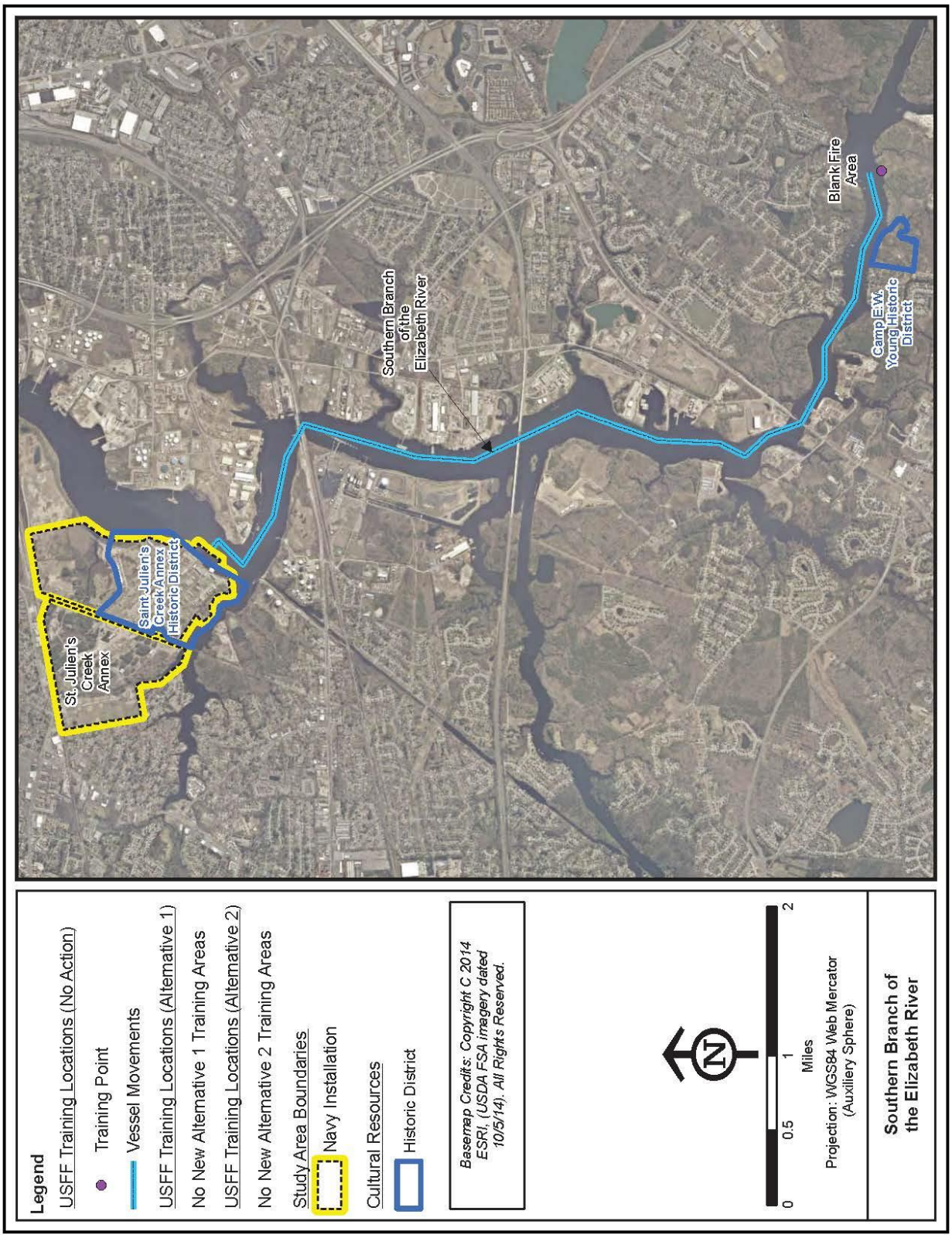
Projection: WGS84 Web Mercator (Auxiliery Sphere)
First Landing State Park
JEB Fort Story
Seashore State Park Historic District (Virginia Department of Conservation and Recreation)
First Landing State Park
Broad Bay
Main Gate to park trails


Legend
USFF Training Locations (No Action)
Training Point
Vessel Movements
USFF Training Locations (Alternative 1)
No New Alternative 1 Training Areas
USFF Training Locations (Alternative 2)
No New Alternative 2 Training Areas
Study Area Boundaries
Navy Installation
Cultural Resources
Historic District
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Projection: WGS84 Web Mercator (Auxiliery Sphere)
Southern Branch of the Elizabeth River
St. Julien's Creek Annex
Saint Julien's Creek Annex Historic District
Southern Branch of the Elizabeth River
Blank Fire Area
Camp E.W. Young Historic District

Virginia Department of Historic Resources confirmation of submittal receipt

Robbins, Heather L CIV NAVFAC MIDLANT, EV

From: ePIX Portal <ePIX@dhr.virginia.gov>
Sent: Saturday, June 10, 2017 6:48
To: Robbins, Heather L CIV NAVFAC MIDLANT, EV
Subject: [Non-DoD Source] Proposed United States Fleet Forces Inland Training, VITEA (2017-3654) | e-Mail #01293

Dear Ms. Heather Robbins :

Thank you for submitting your application through the ePIX system and requesting the comments of the Department of Historic Resources on the referenced project. Your application is being processed and our 30-day review period will start on the next business day after submission. You will be notified if your application is insufficient or if additional materials are required for our review.

You may view the submitted application and track our review of this project through your ePIX account under "My Projects" (http://solutions.virginia.gov/epix/secure/dashboard.aspx). When our review is complete, comments will be emailed to you and attached to the application in your ePIX account. No project activities that have the potential to impact historic properties should take place until the lead agency has provided a notice to proceed.

If you wish or are asked to submit additional materials in support of your application, documents must be submitted electronically to the appropriate reviewer. Submissions with a total size of less than 10mb may be submitted via email. Submissions larger than 10mb must be made through VITAShare (https://vitashare.vita.virginia.gov).

Please reference the assigned DHR File Number on all future correspondence.

If you have any questions concerning the review process or if we may provide any further assistance, please do not hesitate to contact me. We look forward to working with you on this project.

Sincerely,

Marc Holma
Office of Review and Compliance
Division of Resource Services and Review

1

Virginia Department of Historic Resources response

COMMONWEALTH of VIRGINIA

Department of Historic Resources

Molly Joseph Ward
Secretary of Natural Resources

2801 Kensington Avenue, Richmond, Virginia 23221

Julie V. Langan
Director

Tel: (804) 367-2323
Fax: (804) 367-2391
www.dhr.virginia.gov

MEMORANDUM

DATE: 7 July 2017 **DHR File #** 2017-3654

TO: Ms Heather Robbins
NAVY

FROM: Marc E. Holma, Architectural Historian (804) 482-6090
Office of Review and Compliance

PROJECT: Proposed United States Fleet Forces Inland Training, VITEA

_X_ This project will have an effect on historic resources. Based on the information provided, the effect will not be adverse.

___ This project will have an adverse effect on historic properties. Further consultation with DHR is needed under Section 106 of the NHPA.

___ Additional information is needed before we will be able to determine the effect of the project on historic resources. **Please see below.**

___ No further identification efforts are warranted. No historic properties will be affected by the project. Should unidentified historic properties be discovered during implementation of the project, please notify DHR.

___ We have previously reviewed this project. Attached is a copy of our correspondence.

___ Other (Please see comments below)

COMMENTS:

Eastern Region Office
2801 Kensington Avenue
Richmond, VA 23221
Tel: (804) 367-2323
Fax: (804) 367-2391

Western Region Office
962 Kime Lane
Salem, VA 24153
Tel: (540) 387-5443
Fax: (540) 387-5446

Northern Region Office
5357 Main Street
PO Box 519
Stephens City, VA 22655
Tel: (540) 868-7029
Fax: (540) 868-7033

Tribes and other interested party letters

DEPARTMENT OF THE NAVY
U.S. FLEET FORCES COMMAND
1562 MITSCHER AVENUE SUITE 250
NORFOLK VA 23551-2487

5090
Ser N46/048
June 13, 2017

Pamunkey Indian Tribe
Pamunkey Tribal Government
Chief Robert Gray
191 Lay Landing Road
Pamunkey Indian Reservation
King William, VA 23086

Dear Chief Gray:

The regulations implementing Section 106 of the National Historic Preservation Act require federal agencies to consult with any federally recognized Native American tribe that might attach religious and cultural significance to historic properties that may be affected by a proposed action. I am writing to notify your tribe of a proposed undertaking by the U.S. Department of the Navy (Navy) to continue and accommodate certain changes to United States Fleet Forces training events taking place in the inland areas of the Virginia Capes Range Complex of the Hampton Roads fleet concentration area of Virginia. The inland training area encompasses ten (10) primary training locations including Navy installations as well as non-Navy owned properties. The proposed action is more fully described in enclosures 1 and 2. Enclosure 1 includes summary information for the proposed undertaking and enclosure 2 provides figures showing the direct and indirect area of potential effects (APEs) of the proposed undertaking.

We seek your input in order to identify any historic properties that are of religious and cultural significance to the Pamunkey Indian Tribe within, or in the vicinity of, the location of the proposed undertaking. We also request your comments or concerns regarding Native American resources, sacred sites, or properties of traditional religious or cultural importance within the direct or indirect APEs that might be affected by the proposed action. Also, please indicate whether your tribe wishes to participate in the Section 106 consultation as a consulting party for the proposed action and receive additional correspondence related to this proposed action.

While preparing its Environmental Assessment for compliance with the National Environmental Policy Act, the Navy is identifying and analyzing any potential effect to historic properties. Navy cultural resources staff has compiled available existing historic properties data. Based on historic property information received and the preliminary analysis of the proposed undertaking, the Navy is proposing two APEs: Direct APE and indirect APE. The direct APE would be the physical location of the training activity. The indirect APE would be defined by the overall boundary of the Navy or non-Navy property and/or adjacent historic properties that

5090
Ser N46/048
June 13, 2017

may be effected by noise associated with the training events.

For your awareness, the Navy has initiated consultation with the Virginia Department of Historic Resources (also known as the State Historic Preservation Office). We appreciate your attention to this matter, and thank you in advance for any information you can provide concerning the identification of historic properties that are of religious and cultural significance to your tribe and any comments or concerns regarding Native American resources, sacred sites, or properties of traditional religious or cultural importance that might be affected by the proposed undertaking.

If you have any questions or require further information, please do not hesitate to contact Heather Robbins, Cultural Resources Team Lead, at 757-341-0925 or via electronic mail at heather.l.robbins@navy.mil. In order to support the project timeline, the Navy would appreciate receiving your input within 30 calendar days of your receipt of this letter. If after the 30 calendar days we have not received a response, we will assume your organization has no comments on the proposed action and does not wish to be a consulting party in the Section 106 process.

Sincerely,

Elizabeth Nashold
Director, Fleet Installations and Environment
and Deputy Chief of Staff

Elizabeth Nashold
Director, Fleet Installations and Environment
and Deputy Chief of Staff

Enclosures: 1. Project Information
2. Figures of APE

2

DEPARTMENT OF THE NAVY
U.S. FLEET FORCES COMMAND
1562 MITSCHER AVENUE SUITE 250
NORFOLK VA 23551-2487

5090
Ser N46/047
June 13, 2017

Absentee Shawnee Tribe
Governor Edwina Butler-Wolfe
2025 South Gordon Cooper
Shawnee, Oklahoma 74801

Dear Governor Butler-Wolfe:

The regulations implementing Section 106 of the National Historic Preservation Act require federal agencies to consult with any federally recognized Native American tribe that might attach religious and cultural significance to historic properties that may be affected by a proposed action. I am writing to notify your tribe of a proposed undertaking by the U.S. Department of the Navy (Navy) to continue and accommodate certain changes to United States Fleet Forces training events taking place in the inland areas of the Virginia Capes Range Complex of the Hampton Roads fleet concentration area of Virginia. The inland training area encompasses ten (10) primary training locations including Navy installations as well as non-Navy owned properties. The proposed action is more fully described in enclosures 1 and 2. Enclosure 1 includes summary information for the proposed undertaking and enclosure 2 provides figures showing the direct and indirect area of potential effects (APEs) of the proposed undertaking.

We seek your input in order to identify any historic properties that are of religious and cultural significance to the Absentee Shawnee Tribe within, or in the vicinity of, the location of the proposed undertaking. We also request your comments or concerns regarding Native American resources, sacred sites, or properties of traditional religious or cultural importance within the direct or indirect APEs that might be affected by the proposed action. Also, please indicate whether your tribe wishes to participate in the Section 106 consultation as a consulting party for the proposed action and receive additional correspondence related to this proposed action.

While preparing its Environmental Assessment for compliance with the National Environmental Policy Act, the Navy is identifying and analyzing any potential effect to historic properties. Navy cultural resources staff has compiled available existing historic properties data. Based on historic property information received and the preliminary analysis of the proposed undertaking, the Navy is proposing two APEs: Direct APE and indirect APE. The direct APE would be the physical location of the training activity. The indirect APE would be defined by the overall boundary of the Navy or non-Navy property and/or adjacent historic properties that may be effected by noise associated with the training events.

5090
Ser N46/047
June 13, 2017

For your awareness, the Navy has initiated consultation with the Virginia Department of Historic Resources (also known as the State Historic Preservation Office). We appreciate your attention to this matter, and thank you in advance for any information you can provide concerning the identification of historic properties that are of religious and cultural significance to your tribe and any comments or concerns regarding Native American resources, sacred sites, or properties of traditional religious or cultural importance that might be affected by the proposed undertaking.

If you have any questions or require further information, please do not hesitate to contact Heather Robbins, Cultural Resources Team Lead, at 757-341-0925 or via electronic mail at heather.l.robbins@navy.mil. In order to support the project timeline, the Navy would appreciate receiving your input within 30 calendar days of your receipt of this letter. If after the 30 calendar days we have not received a response, we will assume your organization has no comments on the proposed action and does not wish to be a consulting party in the Section 106 process.

Sincerely,

Elizabeth Nashold
Director, Fleet Installations and Environment
and Deputy Chief of Staff

Elizabeth Nashold
Director, Fleet Installations and Environment
and Deputy Chief of Staff

Enclosures: 1. Project Information
2. Figures of APE

2

DEPARTMENT OF THE NAVY
U.S. FLEET FORCES COMMAND
1562 MITSCHER AVENUE SUITE 250
NORFOLK VA 23551-2487

5090
Ser N46/049
June 13, 2017

Catawba Indian Nation
Wenonah G. Haire, THPO
1536 Tom Steven Road
Rock Hill, SC 29730

Dear Ms. Haire:

The regulations implementing Section 106 of the National Historic Preservation Act require federal agencies to consult with any federally recognized Native American tribe that might attach religious and cultural significance to historic properties that may be affected by a proposed action. I am writing to notify your tribe of a proposed undertaking by the U.S. Department of the Navy (Navy) to continue and accommodate certain changes to United States Fleet Forces training events taking place in the inland areas of the Virginia Capes Range Complex of the Hampton Roads fleet concentration area of Virginia. The inland training area encompasses ten (10) primary training locations including Navy installations as well as non-Navy owned properties. The proposed action is more fully described in enclosures 1 and 2. Enclosure 1 includes summary information for the proposed undertaking and enclosure 2 provides figures showing the direct and indirect area of potential effects (APEs) of the proposed undertaking.

We seek your input in order to identify any historic properties that are of religious and cultural significance to the Catawba Indian Nation within, or in the vicinity of, the location of the proposed undertaking. We also request your comments or concerns regarding Native American resources, sacred sites, or properties of traditional religious or cultural importance within the direct or indirect APEs that might be affected by the proposed action. Also, please indicate whether your tribe wishes to participate in the Section 106 consultation as a consulting party for the proposed action and receive additional correspondence related to this proposed action.

While preparing its Environmental Assessment for compliance with the National Environmental Policy Act, the Navy is identifying and analyzing any potential effect to historic properties. Navy cultural resources staff has compiled available existing historic properties data. Based on historic property information received and the preliminary analysis of the proposed undertaking, the Navy is proposing two APEs: Direct APE and indirect APE. The direct APE would be the physical location of the training activity. The indirect APE would be defined by the overall boundary of the Navy or non-Navy property and/or adjacent historic properties that may be effected by noise associated with the training events.

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Ser N46/049
June 13, 2017

For your awareness, the Navy has initiated consultation with the Virginia Department of Historic Resources (also known as the State Historic Preservation Office). We appreciate your attention to this matter, and thank you in advance for any information you can provide concerning the identification of historic properties that are of religious and cultural significance to your tribe and any comments or concerns regarding Native American resources, sacred sites, or properties of traditional religious or cultural importance that might be affected by the proposed undertaking.

If you have any questions or require further information, please do not hesitate to contact Heather Robbins, Cultural Resources Team Lead, at 757-341-0925 or via electronic mail at heather.l.robbins@navy.mil. In order to support the project timeline, the Navy would appreciate receiving your input within 30 calendar days of your receipt of this letter. If after the 30 calendar days we have not received a response, we will assume your organization has no comments on the proposed action and does not wish to be a consulting party in the Section 106 process.

Sincerely,

Elizabeth Nashold
Director, Fleet Installations and Environment
and Deputy Chief of Staff

Elizabeth Nashold
Director, Fleet Installations and Environment
and Deputy Chief of Staff

Enclosures: 1. Project Information
2. Figures of APE

2

DEPARTMENT OF THE NAVY
U.S. FLEET FORCES COMMAND
1562 MITSCHER AVENUE SUITE 250
NORFOLK VA 23551-2487

5090
Ser N46/050
June 13, 2017

United Keetoowah Band of Cherokee Indians in Oklahoma
Chief Joe Bunch
P.O. Box 746
Tahlequah, OK 74465

Dear Chief Bunch:

The regulations implementing Section 106 of the National Historic Preservation Act require federal agencies to consult with any federally recognized Native American tribe that might attach religious and cultural significance to historic properties that may be affected by a proposed action. I am writing to notify your tribe of a proposed undertaking by the U.S. Department of the Navy (Navy) to continue and accommodate certain changes to United States Fleet Forces training events taking place in the inland areas of the Virginia Capes Range Complex of the Hampton Roads fleet concentration area of Virginia. The inland training area encompasses ten (10) primary training locations including Navy installations as well as non-Navy owned properties. The proposed action is more fully described in enclosures 1 and 2. Enclosure 1 includes summary information for the proposed undertaking and enclosure 2 provides figures showing the direct and indirect area of potential effects (APEs) of the proposed undertaking.

We seek your input in order to identify any historic properties that are of religious and cultural significance to the United Keetoowah Band of Cherokee Indians in Oklahoma within, or in the vicinity of, the location of the proposed undertaking. We also request your comments or concerns regarding Native American resources, sacred sites, or properties of traditional religious or cultural importance within the direct or indirect APEs that might be affected by the proposed action. Also, please indicate whether your tribe wishes to participate in the Section 106 consultation as a consulting party for the proposed action and receive additional correspondence related to this proposed action.

While preparing its Environmental Assessment for compliance with the National Environmental Policy Act, the Navy is identifying and analyzing any potential effect to historic properties. Navy cultural resources staff has compiled available existing historic properties data. Based on historic property information received and the preliminary analysis of the proposed undertaking, the Navy is proposing two APEs: Direct APE and indirect APE. The direct APE would be the physical location of the training activity. The indirect APE would be defined by the overall boundary of the Navy or non-Navy property and/or adjacent historic properties that may be effected by noise associated with the training events.

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For your awareness, the Navy has initiated consultation with the Virginia Department of Historic Resources (also known as the State Historic Preservation Office). We appreciate your attention to this matter, and thank you in advance for any information you can provide concerning the identification of historic properties that are of religious and cultural significance to your tribe and any comments or concerns regarding Native American resources, sacred sites, or properties of traditional religious or cultural importance that might be affected by the proposed undertaking.

If you have any questions or require further information, please do not hesitate to contact Heather Robbins, Cultural Resources Team Lead, at 757-341-0925 or via electronic mail at heather.l.robbins@navy.mil. In order to support the project timeline, the Navy would appreciate receiving your input within 30 calendar days of your receipt of this letter. If after the 30 calendar days we have not received a response, we will assume your organization has no comments on the proposed action and does not wish to be a consulting party in the Section 106 process.

Sincerely,

Elizabeth Nashold
Director, Fleet Installations and Environment
and Deputy Chief of Staff

Elizabeth Nashold
Director, Fleet Installations and Environment
and Deputy Chief of Staff

Enclosures: 1. Project Information
2. Figures of APE

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DEPARTMENT OF THE NAVY
U.S. FLEET FORCES COMMAND
1562 MITSCHER AVENUE SUITE 250
NORFOLK VA 23551-2487

5090
Ser N46/051
June 13, 2017

Cherokee Nation
Chief Bill John Baker
P.O. Box 948
Tahlequah, OK 74464

Dear Chief Baker:

The regulations implementing Section 106 of the National Historic Preservation Act require federal agencies to consult with any federally recognized Native American tribe that might attach religious and cultural significance to historic properties that may be affected by a proposed action. I am writing to notify your tribe of a proposed undertaking by the U.S. Department of the Navy (Navy) to continue and accommodate certain changes to United States Fleet Forces training events taking place in the inland areas of the Virginia Capes Range Complex of the Hampton Roads fleet concentration area of Virginia. The inland training area encompasses ten (10) primary training locations including Navy installations as well as non-Navy owned properties. The proposed action is more fully described in enclosures 1 and 2. Enclosure 1 includes summary information for the proposed undertaking and enclosure 2 provides figures showing the direct and indirect area of potential effects (APEs) of the proposed undertaking.

We seek your input in order to identify any historic properties that are of religious and cultural significance to the Cherokee Nation within, or in the vicinity of, the location of the proposed undertaking. We also request your comments or concerns regarding Native American resources, sacred sites, or properties of traditional religious or cultural importance within the direct or indirect APEs that might be affected by the proposed action. Also, please indicate whether your tribe wishes to participate in the Section 106 consultation as a consulting party for the proposed action and receive additional correspondence related to this proposed action.

While preparing its Environmental Assessment for compliance with the National Environmental Policy Act, the Navy is identifying and analyzing any potential effect to historic properties. Navy cultural resources staff has compiled available existing historic properties data. Based on historic property information received and the preliminary analysis of the proposed undertaking, the Navy is proposing two APEs: Direct APE and indirect APE. The direct APE would be the physical location of the training activity. The indirect APE would be defined by the overall boundary of the Navy or non-Navy property and/or adjacent historic properties that may be effected by noise associated with the training events.

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For your awareness, the Navy has initiated consultation with the Virginia Department of Historic Resources (also known as the State Historic Preservation Office). We appreciate your attention to this matter, and thank you in advance for any information you can provide concerning the identification of historic properties that are of religious and cultural significance to your tribe and any comments or concerns regarding Native American resources, sacred sites, or properties of traditional religious or cultural importance that might be affected by the proposed undertaking.

If you have any questions or require further information, please do not hesitate to contact Heather Robbins, Cultural Resources Team Lead, at 757-341-0925 or via electronic mail at heather.l.robbins@navy.mil. In order to support the project timeline, the Navy would appreciate receiving your input within 30 calendar days of your receipt of this letter. If after the 30 calendar days we have not received a response, we will assume your organization has no comments on the proposed action and does not wish to be a consulting party in the Section 106 process.

Sincerely,

Elizabeth Nashold
Director, Fleet Installations and Environment
and Deputy Chief of Staff

Elizabeth Nashold
Director, Fleet Installations and Environment
and Deputy Chief of Staff

Enclosures: 1. Project Information
2. Figures of APE

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DEPARTMENT OF THE NAVY
U.S. FLEET FORCES COMMAND
1562 MITSCHER AVENUE SUITE 250
NORFOLK VA 23551-2487

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Ser N46/052
June 13, 2017

Eastern Band of Cherokee Indians
Chief Patrick Lambert
P.O. Box 455
Cherokee, NC 28719

Dear Chief Lambert:

The regulations implementing Section 106 of the National Historic Preservation Act require federal agencies to consult with any federally recognized Native American tribe that might attach religious and cultural significance to historic properties that may be affected by a proposed action. I am writing to notify your tribe of a proposed undertaking by the U.S. Department of the Navy (Navy) to continue and accommodate certain changes to United States Fleet Forces training events taking place in the inland areas of the Virginia Capes Range Complex of the Hampton Roads fleet concentration area of Virginia. The inland training area encompasses ten (10) primary training locations including Navy installations as well as non-Navy owned properties. The proposed action is more fully described in enclosures 1 and 2. Enclosure 1 includes summary information for the proposed undertaking and enclosure 2 provides figures showing the direct and indirect area of potential effects (APEs) of the proposed undertaking.

We seek your input in order to identify any historic properties that are of religious and cultural significance to the Eastern Band of Cherokee Indians within, or in the vicinity of, the location of the proposed undertaking. We also request your comments or concerns regarding Native American resources, sacred sites, or properties of traditional religious or cultural importance within the direct or indirect APEs that might be affected by the proposed action. Also, please indicate whether your tribe wishes to participate in the Section 106 consultation as a consulting party for the proposed action and receive additional correspondence related to this proposed action.

While preparing its Environmental Assessment for compliance with the National Environmental Policy Act, the Navy is identifying and analyzing any potential effect to historic properties. Navy cultural resources staff has compiled available existing historic properties data. Based on historic property information received and the preliminary analysis of the proposed undertaking, the Navy is proposing two APEs: Direct APE and indirect APE. The direct APE would be the physical location of the training activity. The indirect APE would be defined by the overall boundary of the Navy or non-Navy property and/or adjacent historic properties that may be effected by noise associated with the training events.

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For your awareness, the Navy has initiated consultation with the Virginia Department of Historic Resources (also known as the State Historic Preservation Office). We appreciate your attention to this matter, and thank you in advance for any information you can provide concerning the identification of historic properties that are of religious and cultural significance to your tribe and any comments or concerns regarding Native American resources, sacred sites, or properties of traditional religious or cultural importance that might be affected by the proposed undertaking.

If you have any questions or require further information, please do not hesitate to contact Heather Robbins, Cultural Resources Team Lead, at 757-341-0925 or via electronic mail at heather.l.robbins@navy.mil. In order to support the project timeline, the Navy would appreciate receiving your input within 30 calendar days of your receipt of this letter. If after the 30 calendar days we have not received a response, we will assume your organization has no comments on the proposed action and does not wish to be a consulting party in the Section 106 process.

Sincerely,

Elizabeth Nashold
Director, Fleet Installations and Environment
and Deputy Chief of Staff

Elizabeth Nashold
Director, Fleet Installations and Environment
and Deputy Chief of Staff

Enclosures: 1. Project Information
2. Figures of APE

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DEPARTMENT OF THE NAVY
U.S. FLEET FORCES COMMAND
1562 MITSCHER AVENUE SUITE 250
NORFOLK VA 23551-2487

5090
Ser N46/053
June 13, 2017

Balfour Beatty Communities
1 Country View Rd
Malvern, PA 19355

Dear Sir or Madam:

The regulations implementing Section 106 of the National Historic Preservation Act require federal agencies to consider the effects of proposed undertakings on historic properties. As part of the Section 106 process, federal agencies are required to solicit input from the public and interested parties with regards to identification of historic properties and ways to avoid, minimize or mitigate effects to historic properties.

I am writing to notify your organization of a proposed undertaking by the U.S. Department of the Navy (Navy) to continue and accommodate certain changes to United States Fleet Forces training events taking place in the inland areas of the Virginia Capes Range Complex of the Hampton Roads fleet concentration area of Virginia. The inland training study area encompasses ten (10) primary training locations including Navy installations as well as non-Navy owned properties. The proposed action is more fully described in the attached enclosure 1 and 2. Enclosure 1 includes summary information for the proposed undertaking and enclosure 2 provides figures showing the direct and indirect area of potential effects (APEs) of the proposed undertaking.

We would like to seek your input in order to identify historic properties within, or in the vicinity of, the location of the proposed training events. We also request your comments or concerns regarding historic properties that might be affected by the proposed undertaking. Also, please indicate if your organization wishes to participate in the Section 106 consultation as a consulting party and receive additional correspondence related to this proposed action.

While preparing its Environmental Assessment for compliance with the National Environmental Policy Act, the Navy is identifying and analyzing any potential effect to historic properties. Navy cultural resources staff has compiled available existing historic properties data. Based on historic property information received and the preliminary analysis of the proposed undertaking, the Navy is proposing two APEs: Direct APE and indirect APE. The direct APE would be the physical location of the training activity. The indirect APE would be defined by the overall boundary of the Navy or non-Navy property and/or adjacent historic properties that may be effected by noise associated with the training events.

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For your awareness, the Navy has initiated consultation with the Virginia Department of Historic Resources (also known as the State Historic Preservation Office) and is in the process of initiating consultation with federally recognized Native American tribes and other interested parties, including other representatives of local governments and groups with an interest in historic preservation. We appreciate your attention to this matter, and thank you in advance for any information you can provide concerning the identification of historic properties for the proposed action and any comments or concerns regarding historic properties that might be affected by the proposed action.

If you have any questions or require further information, please do not hesitate to contact Heather Robbins, Cultural Resources Team Lead, at 757-341-0925 or via electronic mail at heather.l.robbins@navy.mil. In order to support the project timeline, the Navy would appreciate receiving your input within 30 calendar days of your receipt of this letter. If after the 30 calendar days we have not received a response, we will assume your organization has no comments on the proposed action and does not wish to be a consulting party in the Section 106 process.

Sincerely,

Elizabeth Nashold
Director, Fleet Installations and Environment
and Deputy Chief of Staff

Elizabeth Nashold
Director, Fleet Installations and Environment
and Deputy Chief of Staff

Enclosures: 1. Project Information
2. Figures of APE

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DEPARTMENT OF THE NAVY
U.S. FLEET FORCES COMMAND
1562 MITSCHER AVENUE SUITE 250
NORFOLK VA 23551-2487

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June 13, 2017

City of Chesapeake
Ms. Avis Hinton
Planning Department
306 Cedar Road, 2nd Floor
Chesapeake, VA 23322

Dear Ms. Hinton:

The regulations implementing Section 106 of the National Historic Preservation Act require federal agencies to consider the effects of proposed undertakings on historic properties. As part of the Section 106 process, federal agencies are required to solicit input from the public and interested parties with regards to identification of historic properties and ways to avoid, minimize or mitigate effects to historic properties.

I am writing to notify your organization of a proposed undertaking by the U.S. Department of the Navy (Navy) to continue and accommodate certain changes to United States Fleet Forces training events taking place in the inland areas of the Virginia Capes Range Complex of the Hampton Roads fleet concentration area of Virginia. The inland training study area encompasses ten (10) primary training locations including Navy installations as well as non-Navy owned properties. The proposed action is more fully described in the attached enclosure 1 and 2. Enclosure 1 includes summary information for the proposed undertaking and enclosure 2 provides figures showing the direct and indirect area of potential effects (APEs) of the proposed undertaking.

We would like to seek your input in order to identify historic properties within, or in the vicinity of, the location of the proposed training events. We also request your comments or concerns regarding historic properties that might be affected by the proposed undertaking. Also, please indicate if your organization wishes to participate in the Section 106 consultation as a consulting party and receive additional correspondence related to this proposed action.

While preparing its Environmental Assessment for compliance with the National Environmental Policy Act, the Navy is identifying and analyzing any potential effect to historic properties. Navy cultural resources staff has compiled available existing historic properties data. Based on historic property information received and the preliminary analysis of the proposed undertaking, the Navy is proposing two APEs: Direct APE and indirect APE. The direct APE would be the physical location of the training activity. The indirect APE would be defined by the overall boundary of the Navy or non-Navy property and/or adjacent historic properties that may be effected by noise associated with the training events.

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If you have any questions or require further information, please do not hesitate to contact Heather Robbins, Cultural Resources Team Lead, at 757-341-0925 or via electronic mail at heather.l.robbins@navy.mil. In order to support the project timeline, the Navy would appreciate receiving your input within 30 calendar days of your receipt of this letter. If after the 30 calendar days we have not received a response, we will assume your organization has no comments on the proposed action and does not wish to be a consulting party in the Section 106 process.

Sincerely,

Elizabeth Nashold
Director, Fleet Installations and Environment
and Deputy Chief of Staff

Elizabeth Nashold
Director, Fleet Installations and Environment
and Deputy Chief of Staff

Enclosures: 1. Project Information
2. Figures of APE

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DEPARTMENT OF THE NAVY
U.S. FLEET FORCES COMMAND
1562 MITSCHER AVENUE SUITE 250
NORFOLK VA 23551-2487

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June 13, 2017

City of Norfolk
Ms. Susan McBride
Historic Preservation Planner
Department of Planning
City Hall Building, 5th Floor, Room 508
810 Union Street
Norfolk, VA 23510

Dear Ms. McBride:

The regulations implementing Section 106 of the National Historic Preservation Act require federal agencies to consider the effects of proposed undertakings on historic properties. As part of the Section 106 process, federal agencies are required to solicit input from the public and interested parties with regards to identification of historic properties and ways to avoid, minimize or mitigate effects to historic properties.

I am writing to notify your organization of a proposed undertaking by the U.S. Department of the Navy (Navy) to continue and accommodate certain changes to United States Fleet Forces training events taking place in the inland areas of the Virginia Capes Range Complex of the Hampton Roads fleet concentration area of Virginia. The inland training study area encompasses ten (10) primary training locations including Navy installations as well as non-Navy owned properties. The proposed action is more fully described in the attached enclosure 1 and 2. Enclosure 1 includes summary information for the proposed undertaking and enclosure 2 provides figures showing the direct and indirect area of potential effects (APEs) of the proposed undertaking.

We would like to seek your input in order to identify historic properties within, or in the vicinity of, the location of the proposed training events. We also request your comments or concerns regarding historic properties that might be affected by the proposed undertaking. Also, please indicate if your organization wishes to participate in the Section 106 consultation as a consulting party and receive additional correspondence related to this proposed action.

While preparing its Environmental Assessment for compliance with the National Environmental Policy Act, the Navy is identifying and analyzing any potential effect to historic properties. Navy cultural resources staff has compiled available existing historic properties data. Based on historic property information received and the preliminary analysis of the proposed undertaking, the Navy is proposing two APEs: Direct APE and indirect APE. The direct APE would be the physical location of the training activity. The indirect APE would be defined by the overall boundary of the Navy or non-Navy property and/or adjacent historic properties that

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may be effected by noise associated with the training events.

For your awareness, the Navy has initiated consultation with the Virginia Department of Historic Resources (also known as the State Historic Preservation Office) and is in the process of initiating consultation with federally recognized Native American tribes and other interested parties, including other representatives of local governments and groups with an interest in historic preservation. We appreciate your attention to this matter, and thank you in advance for any information you can provide concerning the identification of historic properties for the proposed action and any comments or concerns regarding historic properties that might be affected by the proposed action.

If you have any questions or require further information, please do not hesitate to contact Heather Robbins, Cultural Resources Team Lead, at 757-341-0925 or via electronic mail at heather.l.robbins@navy.mil. In order to support the project timeline, the Navy would appreciate receiving your input within 30 calendar days of your receipt of this letter. If after the 30 calendar days we have not received a response, we will assume your organization has no comments on the proposed action and does not wish to be a consulting party in the Section 106 process.

Sincerely,

Elizabeth Nashold
Director, Fleet Installations and Environment
and Deputy Chief of Staff

Elizabeth Nashold
Director, Fleet Installations and Environment
and Deputy Chief of Staff

Enclosures: 1. Project Information
2. Figures of APE

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DEPARTMENT OF THE NAVY
U.S. FLEET FORCES COMMAND
1562 MITSCHER AVENUE SUITE 250
NORFOLK VA 23551-2487

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June 13, 2017

Portsmouth Department of City Planning
Mr. Robert A. Baldwin
Director
801 Crawford Street, 4th Floor
Portsmouth, VA 23704

Dear Mr. Baldwin:

The regulations implementing Section 106 of the National Historic Preservation Act require federal agencies to consider the effects of proposed undertakings on historic properties. As part of the Section 106 process, federal agencies are required to solicit input from the public and interested parties with regards to identification of historic properties and ways to avoid, minimize or mitigate effects to historic properties.

I am writing to notify your organization of a proposed undertaking by the U.S. Department of the Navy (Navy) to continue and accommodate certain changes to United States Fleet Forces training events taking place in the inland areas of the Virginia Capes Range Complex of the Hampton Roads fleet concentration area of Virginia. The inland training study area encompasses ten (10) primary training locations including Navy installations as well as non-Navy owned properties. The proposed action is more fully described in the attached enclosure 1 and 2. Enclosure 1 includes summary information for the proposed undertaking and enclosure 2 provides figures showing the direct and indirect area of potential effects (APEs) of the proposed undertaking.

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While preparing its Environmental Assessment for compliance with the National Environmental Policy Act, the Navy is identifying and analyzing any potential effect to historic properties. Navy cultural resources staff has compiled available existing historic properties data. Based on historic property information received and the preliminary analysis of the proposed undertaking, the Navy is proposing two APEs: Direct APE and indirect APE. The direct APE would be the physical location of the training activity. The indirect APE would be defined by the overall boundary of the Navy or non-Navy property and/or adjacent historic properties that may be effected by noise associated with the training events.

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If you have any questions or require further information, please do not hesitate to contact Heather Robbins, Cultural Resources Team Lead, at 757-341-0925 or via electronic mail at heather.l.robbins@navy.mil. In order to support the project timeline, the Navy would appreciate receiving your input within 30 calendar days of your receipt of this letter. If after the 30 calendar days we have not received a response, we will assume your organization has no comments on the proposed action and does not wish to be a consulting party in the Section 106 process.

Sincerely,

Elizabeth Nashold
Director, Fleet Installations and Environment
and Deputy Chief of Staff

Elizabeth Nashold
Director, Fleet Installations and Environment
and Deputy Chief of Staff

Enclosures: 1. Project Information
2. Figures of APE

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DEPARTMENT OF THE NAVY
U.S. FLEET FORCES COMMAND
1562 MITSCHER AVENUE SUITE 250
NORFOLK VA 23551-2487

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Ser N46/057
June 13, 2017

City of Virginia Beach, Planning Department
Mr. Mark Reed
Historic Resources Coordinator
City of Virginia Beach, Planning Department
2405 Courthouse Dr.
Virginia Beach, VA 23456

Dear Mr. Reed:

The regulations implementing Section 106 of the National Historic Preservation Act require federal agencies to consider the effects of proposed undertakings on historic properties. As part of the Section 106 process, federal agencies are required to solicit input from the public and interested parties with regards to identification of historic properties and ways to avoid, minimize or mitigate effects to historic properties.

I am writing to notify your organization of a proposed undertaking by the U.S. Department of the Navy (Navy) to continue and accommodate certain changes to United States Fleet Forces training events taking place in the inland areas of the Virginia Capes Range Complex of the Hampton Roads fleet concentration area of Virginia. The inland training study area encompasses ten (10) primary training locations including Navy installations as well as non-Navy owned properties. The proposed action is more fully described in the attached enclosure 1 and 2. Enclosure 1 includes summary information for the proposed undertaking and enclosure 2 provides figures showing the direct and indirect area of potential effects (APEs) of the proposed undertaking.

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While preparing its Environmental Assessment for compliance with the National Environmental Policy Act, the Navy is identifying and analyzing any potential effect to historic properties. Navy cultural resources staff has compiled available existing historic properties data. Based on historic property information received and the preliminary analysis of the proposed undertaking, the Navy is proposing two APEs: Direct APE and indirect APE. The direct APE would be the physical location of the training activity. The indirect APE would be defined by the overall boundary of the Navy or non-Navy property and/or adjacent historic properties that may be effected by noise associated with the training events.

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While preparing its Environmental Assessment for compliance with the National Environmental Policy Act, the Navy is identifying and analyzing any potential effect to historic properties. Navy cultural resources staff has compiled available existing historic properties data. Based on historic property information received and the preliminary analysis of the proposed undertaking, the Navy is proposing two APEs: Direct APE and indirect APE. The direct APE would be the physical location of the training activity. The indirect APE would be defined by the overall boundary of the Navy or non-Navy property and/or adjacent historic properties that may be effected by noise associated with the training events.

For your awareness, the Navy has initiated consultation with the Virginia Department of Historic Resources (also known as the State Historic Preservation Office) and is in the process of initiating consultation with federally recognized Native American tribes and other interested parties, including other representatives of local governments and groups with an interest in historic preservation. We appreciate your attention to this matter, and thank you in advance for any information you can provide concerning the identification of historic properties for the proposed action and any comments or concerns regarding historic properties that might be affected by the proposed action.

If you have any questions or require further information, please do not hesitate to contact Heather Robbins, Cultural Resources Team Lead, at 757-341-0925 or via electronic mail at heather.l.robbins@navy.mil. In order to support the project timeline, the Navy would appreciate receiving your input within 30 calendar days of your receipt of this letter. If after the 30 calendar days we have not received a response, we will assume your organization has no comments on the proposed action and does not wish to be a consulting party in the Section 106 process.

Sincerely,

Elizabeth Nashold
Director, Fleet Installations and Environment
and Deputy Chief of Staff

Elizabeth Nashold
Director, Fleet Installations and Environment
and Deputy Chief of Staff

Enclosures: 1. Project Information
2. Figures of APE

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DEPARTMENT OF THE NAVY
U.S. FLEET FORCES COMMAND
1562 MITSCHER AVENUE SUITE 250
NORFOLK VA 23551-2487

5090
Ser N46/058
June 13, 2017

Colonial National Historic Park
Mr. Steven Williams
Colonial National Historical Park
P.O. Box 210
Yorktown, VA 23690

Dear Mr. Williams:

The regulations implementing Section 106 of the National Historic Preservation Act require federal agencies to consider the effects of proposed undertakings on historic properties. As part of the Section 106 process, federal agencies are required to solicit input from the public and interested parties with regards to identification of historic properties and ways to avoid, minimize or mitigate effects to historic properties.

I am writing to notify your organization of a proposed undertaking by the U.S. Department of the Navy (Navy) to continue and accommodate certain changes to United States Fleet Forces training events taking place in the inland areas of the Virginia Capes Range Complex of the Hampton Roads fleet concentration area of Virginia. The inland training study area encompasses ten (10) primary training locations including Navy installations as well as non-Navy owned properties. The proposed action is more fully described in the attached enclosure 1 and 2. Enclosure 1 includes summary information for the proposed undertaking and enclosure 2 provides figures showing the direct and indirect area of potential effects (APEs) of the proposed undertaking.

We would like to seek your input in order to identify historic properties within, or in the vicinity of, the location of the proposed training events. We also request your comments or concerns regarding historic properties that might be affected by the proposed undertaking. Also, please indicate if your organization wishes to participate in the Section 106 consultation as a consulting party and receive additional correspondence related to this proposed action.

While preparing its Environmental Assessment for compliance with the National Environmental Policy Act, the Navy is identifying and analyzing any potential effect to historic properties. Navy cultural resources staff has compiled available existing historic properties data. Based on historic property information received and the preliminary analysis of the proposed undertaking, the Navy is proposing two APEs: Direct APE and indirect APE. The direct APE would be the physical location of the training activity. The indirect APE would be defined by the overall boundary of the Navy or non-Navy property and/or adjacent historic properties that may be effected by noise associated with the training events.

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For your awareness, the Navy has initiated consultation with the Virginia Department of Historic Resources (also known as the State Historic Preservation Office) and is in the process of initiating consultation with federally recognized Native American tribes and other interested parties, including other representatives of local governments and groups with an interest in historic preservation. We appreciate your attention to this matter, and thank you in advance for any information you can provide concerning the identification of historic properties for the proposed action and any comments or concerns regarding historic properties that might be affected by the proposed action.

If you have any questions or require further information, please do not hesitate to contact Heather Robbins, Cultural Resources Team Lead, at 757-341-0925 or via electronic mail at heather.l.robbins@navy.mil. In order to support the project timeline, the Navy would appreciate receiving your input within 30 calendar days of your receipt of this letter. If after the 30 calendar days we have not received a response, we will assume your organization has no comments on the proposed action and does not wish to be a consulting party in the Section 106 process.

Sincerely,

Elizabeth Nashold
Director, Fleet Installations and Environment
and Deputy Chief of Staff

Elizabeth Nashold
Director, Fleet Installations and Environment
and Deputy Chief of Staff

Enclosures: 1. Project Information
2. Figures of APE

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DEPARTMENT OF THE NAVY
U.S. FLEET FORCES COMMAND
1562 MITSCHER AVENUE SUITE 250
NORFOLK VA 23551-2487

5090
Ser N46/060
June 13, 2017

Preservation of Virginia
204 West Franklin Street
Richmond, VA 23220

Dear Sir or Madam:

The regulations implementing Section 106 of the National Historic Preservation Act require federal agencies to consider the effects of proposed undertakings on historic properties. As part of the Section 106 process, federal agencies are required to solicit input from the public and interested parties with regards to identification of historic properties and ways to avoid, minimize or mitigate effects to historic properties.

I am writing to notify your organization of a proposed undertaking by the U.S. Department of the Navy (Navy) to continue and accommodate certain changes to United States Fleet Forces training events taking place in the inland areas of the Virginia Capes Range Complex of the Hampton Roads fleet concentration area of Virginia. The inland training study area encompasses ten (10) primary training locations including Navy installations as well as non-Navy owned properties. The proposed action is more fully described in the attached enclosure 1 and 2. Enclosure 1 includes summary information for the proposed undertaking and enclosure 2 provides figures showing the direct and indirect area of potential effects (APEs) of the proposed undertaking.

We would like to seek your input in order to identify historic properties within, or in the vicinity of, the location of the proposed training events. We also request your comments or concerns regarding historic properties that might be affected by the proposed undertaking. Also, please indicate if your organization wishes to participate in the Section 106 consultation as a consulting party and receive additional correspondence related to this proposed action.

While preparing its Environmental Assessment for compliance with the National Environmental Policy Act, the Navy is identifying and analyzing any potential effect to historic properties. Navy cultural resources staff has compiled available existing historic properties data. Based on historic property information received and the preliminary analysis of the proposed undertaking, the Navy is proposing two APEs: Direct APE and indirect APE. The direct APE would be the physical location of the training activity. The indirect APE would be defined by the overall boundary of the Navy or non-Navy property and/or adjacent historic properties that may be effected by noise associated with the training events.

5090
Ser N46/060
June 13, 2017

For your awareness, the Navy has initiated consultation with the Virginia Department of Historic Resources (also known as the State Historic Preservation Office) and is in the process of initiating consultation with federally recognized Native American tribes and other interested parties, including other representatives of local governments and groups with an interest in historic preservation. We appreciate your attention to this matter, and thank you in advance for any information you can provide concerning the identification of historic properties for the proposed action and any comments or concerns regarding historic properties that might be affected by the proposed action.

If you have any questions or require further information, please do not hesitate to contact Heather Robbins, Cultural Resources Team Lead, at 757-341-0925 or via electronic mail at heather.l.robbins@navy.mil. In order to support the project timeline, the Navy would appreciate receiving your input within 30 calendar days of your receipt of this letter. If after the 30 calendar days we have not received a response, we will assume your organization has no comments on the proposed action and does not wish to be a consulting party in the Section 106 process.

Sincerely,

Elizabeth Nashold
Director, Fleet Installations and Environment
and Deputy Chief of Staff

Elizabeth Nashold
Director, Fleet Installations and Environment
and Deputy Chief of Staff

Enclosures: 1. Project Information
2. Figures of APE

2

DEPARTMENT OF THE NAVY
U.S. FLEET FORCES COMMAND
1562 MITSCHER AVENUE SUITE 250
NORFOLK VA 23551-2487

5090
Ser N46/061
June 13, 2017

First Landing State Park
2500 Shore Drive
Virginia Beach, VA 23451-1415

Dear Sir or Madam:

The regulations implementing Section 106 of the National Historic Preservation Act require federal agencies to consider the effects of proposed undertakings on historic properties. As part of the Section 106 process, federal agencies are required to solicit input from the public and interested parties with regards to identification of historic properties and ways to avoid, minimize or mitigate effects to historic properties.

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5090
Ser N46/061
June 13, 2017

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Sincerely,

Elizabeth Nashold
Director, Fleet Installations and Environment
and Deputy Chief of Staff

Elizabeth Nashold
Director, Fleet Installations and Environment
and Deputy Chief of Staff

Enclosures: 1. Project Information
2. Figures of APE

2

DEPARTMENT OF THE NAVY
U.S. FLEET FORCES COMMAND
1562 MITSCHER AVENUE SUITE 250
NORFOLK VA 23551-2487

5090
Ser N46/062
June 13, 2017

VA Army National Guard
Susan Smead
Cultural Resources Program Manager
VA Dept. of Military Affairs-VA Army National Guard
Bldg. 316, Fort Pickett
Blackstone, VA 23824-6316

Dear Ms. Smead:

The regulations implementing Section 106 of the National Historic Preservation Act require federal agencies to consider the effects of proposed undertakings on historic properties. As part of the Section 106 process, federal agencies are required to solicit input from the public and interested parties with regards to identification of historic properties and ways to avoid, minimize or mitigate effects to historic properties.

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Ser N46/062
June 13, 2017

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Sincerely,

Elizabeth Nashold
Director, Fleet Installations and Environment
and Deputy Chief of Staff

Elizabeth Nashold
Director, Fleet Installations and Environment
and Deputy Chief of Staff

Enclosures: 1. Project Information
2. Figures of APE

2

DEPARTMENT OF THE NAVY
U.S. FLEET FORCES COMMAND
1562 MITSCHER AVENUE SUITE 250
NORFOLK VA 23551-2487

5090
Ser N46/063
June 13, 2017

Lincoln Military Housing
Ms. Christy Pemble
200 Fairbrook Drive
Suite 101
Herndon, VA 20170

Dear Ms. Pemble:

The regulations implementing Section 106 of the National Historic Preservation Act require federal agencies to consider the effects of proposed undertakings on historic properties. As part of the Section 106 process, federal agencies are required to solicit input from the public and interested parties with regards to identification of historic properties and ways to avoid, minimize or mitigate effects to historic properties.

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5090
Ser N46/063
June 13, 2017

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Sincerely,

Elizabeth Nashold
Director, Fleet Installations and Environment
and Deputy Chief of Staff

Elizabeth Nashold
Director, Fleet Installations and Environment
and Deputy Chief of Staff

Enclosures: 1. Project Information
2. Figures of APE

2

DEPARTMENT OF THE NAVY
U.S. FLEET FORCES COMMAND
1562 MITSCHER AVENUE SUITE 250
NORFOLK VA 23551-2487

5090
Ser N46/064
June 13, 2017

U.S. Coast Guard
Mr. Greg Carpenter
Coast Guard Engineering Unit Cleveland
USCG Base Cleveland
1240 E. 9th St
Cleveland, OH 44199

Dear Mr. Carpenter:

The regulations implementing Section 106 of the National Historic Preservation Act require federal agencies to consider the effects of proposed undertakings on historic properties. As part of the Section 106 process, federal agencies are required to solicit input from the public and interested parties with regards to identification of historic properties and ways to avoid, minimize or mitigate effects to historic properties.

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5090
Ser N46/064
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If you have any questions or require further information, please do not hesitate to contact Heather Robbins, Cultural Resources Team Lead, at 757-341-0925 or via electronic mail at heather.l.robbins@navy.mil. In order to support the project timeline, the Navy would appreciate receiving your input within 30 calendar days of your receipt of this letter. If after the 30 calendar days we have not received a response, we will assume your organization has no comments on the proposed action and does not wish to be a consulting party in the Section 106 process.

Sincerely,

Elizabeth Nashold
Director, Fleet Installations and Environment
and Deputy Chief of Staff

Elizabeth Nashold
Director, Fleet Installations and Environment
and Deputy Chief of Staff

Enclosures: 1. Project Information
2. Figures of APE

2

Cherokee Nation Response to Navy Letter dated June 13, 2017

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CHEROKEE NATION®
P.O. Box 948 • Tahlequah, OK 74465-0948 • 918-453-5000 • cherokee.org

Office of the Chief

Bill John Baker
Principal Chief
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S. Joe Crittenden
Deputy Principal Chief
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June 29, 2017

Elizabeth Nashold
Director, Fleet Installation and Environment
Deputy Chief of Staff
Department of the Navy
US Fleet Forces Command
1562 Mitscher Avenue, Suite 250
Norfolk, VA 23551-2487

Re: Virginia Capes Range Complex, Hampton Roads Fleet

Deputy Chief Elizabeth Nashold:

The Cherokee Nation (CN) is in receipt of your correspondence about **Virginia Capes Range Complex, Hampton Roads Fleet**, and appreciates the opportunity to provide comment upon this project. The CN maintains databases and records of cultural, historic, and pre-historic resources in this area. Our Historic Preservation Office reviewed this project, cross referenced the project's legal description against our information, and has found instances where this project intersects or adjoins such resources. Thus, the CN does not foresee this project imparting impacts to Cherokee cultural resources at this time. However, the CN requests that the Department of the Navy halt all project activities immediately and re-contact our Offices for further consultation if items of cultural significance are discovered during the course of this project.

Additionally, we would request Department of the Navy conduct appropriate inquiries with other pertinent Tribal and Historic Preservation Offices regarding historic and prehistoric resources not included in the CN databases or records. If you require additional information or have any questions, please contact me at your convenience.

Thank you for your time and attention to this matter.

Wado,

Elizabeth Toombs

Elizabeth Toombs, Special Projects Officer
Cherokee Nation Tribal Historic Preservation Office
elizabeth-toombs@cherokee.org
918.453.5389

CC: Heather Robbins, Cultural Resources Team Lead

City of Virginia Beach July 11, 2017 Response to Navy Letter dated June 13, 2017

City of Virginia Beach

VBgov.com

PLANNING DEPARTMENT / PLANNING DIVISION
PHONE (757) 385-4621
FAX (757) 385-5667
VA Relay Number TTY: 711

MUNICIPAL CENTER
BUILDING 2, ROOM191
2405 COURTHOUSE DRIVE
VA BEACH, VA 23456-9040

July 11, 2017

Elizabeth Nashold, Director
Fleet Installations and Environment and Deputy Chief of Staff
Department of the Navy
U.S. Fleet Forces Command
1562 Mitscher Avenue, Suite 250
Norfolk, VA 23551-2487

Dear Ms. Nashold:

I am in receipt of your letter dated June 13, 2017 that notified the City of Virginia Beach Planning Department of the proposed undertaking by the U.S. Department of the Navy regarding training events planned in the inland areas of the Virginia Capes Range Complex of the Hampton Roads fleet concentration area of Virginia. Thank you for requesting our input and requesting comments of concerns regarding historic properties that might be affected by the proposed undertaking. Thank you, also, for inviting the City of Virginia Beach to participate in the Section 106 consultation as a consulting party.

I have reviewed the information provided with the June 13 letter and have discussed the planned undertaking with the Virginia Beach Historic Preservation Commission. Operations that involve large scale personnel and vehicle movements, explosive devices, paintball projectiles and related activities, even in a controlled training environment, have the potential to stray from planned routes and to have unexpected malfunctions. Although it is anticipated that the Navy will take all precautions to protect its personnel, equipment and the historic resources within and around the identified training areas, we certainly have concerns that unintended potential effects could occur.

The Historic Preservation Commission is particularly concerned about the potential for such impacts at the JEB Fort Story and First Landing State Park historic district locations. The Commission expressed less concern about potential effects to the Camp Pendleton Historic District based upon the limited overlap of the training area and the district.

Elizabeth Nashold, Director
Fleet Installations and Environment and Deputy Chief of Staff
July 11, 2017
Page 2

The City of Virginia Beach Planning Department wishes to participate in the Section 106 consultation as a consulting party. Please provide additional information and correspondence related to this proposed action as it becomes available.

Information/correspondence sent via United States Postal Service may be sent to my attention:

Mark A. Reed, Historic Preservation Planner
Planning and Community Development Department
City of Virginia Beach
Municipal Center, Building 2
2405 Courthouse Drive
Virginia Beach, VA 23456

I may also be contacted at mreed@vbgov.com or 757-385-8573. Thank you.

Sincerely,

Mark A. Reed
Historic Preservation Planner

MAR/

cc: William Gambrell, Virginia Beach Historic Preservation Commission
Heather Robbins, Department of the Navy (via e-mail)
Carolyn Smith, Planning and Community Development

Navy Response to City of Virginia Beach Letter dated July 11, 2017

Navy reply to City of Virginia Beach
-----Original Message-----
From: Robbins, Heather L CIV NAVFAC MIDLANT, EV
Sent: Thursday, August 03, 2017 10:31 AM
To: 'Mark Reed'
Subject: RE: Section 106 Consultation United States Fleet Forces Training Events

Mr. Reed,

We appreciate the City of Virginia Beach Planning Department and Historic Preservation Commission's review of the proposed Fleet Forces Inland Training in certain inland areas of the Virginia Capes Range Complex of the Hampton Roads Fleet Concentration area.

In response to the concerns expressed for unintended potential effects to occur to historic resources at Joint Expeditionary Base Fort Story and First Landing State Park, we are providing the consultation package we submitted to Virginia Department of Historic Resources (DHR) which provides further analysis on the Navy's determination of no adverse effect to historic properties. DHR concurred with the Navy's determination of effect.

In particular for the Nike Site, Building 807 and Building 900 (contributing resources of the Fort Story Historic District) no physical impact will occur to the buildings as a result of the training. The buildings have been utilized for training between 12-19 years and provide a viable use of the historic buildings. The proposed training will not be different than the types of training that currently occur. Any future alterations or modifications to the buildings to support training activities or changes in the types of training to be utilized will be reviewed by Navy cultural resources personnel as a separate undertaking and consultation as per 36 CFR 800 will occur as appropriate. The training proposed at First Landing State Park will be limited to personnel movements and all movements will occur on existing roads and trails. No alterations or modifications will occur to the existing roads and trails.

In the event an unintended adverse effect occurs to a historic property as a result of the training, the Navy will consult with DHR and appropriate consulting parties in accordance with 36 CFR 800.12 (Emergency Situations) to avoid, minimize or mitigate effects to the historic properties.

We look forward to continuing to work with you and the Historic Preservation Commission. We will provide you with a copy of the draft Environmental Assessment that will be available in the fall. In the meantime, if you have any questions please do not hesitate to contact me.

Best regards,
Heather

Heather Robbins
Cultural Resources Team Lead
NAVFAC MIDLANT - EV2

-----Original Message-----
From: Mark Reed [mailto:MReed@vbgov.com]

Sent: Tuesday, July 11, 2017 1:12 PM
To: Robbins, Heather L CIV NAVFAC MIDLANT, EV
Subject: [Non-DoD Source] Section 106 Consultation United States Fleet Forces Training Events

Dear Ms. Robbins:

I am responding to a June 13, 2017 letter received from Elizabeth Nashold, Director, Fleet Installations and Environment and Deputy Chief of Staff regarding participation in the Section 106 process for planned Fleet Forces Training Events in the inland areas of the Virginia Capes Range Complex. Thank you for the opportunity of the City of Virginia Beach Planning Department to be a consulting party in this process. A copy of my response letter to Ms. Nashold is attached.

Please contact me if you have any questions. Thank you

Sincerely,

Mark A. Reed

Historic Preservation Planner

City of Virginia Beach

Department of Planning & Community Development

2405 Courthouse Drive, Municipal Center Building 2

Virginia Beach, VA 23456

757-385-4621 (Main)

757-385-8573 (Direct)

Let us know how we're doing:

https://www.surveymonkey.com/r/pcdservices <https://www.surveymonkey.com/r/pcdservices>

www.vbgov.com/historicpreservation

Catawba Indian Nation Response to Navy Letter dated June 13, 2017

Catawba Indian Nation
Tribal Historic Preservation Office
1536 Tom Steven Road
Rock Hill, South Carolina 29730

Office 803-328-2427
Fax 803-328-5791

July 15, 2017

Attention: Heather Robbins
Department of the Navy
1562 Mitscher Avenue, Suite 250
Norfolk, VA 23551-2487

Re. THPO #	TCNS #	Project Description
2017-57-3		Proposed United States Fleet Forces Inland Training areas

Dear Ms. Robbins,

The Catawba have no immediate concerns with regard to traditional cultural properties, sacred sites or Native American archaeological sites within the boundaries of the proposed project areas. **However, the Catawba are to be notified if Native American artifacts and / or human remains are located during the ground disturbance phase of this project.**

If you have questions please contact Caitlin Totherow at 803-328-2427 ext. 226, or e-mail caitlinh@ccppcrafts.com.

Sincerely,

Caitlin Totherow for

Wenonah G. Haire
Tribal Historic Preservation Officer

Preservation Virginia Response to Navy Letter dated June 13, 2017

July 2, 2017

Ms. Elizabeth Nashold
Director, Fleet Installations and Environment and Deputy Chief of Staff
US Department of the Navy
U.S. Fleet Forces Command
1562 Mitscher Avenue Suite 250
Norfolk, VA 23551-2487

Dear Ms. Nashold:

Thank you for your letter concerning the Section 106 review to consider the effects of proposed undertakings on historic properties at eight Navy bases and two non-Navy bases in Virginia. In response to your inquiry, we would like to participate as a consulting party in the review. We trust the review process will be systematic and comprehensive due to the numerous historic resources that exist on the proposed training facilities. After reviewing the information submitted, our comments are as follows:

Fort Story
Fort Story is of special interest to Preservation Virginia, having owned the Cape Henry Lighthouse since 1930. The 1792 lighthouse; the new Cape Henry Lighthouse (1881), owned and operated by the U.S. Coast Guard; the First Landing National Park and other historic buildings at Fort Story are significant historic properties that Preservation Virginia is dedicated to protecting and ensuring they remain accessible to the public.

From the information submitted, it appears that large sections of Fort Story have been designated as areas for additional explosives training. The information also shows the proposed explosives training area is less than 500 yards south of the New Cape Henry Lighthouse and wraps around to the beach in front of the lighthouse and the Battle of the Capes Historic District. We are concerned with the proposed increase in personnel, landings, weapons firing and detonation events that may impact the physical condition of the lighthouses, the Battle of the Capes Historic District. We are also concerned about any impacts to the Cape Henry Memorial Cross and Memorial and the Fort Story Historic District.

The Cape Henry Lighthouse is a popular tourist destination that generates substantial revenue for Preservation Virginia. For this reason, we are also concerned about impacts to tourism during training exercises. It is essential that visitors' access is maintained to all of the sites open to the public at Fort Story.

According to the letter submitted, the Navy does not expect there to be direct impacts to historic properties at any of the locations associated with the increased training. However, because we are dedicated to safeguarding the historic resources at Fort Story, we are requesting more information on the locations and types of training proposed at Fort Story and on scientific studies that have been conducted on noise and surface or underground vibrations related to vehicle movement, explosives or weapons firing.

1

Naval Weapons Station Yorktown
Vehicle movement and the number of detonations at Yorktown could be problematic due to the historic resources at the station including the Kiskiak Historic Property, Masons Row Historic District, the adjacent Yorktown Battlefield National Park and the Colonial Parkway Historic District. Also, according to the maps provided, training areas are proposed within the Skiffes Creek Historic District. The sensitive nature of this group of historic resources necessitates a more thorough understanding of the types of training proposed at Yorktown.

First Landing State Park
It appears that the training at First Landing State Park will be largely confined to the trails. This trail system was created by all African-American Civilian Conservation Corps and is very significant and could be subject to damage during large- scale training exercises. We are requesting more information on the types of training proposed for the park to better evaluate possible damage to the trails and CCC-era cabins that also exist at First Landing State Park.

The First Landing State Park offers a wide range of activities for tourists in the Virginia Beach area. We also encourage you to contact the Virginia Beach Convention and Visitors Bureau concerning the Section 106 review.

Dam Neck and Camp Pendleton
According to the information submitted; over 1,000 people, weapons firing and vehicle movement would take place on the beach near the Camp Pendleton Historic District as part of the increased training at Dam Neck and Camp Pendleton. Because of this substantial training effort, we request more information on the types of training that would occur near Camp Pendleton to better evaluate Camp Pendleton for potential harm.

Fentress, Northwest, Cheatham Annex, St. Juliens Creek
To better understand the historic resources located at these facilities and their potential for harm, we are requesting more information on the archeological resources at Fentress, Northwest, Cheatham Annex and St. Julien's Creek.

Thank you for the opportunity to be a consulting party for this Section 106 review. We also encourage you, if you not have already done so, to contact the Princess Anne County/Virginia Beach Historical Society concerning the review process.

Sincerely,

Sonja Ingram

Sonja Ingram
Preservation Field Services Manager
Preservation Virginia

PRESERVATION VIRGINIA
204 West Franklin Street • Richmond, Virginia 23220-5012 • 804.648.1889 • (f) 804.775.0802 • www.preservationvirginia.org
Connecting people and resources to ensure the continued vitality of Virginia's historic places

2

Navy Response to Preservation Virginia Letter dated July 2, 2017

Navy Response to Preservation Virginia
-----Original Message-----
From: Robbins, Heather L CIV NAVFAC MIDLANT, EV
Sent: Friday, August 11, 2017 3:10 PM
To: 'singram@preservationvirginia.org'
Subject: U.S. Fleet Forces Inland Training Virginia Capes Range Complex

Sonja,

We appreciate Preservation Virginia's review of the proposed Fleet Forces Inland Training in certain inland areas of the Virginia Capes Range Complex of the Hampton Roads Fleet Concentration area.

In response to the comments provided in your letter dated July 2, 2017, we are providing the consultation package we submitted to Virginia Department of Historic Resources (DHR) which provides further analysis on the Navy's determination of no adverse effect to historic properties. DHR concurred with the Navy's determination of effect. In addition, we will provide you with a copy of the draft Environmental Assessment that will be available in the fall which will provide additional information related to the training events and activities at each training area.

As for your request for information on the archaeological resources at Fentress, Northwest, Cheatham Annex and St. Julien's Creek Annex, what specific information are you interested in?

We look forward to continuing to work with you.

Best regards,
Heather

Heather Robbins
Cultural Resources Team Lead
NAVFAC MIDLANT - EV2

Virginia Department of Military Affairs–Virginia Army National Guard Response to Navy Letter dated June 13, 2017

COMMONWEALTH of VIRGINIA

TIMOTHY P. WILLIAMS
MAJOR GENERAL
THE ADJUTANT GENERAL

DEPARTMENT OF MILITARY AFFAIRS
Adjutant General's Office
Building 316, Fort Pickett

BLACKSTONE, VIRGINIA
23824-6316

July 14, 2017

Facilities Engineering
and Management

Re: US Navy United States Fleet Forces Training Events

Elizabeth Nashold
Director, Fleet Installations and Environment and
Deputy Chief of Staff
Department of the Navy
U.S. Fleet Forces Command
1562 Mitscher Avenue, Suite 250
Norfolk, Virginia 23551-2487

Dear Ms. Nashold,

The Virginia Department of Military Affairs-Virginia Army National Guard (VDMA-VaARNG) received your letter of June 13, 2017 on June 20, 2017, describing the undertaking proposed by the U.S. Department of the Navy regarding the United States Fleet Forces training events in the inland areas of the Virginia Capes Range Complex of the Hampton Roads fleet concentration area. The information provided with your letter indicates that Camp Pendleton State Military Reservation (Camp Pendleton), located in the City of Virginia Beach and adjoining Dam Neck Annex, is part of the subject area. Thank you for contacting VDMA-VaARNG concerning the Navy's proposed undertaking. VDMA-VaARNG does wish to participate as a consulting party according to the process set forth in 36 CFR Part 800, *Protection of Historic Properties*, Section 106 of the National Historic Preservation Act of 1966, as amended.

As noted in the Project Information (Enclosure 1) sent with your letter, Camp Pendleton is a state-owned military installation and comprises the Camp Pendleton Historic District, listed in the National Register of Historic Places (NRHP), with the historic district boundaries matching those of the Camp Pendleton property. Regarding the identification of the Areas of Potential Effect for the proposed undertaking, since the Camp Pendleton/Dam Neck Annex map in Enclosure 2 shows that the training area

includes the Camp Pendleton Beach, which is a cultural landscape that contributes to the Camp Pendleton Historic District's NRHP listing, the APE should include this area. According to the information provided about the undertaking's planned activities to be conducted at Camp Pendleton and Dam Neck Annex, VDMA-VaARNG agrees that they will result in "no adverse effect" to historic properties according to 36 CFR Part 800.5(b). If the undertaking's proposed activities change, please notify VDMA-VaARNG with updated information.

Thank you again for contacting VDMA-VaARNG regarding the proposed undertaking, and for inviting participation as a consulting party. If further information is needed or if questions arise, please contact Susan Smead, VDMA-VaARNG Cultural Resources Program Manager, at 434-298-6411 and susan.e.smead.nfg@mail.mil.

CHARLTON T. DUNN
COL, EN, VaARNG
ACofS, Facilities
Engineering and Management

Navy Response to Virginia Department of Military Affairs–Virginia Army National Guard Response Letter dated July 14, 2017

-----Original Message-----
From: Robbins, Heather L CIV NAVFAC MIDLANT, EV
Sent: Thursday, August 03, 2017 10:39 AM
To: 'Smead, Susan E NFG NG VAARNG (US)'
Subject: RE: US Navy Fleet Forces Training Events (UNCLASSIFIED)

Hi Susan,

Thank you for the comments on the US Navy Fleet Forces Training Events. The response is not too late and we look forward to continuing to work with you on this project. We will provide you with the URL for the draft Environmental Assessment for review and comment. We are expecting the draft to be ready in the fall timeframe.

If in the meantime you have any questions please do not hesitate to contact me.

Best regards,
Heather

Heather Robbins
Cultural Resources Team Lead
NAVFAC MIDLANT - EV2

-----Original Message-----
From: Smead, Susan E NFG NG VAARNG (US) [mailto:susan.e.smead.nfg@mail.mil]
Sent: Wednesday, August 02, 2017 3:47 PM
To: Robbins, Heather L CIV NAVFAC MIDLANT, EV
Subject: US Navy Fleet Forces Training Events (UNCLASSIFIED)

CLASSIFICATION: UNCLASSIFIED

Good afternoon Heather,

Attached please find VDMA-VaARNG's reply to the letter received from the Navy on 20 JUN RE: the above-referenced action. I apologize for not responding sooner - the letter was delayed in processing and getting signature due to scheduling; I hope you can still include VDMA-VaARNG as a consulting party. Also, I'll mail the original signed letter to Ms. Nashold. Thank you!

Sue

Susan Smead
Cultural Resources Program Manager
VA Dept. of Military Affairs-VA Army National Guard Bldg. 316, Fort Pickett Blackstone, VA 23824-6316
Phone: 434-298-6411

CLASSIFICATION: UNCLASSIFIED

City of Norfolk Response to Navy Letter dated June 13, 2017

THE CITY OF NORFOLK
CITY PLANNING

TR 10-23-17 Gary Edwards

September 22, 2017

Elizabeth Nashold, Director of Fleet Installations & Environment
Deputy Chief of Staff
Department of the Navy
U.S. Fleet Forces Command
1562 Mitscher Avenue, Suite 250
Norfolk, VA 23551-2487

RE: 5090 Ser N46/055 Invitation to comment on APE's, City of Norfolk, VA

Dear Ms. Nashold:

Thank you for the invitation to comment on the U.S. Department of the Navy's APE's for the changes to the United States Fleet Forces training events as it relates to Section 106 of the National Historic Preservation Act. After reviewing the locations in your attached "Enclosure 2", only one of the locations is partially adjacent to the City of Norfolk, VA: Joint Expeditionary Base, Little Creek. Review of the surrounding area, this undertaking does not have the potential to cause effects on historic properties in the City of Norfolk.

I appreciate the opportunity to comment on this proposal and we would like to continue to participate in the Section 106 consultation as a consulting party. Should you have any questions that I could be of assistance with, I can be reached directly by phone at 757/823-1451 or email: susan.mcbride@norfolk.gov.

Sincerely,

S.M. McBride

Susan M. McBride,
Principal Planner—Historic

Cc: file

City Hall Building, Room 508 / 810 Union St, Norfolk, Virginia 23510
Ph. (757) 664-4752 / Fax (757) 441-1569

City of Portsmouth Response to Navy Letter dated June 13, 2017

-----Original Message-----
From: Adumuah, Jocelyn [mailto:AdumuahJt@portsmouthva.gov]
Sent: Wednesday, August 09, 2017 7:55 AM
To: Robbins, Heather L CIV NAVFAC MIDLANT, EV
Cc: Baldwin, Bob
Subject: [Non-DoD Source] RE: Proposed United States Fleet Forces Inland Training - City of Portsmouth Planning Department Response

Good Morning Heather,

I concur with your interpretation of my voice message. I hope all is well. Jocelyn.

-----Original Message-----
From: Robbins, Heather L CIV NAVFAC MIDLANT, EV [mailto:heather.l.robbins@navy.mil]
Sent: Tuesday, August 08, 2017 10:51 AM
To: Adumuah, Jocelyn
Subject: Proposed United States Fleet Forces Inland Training - City of Portsmouth Planning Department Response

Good morning Jocelyn,

I received your voice message from Friday, August 4th regarding the proposed United States Fleet Forces Inland Training. To confirm, the City of Portsmouth Planning Department does not have any comments or concerns with regards to potential effects to historic properties. The proposed training is located in the vicinity of the Cradock Historic District; however, the City does not believe there will be any effect based on the information provided on the training.

I want to make sure I articulated the information correctly to provide to Virginia Department of Historic Resources (VA SHPO) as well as US Fleet Forces.

I appreciate your review of the proposed project and providing comments!

Thank you,
Heather

Heather Robbins
Cultural Resources Team Lead
NAVFAC MIDLANT - EV2

Appendix B
Coastal Consistency Determination

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DEPARTMENT OF THE NAVY
U.S. FLEET FORCES COMMAND
1562 MITSCHER AVENUE SUITE 250
NORFOLK VA 23551-2487

5090
Ser N46/077
August 17, 2017

Ms. Bettina Sullivan
Office of Environmental Impact Review
Department of Environmental Quality
Post Office Box 1105
Richmond, VA 23218

Dear Ms. Sullivan:

In accordance with the Coastal Zone Management Act (16 United States Code [U.S.C.] § 1456(c) and 15 Code of Federal Regulations Part 930 Subpart C), the United States Department of the Navy (Navy) requests concurrence with its Federal Consistency Determination for proposed expeditionary training events in the inland areas of the Virginia Capes Range Complex of the Hampton Roads fleet concentration area.

The enclosed Federal Consistency Determination contains detailed information and analysis of potential impacts from the proposed federal agency action. The Navy reviewed Virginia's Coastal Management Program and analyzed potential impacts to coastal zone uses and resources in preparing this consistency determination. Based on the analyses, the Navy has determined that the proposed federal agency action will be fully consistent with Virginia's Coastal Management Program. The Navy has initiated consultation with the Virginia State Historic Preservation Officer to resolve any potential effects on historic properties associated with the project. On July 7, 2017, the Virginia State Historic Preservation Officer concurred with the Navy's determination of no adverse effects on historic resources.

We look forward to your timely review of and concurrence with the Navy's determination. Our point of contact for this matter is Mr. Greg Thompson who may be reached at 757-836-6938 or gregory.s.thompson2@navy.mil.

Sincerely,

Elizabeth Nashold
Director, Fleet Installations and Environment
and Deputy Chief of Staff

Enclosure: Federal Agency Coastal Consistency Determination

FEDERAL AGENCY COASTAL CONSISTENCY DETERMINATION

UNITED STATES FLEET FORCES INLAND TRAINING HAMPTON ROADS, VIRGINIA

PROPOSED FEDERAL AGENCY ACTION

Introduction

This document provides the Commonwealth of Virginia with the United States (U.S.) Department of the Navy's (Navy's) Consistency Determination under section 307(c)(1) of the Coastal Zone Management Act (CZMA) of 1972, as amended, and 15 Code of Federal Regulations [C.F.R.] Part 930, Subpart C, for proposed U.S. Fleet Forces (USFF) expeditionary training events in the inland areas of the Virginia Capes (VACAPES) Range Complex of the Hampton Roads fleet concentration area in southeastern Virginia (VA). After careful consideration, the Navy has determined that the proposed federal agency action would be undertaken in a manner fully consistent with the applicable enforceable policies of the Virginia Coastal Zone Management (CZM) Program.

Description of the Proposed Federal Agency Action

The Navy proposes to conduct USFF expeditionary training events in the inland areas of the VACAPES Range Complex of the Hampton Roads fleet concentration area in southeastern Virginia. The proposed federal agency action includes current types and frequency of inland training events having been conducted for decades at Navy installations in Hampton Roads, as well as the addition of new training events on Navy-owned and non-Navy training areas.

The purpose of the proposed federal agency action is to maintain Navy readiness by continuing to execute current types of inland training at current levels and in current locations; accommodate changes in annual frequency of training; support future training requirements; achieve and sustain readiness of ships and squadrons; and support the acquisition and implementation of advanced military technology into the fleet. The need for the proposed federal agency action is to prepare combat-capable forces that are ready to deploy worldwide for prompt and sustained combat incident to operations at sea consistent with 10 United States Code section 5062. The Navy meets that mandate, in part, by conducting inland training and by ensuring that naval forces have access to the required training environments on land, in the water, and in the air where the Navy can develop and maintain skills for military missions.

Within the action area, which encompasses 10 training locations, commands conduct basic, coordinated unit level field training exercises, as well as integrated unit training intended to introduce, build, and maintain skills necessary for meeting the mission safely and professionally. The Navy analyzed all the inland training events and categorized them by primary training event activities (PTEAs) as described in Table 1. Each of the 10 inland training locations supports one or more of the PTEAs.

Table 1. Primary Training Event Activities

Primary Training Event Activity	*Description*
Beach Landings	The landing of vessels, movement of troops, and use of equipment on the beach.
Equipment Use	Use of equipment (e.g., generators) to support training; only equipment producing emissions or noise are analyzed (i.e., handheld devices not included).
Explosives on Land	Detonations occurring on land, primarily for explosive ordnance disposal training.
Personnel Movement	Movement of troops in undeveloped areas, either in and around a training area or between training areas. Does not include troops aboard a vessel or aircraft or moving on foot along established roads.
Underwater Movement[1]	Movement of devices that operate underwater (i.e., remotely operated vehicles [controlled remotely by a human operator]).
Vehicle Movement	Movement of land tactical vehicles to and from a training location and vehicle use at the training location.
Vessel Movement[2]	Movement of vessels to and from a training location and vessel use at the training location.
Weapons Firing – Blank Fire	Firing of small (.50 caliber or less) and medium (greater than .50 caliber and up to 56 mm) arms weapons using cartridges that contain gunpowder but no bullet or projectile; a shell casing is expended at the point of fire. There is a 200-foot stand-off distance from boats and personnel during all training events when using blank fire.
Weapons Firing – Non-Lethal Training Ammunition	Firing of non-lethal training ammunition (e.g., marking cartridges and paint balls). Does not include use of explosives.

[1] Applies only at Jones Pond on Cheatham Annex.

[2] Applies only at the Southern Branch of the Elizabeth River training location.

Project Location

The proposed federal agency action would occur on Navy and non-Navy owned areas. With the exception of training occurring on federal land, certain training areas are located within Virginia's designated coastal management area. Federally-owned lands are statutorily excluded from the CZMA's definition of the "coastal zone" (16 U.S.C. section 1453[1]) and activities occurring on these lands are exempt from the CZMA unless they affect coastal uses or resources beyond the boundary of the federal property. The training locations are listed below and presented in Figure 1.

Navy-owned (federal) training locations include:

- Joint Expeditionary Base (JEB) Little Creek
- JEB Fort Story
- Dam Neck Annex (and portions of neighboring Camp Pendleton State Military Reservation)
- Naval Auxiliary Landing Field (NALF) Fentress
- Northwest Annex
- St. Juliens Creek Annex
- Naval Weapons Station (NWS) Yorktown
- Cheatham Annex

Non-Navy owned training locations include:

- First Landing State Park
- A segment of the Southern Branch of the Elizabeth River

No construction is involved in the federal agency action. With few exceptions, the PTEAs occur on land (e.g., beaches, firing ranges, established demolition pits, mock urban villages, piers and trails) within military installation boundaries. The few exceptions include the underwater movements of remotely operated vehicles at Jones Pond within Cheatham Annex; vessel movements and blank fire along a segment of the Southern Branch of the Elizabeth River; and personnel movements (physical fitness training) along the park trails of First Landing State Park.

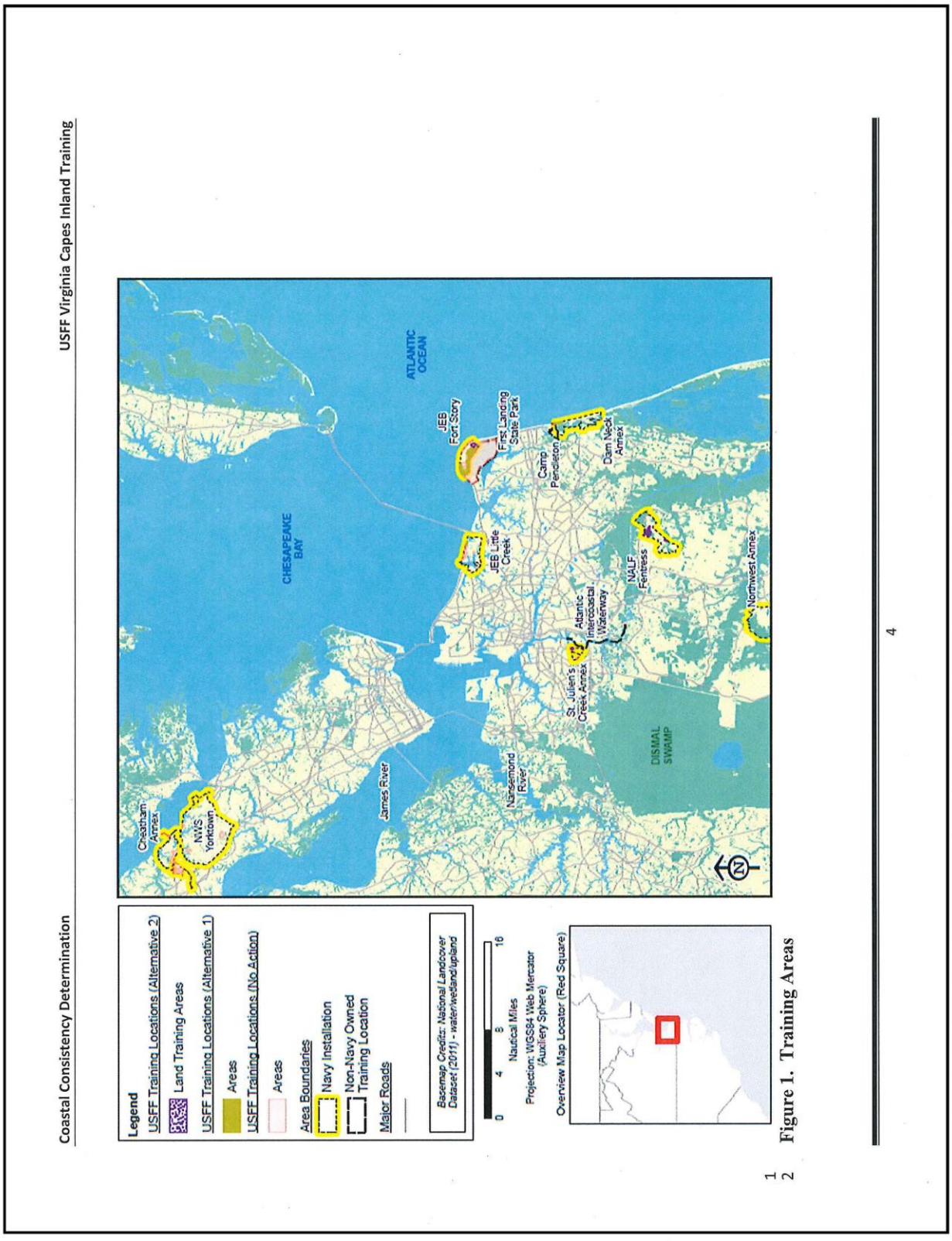

Figure 1. Training Areas

BACKGROUND

The Coastal Zone Management Act of 1972 (CZMA), codified in 16 U.S. Code section 1451 *et seq.*, and administered by the Secretary of Commerce through the Office of Coastal Resources Management of the National Oceanic and Atmospheric Administration, established a comprehensive regulatory scheme for effective management, beneficial use, protection, and development of the coastal zone and its natural resources. CZMA encourages coastal states and provides a mechanism for them to develop, obtain federal approval for, and implement a broad-based coastal management program (CMP).

Federal approval of a state CMP triggers an obligation upon federal agencies under CZMA section 307 to make coastal consistency determinations for their activities. Section 307 applies to federal agency activity in a state's coastal zone and also to federal agency activity outside the coastal zone, if the activity affects a land or water use in or natural resources of the coastal zone. Federal agency activity includes activity performed by a federal agency, approved by a federal agency, or for which a federal agency provides financial assistance. Such activity, whether direct, indirect, or cumulative, must be demonstrated to be consistent with the enforceable policies of the state's CMP, unless full consistency is otherwise prohibited by federal law. There are no categorical exemptions to or exclusions from section 307.

The Navy has determined that the proposed federal agency action is reasonably likely to affect a land use, water use, or natural resource of the Commonwealth of Virginia's coastal zone. Therefore, the Navy has prepared this consistency determination rather than a no effect or negative determination. However, as discussed herein, the Navy will conduct the proposed activity in a manner that will be fully consistent with the applicable enforceable policies of the Virginia Coastal Zone Management Program.

The nine enforceable policies of Virginia's federally-approved CZM Program are: (1) fisheries management; (2) subaqueous lands management; (3) wetlands management; (4) primary coastal sand dunes management; (5) point source pollution control; (6) non-point source pollution control; (7) shoreline sanitation; (8) air pollution control; and (9) coastal lands management.

This Coastal Consistency Determination is submitted under CZMA and its implementing regulations, and Chief of Naval Operations Instruction M-5090.1, "Environmental Readiness Program Manual."

ANALYSIS OF ENFORCEABLE POLICIES

1. Fisheries Management

Pursuant to Code of Virginia §28.2-200 through 713 and §29.1-100 through 570, the Virginia Marine Resources Commission (VMRC) and the Virginia Department of Game and Inland Fisheries (VDGIF) regulates finfish and shellfish resources through the management of commercial and recreational fisheries. Pursuant to Code of Virginia §3.1-249.59 through 249.62, VMRC, in cooperation with the VDGIF and the Virginia Department of Agriculture and

Consumer Services (VDACS), monitors boating activities to mitigate threats to marine animal species from the introduction of tributyltin, a component found in certain types of boat paint.

Consistency Analysis

Eight of the ten training sites included in the proposed federal agency action are land-based, upland training locations on military installations. At these locations, the proposed federal agency action would have no direct impacts on commercial or recreational fisheries. Indirect impacts on fisheries are not anticipated because physical disturbance to upland training areas from, for example, vehicle movements are not expected to release pollutants or increase turbidity to receiving waters. No commercial fisheries are located within any of the ten proposed federal agency action locations.

At Jones Pond on Cheatham Annex, underwater remotely operated vehicles are not expected to impact recreational fisheries because the activity occurs only once each year and the vehicle operates at a slow speed. On the Southern Branch of the Elizabeth River, vessel movements may temporarily suspend sediments, but the sandy substrate should resettle quickly (as sandy sediments settle more quickly than silty sediments). Some uncaptured empty brass casings associated with blank fire are expected to enter the water and deteriorate over time, and may disperse with tidal flows or become buried by natural sedimentation. Given that the events are conducted infrequently, negligible impacts to recreational fisheries would be expected. The Navy prepared an essential fish habitat assessment and delivered the assessment to the National Marine Fisheries Service pursuant to consultation requirements of §305(b) of the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. 1855(b)). The proposed federal agency action would not violate the provisions outlined in Code of Virginia sections §28.2-200 through 28.2-713 and Code of Virginia sections §29.1-100 through 29.1-570. The proposed federal agency action does not involve any act which would limit access to areas in the coastal zone where recreational or commercial fishing occur.

The Navy's proposed activities do not entail the maintenance or painting of ships. The Navy phased out the use of organotin antifouling paints including TBT on ships in the 1990s. Per section 631-2.8.3 of S9086-VD-STM-010/CH-631, *Preservation of Ships in Service General*, organotin antifouling paints are no longer authorized for use on Navy ships.

The proposed federal agency action would be fully consistent with the fisheries management enforceable policy of the Virginia CZM Program.

2. Subaqueous Lands Management

Pursuant to Code of Virginia §28.2-1200 through 1400, the VMRC administers a permit program for the use of State-owned subaqueous lands. The management program for subaqueous lands establishes conditions for granting or denying permits for the use of state-owned bottomlands based on considerations of potential effects on marine and fisheries resources, wetlands, adjacent or nearby properties, anticipated public or private benefits, and water quality standards established by VDEQ Water Division. According to VMRC's Subaqueous Guidelines, most activities over, under, or on State-owned submerged lands require a VMRC permit. Section 28.2-

1203 of the Virginia Code states that it shall be unlawful and constitute a Class I misdemeanor for anyone to build, dump, or otherwise trespass upon or over or encroach upon or take or use any materials from the beds of the bays and ocean, rivers, streams, creeks, which are the property of the Commonwealth, unless such act is pursuant to statutory authority or a permit by the Marine Resources Commission. Activities which may require a permit include but are not limited to: dredging, filling, and construction of bulkheads, riprap revetments, groins, jetties, boat ramps, and piers.

Consistency Analysis

The proposed VACAPES inland training activities do not require or include any dredging, filling, construction/installation of new structures, overhead or submarine crossings, moorings in tidal waters, or construction activities in non-tidal waters. Except for two locations, all training occurs on military installation upland areas. The two non-upland training areas are Jones Pond (on Cheatham Annex) and a segment of the Southern Branch of the Elizabeth River. Vessel movements (kayaks and a remotely operated underwater vehicle) in Jones Pond (on Cheatham Annex), and small motorized vessel movements on the Southern Branch of the Elizabeth River are consistent with civilian uses of these surface waters and do not significantly impact wetlands or subaqueous bottom. Training with blank fire by personnel in vessels on the Southern Branch of the Elizabeth River generates expended brass casings, approximately fifteen percent of which go uncaptured. Uncaptured empty brass casings are expected to deteriorate, may disperse over time with river currents or become buried by natural sedimentation, and be removed during the course of periodic maintenance dredging. Periodic maintenance dredging of the Southern Branch of the Elizabeth River keeps the Atlantic Intracoastal Waterway open for commercial and recreational navigation.

The proposed federal agency action would have no effect on subaqueous lands management and would be fully consistent with the subaqueous lands management policy of the Virginia CZM Program.

3. Wetlands Management

Pursuant to Code of Virginia §28.2-1301 through 1320, the VMRC administers a program for the protection of tidal wetlands. Pursuant to Code of Virginia §62.1-44.15.5 and the Clean Water Act (CWA) (33 U.S.C. §1251 et seq.), the VDEQ administers a water protection permit program to include tidal and non-tidal wetlands. The U.S. Army Corps of Engineers (USACE) has permitting jurisdiction over Waters of the U.S. under section 404 of the CWA. Executive Order (EO) 11900 requires that new construction in wetlands be avoided to the greatest extent possible and that all practicable measures be taken to minimize impacts on wetlands.

Consistency Analysis

Wetland areas are present within and adjacent to training areas; however, destruction or modification of wetlands would not occur. Training activities do not require or include any draining, filling or dumping, permanent flooding or impounding of wetlands. The proposed federal agency action vessel movements adjacent to wetlands (i.e., along the Southern Branch of

the Elizabeth River) would be similar to regular civilian water traffic with similar minor impacts but would not result in alteration or degradation of wetland acreage or functions. No permitting or water quality certification would be required.

The proposed federal agency action would be fully consistent with the wetlands management policy of the Virginia CZM Program.

4. Coastal Primary Dunes Management

Pursuant to Code of Virginia 28.2-1400 through 1420, the VMRC administers a program to prevent the destruction or alteration of coastal primary dunes.

Consistency Analysis

Certain proposed training activities within the VACAPES Inland Training Study Area (e.g., beach landings at JEB Little Creek-Fort Story and NAS Oceana's Dam Neck Annex) take place on federally-owned beaches and dunes. Because of the intense level of development in the region, Dam Neck Annex, Camp Pendleton, and the other coastal military installations are extremely important to the region's ecology. These bases, along with First Landing State Park to the north and Back Bay National Wildlife Refuge to the south, support the few remaining undeveloped dune systems along the Virginia coast. Together, Dam Neck Annex and Camp Pendleton have nearly 4 miles of coastal primary and secondary sand dunes. JEB Little Creek has over 2 miles of dunes; while JEB Fort Story has approximately 3 miles of dunes.

Although federal lands are excluded from state coastal zones, activities on federal lands that are reasonably likely to affect use of lands, waters, or natural resources of Virginia's coastal zone must be consistent, to the maximum extent practicable, with the enforceable policies of Virginia's Coastal Resources Management Program. The Navy strives to avoid and minimize impacts to coastal zone resources to the extent practicable when conducting activities that have the potential to impact these resources. The Navy implements management actions including shoreline stabilization projects and measures that are conducted annually to reduce beach erosion and enhance dune stabilization and restoration.

As noted in the Integrated Natural Resources Management Plan for Dam Neck Annex, specific dune management activities include rebuilding beach contours by relocating and importing sand, placement of Christmas trees to stabilize dunes, installation of sand fences to build dunes and prevent blowouts, planting of beach and dune vegetation to stabilize the dunes, and placement of benchmarks to monitor sand levels. The Integrated Natural Resources Management Plans for JEB Little Creek and Fort Story have similar beach and dune restoration, management and protection provisions.

The proposed federal agency action does not involve any permanent alteration or construction upon any coastal primary sand dune. Amphibious training with landing craft air cushioned (LCAC) vehicles is restricted to certain areas to minimize impacts to the Navy's protective dune system. At JEB Fort Story, amphibious craft movement on land during beach landing activities occurs on the beaches and not with within the dune areas. At NAS Oceana's Dam Neck Annex,

amphibious craft movement on land during beach landing activities occurs on the beaches and upon an established LCAC inter-dune training track, not with within the vegetated dune areas.

The proposed federal agency action would be fully consistent with the coastal primary dunes management policy of the Virginia CZM Program.

5. Point Source Pollution Control

Pursuant to Code of Virginia §62.1-44.15 and the CWA (33 U.S.C. §1251 et seq.), the VDEQ regulates discharges to state waters through the Virginia Pollution Discharge Elimination System (VPDES) and Virginia Pollution Abatement Permit programs. The point source program is administered by the State Water Control Board (DEQ) pursuant to Virginia Code §62.1-44.15. Point source pollution control is accomplished through the implementation of: (1) the National Pollutant Discharge Elimination System (NPDES) permit program established pursuant to Section 402 of the federal Clean Water Act and administered in Virginia as the VPDES permit program; and (2) the Virginia Water Protection Permit (VWPP) program administered by DEQ (Virginia Code §62.1-44.15:20 et seq.) and Water Quality Certification pursuant to Section 401 of the Clean Water Act.

Consistency Analysis

Training activities employ a variety of vessels, vehicles and generators. Fuel storage, refueling, and vehicle maintenance activities associated with the proposed federal agency action that have the potential to impact storm water quality are conducted at existing installation facilities that are managed in accordance with the requirements of VPDES permits and Storm Water Pollution Prevention Plans. No new stormwater facilities are proposed or required as a result of the proposed federal agency action. The proposed federal agency action would not result in new point source discharges of pollutants and would not require permitting.

The proposed federal agency action would be fully consistent with the point source pollution control enforceable policy of the Virginia CZM Program.

6. Non-Point Source Pollution Control

Pursuant to Code of Virginia §62.1-44.15:24 et seq. and §62.1-44.15:51 et seq., the VDEQ administers a program for the control of soil sedimentation and erosion into surface waters and for reducing chemical inputs conveyed to water bodies by these processes.

Consistency Analysis

No construction or land disturbing activities such as clearing, grading, installation of staging areas, parking lots, roads, buildings, utilities, borrow areas, and soil stockpiles are part of the proposed federal agency action. However, proposed training activities including beach landings could affect the quality of state waters through increased erosion potential and subsequent sedimentation caused by amphibious vehicle movements in the sand. These activities are intermittent and occur within a naturally dynamic zone. This activity is further offset by the

Navy's beach and shoreline stabilization projects implemented on a periodic and recurring basis. Sediments within the Southern Branch of the Elizabeth River may temporarily experience physical disturbance from the vessel movements through the surface waters but the sandy substrate would resettle quickly (as sandy sediments settle more quickly than silty sediments). The training activities occur at sites that have historically been used for military training and would not result in a change to the land surface, and would not require permitting.

The proposed federal agency action is fully consistent with the non-point source water pollution control policy of the Virginia CZM Program.

7. Shoreline Sanitation

Pursuant to Code of Virginia 32.1-164 through 165, the Virginia Department of Health regulates the storage, treatment, disposal, or reclamation of sewage or combined sewage and industrial wastes, including septic tanks and alternative discharge sewage systems.

Consistency Analysis
Training activities associated with the proposed federal agency action would not include or require any new sanitary systems or alteration to the existing sanitary systems at any training location.

The proposed federal agency action would be fully consistent with the shoreline sanitation policy of the Virginia CZM Program.

8. Air Pollution Control

Pursuant to Code of Virginia §10-1.1300 and the Clean Air Act (CAA) (42 U.S.C. §7401 et seq.), the Virginia DEQ implements a legally enforceable State Implementation Plan for the attainment and maintenance of the National Ambient Air Quality Standards (NAAQS). The State Air Pollution Control Board administers this program.

Consistency Analysis
The proposed federal agency action would not include installation or operation of a stationary emissions source. No air permitting would be required. Air emissions would be generated from vessel operations, vehicle movements, other equipment (e.g., mobile generators) and ordnance expenditures. The majority of these emissions (for those activities that have been ongoing in the region) are already part of the current ambient criteria air pollutant concentrations in the Hampton Roads Intrastate Air Quality Control Region, which is in attainment for all criteria pollutants. Emissions of the remaining (i.e., new) training activities would be below General Conformity *de minimis* thresholds. The proposed federal agency action would not violate NAAQS in the Hampton Roads Intrastate Air Quality Control Region and would conform to the State Implementation Plan.

The proposed federal agency action would be fully consistent with the air pollution control policy of the Virginia CZM Program.

9. Coastal Lands Management

Administered by the Chesapeake Bay Local Assistance Department, the Chesapeake Bay Preservation Act guides land development in coastal areas to protect the Chesapeake Bay and its tributaries. Coastal lands management is conducted by state and local cooperative programs administered by VDEQ's Water Division established pursuant to the Chesapeake Bay Preservation Act (Virginia Code 62.1-44.15:67 through 62.1-44.15:79) and Chesapeake Bay Preservation Area Designation and Management Regulations. The Chesapeake Bay Designation Act and Management Regulations require localities in Tidewater Virginia to establish local protection ordinances designating Chesapeake Bay Preservation Areas (CBPA), such as Resource Protection Areas (RPAs) or Resource Management Areas (RMAs).

Consistency Analysis

CBPAs have been delineated by localities on NWS Yorktown, Cheatham Annex (York County), JEB Little Creek (Virginia Beach), and JEB Fort Story (Virginia Beach). The City of Chesapeake has not delineated CBPAs on federally-owned land, however areas analogous to CBPAs are present on St Julien's Creek Annex. CBPAs have been delineated on and/or adjacent to the non-Navy owned training sites (Southern Branch of the Elizabeth River and First Landing State Park).

Land development is not part of the proposed federal agency action. However, proposed training activities, including beach landings in CBPAs or areas analogous to CBPAs could affect the quality of state waters through increased erosion potential and subsequent sedimentation. However these activities occur at sites that have historically been used for military training and the proposed federal agency action would not result in land surface changes that would alter the runoff characteristics of these areas. The proposed federal agency action will not require any clearing, grading, or excavation.

The proposed federal agency action would be fully consistent with the coastal lands management policy of the Virginia CZM Program.

CONCLUSION

Based on the foregoing analysis, the Navy has determined that the proposed federal activity is reasonably likely to affect land uses, water uses, or natural resources of the Commonwealth of Virginia's coastal zone pursuant to the CZMA. However, the activity would be conducted in a manner that is fully consistent with the enforceable policies of the Virginia Coastal Zone Management Program.

Elizabeth Nashold
Director, Fleet Installations and Environment
and Deputy Chief of Staff

Elizabeth Nashold
Director, Fleet Installations and Environment
and Deputy Chief of Staff

8/17/17
Date

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

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October 25, 2017

Mr. Greg Thompson
Department of the Navy
U.S. Fleet Forces Command
1562 Mitscher Avenue Suite 250
Norfolk, VA 23511-2487

RE: Federal Consistency Determination: Virginia Capes Range Complex, York County, City of Virginia Beach, City of Chesapeake, City of Portsmouth, and City of Norfolk (5090/Ser N46/077) (DEQ 17-126F).

Dear Mr. Thompson:

The Commonwealth of Virginia has completed its review of the federal consistency determination (FCD) for the above-referenced project. The Department of Environmental Quality (DEQ) is responsible for coordinating Virginia's review of FCDs and responding on behalf of the Commonwealth. This letter is in response to the FCD received by DEQ on August 28, 2017. The following agencies and locality participated in this review:

Department of Environmental Quality
Department of Conservation and Recreation
Department of Game and Inland Fisheries
Department of Health
Department of Historic Resources
Marine Resources Commission
City of Norfolk

York County, City of Virginia Beach, City of Chesapeake, City of Portsmouth, and Hampton Roads Planning District Commission also were invited to comment.

Navy Capes Range Complex
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PROJECT DESCRIPTION

The U.S. Department of the Navy (Navy) proposes to conduct U.S. Fleet Forces expeditionary training events in the inland areas of the Virginia Capes Range Complex of the Hampton Roads fleet concentration area in southeastern Virginia. The proposed federal agency action includes the continuation of current types and frequency of inland training events that have been conducted for decades at Navy installations in Hampton Roads, as well as the addition of new training events on Navy-owned and non-Navy training areas. The purpose of the proposed federal agency action is to maintain Navy readiness by continuing to execute current types of inland training at current levels and in current locations; accommodate changes in annual frequency of training; support future training requirements; achieve and sustain readiness of ships and squadrons; and support the acquisition and implementation of advanced military technology into the fleet. Within the action area, which encompasses 10 training locations, commands conduct basic, coordinated unit level field training exercises, as well as integrated unit training intended to introduce, build, and maintain necessary skills. The training locations are listed below:

Navy-owned (federal) training locations include:

- Joint Expeditionary Base Little Creek
- JEB Fort Story
- Dam Neck Annex (and portions of neighboring Camp Pendleton State Military Reservation)
- Naval Auxiliary Landing Field Fentress
- Northwest Annex
- St. Juliens Creek Annex
- Naval Weapons Station Yorktown
- Cheatham Annex

Non-Navy owned training locations include:

- First Landing State Park
- A segment of the Southern Branch of the Elizabeth River

No construction is involved in the proposed federal actions. With few exceptions, the training activities will occur on land (e. g., beaches, firing ranges, established demolition pits, mock urban villages, piers and trails) within military installation boundaries. The few exceptions include the underwater movements of remotely operated vehicles at Jones Pond within Cheatham Annex; vessel movements and blank fire along a segment of the Southern Branch of the Elizabeth River; and personnel movements (physical fitness training) along the park trails of First Landing State Park.

FEDERAL CONSISTENCY UNDER THE COASTAL ZONE MANAGEMENT ACT

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Pursuant to the Coastal Zone Management Act of 1972, as amended, activities both within and outside of the Commonwealth's designated coastal zone with reasonably foreseeable effects on any coastal uses or resources resulting from a Federal agency activity (15 CFR Part 930, Subpart C) or Federal license or permit activity (15 CFR Part 930, Subpart D) must be consistent with Virginia's Coastal Zone Management (CZM) Program. The Virginia CZM Program consists of a network of programs administered by several agencies. DEQ coordinates the review of FCDs and federal consistency certifications (FCCs) with agencies administering the enforceable policies of the Virginia CZM Program.

PUBLIC PARTICIPATION

In accordance with 15 CFR §930.2, a public notice of this proposed action was published in the DEQ Office of Environmental Impact Review Program Newsletter and on the DEQ website from August 31, 2017 to September 28, 2017. No public comments were received in response to the notice.

FEDERAL CONSISTENCY CONCURRENCE

The FCD states that the project is consistent with the enforceable policies of the Virginia CZM Program. The reviewing agencies that are responsible for the administration of the enforceable policies generally agree with the FCD. Based on the review of the FCD and the comments submitted by agencies administering the enforceable policies of the Virginia CZM Program, DEQ concurs that the proposed project is consistent to the maximum extent practicable with the CZM Program provided all applicable permits and approvals are obtained. In addition, DEQ encourages that applicant to consider the effects of the proposal on the advisory policies (http://www.deq.virginia.gov/Programs/EnvironmentalImpactReview/FederalConsistencyReviews.aspx#advisory) of the Virginia CZM Program. However, other state approvals which may apply to this project are not included in this FCD. Therefore, the federal agency must also ensure that this project is operated in accordance with all applicable federal, state and local laws and regulations.

ANALYSIS OF ENFORCEABLE POLICIES

The FCD states that the proposed projects would not affect the point source pollution control, nonpoint pollution control or shoreline sanitation enforceable policies. The analysis which follows responds to the discussion of the enforceable policies of the Virginia CZM Program that apply to this project and review comments submitted by agencies that administer these enforceable policies.

1. Air Pollution Control. The FCD (page 10) indicates that the implementation of the proposed activities would not significantly affect air quality.

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1(a) Agency Jurisdiction. The DEQ Air Division, on behalf of the Air Pollution Control Board, is responsible for developing regulations that implement Virginia's Air Pollution Control Law. DEQ is charged with carrying out mandates of the state law and related regulations as well as Virginia's federal obligations under the Clean Air Act as amended in 1990. The objective is to protect and enhance public health and quality of life through control and mitigation of air pollution. The division ensures the safety and quality of air in Virginia by monitoring and analyzing air quality data, regulating sources of air pollution, and working with local, state and federal agencies to plan and implement strategies to protect Virginia's air quality. The appropriate regional office is directly responsible for the issue of necessary permits to construct and operate all stationary sources in the region as well as to monitor emissions from these sources for compliance. As a part of this mandate, the environmental documents of new projects to be undertaken in the state are also reviewed. In the case of certain projects, additional evaluation and demonstration must be made under the general conformity provisions of state and federal law.

1(b) Ozone Attainment Area. According to the DEQ Air Division, the project site is located in an ozone attainment area and an emission control area for volatile organic compounds (VOCs) and oxides of nitrogen (NO_X), which are contributors to ozone pollution.

1(c) Agency Recommendation. DEQ recommends that all precautions are necessary to restrict the emissions of VOCs and NO_X during construction.

1(d) Conclusion. As proposed, the project is consistent with the air pollution control enforceable policy of the Virginia CZM Program.

2. Coastal Lands Management. The FCD (page 11) states that land development is not part of the proposed federal agency action. However, proposed training activities, including beach landings in Chesapeake Bay Preservation Areas (CPBAs) or areas analogous to CBPAs, could affect the quality of state waters through increased erosion potential and subsequent sedimentation. However, these activities occur at sites that have historically been used for military training and the proposed federal agency action would not result in land surface changes that would alter the runoff characteristics of these areas. The proposed federal agency action will not require any clearing, grading, or excavation.

2(a) Agency Jurisdiction. The DEQ Office of Local Government Programs (OLGP) administers the coastal lands management enforceable policy through the Chesapeake Bay Preservation Act (Bay Act) (Virginia Code §62.1-44.15 *et seq.*) and Chesapeake Bay Preservation Area Designation and Management Regulations (Regulations) (9VAC 25-830-10 *et seq.*).

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2(b) Agency Findings. The DEQ OLGP states that without land disturbance, there will be no impacts to Chesapeake Bay Preservation Area (CBPAs) or lands analogous to CBPAs.

2(c) Conclusion. As proposed, the project is consistent with the coastal lands management enforceable policy of the Virginia CZM Program.

3. Subaqueous Lands Management. The FCD (page 7) states that the two non-upland training areas are Jones Pond (on Cheatham Annex) and a segment of the Southern Branch of the Elizabeth River. Vessel movements (kayaks and a remotely operated underwater vehicle) in Jones Pond and small motorized vessel movements on the Southern Branch of the Elizabeth River are consistent with civilian uses of these surface waters and do not significantly impact wetlands or subaqueous bottom.

3(a) Agency Jurisdiction. The Virginia Marine Resources Commission (VMRC) regulates encroachments in, on or over state-owned subaqueous beds as well as tidal wetlands pursuant to Virginia Code §28.2-1200 through 1400. For nontidal waterways, VMRC states that it has been the policy of the Habitat Management Division to exert jurisdiction only over the beds of perennial streams where the upstream drainage area is 5 square miles or greater. The beds of such waterways are considered public below the ordinary high water line.

3(b) Agency Finding. VMRC did not identify impacts to resources under its jurisdiction.

3(c) Conclusion. As proposed, the project would be consistent with the subaqueous lands management enforceable policy of the Virginia CZM Program.

4. Fisheries Management. The FCD (page 6) states that implementation of the proposed activities would not affect fisheries.

4(a) Agency Jurisdiction. The fisheries management enforceable policy is administered by the VMRC (Virginia Code Section 28.2-200 to 28.2-713) and the Department of Game and Inland Fisheries (DGIF) (Virginia Code Section 29.1-100 to 29.1-570). In addition, the VDH Division of Shellfish Sanitation (DSS) is responsible for protecting the health of the consumers of molluscan shellfish and crustacea by ensuring that shellfish growing waters are properly classified for harvesting, and that molluscan shellfish and crustacea processing facilities meet sanitation standards. The mission of this Division is to minimize the risk of disease from molluscan shellfish and crustacea products at the wholesale level by classifying shellfish waters for safe commercial and recreational harvest; by implementing a statewide regulatory inspection program for commercial processors and shippers; and by providing technical guidance and

assistance to the shellfish and crustacea industries regarding technical and public health issues.

4(b) Agency Findings. VDH, DGIF and VMRC did not indicate that fisheries resources under their jurisdictions would be affected.

4(c) Conclusion. Assuming adherence to erosion and sediment controls, if necessary, the project would be consistent with the fisheries management enforceable policy of the Virginia CZM Program.

5. Dune Protection. According to the FCD (page 8), Dam Neck Annex and Camp Pendleton have nearly 4 miles of coastal primary and secondary sand dunes. JEB Little Creek has more than 2 miles of dunes while JEB Fort Story has approximately 3 miles of dunes. The proposed federal agency action does not involve any permanent alteration or construction upon any coastal primary sand dune. Amphibious training with landing craft air cushioned vehicles is restricted to certain areas to minimize impacts to the Navy's protective dune system. At JEB Fort Story, amphibious craft movement on land during beach landing activities occurs on the beaches and not with within the dune areas. At NAS Oceana's Dam Neck Annex amphibious craft movement on land during beach landing activities occurs on the beaches and upon an established inter-dune training track, not with within the vegetated dune areas.

5(a) Agency Jurisdiction. 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).

5(b) Agency Findings. VMRC states that in the City of Virginia Beach any impacts, temporary or permanent, to the existing coastal primary dune resources would need at least a local review and potentially a City of Virginia Beach Wetlands Board permit. Federal proposals are not necessarily exempt from the local review process.

5(c) Agency Recommendation. Contact the City of Virginia Beach to determine if the proposed activities require local review.

5(d) Conclusion. Assuming adherence to applicable local reviews, the project would be consistent with the fisheries management enforceable policy of the Virginia CZM Program.

6. Wetlands Management. The FCD (page 7) states that wetland areas are present within and adjacent to training areas; however, destruction or modification of wetlands would not occur. Training activities do not require or include any draining, filling or dumping, permanent flooding or impounding of wetlands.

6(a) Wetlands Management. The wetlands management enforceable policy is administered by VMRC (tidal wetlands) (Virginia Code §28.2-1301 through 28.2-1320) and DEQ through the Virginia Water Protection (VWP) Permit program (tidal and non-tidal wetlands) (Virginia Code §62.1-44.15:20 and Water Quality Certification pursuant to Section 401 of the Clean Water Act).

6(b) Agency Findings. The DEQ Tidewater Regional Office (TRO) VWP Permit Program did not respond to the request for comments. VMRC did not indicate the implementation of the proposed activities would affect resources under its jurisdiction.

6(c) Conclusion. As proposed, the project is consistent with the wetlands management enforceable policy of the Virginia CZM Program.

ADDITIONAL ENVIRONMENTAL CONSIDERATIONS

In addition to the enforceable policies of the Virginia CZM Program, comments also were provided with respect to applicable requirements and recommendations of the following programs:

1. Solid and Hazardous Waste Management.

1(a) Agency Jurisdiction. On behalf of the Virginia Waste Management Board, the DEQ Division of Land Protection and Revitalization is responsible for carrying out the mandates of the Virginia Waste Management Act (Virginia Code §10.1-1400 *et seq.*), as well as meeting Virginia's federal obligations under the Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response Compensation Liability Act (CERCLA), commonly known as Superfund. The DEQ Division of Land Protection and Revitalization also administers those laws and regulations on behalf of the State Water Control Board that govern Petroleum Storage Tanks (Virginia Code §62.1-44.34:8 *et seq.*), including Aboveground Storage Tanks (9VAC25-91 *et seq.*) and Underground Storage Tanks (9VAC25-580 *et seq.* and 9VAC25-580-370 *et seq.*), also known as Virginia Tank Regulations, and § 62.1-44.34:14 *et seq.* which covers oil spills.

Virginia:

- Virginia Waste Management Act, Virginia Code § 10.1-1400 *et seq.*
- Virginia Solid Waste Management Regulations, 9VAC20-81
  - (9VAC20-81-620 applies to asbestos-containing materials)
- Virginia Hazardous Waste Management Regulations, 9VAC20-60
  - (9VAC20-60-261 applies to lead-based paints)
- Virginia Regulations for the Transportation of Hazardous Materials, 9VAC20-110.

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- Resource Conservation and Recovery Act (RCRA), 42 U.S. Code sections 6901 *et seq.*
- U.S. Department of Transportation Rules for Transportation of Hazardous Materials, 49 Code of Federal Regulations, Part 107
- Applicable rules contained in Title 40, Code of Federal Regulations.

1(b) Agency Findings. The DEQ Division of Land Protection and Revitalization (DLPR) states that it has no comment since no construction is proposed.

1(c) Requirements.

- Test and dispose of any wastes that are generated during project-related activities in accordance with applicable federal, state and local laws and regulations.
- The installation and use of an above-ground storage tank (>660 gallons) for temporary fuel storage (>120 days) during the project must follow the requirements in 9VAC25-91-10 et seq.

1(d) Agency Recommendations. DEQ encourages all projects to implement pollution prevention principles, including:

- the reduction, reuse and recycling of all solid wastes generated; and
- the minimization and proper handling of generated hazardous wastes.

2. Historic Structures and Architectural Resources.

2(a) Agency Jurisdiction. The Virginia Department of Historic Resources (DHR) conducts reviews of both federal and state projects to determine their effect on historic properties. Under the federal process, DHR is the State Historic Preservation Office, and ensures that federal undertakings – including licenses, permits, or funding – comply with Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulation at 36 CFR Part 800. Section 106 requires federal agencies to consider the effects of federal projects on properties that are listed or eligible for listing on the National Register of Historic Places. For state projects or activities on state lands, DHR is afforded an opportunity to review and comment on (1) the demolition of state property; (2) major state projects requiring an EIR; (3) archaeological investigations on state-controlled land; (4) projects that involve a landmark listed in the Virginia Landmarks Register; (5) the sale or lease of surplus state property; (6) exploration and recovery of underwater historic properties; and (7) excavation or removal of archaeological or historic features from caves. See DHR's website for more information about applicable state and federal laws and how to submit an application for review: http://www.dhr.virginia.gov/StateStewardship/Index.htm.

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2(b) Agency Finding. DHR concurs that the project will not result in an adverse impact.

3. Natural Heritage Resources.

3(a) Agency Jurisdiction.

3(a)(i) The Virginia Department of Conservation and Recreation's (DCR) Division of Natural Heritage (DNH): DNH's mission is conserving Virginia's biodiversity through inventory, protection and stewardship. The Virginia Natural Area Preserves Act (Virginia Code §10.1-209 through 217), authorized DCR to maintain a statewide database for conservation planning and project review, protect land for the conservation of biodiversity, and to protect and ecologically manage the natural heritage resources of Virginia (the habitats of rare, threatened and endangered species, significant natural communities, geologic sites, and other natural features).

3(a)(ii) The Virginia Department of Agriculture and Consumer Services (VDACS): The Endangered Plant and Insect Species Act of 1979 (Virginia Code Chapter 39 §3.1-1020 through 1030) authorizes VDACS to conserve, protect and manage endangered and threatened species of plants and insects. Under a Memorandum of Agreement established between VDACS and the DCR, DCR represents VDACS in comments regarding potential impacts on state-listed threatened and endangered plant and insect species.

3(b) Agency Findings – Natural Heritage Resources.

Naval Weapons Station Yorktown, First Landing State Park, St. Juliens Creek Annex: The Biotics Data System documents the presence of natural heritage resources within two miles of the project area. However, due to the scope of the activity and the distance to the resources, DCR DNH does not anticipate that this project will adversely impact these natural heritage resources.

Joint Expeditionary Base Little Creek: According to the information currently in DCR DNH's files, the Darlington's oak (*Quercus hemisphaerica*, G5/S1/NL/NL) and the Bluejack oak (*Quercus incana,* G5/S2/NL/NL) have been documented within the project site. Darlington's oak is a state-rare medium to large tree with brown to gray bark and faintly striped acorns 10-15 mm long (Radford et. al., 1968). Darlington's oak is currently known from four locations in Virginia's coastal plain. Bluejack oak is a small evergreen tree with dark brown to gray bark that is broken into squares; it also has elliptical leaves with a bluish hue. This tree is found in dry sandy soil (sandhills) (Radford et al, 1968). Bluejack oak is currently known from 11 occurrences and historically known from 5 occurrences in Virginia's coastal plain.

Joint Expeditionary Base Fort Story: According to the information currently in DCR DNH's files, the Eastern big-eared bat (*Corynorhinus rafinesquii macrotis*, G3G4T3/S2/NL/LE) and the S-banded tiger beetle, (*Cicindela trifasciata*, G5/S1/NL/NL) have been documented within the project site. The Eastern big-eared bat, named for its enormous ears twice the length of its head, is currently classified as endangered by DGIF. The S-banded tiger beetle has a broad range, from southern California to central Chile and from Virginia south to Venezuela (NatureServe, 2009). In Virginia, it is known from the southern coastal plain and piedmont. This tiger beetle occurs in a wide variety of water-edge habitats, including mudflats or swales in coastal areas, tidal estuaries, marshes and bays, and pond, river and stream edges (Knisely and Schultz, 1997).

Dam Neck Annex and Camp Pendleton: Habitat for the S-banded tiger beetle may occur in these areas.

Naval Auxiliary Landing Field Fentress: According to the information currently in DCR DNH's files, the Canebrake rattlesnake (*Crotalus horridus*, G4T4/S1/NL/LE) has been documented within the project site. Timber and Canebrake rattlesnakes are two forms of the same species (*Crotalus horridus*). The coastal plain populations of the Canebrake rattlesnake are currently classified as endangered by DGIF. Furthermore, according to a DCR biologist, potential exists for rare bats within the project site.

Northwest Annex: According to the information currently in DCR DNH's files, the Canebrake rattlesnake (*Crotalus horridus*, G4T4/S1/NL/LE) has been documented within the project site.

Cheatham Annex: According to the information currently in DCR DNH's files, Bog twayblade (*Liparis loeselii*, G5/S2/NL/NL) has been documented within the project site. Bog twqyablade, a state rare plant species, occurs in the northern United States.

3(c) Agency Findings – Threatened and Endangered Plant and Insect Species. DCR finds that the current activity will not affect any documented state-listed plant and insect species.

3(d) Agency Findings – State Natural Area Preserves. There are no State Natural Area Preserves under DCR's jurisdiction in the project vicinity.

3(e) Agency Recommendation. DCR has the following recommendations:

- To minimize impacts to the Darlington's oak (*Quercus hemisphaerica*, G5/S1/NL/NL) and the Bluejack oak (*Quercus incana,* G5/S2/NL/NL), avoid soil disturbance, vegetation removal or any herbicide use in areas known to support these natural heritage resources (see Item 3(b) under Additional Environmental Considerations).

- Due to the potential for adverse impacts to the S-banded tiger beetle, restrict beach exercises to existing trails and avoiding the occurrences of S-banded tiger beetle if possible.
- Avoid removing trees, especially larger, older trees that may act as maternity colonies for rare bats, during training. Survey for bat colonies in buildings and structures used for training prior to initiation of training exercises.
- To minimize impacts to the Bog twayblade, avoid soil disturbance, vegetation removal or any herbicide use in this area.
- Contact the DCR DNH and resubmit project information if the scope of the project changes and/or six months has passed before it is utilized.

4. Wildlife Resources.

4(a) Agency Jurisdiction. The Virginia Department of Game and Inland Fisheries (DGIF), as the Commonwealth's wildlife and freshwater fish management agency, exercises enforcement and regulatory jurisdiction over wildlife and freshwater fish, including state- or federally-listed endangered or threatened species, but excluding listed insects (Virginia Code, Title 29.1). DGIF is a consulting agency under the U.S. Fish and Wildlife Coordination Act (16 U.S. Code §661 *et seq.*) and provides environmental analysis of projects or permit applications coordinated through DEQ and several other state and federal agencies. DGIF determines likely impacts upon fish and wildlife resources and habitat, and recommends appropriate measures to avoid, reduce or compensate for those impacts. For more information, see the DGIF website at www.dgif.virginia.gov.

4(b) Agency Recommendations.

- DGIF recommends that the proposed training activities adhere to the currently approved Integrated Natural Resources Management Plan (INRMP), including protection of wildlife and the aquatic and terrestrial habitats upon which they depend, for the installations on which the activities are proposed.
- DGIF recommends coordination with NOAA Fisheries and the U.S. Fish and Wildlife Service regarding protection of anadromous fishes, federally listed endangered Atlantic sturgeon, marine mammals, birds, and sea turtles known from Virginia's waters and known to nest on the state's beaches.

5. Public Water Supplies.

5(a) Agency Jurisdiction. The Virginia Department of Health (VDH) Office of Drinking Water (ODW) reviews projects for the potential to impact public drinking water sources (groundwater wells, springs and surface water intakes). VDH administers both federal and state laws governing waterworks operation.

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5(b) Agency Findings. VDH ODW has the following comments.

NWS Yorktown

The following public groundwater wells are located within a 1-mile radius of the project site:

PWS ID Number	City/County	System Name	Facility Name
3199520	YORK	NEW QUARTER PARK	NEW QTR PARK

The following surface water intakes are located within a 5-mile radius of the project site:

PWS ID Number	System Name	Facility Name
3700500	NEWPORT NEWS, CITY OF	SKIFFES CREEK

The project is within the watershed of and falls within 5 miles of the intake of the following public surface water sources:

PWS ID Number	System Name	Facility Name
3700500	NEWPORT NEWS, CITY OF	SKIFFES CREEK
3700500	NEWPORT NEWS, CITY OF	LEE HALL
3830850	WILLIAMSBURG, CITY OF	WALLERS MILL RE

JEB Little Creek

No public groundwater wells are within a 1-mile radius of the project site. The following surface water intakes are located within a 5-mile radius of the project site:

PWS ID Number	**System Name**	**Facility Name**
3710100	NORFOLK, CITY OF	IN-TOWN LAKES

The project is within the watershed of and falls within 5 miles of the following public surface water sources:

PWS ID Number	**System Name**	**Facility Name**
3710100	NORFOLK, CITY OF	IN-TOWN LAKES

JEB Fort Story

There are no apparent impacts to public drinking water sources due to this project.

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Dam Neck Annex

The following public groundwater wells are located within a 1-mile radius of the project site:

PWS ID Number	City/County	System Name	Facility Name
3810250	VIRGINIA BEACH	HOLIDAY TRAV-L-PARK	DRILLED WELL NUMBER 4 INSIDE
3810250	VIRGINIA BEACH	HOLIDAY TRAV-L-PARK	DRILLED WELL NUMBER 3 OUTSIDE
3810530	VIRGINIA BEACH	RED WING GOLF COURSE	WELL - NEW
3810108	VIRGINIA BEACH	KNIGHTS OF COLUMBUS	DEEP WELL
3810200	VIRGINIA BEACH	KOA CAMPGROUNDS-VIRGINIA BEACH	NEW WELL

No surface water intakes are located within a 5-mile radius of the project site. The project is not within the watershed of any public surface water intakes.

St. Julien's Creek Annex

There are no apparent impacts to public drinking water sources due to this project.

NALF Fentress

The following public groundwater wells are located within a 1-mile radius of the project site (wells within a 1,000-foot radius are formatted in **bold):**

PWS ID Number	City/County	System Name	Facility Name
3550615	**CHESAPEAKE**	**NALF FENTRESS FIELD**	**WELL NO. 2**
3550615	**CHESAPEAKE**	**NALF FENTRESS FIELD**	**WELL NO. 1**
3550024	CHESAPEAKE	BERGEY'S BREAD BASKET	WELL NO. 1 (STORE)

The following surface water intakes are located within a 5-mile radius of the project site:

PWS ID Number	System Name	Facility Name
3710100	NORFOLK, CITY OF	STUMPY LAKE

The project is not within the watershed of any public surface water intakes.

Northwest Annex

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The following public groundwater wells are located within a 1,000-foot radius of the project site:

PWS ID Number	City/County	System Name	Facility Name
3550620	CHESAPEAKE	NAVAL SUPPORT ACTIVITY-NW	WELL A
3550620	CHESAPEAKE	NAVAL SUPPORT ACTIVITY-NW	WELL B
3550620	CHESAPEAKE	NAVAL SUPPORT ACTIVITY-NW	WELL NO. 4 (51A)
3550620	CHESAPEAKE	NAVAL SUPPORT ACTIVITY-NW	WELL C

The following surface water intakes are located within a 5-mile radius of the project site:

PWS ID Number	System Name	Facility Name
3550051	CITY OF CHESAPEAKE - NORTHWEST RIVER SYS	NW RIVER RAW INTAKE

The project is falls within 5 miles of the intake and is within the intake's watershed of the following public surface water sources:

PWS ID Number	System Name	Facility Name
3550051	CITY OF CHESAPEAKE - NORTHWEST RIVER SYS	NW RIVER RAW INTAKE

6. Pesticides and Herbicides. In general, when pesticides or herbicides must be used, their use should be strictly in accordance with manufacturers' recommendations. In addition, DEQ recommends that the responsible agent use the least toxic pesticides or herbicides effective in controlling the target species. For more information on pesticide or herbicide use, please contact the Virginia Department of Agriculture and Consumer Services (804-786-3501).

7. Local and Regional Comments. As customary, DEQ invited the affect planning district commission and localities to comment.

7 (a) Jurisdiction. In accordance with CFR 930, Subpart A, § 930.6(b) of the Federal Consistency Regulations, DEQ, on behalf of the state, is responsible for securing necessary review and comment from other state agencies, the public, regional government agencies, and local government agencies, in determining the Commonwealth's concurrence or objection to a federal consistency certification.

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7(b) Findings. The City of Norfolk has no comments.

REGULATORY AND COORDINATION NEEDS

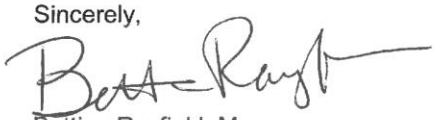
1. Dunes Management. Contact the City of Virginia Beach (David Compton at 757-385-8246) to determine if the proposed activities require local review for the protection of primary dunes. Contact VMRC (Justin Worrell at 757-247-8063) for additional information about the agency's comments.

2. Natural Heritage Resources. Coordinate with DC DNH (Rene' Hypes at Rene.Hypes@dcr.virignia.gov) for additional information about its comments and recommendations. Contact the DCR DNH (804-371-2708) to re-submit project information and a map for an update on natural heritage information if the scope of the project changes and/or six months has passed before it is utilized.

3. Protected Species. DGIF recommends coordination with NOAA Fisheries (Christine Vaccaro at christine.vaccaro@noaa.gov) and the U.S. Fish and Wildlife Service (Cindy Schulz at Cindy_Schulz@fws.gov) regarding protection of anadromous fishes, federally listed endangered Atlantic sturgeon, marine mammals, birds, and sea turtles known from Virginia's waters and known to nest on the state's beaches.

Thank you for the opportunity to comment on this FCD. The detailed comments of reviewers are attached. If you have questions, please do not hesitate to call me at (804) 698-4204 or Julia Wellman at (804) 698-4326.

Sincerely,



Bettina Rayfield, Manager
Environmental Impact Review and Long Range Priorities Program

Enclosures

ec: Amy Ewing, DGIF
Robbie Rhur, DCR
Susan Douglas, VDH
Roger Kirchen, DHR
Tony Watkinson, VMRC
Marcus D. Jones, Norfolk
Lydia Pettis Patton, Portsmouth

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Neil Morgan, York County
Dave Hasen, Virginia Beach
James Baker, Chesapeake
Ben McFarlane, Hampton Roads PDC
Greg Thompson, Navy

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DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF AIR PROGRAM COORDINATION

ENVIRONMENTAL REVIEW COMMENTS APPLICABLE TO AIR QUALITY

TO: Julia H. Wellman **DEQ - OEIA PROJECT NUMBER: DEQ #17-126F**

PROJECT TYPE: ☐ STATE EA / EIR **X FEDERAL EA / EIS** ☐ SCC

X CONSISTENCY DETERMINATION

PROJECT TITLE: Virginia Capes Range Complex, Hampton Roads

PROJECT SPONSOR: Department of the Navy

PROJECT LOCATION: **X OZONE ATTAINMENT AND EMISSION CONTROL AREA FOR NOX & VOC**

REGULATORY REQUIREMENTSMAY BE APPLICABLE TO: **X CONSTRUCTION** ☐ OPERATION

STATE AIR POLLUTION CONTROL BOARD REGULATIONS THAT MAY APPLY:

1. ☐ 9 VAC 5-40-5200 C & 9 VAC 5-40-5220 E – STAGE I
2. ☐ 9 VAC 5-45-760 et seq. – Asphalt Paving operations
3. **X 9 VAC 5-130 et seq. – Open Burning**
4. **X 9 VAC 5-50-60 et seq. Fugitive Dust Emissions**
5. ☐ 9 VAC 5-50-130 et seq. - Odorous Emissions; Applicable to_____
6. ☐ 9 VAC 5-60-300 et seq. – Standards of Performance for Toxic Pollutants
7. ☐ 9 VAC 5-50-400 Subpart_____, Standards of Performance for New Stationary Sources, designates standards of performance for the_____
8. ☐ 9 VAC 5-80-1100 et seq. of the regulations – Permits for Stationary Sources
9. ☐ 9 VAC 5-80-1605 et seq. Of the regulations – Major or Modified Sources located in PSD areas. This rule may be applicable to the _____
10. ☐ 9 VAC 5-80-2000 et seq. of the regulations – New and modified sources located in non-attainment areas
11. ☐ 9 VAC 5-80-800 et seq. Of the regulations – State Operating Permits. This rule may be applicable to _____

COMMENTS SPECIFIC TO THE PROJECT:

All precautions are necessary to restrict the emissions of volatile organic compounds (VOC) and oxides of nitrogen (NO_X).

K. S. Narasimhan

(Kotur S. Narasimhan)
Office of Air Data Analysis **DATE: August 31, 2017**

Molly Joseph Ward
Secretary of Natural Resources

Clyde E. Cristman
Director

Rochelle Altholz
Deputy Director of Administration and Finance

David C. Dowling
Deputy Director of Soil and Water Conservation and Dam Safety

Thomas L. Smith
Deputy Director of Operations

COMMONWEALTH of VIRGINIA
DEPARTMENT OF CONSERVATION AND RECREATION

MEMORANDUM

DATE: September 28, 2017

TO: Julia Wellman, DEQ

FROM: Roberta Rhur, Environmental Impact Review Coordinator

SUBJECT: DEQ 17-126F, Virginia Capes Range Complex, Hampton Roads

Division of Natural Heritage

The Department of Conservation and Recreation's Division of Natural Heritage (DCR) has searched its Biotics Data System for occurrences of natural heritage resources from the area outlined on the submitted map. Natural heritage resources are defined as the habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and significant geologic formations.

Naval Weapons Station Yorktown, First Landing State Park, St. Juliens Creek Annex
Biotics documents the presence of natural heritage resources within two miles of the project area. However, due to the scope of the activity and the distance to the resources, we do not anticipate that this project will adversely impact these natural heritage resources.

Joint Expeditionary Base Little Creek
According to the information currently in our files, the Darlington's oak (*Quercus hemisphaerica*, G5/S1/NL/NL) and the Bluejack oak (*Quercus incana,* G5/S2/NL/NL) have been documented within the project site. Darlington's oak is a state-rare medium to large tree with brown to gray bark and faintly striped acorns 10-15 mm long (Radford et. al., 1968). This species can be found in sandhills and other dry, sandy soils of maritime forests (Weakley, in prep.). Darlington's oak is currently known from four locations in Virginia's coastal plain.

Bluejack oak is a small evergreen tree with dark brown to gray bark that is broken into squares; it also has elliptical leaves with a bluish hue. This tree is found in dry sandy soil (sandhills) (Radford et al, 1968). Bluejack oak is currently known from 11 occurrences and historically known from 5 occurrences in Virginia's coastal plain.

To minimize impacts to the natural heritage resources, DCR recommends avoiding soil disturbance, vegetation removal or any herbicide use in these areas.

Joint Expeditionary Base Fort Story
According to the information currently in our files, the Eastern big-eared bat (*Corynorhinus rafinesquii macrotis*, G3G4T3/S2/NL/LE) and the S-banded tiger beetle, (*Cicindela trifasciata*, G5/S1/NL/NL) have been

600 East Main Street, 24th Floor | Richmond, Virginia 23219 | 804-786-6124

State Parks • Soil and Water Conservation • Outdoor Recreation Planning
Natural Heritage • Dam Safety and Floodplain Management • Land Conservation

documented within the project site. The Eastern big-eared bat, named for its enormous ears twice the length of its head, is extremely rare in Virginia and is currently known only from the southeastern portion of the state. Although widespread throughout the southeast, they are never found in large numbers. These bats roost singly or in small groups in hollow trees or abandoned buildings. They forage only after dark primarily in mature forests of both upland and lowland areas along permanent bodies of water (NatureServe, 2009). The details of this bat's feeding behavior and much of its natural history remain a mystery. Lack of information regarding the ecology of the Eastern big-eared bat, and their sensitivity to disturbance, make them particularly vulnerable to destruction of roost sites and feeding areas where their presence goes undetected (Handley and Schwab 1991, Harvey 1992).

Threats to this species include forest destruction, particularly hollow tree removal, decreasing availability of abandoned buildings, and possibly, insecticides. Please note that this species is currently classified as endangered by the Virginia Department of Game and Inland Fisheries (VDGIF).

The S-banded tiger beetle has a broad range, from southern California to central Chile and from Virginia south to Venezuela (NatureServe, 2009). In Virginia, it is known from the southern coastal plain and piedmont. It has a dark brown – blackish dorsal surface with a greenish hue (Knisely and Schulz, 1997). The dorsal surface is covered with shallow green punctures. The ventral surface of the thorax is coppery and the abdomen is metallic blue or greenish-blue (Knisely and Schulz, 1997). This tiger beetle occurs in a wide variety of water-edge habitats, including mudflats or swales in coastal areas, tidal estuaries, marshes and bays, and pond, river and stream edges (Knisely and Schultz, 1997).

Threats to this and other tiger beetles include habitat destruction from development or conversion to agricultural or timber operations.

Due to the legal status of the Eastern big-eared bat, DCR recommends coordination with Virginia's regulatory authority for the management and protection of these species, the VDGIF, to ensure compliance with the Virginia Endangered Species Act (VA ST §§ 29.1-563 – 570). Due to the potential for adverse impacts to the S-banded tiger beetle, DCR recommends restricting beach exercises to existing trails and avoiding the occurrences of S-banded tiger beetle if possible.

Dam Neck Annex and Camp Pendleton

The S-banded tiger beetle, (*Cicindela trifasciata*, G5/S1/NL/NL), has a broad range, from southern California to central Chile and from Virginia south to Venezuela (NatureServe, 2009). In Virginia, it is known from the southern coastal plain and piedmont. It has a dark brown – blackish dorsal surface with a greenish hue (Knisely and Schulz, 1997). The dorsal surface is covered with shallow green punctures. The ventral surface of the thorax is coppery and the abdomen is metallic blue or greenish-blue (Knisely and Schulz, 1997). This tiger beetle occurs in a wide variety of water-edge habitats, including mudflats or swales in coastal areas, tidal estuaries, marshes and bays, and pond, river and stream edges (Knisely and Schultz, 1997).

Threats to this and other tiger beetles include habitat destruction from development or conversion to agricultural or timber operations.

Due to the potential for adverse impacts to the S-banded tiger beetle, DCR recommends restricting beach exercises to existing trails and avoiding the occurrences of S-banded tiger beetle if possible.

Naval Auxiliary Landing Field Fentress

According to the information currently in our files, the Canebrake rattlesnake (*Crotalus horridus*, G4T4/S1/NL/LE) has been documented within the project site. Timber and Canebrake rattlesnakes are two forms of the same species (*Crotalus horridus*). The species is widespread throughout eastern United States ranging from New England to Minnesota and south to Florida and Texas. The forms differ in appearance and habitat distribution but share enough genetic similarities that they are the same species (NatureServe, 2009).

The Timber rattlesnake is typically darker or yellow-ish (Gibbons and Dorcas, 2005). In Virginia, it is found in the piedmont and mountainous regions. The Canebrake rattlesnake is typically lighter in color, often pinkish, and is found in more coastal areas, including the northern limit of its range in the southeastern counties of the coastal plain of Virginia (Gibbons and Dorcas, 2005).

Canebrake rattlesnakes in Virginia inhabit hardwood and mixed hardwood-pine forests, cane thickets and the ridges and glades of swampy areas (Mitchell and Schwab, 1991). Canebrake rattlesnakes are generally terrestrial and feed on a variety of small animals including small mammals, birds, and amphibians (Mitchell & Schwab, 1991).

The primary threats to the Canebrake rattlesnake are the loss of habitat due to development activities and persecution by humans (Mitchell, 1994). Please note that the coastal plain populations of the Canebrake rattlesnake are currently classified as endangered by the Virginia Department of Game and Inland Fisheries (VDGIF).

Due to the legal status of the Canebrake rattlesnake, DCR recommends coordination with Virginia's regulatory authority for the management and protection of this species, the VDGIF, to ensure compliance with the Virginia Endangered Species Act (VA ST §§ 29.1-563 – 570).

Furthermore, according to a DCR biologist, potential exists for rare bats within the project site. DCR recommends avoiding tree removal during training, especially larger, older trees that may act as maternity colonies. DCR also recommends surveying for bat colonies in buildings and structures used for training prior to initiation of training exercises.

Northwest Annex

According to the information currently in our files, the Canebrake rattlesnake (*Crotalus horridus*, G4T4/S1/NL/LE) has been documented within the project site. Timber and Canebrake rattlesnakes are two forms of the same species (*Crotalus horridus*). The species is widespread throughout eastern United States ranging from New England to Minnesota and south to Florida and Texas. The forms differ in appearance and habitat distribution but share enough genetic similarities that they are the same species (NatureServe, 2009). The Timber rattlesnake is typically darker or yellow-ish (Gibbons and Dorcas, 2005). In Virginia, it is found in the piedmont and mountainous regions. The Canebrake rattlesnake is typically lighter in color, often pinkish, and is found in more coastal areas, including the northern limit of its range in the southeastern counties of the coastal plain of Virginia (Gibbons and Dorcas, 2005).

Canebrake rattlesnakes in Virginia inhabit hardwood and mixed hardwood-pine forests, cane thickets and the ridges and glades of swampy areas (Mitchell and Schwab, 1991). Canebrake rattlesnakes are generally terrestrial and feed on a variety of small animals including small mammals, birds, and amphibians (Mitchell & Schwab, 1991).

The primary threats to the Canebrake rattlesnake are the loss of habitat due to development activities and persecution by humans (Mitchell, 1994). Please note that the coastal plain populations of the Canebrake rattlesnake are currently classified as endangered by the Virginia Department of Game and Inland Fisheries (VDGIF).

Due to the legal status of the Canebrake rattlesnake, DCR recommends coordination with Virginia's regulatory authority for the management and protection of this species, the VDGIF, to ensure compliance with the Virginia Endangered Species Act (VA ST §§ 29.1-563 – 570).

Cheatham Annex

According to the information currently in our files, Bog twayblade (*Liparis loeselii*, G5/S2/NL/NL) has been documented within the project site. Bog twqyablade, a state rare plant species, occurs in the northern United States. This orchid grows in calcareous wetlands, particularly in open shrub swamps and other thinly wooded locations. Usually this is a small orchid, growing less than 6 inches high. It has basally-disposed leaves and dull yellowish-green flowers which bloom in June. In Virginia, there are seventeen documented occurrences; three are historic.

To minimize impacts to the Bog twayblade occurrence, DCR recommends avoiding soil disturbance, vegetation removal or any herbicide use in this area.

Under a Memorandum of Agreement established between the Virginia Department of Agriculture and Consumer Services (VDACS) and DCR represents VDACS in comments regarding potential impacts on state-listed threatened and endangered plant and insect species. The current activity will not affect any documented state-listed plants or insects.

There are no State Natural Area Preserves under DCR's jurisdiction in the project vicinity.

For the locations of documented natural heritage resources on the above military facilities, DCR recommends referencing the digital data provided to the Navy for these installations. New and updated information is continually added to Biotics. Please re-submit project information and map for an update on this natural heritage information if the scope of the project changes and/or six months has passed before it is utilized.

The VDGIF maintains a database of wildlife locations, including threatened and endangered species, trout streams, and anadromous fish waters that may contain information not documented in this letter. Their database may be accessed from http://vafwis.org/fwis/ or contact Ernie Aschenbach at 804-367-2733 or Ernie.Aschenbach@dgif.virginia.gov. This project is located within 2 miles of documented occurrences of a state and federally listed animals in addition to the species mentioned above. Therefore, DCR recommends coordination with the USFWS and the VDGIF, Virginia's regulatory authority for the management and protection of these species to ensure compliance with protected species legislation.

The remaining DCR divisions have no comments regarding the scope of this project. Thank you for the opportunity to comment.

CC: Troy Andersen, USFWS
Ernie Aschenbach, VDGIF

Literature Cited

Gibbons, W. and Dorcas, M. 2005. Snakes of the southeast. University of Georgia Press. Athens, GA. 253pp.

Handley, C.O., and D. Schwab. 1991. Eastern big-eared bat. In Virginia's Endangered Species: Proceedings of a Symposium. K. Terwilliger ed. The McDonald and Woodward Publishing Company, Blacksburg, Virginia. p. 571-573.

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Knisley, C.B. and T.D. Schulz. 1997. The Biology of Tiger Beetles and a Guide to the species of the South Atlantic States. Virginia Museum of Natural History, Special Publication Number 5, Martinsville, VA. p. 134.

Mitchell, J.C. 1994. The reptiles of Virginia. Smithsonian Institution Press. Washington, DC. pp. 296 - 302.

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NatureServe. 2009. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. Available http://www.natureserve.org/explorer. (Accessed: March 31, 2010).

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Wellman, Julia (DEQ)

From: Ewing, Amy (DGIF)
Sent: Wednesday, September 27, 2017 4:51 PM
To: Wellman, Julia (DEQ)
Subject: ESSLog#38505_17-126F_CAPESRangeHamptonRoads_DGIF_AME20170927

Julia,
We recommend that the training activities proposed at the various installations adhere to the currently approved Integrated Natural Resources Management Plan (INRMP) for that installation, including protection of wildlife and the aquatic and terrestrial habitats upon which they depend. We recommend coordination with NOAA Fisheries and the USFWS regarding protection of Anadromous Fishes, Federally Endangered Atlantic sturgeon, marine mammals, birds, and sea turtles known from Virginia's waters and known to nest on our beaches.

Assuming adherence to the above, we find this project consistent with the fisheries enforceable policy of the CZMA.

Thanks, Amy

Amy M. Ewing

Environmental Services Biologist/FWIS Program Manager
Chair, Team WILD (Work, Innovate, Lead and Develop)
804-367-2211 *www.dgif.virginia.gov*

"That land is a community is the basic concept of ecology, but that land is to be loved and respected is an extension of ethics" **Aldo Leopold, 1948**

DEPARTMENT OF
GAME & INLAND
FISHERIES
CONSERVE. CONNECT. PROTECT.

1

Wellman, Julia (DEQ)

From: Holma, Marc (DHR)
Sent: Thursday, September 21, 2017 10:23 AM
To: Robbins, Heather L CIV NAVFAC MIDLANT, EV
Cc: Wellman, Julia (DEQ)
Subject: RE: Proposed United States Fleet Forces Inland Training, VITEA (2017-3654) | e-Mail # 00797

Heather,

Please accept my 7 July 2017 response to 2017-3654 as also my response to 2017-0739.

Marc

-----Original Message-----
From: Robbins, Heather L CIV NAVFAC MIDLANT, EV [mailto:heather.l.robbins@navy.mil]
Sent: Thursday, September 21, 2017 9:51 AM
To: Holma, Marc (DHR)
Cc: Wellman, Julia (DEQ)
Subject: RE: Proposed United States Fleet Forces Inland Training, VITEA (2017-3654) | e-Mail #00797

Marc,

Not a problem as I think the CCD letter may have had a slightly different project title as well. I resaved the PDFs and re-attached so hopefully you should be able to open them.

Heather

Heather

-----Original Message-----
From: Holma, Marc (DHR) [mailto:Marc.Holma@dhr.virginia.gov]
Sent: Thursday, September 21, 2017 9:38 AM
To: Robbins, Heather L CIV NAVFAC MIDLANT, EV
Cc: Wellman, Julia (DEQ)
Subject: [Non-DoD Source] RE: Proposed United States Fleet Forces Inland Training, VITEA (2017-3654) | e-Mail #00797

Heather,

I'm not able to open your attachments. I thought the project was familiar but I was unable to find it in our database (one thing I hate about ePix is that it is nearly impossible to search). I apologize for my confusion.

Marc

-----Original Message-----
From: Robbins, Heather L CIV NAVFAC MIDLANT, EV [mailto:heather.l.robbins@navy.mil]
Sent: Thursday, September 21, 2017 8:26 AM
To: Holma, Marc (DHR)
Cc: Wellman, Julia (DEQ)

1

Subject: FW: Proposed United States Fleet Forces Inland Training, VITEA (2017-3654) | e-Mail #00797

Marc,

USFF received the attached letter; however, we previously consulted with DHR on the proposed training and received concurrence with our no adverse effect determination in July 2017 (see attached). The DHR number for our consultation was 2017-3654 and it was listed as "Proposed US Fleet Forces Inland Training, VITEA".

To avoid any future confusion this is also the same project we discussed previously where we received comments from a few interested parties and provided you with a copy of their comments on 9/12/17 via email. We will also provide DHR with an opportunity to review the draft EA when it becomes available to the public.

Please let me know if you have any questions.

Thank you,
Heather

Heather Robbins
Cultural Resources Team Lead
NAVFAC MIDLANT - EV2
Phone: 757-341-0925
DSN 3410925
heather.L.robbins@navy.mil

2

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

MEMORANDUM

TO: Julia Wellman, DEQ/EIR Environmental Program Planner

FROM: Katy Dacey, Division of Land Protection & Revitalization Review Coordinator

DATE: September 11, 2017

COPIES: Sanjay Thirunagari, Division of Land Protection & Revitalization Review Manager; file

SUBJECT: Environmental Impact Review: EIR Project No 17-126F Virginia Capes Range Complex, Hampton Roads, York County and the Cities of Virginia Beach, Chesapeake, Portsmouth and Norfolk, VA

The Division of Land Protection & Revitalization (DLPR) has completed its review of the August 17, 2017 EIR for the Virginia Capes Range Complex project located in the inland areas of Navy-owned and non-Navy training areas in southeastern Virginia.

Project Scope: additional training events for the continued readiness of combat-capable forces

Since no construction is included in this project, DLPR has no comments.

If you have any questions or need further information, please contact Katy Dacey at (804) 698-4274.

Wellman, Julia (DEQ)

From: McCarthy, Seamus <seamus.mccarthy@norfolk.gov>
Sent: Tuesday, September 26, 2017 4:09 PM
To: Wellman, Julia (DEQ)
Subject: Navy Va Capes Range 17-126F

No comment or objection to proposed propose use of federal lands and facilities for training.

Seamus McCarthy, CFM
Environmental Service Manager

THE CITY OF NORFOLK
City Planning
810 Union Street, Suite 508
Norfolk, VA 23510
757-664-4363

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www.norfolk.gov

1

Wellman, Julia (DEQ)

From:	Mackey, Heather (DEQ)
Sent:	Monday, September 18, 2017 1:07 PM
To:	Wellman, Julia (DEQ)
Cc:	Moore, Daniel (DEQ)
Subject:	FW: NEW PROJECT Navy Va Capes Range 17-126F
Attachments:	NAVY VA CAPES RANGE.PDF

Julia, I have looked through the provided information and without land disturbance, there are no Chesapeake Bay Preservation Area impacts. Let me know if you need a formal letter or if this email will suffice.

Heather Mackey
Principal Environmental Planner, Local Government Assistance Programs
DEQ – Water Planning Division
804.698.4399
heather.mackey@deq.virginia.gov
http://www.deq.virginia.gov/Programs/Water/ChesapeakeBay.aspx

From: Moore, Daniel (DEQ)
Sent: Wednesday, August 30, 2017 8:25 AM
To: Mackey, Heather (DEQ)
Subject: FW: NEW PROJECT Navy Va Capes Range 17-126F

From: Fulcher, Valerie (DEQ)
Sent: Tuesday, August 29, 2017 4:19 PM
To: dgif-ESS Projects (DGIF); Rhur, Robbie (DCR); odwreview (VDH); Dacey, Katy (DEQ); Narasimhan, Kotur (DEQ); Moore, Daniel (DEQ); Robinson, Cindy (DEQ); Kirchen, Roger (DHR); Watkinson, Tony (MRC); Ben McFarlane; susan.kassel@yorkcounty.gov; plan@vbgov.com; Tim Howlett; Hartleyj@portsmouthva.gov; seamus.mccarthy@norfolk.gov
Cc: Wellman, Julia (DEQ)
Subject: NEW PROJECT Navy Va Capes Range 17-126F

Good afternoon - this is a new OEIR review request/project:

Document Type: Federal Consistency Determination
Project Sponsor: Department of the Navy
Project Title: Virginia Capes Range Complex, Hampton Roads
Location: York County, Virginia Beach, Chesapeake, Portsmouth, and Norfolk
Project Number: DEQ #17-126F

The document is attached.

The due date for comments is SEPTEMBER 28, 2017. You can send your comments either directly to JULIA WELLMAN by email (Julia.Wellman@deq.virginia.gov), or you can send your comments by regular interagency/U.S. mail to the Department of Environmental Quality, Office of Environmental Impact Review, 629 E. Main St., 6th Floor, Richmond, VA 23219.

1

DEPARTMENT OF ENVIRONMENTAL QUALITY
TIDEWATER REGIONAL OFFICE
ENVIRONMENTAL IMPACT REVIEW COMMENTS

October 25, 2017

PROJECT NUMBER: 17-126F

PROJECT TITLE: Virginia Capes Range Complex, Hampton Roads

As Requested, TRO staff has reviewed the supplied information and has the following comments:

Petroleum Storage Tank Cleanups:
No comments on this project.

Petroleum Storage Tank Compliance/Inspections:
The installation and use of an AST (>660 gallons) for temporary fuel storage (>120 days) during the project must follow the requirements in 9 VAC 25-91-10 et. seq. Please contact Steve Pollock of the DEQ Tidewater Regional Office (757) 518-2014 for additional details.

Virginia Water Protection Permit Program (VWPP):
No comments.

Air Permit Program :
No Comments.

Water Permit Program :
No comments.

Waste Permit Program :
No comments.

Storm Water Program:
No comments.

1 of 2

DEPARTMENT OF ENVIRONMENTAL QUALITY
TIDEWATER REGIONAL OFFICE
ENVIRONMENTAL IMPACT REVIEW COMMENTS

October 25, 2017

PROJECT NUMBER: 17-126F

PROJECT TITLE: Virginia Capes Range Complex, Hampton Roads

The staff from the Tidewater Regional Office thanks you for the opportunity to provide comments.

Sincerely,

Cindy Robinson

Cindy Robinson
Environmental Specialist II
5636 Southern Blvd.
VA Beach, VA 23462
(757) 518-2167
Cindy.Robinson@deq.virginia.gov

2 of 2

Wellman, Julia (DEQ)

From: Warren, Arlene (VDH)
Sent: Friday, September 1, 2017 10:45 AM
To: Wellman, Julia (DEQ)
Subject: RE: NEW PROJECT Navy Va Capes Range 17-126F

Project Name: Virginia Capes Range Complex, Hampton Roads
Project #: 17-126F
UPC #: N/A
Location: York County, Virginia Beach, Chesapeake, Portsmouth, and Norfolk

VDH – Office of Drinking Water has reviewed the above project. Below are our comments as they relate to proximity to **public drinking water sources** (groundwater wells, springs and surface water intakes). Potential impacts to public water distribution systems or sanitary sewage collection systems **must be verified by the local utility.**

NWS Yorktown:

The following public groundwater wells are located within a 1 mile radius of the project site:

PWS ID Number	City/County	System Name	Facility Name
3199520	YORK	NEW QUARTER PARK	NEW QTR PARK

The following surface water intakes are located within a 5 mile radius of the project site:

PWS ID Number	System Name	Facility Name
3700500	NEWPORT NEWS, CITY OF	SKIFFES CREEK

The project is within the watershed of the following public surface water sources (facilities where the project falls within 5 miles of the intake **and** is within the intake's watershed are formatted in **bold**):

PWS ID Number	System Name	Facility Name
3700500	**NEWPORT NEWS, CITY OF**	**SKIFFES CREEK**
3700500	**NEWPORT NEWS, CITY OF**	**LEE HALL**
3830850	**WILLIAMSBURG, CITY OF**	**WALLERS MILL RE**

JEB Little Creek:

There are no public groundwater wells within a 1 mile radius of the project site.

The following surface water intakes are located within a 5 mile radius of the project site:

PWS ID Number	**System Name**	**Facility Name**
3710100	NORFOLK, CITY OF	IN-TOWN LAKES

The project is within the watershed of the following public surface water sources (facilities where the project falls within 5 miles of the intake and is within the intake's watershed are formatted in bold):

1

PWS ID Number	System Name	Facility Name
3710100	NORFOLK, CITY OF	IN-TOWN LAKES

JEB Fort Story:

There are no public groundwater wells within a 1 mile radius of the project site.

There are no surface water intakes located within a 5 mile radius of the project site.

The project is not within the watershed of any public surface water intakes.

There are no apparent impacts to public drinking water sources due to this project.

Dam Neck Annex:

The following public groundwater wells are located within a 1 mile radius of the project site:

PWS ID Number	City/County	System Name	Facility Name
3810250	VIRGINIA BEACH	HOLIDAY TRAV-L-PARK	DRILLED WELL NUMBER 4 INSIDE
3810250	VIRGINIA BEACH	HOLIDAY TRAV-L-PARK	DRILLED WELL NUMBER 3 OUTSIDE
3810530	VIRGINIA BEACH	RED WING GOLF COURSE	WELL - NEW
3810108	VIRGINIA BEACH	KNIGHTS OF COLUMBUS	DEEP WELL
3810200	VIRGINIA BEACH	KOA CAMPGROUNDS- VIRGINIA BEACH	NEW WELL

There are no surface water intakes located within a 5 mile radius of the project site.

The project is not within the watershed of any public surface water intakes.

St. Julien's Creek Annex:

There are no public groundwater wells within a 1 mile radius of the project site.

There are no surface water intakes located within a 5 mile radius of the project site.

The project is not within the watershed of any public surface water intakes.

There are no apparent impacts to public drinking water sources due to this project.

NALF Fentress:

The following public groundwater wells are located within a 1 mile radius of the project site (wells within a 1,000 foot radius are formatted in **bold**):

PWS ID Number	City/County	System Name	Facility Name
3550615	**CHESAPEAKE**	**NALF FENTRESS FIELD**	**WELL NO. 2**
3550615	**CHESAPEAKE**	**NALF FENTRESS FIELD**	**WELL NO. 1**
3550024	CHESAPEAKE	BERGEY'S BREAD BASKET	WELL NO. 1 (STORE)

The following surface water intakes are located within a 5 mile radius of the project site:

2

PWS ID Number	System Name	Facility Name
3710100	NORFOLK, CITY OF	STUMPY LAKE

The project is not within the watershed of any public surface water intakes.

Northwest Annex:

The following public groundwater wells are located within a 1 mile radius of the project site (wells within a 1,000 foot radius are formatted in **bold**):

PWS ID Number	City/County	System Name	Facility Name
3550620	**CHESAPEAKE**	**NAVAL SUPPORT ACTIVITY-NW**	**WELL A**
3550620	**CHESAPEAKE**	**NAVAL SUPPORT ACTIVITY-NW**	**WELL B**
3550620	**CHESAPEAKE**	**NAVAL SUPPORT ACTIVITY-NW**	**WELL NO. 4 (51A)**
3550620	**CHESAPEAKE**	**NAVAL SUPPORT ACTIVITY-NW**	**WELL C**

The following surface water intakes are located within a 5 mile radius of the project site:

PWS ID Number	System Name	Facility Name
3550051	CITY OF CHESAPEAKE - NORTHWEST RIVER SYS	NW RIVER RAW INTAKE

The project is within the watershed of the following public surface water sources (facilities where the project falls within 5 miles of the intake **and** is within the intake's watershed are formatted in **bold**):

PWS ID Number	System Name	Facility Name
3550051	**CITY OF CHESAPEAKE - NORTHWEST RIVER SYS**	**NW RIVER RAW INTAKE**

Best Management Practices should be employed, including Erosion & Sedimentation Controls and Spill Prevention Controls & Countermeasures on the project site.

Well(s) within a 1,000 foot radius from project site should be field marked and protected from accidental damage during construction.

Materials should be managed while on site and during transport to prevent impacts to nearby surface water.

Best Regards,

Arlene Fields Warren
GIS Program Support Technician
Office of Drinking Water
Virginia Department of Health
109 Governor Street
Richmond, VA 23220
(804) 864-7781

The Virginia Department of Health – Office of Drinking Water appreciates the opportunity to provide comments. If you have any questions, please let me know.

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From: Fulcher, Valerie (DEQ)
Sent: Tuesday, August 29, 2017 4:19 PM
To: dgif-ESS Projects (DGIF); Rhur, Robbie (DCR); odwreview (VDH); Dacey, Katy (DEQ); Narasimhan, Kotur (DEQ); Moore, Daniel (DEQ); Robinson, Cindy (DEQ); Kirchen, Roger (DHR); Watkinson, Tony (MRC); Ben McFarlane; susan.kassel@yorkcounty.gov; plan@vbgov.com; Tim Howlett; Hartleyj@portsmouthva.gov; seamus.mccarthy@norfolk.gov
Cc: Wellman, Julia (DEQ)
Subject: NEW PROJECT Navy Va Capes Range 17-126F

Good afternoon - this is a new OEIR review request/project:

Document Type: Federal Consistency Determination
Project Sponsor: Department of the Navy
Project Title: Virginia Capes Range Complex, Hampton Roads
Location: York County, Virginia Beach, Chesapeake, Portsmouth, and Norfolk
Project Number: DEQ #17-126F

The document is attached.

The due date for comments is SEPTEMBER 28, 2017. You can send your comments either directly to JULIA WELLMAN by email (Julia.Wellman@deq.virginia.gov), or you can send your comments by regular interagency/U.S. mail to the Department of Environmental Quality, Office of Environmental Impact Review, 629 E. Main St., 6th Floor, Richmond, VA 23219.

If you cannot meet the deadline, please notify the project coordinator prior to the comment due date. Arrangements may be made to extend the deadline for comments if possible. An agency will be considered to have no concerns if comments are not received (or contact is made) within the review period. However, it is important that agencies consistently participate in accordance with Virginia Code Section 10.1-1192.

REVIEW INSTRUCTIONS:

A. Please review the document carefully. If the proposal has been previously reviewed (e.g. as a draft EIS or a Part 1 EIR), please consider whether your earlier comments have been adequately addressed.

B. Prepare your agency's comments in a form which would be acceptable for responding directly to a project proponent agency (agency stationary or email) and include the project number on all correspondence.

If you have any questions, please email Julia.

Thanks!

Valerie

Valerie A. Fulcher, CAP-OM, Environmental Program Specialist
Department of Environmental Quality
Environmental Enhancement - Office of Environmental Impact Review

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629 E. Main St., 6th Floor
Richmond, VA 23219
804/698-4330
804/698-4319 (Fax)
email: Valerie.Fulcher@deq.virginia.gov
http://www.deq.virginia.gov/Programs/EnvironmentalImpactReview.aspx

For program updates and public notices please subscribe to the OEIR News Feed

5

Wellman, Julia (DEQ)

From: Owen, Randy (MRC)
Sent: Thursday, August 31, 2017 4:19 PM
To: Wellman, Julia (DEQ)
Cc: Peabody, Rachael (MRC); Worrell, Justin (MRC)
Subject: RE: NEW PROJECT Navy Va Capes Range 17-126F

Julia,

I have reviewed this project specific to the proposed training activities in the York County area and concur with the Navy's finding of consistency for York. Rachel and Justin will follow up with their comments on the balance of the area covered by this consistency review.

From: Watkinson, Tony (MRC)
Sent: Thursday, August 31, 2017 2:26 PM
To: Worrell, Justin (MRC) <Justin.Worrell@mrc.virginia.gov>; Peabody, Rachael (MRC) <Rachael.Peabody@mrc.virginia.gov>
Cc: Owen, Randy (MRC) <Randy.Owen@mrc.virginia.gov>
Subject: FW: NEW PROJECT Navy Va Capes Range 17-126F

Looks like this involves some amphibious landing craft use at Va. Beach bases and some activity in the Elizabeth River. Don't see any reason to object to the Consistency Determination, but please take a look and let them know we have no objection (unless you see some issue) but that permits may be required for any encroachment (as we usually do).

Activity in a pond at Cheatham Annex, but assume that does not involve our jurisdiction.

Thanks

Tony

From: Fulcher, Valerie (DEQ)
Sent: Tuesday, August 29, 2017 4:19 PM
To: dgif-ESS Projects (DGIF) <ESSProjects@dgif.virginia.gov>; Rhur, Robbie (DCR) <Robbie.Rhur@dcr.virginia.gov>; odwreview (VDH) <odwreview-VDH@cov.virginia.gov>; Dacey, Katy (DEQ) <Katy.Dacey@deq.virginia.gov>; Narasimhan, Kotur (DEQ) <Kotur.Narasimhan@deq.virginia.gov>; Moore, Daniel (DEQ) <Daniel.Moore@deq.virginia.gov>; Robinson, Cindy (DEQ) <Cindy.Robinson@deq.virginia.gov>; Kirchen, Roger (DHR) <Roger.Kirchen@dhr.virginia.gov>; Watkinson, Tony (MRC) <Tony.Watkinson@mrc.virginia.gov>; Ben McFarlane <bmcfarlane@hrpdcva.gov>; susan.kassel@yorkcounty.gov; plan@vbgov.com; Tim Howlett <thowlett@CityOfChesapeake.Net>; Hartleyj@portsmouthva.gov; seamus.mccarthy@norfolk.gov
Cc: Wellman, Julia (DEQ) <Julia.Wellman@deq.virginia.gov>
Subject: NEW PROJECT Navy Va Capes Range 17-126F

Good afternoon - this is a new OEIR review request/project:

Document Type: Federal Consistency Determination
Project Sponsor: Department of the Navy
Project Title: Virginia Capes Range Complex, Hampton Roads
Location: York County, Virginia Beach, Chesapeake, Portsmouth, and Norfolk

1

Wellman, Julia (DEQ)

From: Worrell, Justin (MRC)
Sent: Monday, October 23, 2017 4:52 PM
To: Wellman, Julia (DEQ)
Subject: RE: NEW PROJECT Navy Va Capes Range 17-126F

Regarding the proposed activities on beaches and dunes – any impacts, temporary or permanent, to the existing coastal primary dune resources would need at least a local review and potentially a City of Virginia Beach Wetlands Board permit. Such Federal proposals are not necessarily exempt from the local review process. Specific questions about the City's review and hearing process should be directed to Mr. David Compton with the City of Virginia Beach – 757-385-8246. Thanks.

Justin D. Worrell
Environmental Engineer, Sr.
Habitat Management Division
Virginia Marine Resources Commission
(757) 247-8063 telephone
(757) 247-8062 fax

From: Wellman, Julia (DEQ)
Sent: Monday, October 23, 2017 4:26 PM
To: Worrell, Justin (MRC) <Justin.Worrell@mrc.virginia.gov>
Subject: RE: NEW PROJECT Navy Va Capes Range 17-126F

I've attached it. Thanks.

From: Worrell, Justin (MRC)
Sent: Monday, October 23, 2017 4:24 PM
To: Wellman, Julia (DEQ) <Julia.Wellman@deq.virginia.gov>
Subject: RE: NEW PROJECT Navy Va Capes Range 17-126F

Can you re-send me a copy of the previously attached document? Thanks.

Justin D. Worrell
Environmental Engineer, Sr.
Habitat Management Division
Virginia Marine Resources Commission
(757) 247-8063 telephone
(757) 247-8062 fax

From: Wellman, Julia (DEQ)
Sent: Monday, October 23, 2017 4:07 PM
To: Peabody, Rachael (MRC) <Rachael.Peabody@mrc.virginia.gov>; Worrell, Justin (MRC)

1

<Justin.Worrell@mrc.virginia.gov>; Owen, Randy (MRC) <Randy.Owen@mrc.virginia.gov>
Subject: RE: NEW PROJECT Navy Va Capes Range 17-126F

Rachel/Justin, Do you have comments? If so, please send them to me ASAP. Thanks.

Does anyone see any concerns regarding primary sand dunes? Thanks.

Julia Wellman
Environmental Impact Review Coordinator
Department of Environmental Quality
629 E Main Street
Richmond, VA 23219
(804) 698-4326
Julia.Wellman@deq.virginia.gov
www.deq.virginia.gov

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From: Owen, Randy (MRC)
Sent: Thursday, August 31, 2017 4:19 PM
To: Wellman, Julia (DEQ) <Julia.Wellman@deq.virginia.gov>
Cc: Peabody, Rachael (MRC) <Rachael.Peabody@mrc.virginia.gov>; Worrell, Justin (MRC) <Justin.Worrell@mrc.virginia.gov>
Subject: RE: NEW PROJECT Navy Va Capes Range 17-126F

Julia,

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Sent: Thursday, August 31, 2017 2:26 PM
To: Worrell, Justin (MRC) <Justin.Worrell@mrc.virginia.gov>; Peabody, Rachael (MRC) <Rachael.Peabody@mrc.virginia.gov>
Cc: Owen, Randy (MRC) <Randy.Owen@mrc.virginia.gov>
Subject: FW: NEW PROJECT Navy Va Capes Range 17-126F

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Activity in a pond at Cheatham Annex, but assume that does not involve our jurisdiction.

Thanks

Tony

From: Fulcher, Valerie (DEQ)
Sent: Tuesday, August 29, 2017 4:19 PM
To: dgif-ESS Projects (DGIF) <ESSProjects@dgif.virginia.gov>; Rhur, Robbie (DCR) <Robbie.Rhur@dcr.virginia.gov>;

Appendix C
United States Fleet Forces Training Included in the Proposed Action and Alternatives

LIST OF ACRONYMS AND ABBREVIATIONS

ACU 2 / 4	Assault Craft Unit TWO / FOUR
ARG	Amphibious Readiness Group
AT/FP	Anti-Terrorism/ Force Protection
ATV	All-Terrain Vehicle
BMU 2	Beachmaster Unit TWO
C-IED	Counter - Improvised Explosive Device
CERTEX	Certification Exercise
CESE	Civil Engineer Support Equipment
CFFC	Commander Fleet Forces Command
CHE	Cargo Handling Equipment
CONV	Conventional
CORIVGRU 2	Coastal Riverine Group TWO
CRG-TEU	Coastal Riverine Group - Training Evaluation Unit
CRS	Coastal Riverine Squadron
CRS – 2/4	Coastal Riverine Squadron TWO/FOUR
CUCV	Commercial Utility Cargo Vehicle
ECP	Entry Control Point
EOD	Explosive Ordnance Disposal
EODGRU 2	Explosive Ordnance Disposal Group TWO
ESG	Expeditionary Strike Group
EST	Embarked Security Team
FEP	Final Evaluation Phase
FMP	Full Mission Profile
FTX	Field Training Exercise
HMMWV	High Mobility Multipurpose Wheeled Vehicle
HP	Horsepower
IED	Improvised Explosive Device
INLS	Improved Navy Lighterage System
JERRV	Joint Explosive Ordnance Disposal Rapid Response Vehicle
kts	knots
KW	kilowatts
LARC	Lighter Amphibious Resupply Cargo
LCAC	Landing Craft Air Cushion
LCM	Landing Craft Mechanized
LCU	Landing Craft Utility
LSSV	Light Services Support vehicle
MCM	Mine Countermeasure
MMV	Millennia Military Vehicle
MOUT	Military Operations on Urban Terrain
MPSRON	Maritime Prepositioning Squadron
MSI	Modified Surf Index
msl	mean sea level
MTVR	Medium Tactical Vehicle Replacement
NA	Not Applicable
NALF	Naval Auxiliary Landing Field
NAVELSG	Naval Expeditionary Logistics Support Group
NCHB	Navy Cargo Handling Battalion
NECC	Navy Expeditionary Combat Command
NEIC	Naval Expeditionary Intelligence Command
NETC	Naval Education and Training Command
NEW	net explosive weight
NTIMS	Navy Training Information Management System
OPNAVINST	Office of the Chief of Naval Operations Instruction
OPS	Operations
ORM	Operational Risk Management
RHIB	Rigid Hull Inflatable Boat
ROV	Remotely Operated Vehicle
SPIE	Special Patrol Insertion/Extraction
SURFLANT	Naval Surface Force Atlantic
SUROB	Surface Observation
TA	Training Area
T-ACS	Tactical Auxiliary Crane Ship
TEU	Training Evaluation Unit
TTP	Tactics, Techniques and Procedures
ULT	Unit Level Training
ULTRA	Unit Level Training Readiness Assessment
ULTRA-C	Unit Level Training Readiness Assessment - Certification
USFF	United States Fleet Forces
UUV	Unmanned Underwater Vehicle
VA	Virginia

Training Events and Assumptions

Chapter 2 includes summary descriptions of the Proposed Action and Alternatives. Table C-1, Table C-2, and Table C-3 provide the details of each training event within the No Action, Alternative 1, and Alternative 2, respectively. Each table is organized by location alphabetically. The assumptions column in the tables provides additional details necessary for determining the Primary Training Event Activity calculations. General assumptions include the following:

- Event with Remotely Operated Vehicle (ROV) activity use only one ROV per event.
- Unless otherwise specified, the characteristics of a training event are assumed to be the same for all training locations.
- Unless otherwise specified, platform transits to and from a training location occurs one time regardless of the event duration.
- Platform transits are only included when the platforms are not already located at the training event location.
- Non-tactical vehicle transit to and from the training location is not included in the analysis, including trailered vessels.
- Assault Craft Unit TWO / FOUR Integrated Beach Training and Overland Training events are conducted in coordination Beachmaster Unit TWO Beach Surveys, Surface Observation, Beach Master Operations events.

Table C-1. No Action Alternative Detailed List of Training Events

Specific Training Location	Command	Training Event	Event Description	Day/ Night Use	No. of Events per Year	Military Expended Materials	Platforms/ On Foot	Munitions Expended (by Navy Ammunition Logistics Code)	Primary Training Event Activity	Assumptions/ Notes
Southern Branch of the Elizabeth River No Action Alternative Training Events										
Eastern Branch	CORIVGRU 2	Unit Level Training Readiness Assessment-Certification (ULTRA-C) (FMP)	This is Unit Level Training conducted by CRG-2 TEU and CRS on all required capabilities (EST, AST, HVA Escort, Harbor Security, landside security) to re-enforce sustainment levels and training readiness. It includes high speed, defensive tactical boat maneuvers while deploying landside security to conduct entry control point (ECP) exercises. A CRC training requirement (16 five-man boat crews per company) is one to three days. The CRS will conduct four training events in preparation for each company ULTRA/FEP; 240 personnel consisting of 48 boat crews per squadron during each 21-month training cycle.	20% occurs between 2200 and 0700 Oct-Apr, 30% occurs between 2200 and 0700 May-Sept; 50% occurs sunrise to sunset. High speed on open water.	30	Brass casings	CAN BE A MIX OF Sea Ark (420 HP), 25 foot, & MK VI; Diesel or JP5 powered boats; approximate total run time is 4 hours continuous per day. 50% >10 knts. 4 to 8 boats per event. Movement is 45 min. 12 deploying people/boat	A111 (7.62MM,BLANK) x 1600, A598 (CAL .50 BLANK) x 1600,A080 5.56MM,BLANK x 1600; 80-90% recovered in catch cans	Personnel Movement, Vessel Movement (Water), Weapons Firing - Blank Fire	Analysis include 15 percent of expended brass casings are not captured. Vessels may approach the shoreline but not beach.
Cheatham Annex No Action Alternative Training Events										
C-130 Cargo Load Trainer (Zone J)	CORIVGRU 2	Aircraft Security Team (AST) Unit Level & Certification	Unit Level training is conducted for Aircraft Security Team (4 man teams) Training. A training event with blank fire is 1 to 3 days per company (45 days per year). Firing takes place for approximately 2 hrs.	Field training area/Mock airfield.100% occurs sunrise to sunset.	20	None	MOCK FIXED WING PLATFORM; 30 personnel/event	A111 (7.62MM,BLANK) x 1600, A598 (CAL .50 BLANK) x 1600. All material recovered.	Weapons Firing - Blank Fire	
C-130 Cargo Load Trainer (Zone J)	NAVELSG	Air Cargo	Unit level training (ULT) for AC/RC battalion air cargo company/detachment (10 days) - Provides NCHB Air Cargo personnel with the basic and advanced training toward qualification in various air cargo handling positions. Emphasis on Operational Risk Management (ORM), safety, load/ramp team structure, load planning, pallet building, aircraft configuration and operations, loading/unloading/ stowage/transfer of cargo. Typically includes use of light/medium diesel equipment and other material handling equipment (MHE) / cargo handling equipment (CHE). 1- diesel generator (30 & 60 KW MEP 806B tactical generators)	Flexible. 70% of training occurs sunrise to sunset. 30% of training occurs between 2200 and 0700. C-130 mockup used during daylight only.	5	None	MMV, K loader; C-130 mockup at CAX CAD 491, MH-60 mockup at CAX CAD 491	None	Equipment Use, Vehicle Movement	Vehicle Movement analyzed for air emissions but not ground disturbance because the training area is impervious surface.

Table C-1. No Action Alternative Detailed List of Training Events (Continued)

Specific Training Location	Command	Training Event	Event Description	Day/ Night Use	No. of Events per Year	Military Expended Materials	Platforms/ On Foot	Munitions Expended (by Navy Ammunition Logistics Code)	Primary Training Event Activity	Assumptions/ Notes
C-130 Cargo Load Trainer (Zone J)	NAVELSG	Air Cargo (Basic/Advanced Class)	Basic air cargo handling is two weeks, advanced air cargo handling is one week - Provides NCHB personnel with the basic and advanced training toward qualification in various air cargo handling positions. Emphasis on Operational Risk Management (ORM), safety, load/ramp team structure, load planning, pallet building, aircraft configuration and operations, loading/unloading/stowage/transfer of cargo. Typically includes use of light/medium diesel equipment and other material handling equipment (MHE) / cargo handling equipment (CHE). Individual training.	Flexible. Daytime.	4- Basic Air, 4-Advanced Air	None	MMV, 25 K K-loader; C-130 mockup (CAX CAD 491), MH-60 mockup (CAX CAD 491). Operate approx. 3 hr/day; MHE used sparingly.	None	Vehicle Movement	Vehicle Movement analyzed for air emissions but not ground disturbance because the training area is impervious surface.
Cheatham Annex Field training areas (CAX Zones C, D, F, H, I, and L)	CORIVGRU 2	Military Fly Away System Terminal (MAST)/Radar Sonar Surveillance Center (RSSC)/Super High Frequency (SHF) ULTRA	Unit Level Training Event to conduct Command and Control Training for sustainment and advanced proficiency. Training Event is one to three days setting up and testing communication equipment and systems. The training is for the CRS C5IR (ten personnel per squadron).	Field training area. 20% occurs between 2200 and 0700 Oct-Apr, 30% occurs between 2200 and 0700 May-Sept; 50% occurs sunrise to sunset.	20	None	On foot. 30 personnel/ event. 2-LSSV, 4-HMMWV movement from JEBLC is 1 hr.	None	Personnel Movement, Vehicle Movement	
Cheatham Annex Field training areas (CAX Zones C, D, H, I, and L)	CORIVGRU 2	Unit Level Training Readiness Assessment (ULTRA) (FTX for 450 personnel)	Unit Level (CRS) initiated Field Training Exercise on all required capabilities (EST, AST, VBSS, HVA Escort, and Harbor Security, landside security) to re-enforce sustainment levels and training readiness. This is a CRS (up to 450 personnel) event lasting one to two weeks with blank fire when and where approved. 8 hours of firing per training event. Approximately 8 diesel generators (200HP 35 kw) operating 24/7. Pre-planned responses and all escalation of force levels are exercised.	Field training area	3	None	On foot (450 personnel, CRS-2 and CRS-4 are about 600 personnel each). 4-6 HMMWV, 4-6 MTVR, 6-8 FL80 (5 ton truck), 10-12 LSSV, 3-vans. Run time is 1.5 hours/d.	A111 (7.62MM,BLANK) x 1600, A598 (CAL .50 BLANK) x 1600; Blanks (up to 50 cal) (1.4C, 1.4S); - UTMs (9MM and 5.56MM) (1.4S); - Smoke hand grenades (1.4G); - Practice hand grenades (Lash Crash; Simulator/ non-lethal stun) (1.4B, 1.4G, 1.4S); LA 51/52 12 gauge rounds/flash bangs which go about 100 yards and then flash/noise as a deterrent used from small boats close to or from the pier.	Equipment Use, Personnel Movement, Vehicle Movement , Weapons Firing - Blank Fire	
Cheatham Annex Field training areas (CAX Zones C, D, H, I, and L)	CORIVGRU 2	Unit Level Training Readiness Assessment (ULTRA) (FTX for 143 personnel)	Unit Level (CRC) initiated Field Training Exercise on all required capabilities (EST, AST, VBSS, HVA Escort, Harbor Security, landside security) to re-enforce sustainment levels and training readiness. This is a CRC (143 personnel) event lasting one to two weeks with blank fire when and where approved. 8 hours of firing per training event. Diesel generators (200HP 35 kw) used for 24 hour operations. Pre-planned responses and all escalation of force levels are exercised.	Field training area and harbor training area	1	None	On foot (143 personnel, CRS-2 and CRS-4 are about 600 personnel each). 4-6 HMMWV, 4-6 MTVR, 6-8 FL80 (5 ton truck), 10-12 LSSV, 3-vans. Run time is 1.5 hours/d.	A111 (7.62MM,BLANK) x 1600, A598 (CAL .50 BLANK) x 1600; Blanks (up to 50 cal) (1.4C, 1.4S); - UTMs (9MM and 5.56MM) (1.4S); - Smoke hand grenades (1.4G); - Practice hand grenades (Lash Crash; Simulator/ non-lethal stun) (1.4B, 1.4G, 1.4S); LA 51/52 12 gauge rounds/flash bangs which go about 100 yards and then flash/noise as a	Equipment Use, Personnel Movement, Vehicle Movement , Weapons Firing - Blank Fire	

Table C-1. No Action Alternative Detailed List of Training Events (Continued)

Specific Training Location	Command	Training Event	Event Description	Day/ Night Use	No. of Events per Year	Military Expended Materials	Platforms/ On Foot	Munitions Expended (by Navy Ammunition Logistics Code)	Primary Training Event Activity	Assumptions/ Notes
								deterrent used from small boats close to or from the pier.		
Cheatham Annex Field training areas (CAX Zones C, D, F, H, I, and L), Crane Training Site (Zone K), T-ACS (pierside) Cheatham Annex Pier (CAD 1), C-130 Cargo Load Trainer (Zone J)	NAVELSG	Unit Level Training (ULT) (Surface/Air Cargo Handling)	Unit Level Training (ULT) (two weeks at Cheatham Annex (CAX) or Camp Parks, CA and adjoining West Coast Training venues - Mission training in the field such as surface/air cargo handling, tent camp fundamentals, command & control, field communications, cargo transfer, equipment operation, personnel protection, etc. for a Navy Expeditionary Logistic Regiment (57 Personnel) and Navy Cargo Handling Battalion (NCHB) of 340 personnel. Typically includes use of light/medium diesel equipment, blank ammunition and percussion grenades (flash bangs) in open areas and tear gas tablets inside a CBR-D chamber. Operating 24 hr - 10 diesel generators (30 & 60 KW MEP 806B tactical generators), 20 environmental control units (ECU) (8 ton 35KW diesel generator - trailer mount, and 4 BX 4 head shower units with diesel water heater.	All weather conditions. 60-70% of training occurs sunrise to sunset. 37.5% of training occurs between 2200 and 0700. Mock ULTRA scenario conducted as training vs assessment, consists of 3 days of 24 hr operations.	2- duration is 12 days for FTX; 2- duration is 12 days for PTX. 2 Basic Year 1 ULT's (all in training mode). 2 Basic Year 2 ULT's (mock ULTRA event last 3 days). 2 ULTRA/FEP's conducted over 2 separate 4 day period's	Smoke grenades X 8 & brass casings. 100% of expended materials recovered. (Items are expended by TEU staff only.)	Crane aboard the T-ACS (pierside); land-based cranes (CAD 473/492). CESE/MHE: 15T trucks, Tractor Trailers, MMV, K-Loader; Mockup C-130, MH-60 at CAX CAD 491.Platforms used 10-11 hr/day during ULT (8 days), 24hr/d during Mock event (3day)	Grenade, smoke (G940 green, G945 yellow, G950 red, and G955 violet - representative) X 8. approx. 700 blanks. TEU police their own brass via FOD walk downs. Propane explosive (Model X-OHW and Model X-Calibre).	Equipment Use, Personnel Movement, Vehicle Movement	Personnel Movement assumes 1/3 of movement occurs on impervious surfaces. Vehicle Movement for all vehicles except the 15T trucks analyzed for air emissions but not ground disturbance because the training area is impervious surface. The 15T trucks are analyzed for potential ground disturbance in the field training areas.
Cheatham Annex Field training areas (CAX Zones C, D, F, H, I, and L); T-ACS (pierside)	NAVELSG	Unit Level Training Readiness Assessment (ULTRA) (NCHB's Readiness)	Unit Level Training Readiness Assessment (ULTRA) (three to four days at Cheatham Annex) - A robust, performance-based assessment of a NCHB's readiness in their mission capabilities following their ULT. Successful completion of an ULTRA will result in the NCHB receiving a "Ready For Mobilization" (RFM) designation and will end the unit's Basic Phase. Typically involves use of light/medium diesel equipment, blank ammunition and percussion grenades (flash bangs) in open areas and tear gas tablets inside a CBR-D chamber. (~300 personnel). Operating 24 hr - 10 diesel generators (30 & 60 KW MEP 806B tactical generators), 20 environmental control units (ECU) (8 ton 35KW diesel generator - trailer mount, and 4 BX 4 head shower units with diesel water heater.	All weather conditions. 50% of training occurs sunrise to sunset. 37.5% of training occurs between 2200 and 0700.	2-duration is 3 days for ULTRA; 2-duration is 1 day for FEP, follows ULTRA	Smoke grenades X 8. Brass casings from blanks. 100% of expended materials recovered. (Items are expended by TEU staff only.)	Crane aboard the T-ACS (pierside); land-based cranes (CAD 473/492) - 2(idle). CESE/MHE: 15T trucks, Tractor Trailers, MMV, K-Loader; Mockup C-130, MH-60 at CAX CAD 491.Platforms used 10-11 hr/day during ULT	Grenade, smoke (G940 green, G945 yellow, G950 red, and G955 violet - representative) X 8, approx. 700 blanks TEU police their own brass via FOD walk downs. Propane explosive (Model X-OHW and Model X-Calibre)	Equipment Use, Personnel Movement, Vehicle Movement , Weapons Firing - Blank Fire	Personnel Movement assumes 1/3 of movement occurs on impervious surfaces. Vehicle Movement for all vehicles except the 15T trucks analyzed for air emissions but not ground disturbance because the training area is impervious surface. The 15T trucks are analyzed for potential ground disturbance in the field training areas.
Jones Pond (CAX Training Zone F)	EODGRU 2	Hiking, Kayaking, Communications Training, Land Navigation, Confidence Training, First Aid Training. Unit level training.	Hiking, kayaking, communications training, land navigation, confidence training, first aid training.	day/night - all seasons	1	None	1-2 HMMWV's, vans, buses on roads for transport only. No gas motors on water craft; electric only. 24 personnel	None	Personnel Movement, Vehicle Movement	Vehicles used to transport personnel to the training location and not part of the training activity.
Jones Pond (CAX Training Zone F)	EODGRU 2	Underwater Search Procedures	Remotely Operated vehicles (ROV) with camera and sonar (fish finding variety), deployed from the boat ramp at Jones Pond.	a pier and a body of water at least 10 feet deep	1	None	Tethered Unmanned Submarine with camera and sonar (SEABOTIX)	None	Underwater Movement (e.g., divers,	

Table C-1. No Action Alternative Detailed List of Training Events (Continued)

Specific Training Location	Command	Training Event	Event Description	Day/ Night Use	No. of Events per Year	Military Expended Materials	Platforms/ On Foot	Munitions Expended (by Navy Ammunition Logistics Code)	Primary Training Event Activity	Assumptions/ Notes
			A pier and a body of water at least 10 feet deep is required for training.						UUV, submarine)	
T-ACS (pierside)	NAVELSG	Shipboard Cargo	Cargo handling (ongoing daily training once per week) - Primarily internal training to maintain mission readiness for full-time staff. Focus is on Personnel Qualification Standards (PQS) / Job Qualification Requirements (JQR) and equipment licensing. This ship is moored pier side in the water.	Flexible. 70% of training occurs sunrise to sunset. 30% of training occurs between 2200 and 0700.	5	None	Crane aboard the T-ACS (pierside);2- land-based cranes (CAD 473/492) (low), CESE/MHE: 15T trucks, Tractor Trailers, MMV, -K-Loader. Platforms used 4-5 hr.	None	Vehicle Movement	Vehicle Movement analyzed for air emissions but not ground disturbance because the training area is impervious surface.
T-ACS (pierside)	NAVELSG	Shipboard Cargo (Basic/Advanced Class)	Basic shipboard cargo class is two weeks; Advanced cargo is one week - Provides NCHB personnel with the basic and advanced training toward qualification in various maritime cargo handling positions. Emphasis on Operational Risk Management (ORM), safety, hatch team structure, ship configuration and operations, loading/unloading/stowage/transfer of cargo. Typically includes use of light/medium diesel equipment and other material handling equipment (MHE) / cargo handling equipment (CHE). Individual training. This ship is moored pier side in the water.	Flexible. 100% sunrise to sunset.	6- Basic Cargo, 6-Shipboard pedestal crane, 4-Advanced Cargo; class length is 2 weeks	None	Crane aboard the T-ACS (pierside); land-based cranes (CAD 473/492) (low),CESE/MHE: 15T trucks, Tractor Trailers, MMV; Platforms used 4-5 hr.	None	Vehicle Movement	Vehicle Movement analyzed for air emissions but not ground disturbance because the training area is impervious surface.
Dam Neck Annex/ Camp Pendleton No Action Alternative Training Events										
Camp Pendleton Shipboard Trainer; Baum Village	EODGRU 2	EOD Drills Field Training Exercise (FTX)	Advance field training events used to exercise EOD tactics, techniques and procedures (TTPs) as a small unit of action. Scenarios may include simulating improvised explosive devices, surface ordnance, chemical, nuclear, biological weapons etc. Validates unit level training, plus final evaluation problems. A single event lasts 4 hrs. EOD TEU 2/MU Event.	EOD is required to operate in any environment day and night per OPNAVINST 3501.97H. 60% occurs from sunrise to sunset; 40% occurs between 2200 and 0700.	28	Brass casings. All material recovered at the end of training and turned into DRMO as scrap metal.	Up to 20 personnel. 5 of each platform: HMMWV, Military ATV. Movement time from JEBFS: vehicle 20 min. Platforms are in the area 4hrs.	A080-50.	Personnel Movement, Vehicle Movement , Weapons Firing - Blank Fire	Vehicles used to transport personnel to the training location and not part of the training activity.
Dam Neck Annex North Beach; Camp Pendleton Beach	ACU 2	Integrated Beach Training ACU 2	Train assault craft unit crews on how to conduct amphibious assaults via ship to shore movement operations by landing conventional assault craft on the beach where the high or low water mark meets the shore line to on and off load troops, cargo and vehicles. Event lasts 5 hours plus movement time. Vessels come ashore 8-12 times/event; 3-5 beach hits/vessel.	None. 5-10% occur between 2200 and 0700. 90-95% occur from sunrise to sunset. No limits on the time of year.	4	None	LCU X 3, LCM X 2. Platforms run 9-10 hours. full throttle used for beach landings/retracting (5-7 min for beach landing/retracting).	None	Beach Landings	
Dam Neck Annex North Beach; Camp Pendleton Beach	ACU 4	Integrated Beach Training ACU 4	Beaching and retracting of landing craft from seaward to the high water mark. To train Landing Craft Air Cushion (LCAC) crews and personnel under the control and direction of Beach Master crew in coordinated beach landings. The personnel under the control and direction of Beach Master crew remain on the beach while establishing radio communications with the LCAC. The LCAC	Less than 10% occurs between 2200 and 0700. 90% occurs sunrise to sunset. Typically, all time is at high speeds and is generally confined to open water.	6	None	Up to 6 LCACs.	None	Beach Landings	

Table C-1. No Action Alternative Detailed List of Training Events (Continued)

Specific Training Location	Command	Training Event	Event Description	Day/ Night Use	No. of Events per Year	Military Expended Materials	Platforms/ On Foot	Munitions Expended (by Navy Ammunition Logistics Code)	Primary Training Event Activity	Assumptions/ Notes
			will make several approaches, landings and aborts to the beach face under the control and direction of the personnel under the control and direction of Beach Master crew. A single event lasts 4-6 hours. Vessels come ashore an average of 10 times per event. LCACs typical regroup over the horizon for initial landings and then approx. 1 mile off shore for additional landings.							
Dam Neck Annex North Beach; Camp Pendleton Beach	BMU 2	Beach Survey	To conduct pre-landing surveys of planned beaches and landing sites to determine ability to support amphibious operations. In addition, medical, engineering, communication, and salvage Certification Exercises (CE's) are conducted for training and proficiency.	None	Average of 10 surveys/yr.	None	Foot Movement, four to six personnel performs a beach survey. Personnel are transported via 1 HMMWV, movement time is 30 min.	None	Personnel Movement, Vehicle Movement	
Dam Neck Annex North Beach; Camp Pendleton Beach	BMU 2	Surface Observations (SUROBs)	To conduct observation of local surf conditions and enemy positions in a timely manner to provide commanders with necessary information to determine the ability of landing forces to conduct ship-to-shore movement. The 'Modified Surf Index (MSI) is calculated to determine whether or not they can train (i.e., winds, currents, wave breaking height, etc. Used for MSI). Conducted to determine if the ingress boat lanes are free of any obstructions (debris, sand bars, etc.) and if the landing location can accommodate beach hits.	None	Up to 39.	None	Foot Movement, 1-2 people perform SUROBs at a time.	None	Personnel Movement	
Dam Neck Annex North Beach; Camp Pendleton Beach	BMU 2	Conduct Beach Master Operations	To conduct operations under the control and direction of Beach Master crew or provide naval element of the shore party to facilitate the loading and movement over the beaches of troops, equipment, and supplies, to assist the evacuation of casualties/prisoners of war or to salvage landing assets as required. In addition, medical, engineering, communication, and salvage Certification Exercises (CE's) are conducted for training and proficiency. On average, a single event lasts 2-4 hours/evolution; 1-5 days per Amphibious Warfare (AMW) certification. Event based on 1 Conventional Boat lane and 1 CLZ Boat lane, with 1 LCAC and 1 LCU in operation. Hitting the beach approximately 4 times per hour in a 4 hour period.	Less than 10 percent occurs between 2200-0700. 90 percent occurs between sunrise and sunset. Training is not limited to any time of the year.	12	None	On Foot (6/LCAC, 30/LCU), 2-HMMWV, 1-Medium Tactical Vehicle Replacement (MTVR), 2-Lighter Amphibious Resupply, Cargo (LARC), 1-D-7 (bulldozer). All platforms (idle 75%, low 20%, & full5%). LCACs - 1-5, LCUs - 1-2. movement time is 4 hrs. Time in area is 2-4 hrs.	None	Personnel Movement, Vehicle Movement	LARCs used in the water 25 percent of the operating time.
Dam Neck Annex North Beach; Camp Pendleton Beach	ACU 4	LCAC Overland Training Maneuvers	LCACs will movement from sea to land performing a variety of landing and abort maneuvers. Landings include 'bow in' maneuvers, where the LCAC simply drives straight on to the beach and reduces the cushion, effectively setting the craft on the beach, and 'shallow beach' maneuvers	Bare beach head with significant footprint at all tide levels, available Less than 10% occurs between 2200 and 0700.	12	All expended materials are recovered by unit or range control.	2 LCACs	None	Beach Landings	

Table C-1. No Action Alternative Detailed List of Training Events (Continued)

Specific Training Location	Command	Training Event	Event Description	Day/ Night Use	No. of Events per Year	Military Expended Materials	Platforms/ On Foot	Munitions Expended (by Navy Ammunition Logistics Code)	Primary Training Event Activity	Assumptions/ Notes
			where the craft turns 90 degrees and sets the craft down parallel to the surf. Abort maneuvers consist of a craft driving onto the beach, turning 90 to 180 degrees and heading back out to sea. A single event lasts 4-6 hours. Vessels come ashore an average of 10 times per event. LCACs typical regroup over the horizon for initial landings and then approx. 1 mile off shore for additional landings.	90% occurs sunrise to sunset. Typically, all time is at high speeds and is generally confined to open water.						
Dam Neck Annex North Beach; Camp Pendleton Beach	BMU 2	LCAC Overland Training Maneuvers - BMU 2	Current training events at the Dam Neck Annex overland training site. Consists of advanced LCAC operators to overland maneuvers. LCACs will movement from sea to land performing a variety of landing and abort maneuvers. Landings include 'bow in' maneuvers, where the LCAC simply drives straight on to the beach and reduces the cushion, effectively setting the craft on the beach, and 'shallow beach' maneuvers where the craft turns 90 degrees and sets the craft down parallel to the surf. Abort maneuvers consist of a craft driving onto the beach, turning 90 to 180 degrees and heading back out to sea.	Bare beach head with significant footprint at all tide levels, available deep water anchorage.	12	All expended materials are recovered by unit or range control.	Foot (5-10 personnel) and vehicle, HMMWV, Commercial Utility Cargo Vehicle (CUCV)	None	Personnel Movement, Vehicle Movement	
Dam Neck Annex North Beach; Camp Pendleton Beach	EODGRU 2	EOD ULT MCM Beaching Operations	To conduct EOD Mine Countermeasures beaching operations of inert naval mines in the water.	100% occur sunrise to sunset.	30	None	Up to 16 personnel. 1-3 LSSV, 1-2 HMMWV, 1-15 ton truck, 1-all terrain fork lift. movement time 30min. Platforms in training area 8hrs.	None	Personnel Movement, Vehicle Movement	
First Landing State Park No Action Alternative Training Events										
Main Gate to access park trails	CORIVGRU 2	Land Navigation	Land navigation, patrolling and tactical site exploitation (TSE); 1 day event. No weapons firing. 24 personnel per event.	100% occurs sunrise to sunset. Personnel stay on the footpaths approx. 60%	4 (times 2 to include CRS-2)	None	24 personnel/event	None	Personnel Movement	
Main Gate to access park trails	CORIVGRU 2	Physical Training	Conduct Squadron physical fitness training for up to 100 personnel.	Run through the park along the trails. Percentage of the time personnel stay on the footpaths is approx. 80%	2 (times 2 to include CRS-2)		on foot		Personnel Movement	
JEB Fort Story No Action Alternative Training Events										
JEB Fort Story - All explosive Training Areas	EODGRU 2	EOD Drills	Field training event used to exercise EOD tactics, techniques and procedures (TTP's) as a small unit level training action. Scenarios may include simulating improvised explosive devices, surface ordnance, chemical, nuclear, biological weapons etc. A smaller scale than the FTX with only 1 platoon being trained. A single event lasts 2-8 hours.	EOD is required to operate in any environment day and night as per OPNAVINST 3501.97H. 50% occurs from sunrise to sunset; 50%	170	None	4-10 personnel/event. 1 of each platform/event: LSSV, HMMWV, JERRV. Platforms in training area for 1 hr.	None	Personnel Movement, Vehicle Movement	Vehicles used to transport personnel to the training location and not part of the training activity.

Table C-1. No Action Alternative Detailed List of Training Events (Continued)

Specific Training Location	Command	Training Event	Event Description	Day/ Night Use	No. of Events per Year	Military Expended Materials	Platforms/ On Foot	Munitions Expended (by Navy Ammunition Logistics Code)	Primary Training Event Activity	Assumptions/ Notes
				occurs between 2200 and 0700.						
JEB Fort Story - All explosive Training Areas	EODGRU 2	EOD and MDS ULT Demolition Training	Compartmentalized training emphasizing the exploitation portion in support of the Mine Countermeasures course. (The MCM COI is designed to provide Explosive Ordnance Disposal Technicians basic to advanced training to include; reporting, locating, identification, neutralization, raise-tow-beach, render safe, intelligence collection, and disposal of underwater ordnance in any projected environment while observing all safety precautions. SCUBA and MK 16 dive operations will be conducted in open water under both day and night conditions). Event lasts 1 day. Each event will have 5-10 detonations with each detonation having a max NEW of 1.25 lbs.. EOD TEU 2/MU Event.	EOD is required to operate in any environment day and night as per OPNAVINST 3501.97H. 100% occur sunrise to sunset.	80	None	Up to 24 personnel. 2-4 of each platform/event: LSSV, HMMWV. Platform time in training area is 6-8 hrs.	AA62 CTG., 12 GA, MK 274 MOD 0, ULTRA VELOCITY SLUG AA63 CTG., 12 GA, MK 275 MOD 0, AVON AA64 CTG., 12 GA, MK 276 MOD 0, LOW VELOCITY BLANK DWEC CTG, 12 GA, MK 277/0, ENHANCED BLANK DWED CTG, 12 GA, MK 279/0, STEEL SLUG DWEE CTG, 12 GA, MK 280 MOD 0, ALUMINUM SLUG DWER CTG, 12GA, MK284/0, CLAYVON DWHH CAP, BLASTING, ELECTRIC, MK18 MOD0 G930 GRENADE, HAND, SMK, WHITE, AN-M8 G945 GRENADE, HAND, SMK, YELLOW, M18 G950 GRENADE, HAND, SMK, RED, M18 G955 GRENADE, HAND, SMK, VIOLET, M18 L601 SIM, HAND GRENADE M116A1/M116E2 M023 CHG, DML, BLK, COMP C-4, 1.25 M131 CAP, BLASTING, NON-ELEC, M7 M456 CORD, DET, REINFORCED, PLIOFILM, PETN M591 DYNAMITE, MILITARY, M1 M648 CUTTER, PROPELLANT ACTUATED, MK 20 MOD 0 M670 FUZE, BLASTING, TIME EXPLOSIVE LOADED M980 CHG, DML, EXPL ROLL, 38 FT, 14 OZ M981 CHG, DML, EXPL ROLL, 25 FT, 22 OZ M995 CHG, DMO, ORD DISP, MK 86/0 M996 CHG, DMO, ORD DISP, MK 87/0 M997 CHG, DMO, ORD	Explosives on Land, Personnel Movement, Vehicle Movement , Weapons Firing - Blank Fire	Vehicles used to transport personnel to the training location and not part of the training activity.

Table C-1. No Action Alternative Detailed List of Training Events (Continued)

Specific Training Location	Command	Training Event	Event Description	Day/ Night Use	No. of Events per Year	Military Expended Materials	Platforms/ On Foot	Munitions Expended (by Navy Ammunition Logistics Code)	Primary Training Event Activity	Assumptions/ Notes
								DISP, MK 88/0 M998 CHG, DMO, ORD DISP, MK 89/0 MM51 CHG, EXPL CUT, TAPE, 125 GM/MT MM52 CHG, EXPL CUT, TAPE, 250 GM/MT MM91 INITIATOR, PYRO LEAD MK 24 MOD 0 MN08 IGNITER, TIME FUZE W/SHOCK TUBE CAPABILITY M81 MN44 FIRING DEVICE, MK59/0 MP17 NONEL, MK163 MOD0, 1000FT MW49 CONNECTOR, DET CORD, PLASTIC Not to exceed range limit		
JEB Fort Story - Bldg 807 (casemate)	EODGRU 2	EOD Drills Field Training Exercise (FTX)	Advanced field training events used to exercise EOD tactics, techniques and procedures (TTPs) as a small unit of action. Scenarios may include simulating improvised explosive devices, surface ordnance, chemical, nuclear, biological weapons etc. Validates unit level training, plus final evaluation problems. A single event lasts 4 hrs.	EOD is required to operate in any environment day and night per OPNAVINST 3501.97H. 60% occurs from sunrise to sunset; 40% occurs between 2200 and 0700.	28	Brass, UTM, SIMUNITION casings. All material recovered at the end of training and turned in to DRMO as scrap metal.	Up to 20 personnel. 5 of each platform: HMMWV, JERRV, Military ATV. Movement time from JEBFS: vehicle 5 min. Platforms are in the area for 4hrs.	50 each: A080, AA12, AA21	Vehicle Movement , Weapons Firing - Blank Fire, Weapons Firing - Non-Lethal Training Ammunition	
Range 1 - Navy EOD Demo	EODGRU 2	EOD Drills Field Training Exercise (FTX)	Field training event used to exercise EOD tactics, techniques and procedures (TTPs) as a small unit of action. Scenarios may include simulating improvised explosive devices, surface ordnance, chemical, nuclear, biological weapons etc. Supports unit level training and assessment, plus final evaluation problems. Mobile diving and salvage (MDS) team training demolition training during unit level training. COI trains MDSU personnel on proper explosive demolition techniques. A single event lasts 4hrs. EOD TEU 2/MU Event.	EOD is required to operate in any environment day and night as per OPNAVINST 3501.97H. 60% occurs from sunrise to sunset; 40% occurs between 2200 and 0700.	28	Brass, UTM, and SIMUNITION casings. All materiel recovered at the end of training and turned into DRMO as scrap metal	Up to 20 personnel. 5 platforms each: HMMWV, LSSV, 15 PAX van. Movement from JEBFS: vehicle 5 min.	AA62 CTG., 12 GA, MK 274 MOD 0, ULTRA VELOCITY SLUG AA63 CTG., 12 GA, MK 275 MOD 0, AVON AA64 CTG., 12 GA, MK 276 MOD 0, LOW VELOCITY BLANK DWEC CTG, 12 GA,MK 277/0, ENHANCED BLANK DWED CTG, 12 GA,MK 279/0, STEEL SLUG DWEE CTG, 12 GA,MK 280 MOD 0, ALUMINUM SLUG DWER CTG, 12GA, MK284/0, CLAYVON DWHH CAP, BLASTING, ELECTRIC, MK18 MOD0 G930 GRENADE, HAND, SMK, WHITE, AN-M8 G945 GRENADE, HAND, SMK, YELLOW, M18 G950 GRENADE, HAND, SMK, RED, M18 G955 GRENADE, HAND,	Explosives on Land, Personnel Movement, Vehicle Movement, Weapons Firing – Blank Fire	Vehicles used to transport personnel to the training location and not part of the training activity.

Table C-1. No Action Alternative Detailed List of Training Events (Continued)

Specific Training Location	Command	Training Event	Event Description	Day/ Night Use	No. of Events per Year	Military Expended Materials	Platforms/ On Foot	Munitions Expended (by Navy Ammunition Logistics Code)	Primary Training Event Activity	Assumptions/ Notes
								SMK, VIOLET, M18 L601 SIM, HAND GRENADE M116A1/M116E2 M023 CHG, DML ,BLK, COMP C-4, 1.25 M131 CAP, BLASTING, NON-ELEC, M7 M456 CORD, DET, REINFORCED, PLIOFILM, PETN M591 DYNAMITE, MILITARY, M1 M648 CUTTER, PRUOPULENT ACTUATED, MK 20 MOD 0 M670 FUZE, BLASTING, TIME EXPLOSIVE LOADED M980 CHG, DML, EXPL ROLL, 38 FT, 14 OZ M981 CHG, DML, EXPL ROLL, 25 FT, 22 OZ M995 CHG, DMO, ORD DISP, MK 86/0 M996 CHG, DMO, ORD DISP, MK 87/0 M997 CHG, DMO, ORD DISP, MK 88/0 M998 CHG, DMO, ORD DISP, MK 89/0 MM51 CHG, EXPL CUT, TAPE, 125 GM/MT MM52 CHG, EXPL CUT, TAPE, 250 GM/MT MM91 INITIATOR, PYRO LEAD MK 24 MOD 0 MN08 IGNITER, TIME FUZE W/SHOCK TUBE CAPABILITY M81 MN44 FIRING DEVICE, MK59/0 MP17 NONEL, MK163 MOD0, 1000FT MW49 CONNECTOR, DET CORD, PLASTIC Not to exceed range limit		
TA Inchon Beach	CORIVGRU 2	Land Navigation and tent camping	Land Navigation and tent camping; patrolling and tactical site exploitation (TSE). 1-3 day event, 8hr/d. No weapons firing.	20% occurs between 2200 and 0700 Oct-Apr, 30% occurs between 2200 and 0700 May-Sept; 50% occurs from sunrise	20	None	30-50 personnel/event	None	Personnel Movement	

Table C-1. No Action Alternative Detailed List of Training Events (Continued)

Specific Training Location	Command	Training Event	Event Description	Day/ Night Use	No. of Events per Year	Military Expended Materials	Platforms/ On Foot	Munitions Expended (by Navy Ammunition Logistics Code)	Primary Training Event Activity	Assumptions/ Notes
				to sunset.						
TA Inchon Beach	NEIC	Land Navigation and tent camping	Land Navigation and tent camping. Single event lasts 4-8 hours.	All of NEIC's land navigation exercises occur between sunrise to sunset.	2	None	Approximately 30 personnel participate at a time in the land navigation exercise. No vehicles or platforms are used.	None	Personnel Movement	
TA Inchon Beach	CORIVGRU 2	Unit Level Training Readiness Assessment-Certification (ULTRA-C) (FMP)	This is Unit Level Training conducted by CRG-2 TEU and CRS on all required capabilities (EST, AST, HVA Escort, Harbor Security, landside security) to re-enforce sustainment levels and training readiness. It includes high speed, defensive tactical boat maneuvers while deploying landside ECP exercises. A CRC training requirement (16 five-man boat crews per company) is one to three days. The CRS will conduct four training events in preparation for each company ULTRA/FEP; 240 personnel consisting of 48 boat crews per squadron during each 18-month training cycle.	Ramp Field training area. 20% occurs between 2200 and 0700 Oct-Apr, 30% occurs between 2200 and 0700 May-Sept; 50% occur sunrise to sunset. Conducted all year except during specific inclement weather. High speed limited to open water.	30	None	Mix of 4 34 ft (Sea Ark) & 25 ft; 12 deploying people/boat	None	Beach Landings, Personnel Movement	One beach landing per vessel.
TA Nike Site	EODGRU 2	EOD Drills Field Training Exercise (FTX)	Advance field training events used to exercise EOD tactics, techniques and procedures (TTPs) as a small unit of action. Scenarios may include simulating improvised explosive devices, surface ordnance, chemical, nuclear, biological weapons etc. Validates unit level training, plus final evaluation problems. A single event lasts 4 hrs.	EOD is required to operate in any environment day and night per OPNAVINST 3501.97H. 60% occurs from sunrise to sunset; 40% occurs between 2200 and 0700.	28	Brass, UTM, SIMUNITION casings. All material recovered at the end of training and turned in to DRMO as scrap metal.	Up to 20 personnel. 5 of each platform: HMMWV, JERRV, Military ATV. Movement time from JEBFS: vehicle 5 min. Platforms are in the area for 4hrs.	50 each: A080, AA12, AA21	Personnel Movement, Vehicle Movement , Weapons Firing - Blank Fire, Weapons Firing - Non-Lethal Training Ammunition	
TA Omaha Beach and BLDG 900	EODGRU 2	EOD Drills Field Training Exercise (FTX)	Advance field training events used to exercise EOD tactics, techniques and procedures (TTPs) as a small unit of action. Scenarios may include simulating improvised explosive devices, surface ordnance, chemical, nuclear, biological weapons etc. Validates unit level training, plus final evaluation problems. Will include evolutions where students movement from the water to the beach, small boat or helicopter. A single event lasts 4 hrs.	EOD is required to operate in any environment day and night per OPNAVINST 3501.97H. 60% occurs from sunrise to sunset; 40% occurs between 2200 and 0700.	28	Brass casings, UTM casings, SIMUNITION casings. All material recovered at the end of training and turned into DRMO as scrap metal.	Up to 20 personnel. 5 of each platform: HMMWV and NTV. Movement time from JEBFS is 60 min. Platforms are in the area for 4hrs.	50 each: A080, AA12, AA21	Personnel Movement, Vehicle Movement , Weapons Firing - Blank Fire, Weapons Firing - Non-Lethal Training Ammunition	
TA Omaha Beach; TA Utah Beaches I and II	EODGRU 2	MDSU Salvage De-Beaching Operations	Trainees utilize approved U.S. Navy de-beaching procedures to remove stranded inert/non-explosive objects from the shore (e.g., floating causeway section). Event lasts 3 days. EOD TEU 2/MU Event.	100% occur from sunrise to sunset. No high speed movement.	4	1-2 leg of beach gear. All training aids will be recovered at the end of training.	Up to 22 personnel. 2 RHIB, 4-F470. Only RHIB and F470 beach hit/event.	None	Beach Landings , Personnel Movement	One beach hit per vessel per event.
TA Omaha Beach; TA Utah Beaches I and II	EODGRU 2	EOD ULT Small Boat Ordnance Loading and Mine Countermeasures Training	Load and transport mine countermeasure supplies using small boats in support of mine countermeasures operations employing explosive charges to simulate neutralizing hazardous mines at sea. This is training and logistics (material handling) event, in	100% occur sunrise to sunset.	40	None	Up to 14 personnel. 1 of each platform : LSSV. movement time from JEBFS: LSSV 5 min. 1 small boat with 1 beach hit.	Handled not expended AA62 CTG., 12 GA, MK 274 MOD 0, ULTRA VELOCITY SLUG AA63 CTG., 12 GA, MK 275 MOD 0, AVON	Beach landings, Personnel Movement, Vehicle Movement	

Table C-1. No Action Alternative Detailed List of Training Events (Continued)

Specific Training Location	Command	Training Event	Event Description	Day/ Night Use	No. of Events per Year	Military Expended Materials	Platforms/ On Foot	Munitions Expended (by Navy Ammunition Logistics Code)	Primary Training Event Activity	Assumptions/ Notes
			support of training that occurs at sea. A single event lasts 1-2 hrs.					AA64 CTG., 12 GA, MK 276 MOD 0, LOW VELOCITY BLANK DWEC CTG, 12 GA, MK 277/0, ENHANCED BLANK DWED CTG, 12 GA, MK 279/0, STEEL SLUG DWEE CTG, 12 GA, MK 280 MOD 0, ALUMINUM SLUG DWER CTG, 12GA, MK284/0, CLAYVON DWHH CAP, BLASTING, ELECTRIC, MK18 MOD0 G930 GRENADE, HAND, SMK, WHITE, AN-M8 G945 GRENADE, HAND, SMK, YELLOW, M18 G950 GRENADE, HAND, SMK, RED, M18 G955 GRENADE, HAND, SMK, VIOLET, M18 L601 SIM, HAND GRENADE M116A1/M116E2 M023 CHG, DML, BLK, COMP C-4, 1.25 M131 CAP, BLASTING, NON-ELEC, M7 M456 CORD, DET, REINFORCED, PLIOFILM, PETN M591 DYNAMITE, MILITARY, M1 M648 CUTTER, PRUOPULENT ACTUATED, MK 20 MOD 0 M670 FUZE, BLASTING, TIME EXPLOSIVE LOADED M980 CHG, DML, EXPL ROLL, 38 FT, 14 OZ M981 CHG, DML, EXPL ROLL, 25 FT, 22 OZ M995 CHG, DMO, ORD DISP, MK 86/0 M996 CHG, DMO, ORD DISP, MK 87/0 M997 CHG, DMO, ORD DISP, MK 88/0 M998 CHG, DMO, ORD DISP, MK 89/0 MM51 CHG, EXPL CUT, TAPE, 125 GM/MT MM52 CHG, EXPL CUT, TAPE, 250 GM/MT		

Table C-1. No Action Alternative Detailed List of Training Events (Continued)

Specific Training Location	Command	Training Event	Event Description	Day/ Night Use	No. of Events per Year	Military Expended Materials	Platforms/ On Foot	Munitions Expended (by Navy Ammunition Logistics Code)	Primary Training Event Activity	Assumptions/ Notes
								MM91 INITIATOR, PYRO LEAD MK 24 MOD 0 MN08 IGNITER,TIME FUZE W/SHOCK TUBE CAPABILITY M81 MN44 FIRING DEVICE, MK59/0 MP17 NONEL, MK163 MOD0, 1000FT MW49 CONNECTOR, DET CORD, PLASTIC		
TA SATEC	EODGRU 2	EOD Drills Field Training Exercise (FTX)	Advance field training events used to exercise EOD tactics, techniques and procedures (TTPs) as a small unit of action. Scenarios may include simulating improvised explosive devices, surface ordnance, chemical, nuclear, biological weapons etc. Validates unit level training, plus final evaluation problems. A single event lasts 4 hrs. EOD TEU 2/MU Event.	EOD is required to operate in any environment day and night per OPNAVINST 3501.97H. 60% occurs from sunrise to sunset; 40% occurs between 2200 and 0700.	28	Brass, UTM, SIMUNITION casings. All material recovered at the end of training and turned in to DRMO as scrap metal.	Up to 20 personnel. 5 of each platform: HMMWV, JERRV, Military ATV. Movement time from JEBFS: 60 min. Platforms are in the area 4hrs.	50 each: A080, AA12,AA21	Personnel Movement, Vehicle Movement , Weapons Firing - Blank Fire, Weapons Firing - Non-Lethal Training Ammunition	
TA Urban Warfare Village	NEIC	Expeditionary Training in Urban Setting	NECC training in urban setting (MOUT), includes, observation, developing sources. Need for a simple road with basic habitats/ buildings near waterway. NEIC's use of MOUT facilities normally occurs during its final evaluation problem (FEP) lasting seven days. NEIC FEPS occur twice a year. However, use of a MOUT facility usually only occurs between 2-5 days total a year. A single event lasts about 1 -4 hours.	The entirety of NEIC's use of a MOUT facility occurs between sunrise to sunset.	Area used for both day and night evolutions with 1700-0700 observed quiet hours. NEIC executes between one to three of these events per year.	All expended materials are recovered by unit or range control. NEIC normally uses the MOUT facility to conduct meetings with "key leaders" and does not expend military materials such as ammunition or pyrotechnics at these facilities.	11 man Intel team – driving in with 10 RENTAL CARS. Approximately 30 personnel participate in a standard NEIC MOUT event. The rentals operate throughout the south side of Hampton Roads for the duration of the exercise at approx. 30 mi/d.	None	Personnel Movement	
TA Utah Beaches I and II	BMU 2	Beach Survey	To conduct pre-landing surveys of planned beaches and landing sites to determine ability to support amphibious operations. In addition, medical, engineering, communication, and salvage Certification Exercises (CE's) are conducted for training and proficiency.	None	62 events; 31 at each beach.	None	Foot Movement, four to six personnel performs a beach survey. movement via HMMWV, 15 min.	None	Personnel Movement, Vehicle Movement	
TA Utah Beaches I and II	BMU 2	Surface Observations (SUROBs)	To conduct observation of local surf conditions and enemy positions in a timely manner to provide commanders with necessary information to determine the ability of landing forces to conduct ship-to-shore movement. The 'Modified Surf Index (MSI) is calculated to determine whether or not they can train (i.e., winds, currents, wave breaking height, etc..used for MSI). Conducted to determine if the ingress boat lanes are free of any obstructions (debris,	None	254 events; 127 at each beach.	None	1-HMMWV, 15 min. Foot Movement, 1-2 people perform SUROBs at a time.	None	Personnel Movement, Vehicle Movement	

Table C-1. No Action Alternative Detailed List of Training Events (Continued)

Specific Training Location	Command	Training Event	Event Description	Day/ Night Use	No. of Events per Year	Military Expended Materials	Platforms/ On Foot	Munitions Expended (by Navy Ammunition Logistics Code)	Primary Training Event Activity	Assumptions/ Notes
			sand bars, etc.) and if the landing location can accommodate beach hits.							
TA Utah Beaches I and II	BMU 2	Conduct Beach Master Operations	To conduct operations under the control and direction of Beach Master crew or provide naval element of the shore party to facilitate the loading and movement over the beaches of troops, equipment, and supplies, to assist the evacuation of casualties/prisoners of war or to salvage landing assets as required. In addition, medical, engineering, communication, and salvage Certification Exercises (CE's) are conducted for training and proficiency. On average, a single event lasts 2-4 hours/evolution; 1-5 days per Amphibious Warfare (AMW) certification. Event based on 1 Conventional Boat lane and 1 CLZ Boat lane, with 1 LCAC and 1 LCU in operation. Hitting the beach approximately 4 times per hour in a 4 hour period.	Less than 10 percent occurs between 2200-0700. 90 percent occurs between sunrise and sunset. Training is not limited to any time of the year.	27	None	On Foot (6/LCAC, 30/LCU), 2-HMMWV, 1-Medium Tactical Vehicle Replacement (MTVR), 2-Lighter Amphibious Resupply, Cargo (LARC), 1-D-7 (bulldozer). All platforms (idle 75%, low 20%, & full5%). LCACs - 1-5, LCUs - 1-2. movement time is 1.5 hrs. Time in area is 2-4 hrs.	None	Personnel Movement, Vehicle Movement	LARCs used in the water 25 percent of the operating time.
TA Utah Beaches I and II	ACU 2	Integrated Beach Training ACU 2	Integrated Boat Training consisting of beaching and retracting of landing craft from seaward to the high water mark. Train assault craft unit crews on how to conduct amphibious assaults via ship to shore movement operations by landing conventional assault craft on the beach where the high or low water mark meets the shore line to on and off load troops, cargo and vehicles. Event lasts 5 hours plus movement time. Vessels come ashore 8-12 times/event; 3-5 beach hits/vessel.	None. 5-10% occur between 2200 and 0700. 90-95% occur from sunrise to sunset. No limits on the time of year.	4	None	LCU X 3, Landing Craft Mechanized (LCM) X 2. Platforms run 8-9 hours. full throttle used for beach landings/retracting (5-7 min for beach.	None	Beach Landings	
TA Utah Beaches I and II	ACU 4	Integrated Beach Training ACU 4	Integrated Boat Training consisting of beaching and retracting of landing craft from seaward to the high water mark. To train Landing Craft Air Cushion (LCAC) crews and personnel under the control and direction of Beach Master crew in coordinated beach landings. The personnel under the control and direction of Beach Master crew remain on the beach while establishing radio communications with the LCAC. The LCAC will make several approaches, landings and aborts to the beach face under the control and direction of the personnel under the control and direction of Beach Master crews. A single event lasts 4-6 hours. Vessels come ashore an average of 10 times per event. LCACs typical regroup over the horizon for initial landings and then approx. 1 mile off shore for additional landings.	Less than 10% occurs between 2200 and 0700. 90% occurs sunrise to sunset. Typically, all time is at high speeds and is generally confined to open water.	6	None	Up to 6 LCACs.	None	Beach Landings	
TA Utah Beaches I and II	NBG 2	Maritime Prepositioning Squadron - Deep	These day/night events are based on both basic and advanced schoolhouse pipeline training and Amphibious Operations for	Bare beach head with significant footprint at all tide	1	All expended materials are recovered by unit	1 of each: HMMWV, RHIB, Zodiac, LCAC, Commercial Utility Cargo	None	Beach Landings, Personnel	

Table C-1. No Action Alternative Detailed List of Training Events (Continued)

Specific Training Location	Command	Training Event	Event Description	Day/ Night Use	No. of Events per Year	Military Expended Materials	Platforms/ On Foot	Munitions Expended (by Navy Ammunition Logistics Code)	Primary Training Event Activity	Assumptions/ Notes
		Draft Ship Anchored Off-Shore- (MPSRON)	Assault Craft Unit (ACU Non-Displacement) certification criteria as set forth in Commander, U.S. Fleet Forces Command (CFFC), Surfaces Forces Atlantic (SURFLANT) and Naval Education and Training Command (NETC) directives. A) ULT/ Integrated Beach Training B) Field Training Exercise C) (Integrated CNBG-2 training) ESG/ARG EXERCISE/CERTEX/ JOINT TASK GROUP. A single event will last approximately 30 days with 24 hour operation; the main portion of operations will be conducted during the day. This event is conducted no more than 3 miles offshore in the Fort Story operations area between the channel and the beach. The craft make daily movements to Little Creek for fuel and safe haven. Event is coordinated by CNGB-2.	levels, available deep water anchorage are needed. 30% of training occurs between 220 and 0700; 70% occurs sunrise to sunset. All high speed movement occurs in open water.		or range control - food and fuel.	Vehicle (CUCV). Approx. max personnel is 300. 30 to 80 beach hits for all platforms (LCAC, RHIB, and Zodiac). Avg daily op time 16/24hr (idle).		Movement, Vehicle Movement	
TA Wilderness	CORIVGRU 2	Advanced ULT RST Land Navigation/ Tactical Site Exploitation (TSE)	This is CRG-2 TEU and CRS Unit Level Training is conducted for land navigation, patrolling and tactical site exploitation (TSE). Duration of event is one to three days depending on the number of personnel. CRC Delta Company personnel must attend training (143 personnel per 18 month training cycle). No weapons training required.	20% occurs between 2200 and 0700 Oct-Apr, 30% occurs between 2200 and 0700 May-Sept; 50% occur sunrise to sunset.	10	None	Dismounted/ on foot. 30 personnel/ event.	None	Personnel Movement	
JEB Little Creek No Action Alternative Training Events										
Desert Cove - Piers 54 & 55	CORIVGRU 2	Explosives Handling Training	Training capability for explosives handling at Piers 54 & 55, Desert Cove, JEB Little Creek. Public Works Department has authority to arrange for capability. The piers are used to load ordnance on Coastal Riverine Group Two boats and taken to W50 training area off the coast at Dam Neck to conduct training and within the Chesapeake Bay. Event lasts approximately 3 hrs. Conducted twice per training event, one to onload and one to offload.		Approximately 10 evolutions per year. 90 % evolutions are actual ammo evolutions. Live ammo can only be expended at W50. Blank ammo can only be fired at beach training sites.	Brass is collected if it falls in the boat and recycled according to Navy directives.	4 MTVRS and a mix of 4 HMMWVS or MRAPS; Diesel; approximate total run time is 2.5 hours continuous per day.	Not expended, only handled NALC NOMENCLATURE A059 5.56MM A080 5.56 BLNK A111 7.62 BLNK A131 7.62MM A165 7.62 GAU A555 .50 CAL A598 .50 BLNK G940 GREEN G945 YELLOW G950 RED G955 VIOLET G978 SMK GRND L306 SIG, ILLUM L307 SIG, ILLUM L312 SIG, ILLUM	Vehicle Movement	Vehicle Movement analyzed for air emissions but not ground disturbance because the training area is impervious surface.
TA Signal Point Field, TA Iwo Jima Field, TA Rodriguez field.	CORIVGRU 2	CRS Unit Level Training	This is Unit Level Training for 120 personnel comprising 2 12-person CRS Entry Control Point (ECP) teams and Tactical Operations Center (TOC) watch teams. It includes ECP security and defensive tactics and radio communications. This CRS training requirement takes place over seven weeks. Each AC CRS will conduct six such training	10% occurs between 2200 and 0700 ; 90% occur sunrise to sunset. High speed on open water.	6	Brass (100% RECOVERED)	on foot	A111 (7.62MM,BLANK) x 38,000 A598 (CAL .50 BLANK) x 51,000 A059 (5.56MM, BLANK) x10,200 G940 (smoke)x12 L601 (sim grenade)x20	Personnel Movement, Weapons Firing - Blank Fire	

Table C-1. No Action Alternative Detailed List of Training Events (Continued)

Specific Training Location	Command	Training Event	Event Description	Day/ Night Use	No. of Events per Year	Military Expended Materials	Platforms/ On Foot	Munitions Expended (by Navy Ammunition Logistics Code)	Primary Training Event Activity	Assumptions/ Notes
			events in preparation for FEP or ULTRA-S during each 33-month training cycle. RC CRS will conduct similar training 4 times in the same period.							
TA Alpha, Bravo, and Charlie Dunes	EODGRU 2	EOD Drills	Field training event used to exercise EOD tactics, techniques and procedures (TTP's) as a small unit level training action. Scenarios may include simulating improvised explosive devices, surface ordnance, chemical, nuclear, biological weapons etc. A smaller scale than the FTX with only 1 platoon being trained. A single event lasts 2-8 hours.	EOD is required to operate in any environment day and night as per OPNAVINST 3501.97H. All training occurs sunrise to 2200.	170	None	4-8 personnel/event. 1-2 LSSV/event. Platforms in training area for 1 hr.	None	Personnel Movement, Vehicle Movement	
TA Anzio Beach 1,2, and 3; TA Signal Point Field	CORIVGRU 2	Unit Level Training Readiness Assessment-Certification (ULTRA-C) (FMP)	This is Unit Level Training conducted by CRG-2 TEU and CRS on all required capabilities (EST, AST, VBSS, HVA Escort, Harbor Security, landside security) to re-enforce sustainment levels and training readiness. It includes high speed, defensive tactical boat maneuvers while deploying ground forces during insertion and extraction exercises. A CRC training requirement (16 five-man boat crews per company) is one to three days. The CRS will conduct four training events in preparation for each company ULTRA/FEP; 240 personnel consisting of 48 boat crews per squadron during each 18-month training cycle.	20% occurs between 2200 and 0700 Oct-Apr, 30% occurs between 2200 and 0700 May-Sept; 50% occur sunrise to sunset. High speed on open water.	30	None	CAN BE A MIX OF Sea Ark (420 HP), 25ft (450 HP) & MKVI; gasoline, diesel or JP5 powered boats; 4 to 8 boats per event. 12 deploying people/boat	None	Beach Landings, Personnel Movement	One beach hit per vessel per event.
TA Anzio Beach 2 and 4	ACU 2	Integrated Beach Training ACU 2	Train assault craft unit crews on how to conduct amphibious assaults via ship to shore movement operations by landing conventional assault craft on the beach where the high or low water mark meets the shore line to on and off load troops, cargo and vehicles. Event lasts 5 hours. Vessels come ashore 8-12 times/event; 3-5 beach hits/vessel.	None. 5-10% occur between 2200 and 0700. 90-95% occur from sunrise to sunset. No limits on the time of year.	4	None	LCU X 3, Landing Craft Mechanized (LCM) X 2. Platforms run 5 hours/event. Low throttle used for movement; full throttle used for beach landings/retracting (5-7 min for beach landing/retracting).	None	Beach Landings	
TA Anzio Beach 2 and 4	BMU 2	Beach Survey	To conduct pre-landing surveys of planned beaches and landing sites to determine ability to support amphibious operations. The timing of the event begins two hours before high tide and two hours after. In addition, medical, engineering, communication, and salvage Certification Exercises (CE's) are conducted for training and proficiency.	Event based on 1 Conventional Boat lane and 1 CLZ Boat lane, with 1 LCAC and 1 LCU in operation. Hitting the beach approximately 4 times per hour in a 4 hour period.	128 events; 64 at each beach.	None	Foot Movement, four to six personnel performs a beach survey. movement via HMMWV 15 min.	None	Personnel Movement, Vehicle Movement	
TA Anzio Beach 2 and 4	BMU 2	Surface Observations (SUROBs)	To conduct observation of local surf conditions and enemy positions in a timely manner to provide commanders with necessary information to determine the ability of landing forces to conduct ship-to-shore movement. The 'Modified Surf Index (MSI) is calculated to determine whether or	Event based on 1 Conventional Boat lane and 1 CLZ Boat lane, with 1 LCAC and 1 LCU in operation. Hitting the beach	508 events; 254 at each beach.	None	Foot Movement, 1-2 people perform SUROBs at a time. 1-HMMWV; 15 min.	None	Personnel Movement, Vehicle Movement	

Table C-1. No Action Alternative Detailed List of Training Events (Continued)

Specific Training Location	Command	Training Event	Event Description	Day/ Night Use	No. of Events per Year	Military Expended Materials	Platforms/ On Foot	Munitions Expended (by Navy Ammunition Logistics Code)	Primary Training Event Activity	Assumptions/ Notes
			not they can train (i.e., winds, currents, wave breaking height, etc..used for MSI). Conducted to determine if the ingress boat lanes are free of any obstructions (debris, sand bars, etc.) and if the landing location can accommodate beach hits.	approximately 4 times per hour in a 4 hour period.						
TA Anzio Beach 2 and 4	BMU 2	Conduct Beach Master Operations	To conduct operations under the control and direction of Beach Master crew or provide naval element of the shore party to facilitate the loading and movement over the beaches of troops, equipment, and supplies, to assist the evacuation of casualties/prisoners of war or to salvage landing assets as required. In addition, medical, engineering, communication, and salvage Certification Exercises (CE's) are conducted for training and proficiency. On average, a single event lasts 2-4 hours/evolution; 1-5 days per Amphibious Warfare (AMW) certification. Event based on 1 Conventional Boat lane and 1 CLZ Boat lane, with 1 LCAC and 1 LCU in operation. Hitting the beach approximately 4 times per hour in a 4 hour period.	Less than 10 percent occurs between 2200-0700. 90 percent occurs between sunrise and sunset. Training is not limited to any time of the year.	27	None	On Foot (6/LCAC, 30/LCU), 2-HMMWV, 1-Medium Tactical Vehicle Replacement (MTVR) , 2-Lighter Amphibious Resupply, Cargo (LARC), 1-D-7 (bulldozer) (ACB-2, 1operator & 1 maint). All platforms (idle 75%, low 20%, & full5%). movement 30 min. Time in area is 2-4 hrs.	None	Personnel Movement, Vehicle Movement	LARCs used in the water 25 percent of the operating time.
TA Anzio Beach 2 and 4	ACU 4	Integrated Beach Training ACU 4	Beaching and retracting of landing craft from seaward to the high water mark. To train Landing Craft Air Cushion (LCAC) crews and personnel under the control and direction of Beach Master crew in coordinated beach landings. The personnel under the control and direction of Beach Master crew remain on the beach while establishing radio communications with the LCAC. The LCAC will make several approaches, landings and aborts to the beach face under the control and direction of the personnel under the control and direction of Beach Master crew. A single event lasts 4-6 hours. Vessels come ashore an average of 10 times per event. LCACs typical regroup over the horizon for initial landings and then approx 1 mile off shore for additional landings.	Less than 10% occurs between 2200 and 0700. 90% occurs sunrise to sunset. Typically, all time is at high speeds and is generally confined to open water.	4	None	3 LCACs. Operational time is 1-4 hr at 75% full throttle.	None	Beach Landings	
TA Mud Flats	EODGRU 2	MDSU Salvage De-Beaching Operations	Trainees utilize approved U.S. Navy de-beaching procedures to remove stranded inert/non-explosive objects from the shore (e.g., floating causeway section). A single event lasts 3 days. Two legs of beaching gear are used per event. EOD TEU 2/MU Event.	100% occur from sunrise to sunset. No high speed movement.	12	1-2 leg of beach gear (lines and ties). All training aids will be recovered at the end of training.	Up to 22 personnel. 2-RHIB, 2-F470.	None	Beach Landings, Personnel Movement	Beach hits by RHIB/F470s occur once per vessel per event.
TA Mud Flats	BMU 2	Beach Survey	To conduct pre-landing surveys of planned beaches and landing sites to determine	None	64	None	Foot Movement, four to six personnel performs a	None	Personnel Movement,	

Table C-1. No Action Alternative Detailed List of Training Events (Continued)

Specific Training Location	Command	Training Event	Event Description	Day/ Night Use	No. of Events per Year	Military Expended Materials	Platforms/ On Foot	Munitions Expended (by Navy Ammunition Logistics Code)	Primary Training Event Activity	Assumptions/ Notes
			ability to support amphibious operations. The timing of the event begins two hours before high tide and two hours after. In addition, medical, engineering, communication, and salvage Certification Exercises (CE's) are conducted for training and proficiency.				beach survey. 1-HMMWV; 15 min.		Vehicle Movement	
TA Mud Flats	BMU 2	Conduct Beach Master Operations	To conduct operations under the control and direction of Beach Master crew or provide naval element of the shore party to facilitate the loading and movement over the beaches of troops, equipment, and supplies, to assist the evacuation of casualties/prisoners of war or to salvage landing assets as required. In addition, medical, engineering, communication, and salvage Certification Exercises (CE's) are conducted for training and proficiency. Conventional on-off loading to LCU.	Less than 10 percent occurs between 2200-0700. 90 percent occurs between sunrise and sunset. Training is not limited to any time of the year.	64	None	Foot Movement, 2-HMMWV, 1- Medium Tactical Vehicle Replacement (MTVR), 2-Lighter Amphibious Resupply, Cargo (LARC), 1-D-7 (bulldozer). Up to 30 personnel. Static LCAC only. movement time is 10 mins. Time in area is 2-4 hr.	None	Personnel Movement, Vehicle Movement	LARCs used in the water 25 percent of the operating time.
NALF Fentress No Action Alternative Training Events										
Bunkers; All LZs can be scheduled for Camping; Abandoned runways for convoys	EODGRU 2	EOD Drills	Field training event used to exercise EOD tactics, techniques and procedures (TTP's) as a small unit level training action. Scenarios may include simulating improvised explosive devices, surface ordnance, chemical, nuclear, biological weapons etc. A smaller scale than the FTX with only 1 platoon being trained. Blanks usage in any training area if brass is policed. A single event lasts 2-8 hours. EODTEU 2/MU event.	EOD is required to operate in any environment day and night as per OPNAVINST 3501.97H. 20% occurs between 2200 and 0700;60% occurs from sunrise to sunset.	90	Brass, UTM, SIMUNITION casings. All expended materiel recovered at the end of training and turned into DRMO at scrap metal.	Up to 20 personnel. 5 of each platform: HMMWV, NTV. Movement time from JEBFS: vehicle 60 min. Platforms in training area for 4 hrs.	50 each A080, AA12, AA21	Vehicle Movement , Weapons Firing - Blank Fire, Weapons Firing - Non-Lethal Training Ammunition	
Northwest Annex No Action Alternative Training Events										
USMC Fleet Anti-Terrorism Security Team Urban Training Facility - Munro Village	EODGRU 2	EOD Drills	Field training event used to exercise EOD tactics, techniques and procedures (TTP's) as a small unit level training action. Scenarios may include simulating improvised explosive devices, surface ordnance, chemical, nuclear, biological weapons etc. A smaller scale than the FTX with only 1 platoon being trained. A single event lasts 2-8 hours.	EOD is required to operate in any environment day and night as per OPNAVINST 3501.97H. 30% of training occurs between 2200 and 0700 and 70% occurs sunrise to sunset.	170	None	4-10 personnel per event. 1 of each platform/event: LSSV, HMMWV, JERRV. Platforms in training area 1 hr.	None	Personnel Movement, Vehicle Movement	
NWS Yorktown No Action Alternative Training Events										
Home Station Training Lanes	CORIVGRU 2	Unit Level Training Readiness Assessment (ULTRA) (FTX for 200 personnel)	Unit Level (CRC) initiated Field Training Exercise on all required capabilities (EST, AST, VBSS, HVA Escort, Harbor Security, landside security) to re-enforce sustainment levels and training readiness. This is a CRC (up to 200 personnel) event lasting one to two weeks with blank fire when and where approved. 8 hours of firing per training event. Diesel generators (200HP 35 kw)used	Field training area and harbor training area. 50% occur from sunrise to sunset. Conducted all year except during specific inclement weather.	8	None	On foot.	A111 (7.62MM,BLANK) x 1600, A598 (CAL .50 BLANK) x 1600. 1.4C and 1.4S; UTMs (9MM and 5.56MM) (1.4S); - Smoke hand grenades (1.4G); - Practice hand grenades (Lash Crash; Simulator/ non-lethal stun) (1.4B,	Equipment Use, Weapons Firing - Blank Fire	

Table C-1. No Action Alternative Detailed List of Training Events (Continued)

Specific Training Location	Command	Training Event	Event Description	Day/ Night Use	No. of Events per Year	Military Expended Materials	Platforms/ On Foot	Munitions Expended (by Navy Ammunition Logistics Code)	Primary Training Event Activity	Assumptions/ Notes
			for 24 hour operations. Pre-planned responses and all escalation of force levels are exercised .					1.4G, 1.4S); nothing aerial		
Home Station Training Lanes	CORIVGRU 2	Convoy Counter Improvised Explosive Device (C-IED) Training	Unit Level Training event scheduled to conduct Convoy Counter-IED and recognition training (four days). Training consists of identifying homemade bomb constructed and deployed in ways other than in conventional military action. All CRS personnel (600) will conduct all four levels of C-IED training during basic phase of training. Sixteen total days per 18 month training cycle per CRS.	Field training area 100% during the day. Conducted all year except during specific inclement weather.	14	N/A	MOBILE IN VEHICLES. 30-60 personnel/event. 5 MTVR and 5 armored HMMWVs per Convoy; all diesels. Vehicles are driven from headquarters; Portsmouth or JEB		Vehicle Movement	Movement is 60 minutes.
Home Station Training Lanes	EODGRU 2	EOD Drills Field Training Exercise (FTX)	Field training event used to exercise EOD tactics, techniques and procedures (TTP's) as a small unit of action. Scenarios may include simulating improvised explosive devices, surface ordnance, chemical, nuclear, biological weapons etc. Normally, 4 platoons, approximately 30-40 personnel. This FTX is also used as a pre FEP. A single event lasts approximately 4hrs. 5.56mm blank, SIMUNITION, AND UTM firing takes place 10min/evolution.	EOD is required to operate in any environment day and night as per OPNAVINST 3501.97H. 60% occurs from sunrise to sunset; 40% occurs between 2200 and 0700.	50	Brass, UTM, SIMUNITION casings. All expended materiel recovered at the end of training and turned into DRMO as scrap metal	Up to 20 personnel. 5 of each platform: HMMWV, NTV. Movement time from JEBFS: vehicle 60 min. Platforms in training area 4hrs.	50 each: A080, AA12, AA21; Propane explosive (Model X-OHW and Model X-Calibre). Normal IED simulation noise level 80-140 dB	Vehicle Movement , Weapons Firing - Blank Fire, Weapons Firing - Non-Lethal Training Ammunition	
TA A (Driving Course)	CORIVGRU 2	Convoy Operations	CORIVGRU 2 TEU will conduct Unit Level Training for Convoy Movement and Training operations. This is conducted for each company (four) for one week (5 days). All CRS personnel (up to 600 personnel) will conduct training 20 days each CRS 18 month training cycle.	Field training area. 20% occurs between 2200 and 0700 Oct-Apr, 30% occurs between 2200 and 0700 May-Sept; 50% occur sunrise to sunset. Conducted all year except during specific inclement weather.	60	N/A	MOBILE IN VEHICLES. 5 MTVR and 5 armored HMMWVs per convoy - 4hr/d; all diesels. Vehicles are driven from headquarters; Portsmouth or JEB. Max 25 mph on course; max 55 mph movement - 1 hr.		Vehicle Movement	
Yorktown EOD Demolition Range	EODGRU 2	EOD and MDS ULT Demolition Training	EOD disruption and disposal operations while employing explosives to neutralize hazardous conventional and nonconventional ordnance and devices. Instruction on techniques and procedures to safely handle and employ military grade explosives. The Range Surface NEW will remain 25lbs frag producing, Class 1.1. Navy EOD Demolition/Detonation training is conducted per Navy Training System Management System (NTIMS), an authoritative database approved by USFF. - 1 Day = 1 Event - Each event will have 5-20 detonations. - Each detonation will have a maximum NEW of 25lbs. Event 6-8 hrs	EOD is required to operate in any environment day and night as per OPNAVINST 3501.97H. 100% occurs from sunrise to sunset.	104	None. No expended materials are recovered. Range maintenance.	Personnel: 6-24 (4-20 personnel - MU/MDSU) Platforms per event: F350: 1-2 Gator: 1-2 LSSV: 3	12 GA, MK 274 MOD 0, ULTRA VELOCITY SLUG AA63 CTG., 12 GA, MK 275 MOD 0, AVON AA64 CTG., 12 GA, MK 276 MOD 0, LOW VELOCITY BLANK DWEC CTG, 12 GA, MK 277/0, ENHANCED BLANK DWED CTG, 12 GA, MK 279/0, STEEL SLUG DWEE CTG, 12 GA, MK 280 MOD 0, ALUMINUM SLUG DWER CTG, 12GA, MK284/0, CLAYVON DWHH CAP, BLASTING, ELECTRIC, MK18 MOD0 G930 GRENADE, HAND,	Explosives on Land, Personnel Movement, Vehicle Movement, Weapons Firing - Blank Fire	Vehicles (F350 and LSSV) used to transport personnel to the training location and not part of the training activity.

Table C-1. No Action Alternative Detailed List of Training Events (Continued)

Specific Training Location	Command	Training Event	Event Description	Day/ Night Use	No. of Events per Year	Military Expended Materials	Platforms/ On Foot	Munitions Expended (by Navy Ammunition Logistics Code)	Primary Training Event Activity	Assumptions/ Notes
								SMK, WHITE, AN-M8 G945 GRENADE, HAND, SMK, YELLOW, M18 G950 GRENADE, HAND, SMK, RED, M18 G955 GRENADE, HAND, SMK, VIOLET, M18 L601 SIM, HAND GRENADE M116A1/M116E2 M023 CHG, DML, BLK, COMP C-4, 1.25 M131 CAP, BLASTING, NON-ELEC, M7 M456 CORD, DET, REINFORCED, PLIOFILM, PETN M591 DYNAMITE, MILITARY, M1 M648 CUTTER, PROPELLANT ACTUATED, MK 20 MOD 0 M670 FUZE, BLASTING, TIME EXPLOSIVE LOADED M980 CHG, DML, EXPL ROLL, 38 FT, 14 OZ M981 CHG, DML, EXPL ROLL, 25 FT, 22 OZ M995 CHG, DMO, ORD DISP, MK 86/0 M996 CHG, DMO, ORD DISP, MK 87/0 M997 CHG, DMO, ORD DISP, MK 88/0 M998 CHG, DMO, ORD DISP, MK 89/0 MM51 CHG, EXPL CUT, TAPE, 125 GM/MT MM52 CHG, EXPL CUT, TAPE, 250 GM/MT MM91 INITIATOR, PYRO LEAD MK 24 MOD 0 MN08 IGNITER, TIME FUZE W/SHOCK TUBE CAPABILITY M81 MN44 FIRING DEVICE, MK59/0 MP17 NONEL, MK163 MOD0, 1000FT MW49 CONNECTOR, DET CORD, PLASTIC Not to exceed Range Limit		

Table C-1. No Action Alternative Detailed List of Training Events (Continued)

Specific Training Location	Command	Training Event	Event Description	Day/ Night Use	No. of Events per Year	Military Expended Materials	Platforms/ On Foot	Munitions Expended (by Navy Ammunition Logistics Code)	Primary Training Event Activity	Assumptions/ Notes
St. Juliens Creek Annex No Action Alternative Training Events										
St. Juliennes Creek Annex Building 277 fenced compound	CORIVGRU 2	Unit Level Training Readiness Assessment (ULTRA) (FTX for 143 personnel)	Unit Level (CRC) initiated Field Training Exercise on all required capabilities (EST, AST, VBSS, High Value Asset Escort, Harbor Security, landside security) to re-enforce sustainment levels and training readiness. This is a CRC (143 personnel) event lasting one to two weeks with blank fire when and where approved. 8 hours of firing per training event. Diesel generators used for 24 hour operations. Pre-planned responses and all escalation of force levels are exercised.	Field training area and harbor training area. 50% occur from sunrise to sunset. Conducted all year except during specific inclement weather.	1	None	On foot	A111 (7.62MM,BLANK) x 1600, A598 (CAL .50 BLANK) x 1600	Equipment Use, Personnel Movement, Weapons Firing - Blank Fire	
St. Juliennes Creek Annex Building 277 fenced compound	CORIVGRU 2	Unit Level Training Readiness Assessment (ULTRA) (FTX for 450 personnel)	Unit Level (CRS) initiated Field Training Exercise on all required capabilities (EST, AST, VBSS, High Value Asset Escort, and Harbor Security, landside security) to re-enforce sustainment levels and training readiness. This is a CRS (up to 450 personnel) event lasting one to two weeks with blank fire when and where approved. Approximately 8 diesel generators(200HP 35 kw) operating 24/7. Pre-planned responses and all escalation of force levels are exercised.	Field training area. 50% occur from sunrise to sunset; 50% occur between 2200 and 0700.. Training conducted all year except during inclement weather.	Up to 6	None	On foot (CRS-2 and CRS-4 are about 450 personnel each). 4-6 HMMWV, 4-6 MTVR, 6-8 FL80 (5 ton truck), 10-12 LSSV, 3-vans. Run time is 1.5 hours/d.	None	Equipment Use, Personnel Movement, Vehicle Movement	
St. Juliennes Creek Annex Building 277 fenced compound	CORIVGRU 2	Navy Expeditionary Operations	Field and Maritime Anti-terrorism/Force Protection: Small boat attack, various simulated types of Improvised Explosive Devices, chemical, biological, radiological, nuclear and high- yield explosives. Examples are: VBIED, PCIED, CBRNE/WMD, Mobile Communications, ECP, CONVOY, Counter IED and CASEVAC. Events usually last 5 days, 8hr/d. Dry and blank fire. Approximately 8 diesel generators (200HP 35 kw) operate 24/7.	20% occurs between 2200 and 0700 Oct-Apr, 30% occurs between 2200 and 0700 May-Sept; 50% occur sunrise to sunset. Approx 20% is high speed on open water.	10	None	200 personnel/ event. 4-6 HMMWV, 4-6 MTVR, 6-8 FL80 (5 ton truck), 10-12 LSSV. Platforms operate approx 1.5 hr/d. movement time 15-30 min at site.	A111 (7.62MM,BLANK) x 1600, A598 (CAL .50 BLANK) x 1600	Equipment Use, Personnel Movement, Vehicle Movement , Weapons Firing - Blank Fire	

Table C-2. Alternative 1 Detailed List of Training Events

Specific Training Location	Command	Training Event	Event Description	Day/ Night Use	No. of Events per Year	Military Expended Materials	Platforms/ On Foot	Munitions Expended (by Navy Ammunition Logistics Code)	Primary Training Event Activity	Assumptions/ Notes
Dam Neck Annex/ Camp Pendleton Alternative 1 Training Events										
Dam Neck Annex North Beach	EODGRU 2	Mine Countermeasures (MCM) Beach and Exploitation Operations	EOD TEU2 event. Simulated ESQD on the beach for disarming training inert mine shapes pulled back from the VACAPES Underwater Detonation box. 30 personnel per event. Duration is 2-6 hours.	Similar to what's done at/near Key West, FL or Blount Island near Mayport. 100% day	52-100	EOD training aids, cardboard targets, and EOD consumables. 100% recovered	- Up to 18 PAX per event - (3-7 total vehicles) HMMWV, LSSV, Gator, MATV, JERRV, Rental Vehicle - Type of Fuel: MOGAS and Diesel - Run Time: less than 30 min - Speed: Less that 5mph - Mvmt Time: 10 min	A080 – 100ea A111 – 200ea AA12 – 200ea	Personnel Movement, Vehicle Movement , Weapons Firing - Blank Fire, Weapons Firing - Non-Lethal Training Ammunition	
JEB Fort Story Alternative 1 Training Events										
JEB Fort Story - All explosive Training Areas	EODGRU 2	EOD ULT Demolition/Detonation Training (Utilizing Explosive Hydro- Jet technology)	Introduce new type of simulated IED detonation training using explosive hydro jet and mineral water bottles on JEB Fort Story. Public Works Department prepares Authorizations. Includes mine countermeasures course training and salvage demolition courses. EOD disruption and disposal operations while employing explosives to neutralize hazardous conventional and nonconventional ordnance and devices. Instruction on techniques/ procedures to safe handle and employ military grade explosives. Utilize dynamic explosively driven tools. Event lasts 1-4 hrs. 1 day = 1 event, each event will have 6-12 detonations, each detonation will have a max NEW of 100g.	50% occurs during sunrise to sunset, 50% occurs 2200 to 0700	240	Plastic volumetric disrupter containers. All remains are removed from the training site	Up to 22 personnel. 1-3 LSSVs, 1-3 HMMWVs. Vehicles will remain on approved trails	AA62 CTG., 12 GA, MK 274 MOD 0, ULTRA VELOCITY SLUG AA63 CTG., 12 GA, MK 275 MOD 0, AVON AA64 CTG., 12 GA, MK 276 MOD 0, LOW VELOCITY BLANK DWEC CTG, 12 GA, MK 277/0, ENHANCED BLANK DWED CTG, 12 GA, MK 279/0, STEEL SLUG DWEE CTG, 12 GA, MK 280 MOD 0, ALUMINUM SLUG DWER CTG, 12GA, MK284/0, CLAYVON DWHH CAP, BLASTING, ELECTRIC, MK18 MOD0 L601 SIM, HAND GRENADE M116A1/M116E2 M023 CHG, DML, BLK, COMP C-4, 1.25 M131 CAP, BLASTING, NON-ELEC, M7 M456 CORD, DET, REINFORCED, PLIOFILM, PETN M670 FUZE, BLASTING, TIME EXPLOSIVE LOADED M980 CHG, DML, EXPL ROLL, 38 FT, 14 OZ M981 CHG, DML, EXPL ROLL, 25 FT, 22 OZ MM51 CHG, EXPL CUT, TAPE, 125 GM/MT MM52 CHG, EXPL CUT, TAPE, 250 GM/MT MM91 INITIATOR, PYRO LEAD	Explosives on Land, Personnel Movement, Weapons Firing - Blank Fire	Vehicle Movement is 30 minutes per event.

Table C-2. Alternative 1 Detailed List of Training Events (Continued)

Specific Training Location	Command	Training Event	Event Description	Day/ Night Use	No. of Events per Year	Military Expended Materials	Platforms/ On Foot	Munitions Expended (by Navy Ammunition Logistics Code)	Primary Training Event Activity	Assumptions/ Notes
								MK 24 MOD 0 MN08 IGNITER, TIME FUZE W/SHOCK TUBE CAPABILITY M81 MN44 FIRING DEVICE, MK59/0 MP17 NONEL, MK163 MOD0, 1000FT		
Range 1 - Navy EOD Demo	EODGRU 2	EOD and MDS ULT Demolition Training	Introduce new types of EOD training at Range 1, Navy EOD Demolition/Detonation, on JEB Fort Story, per Navy Training Information Management System (NTIMS), an authoritative training database approved by USFF. Public Works Department prepared authorization. EOD disruption and disposal operations while employing explosives to neutralize hazardous conventional and nonconventional ordnance and devices. Instruction on techniques/ procedures to safe handle and employ military grade explosives. The Range 1 NEW will remain 1.25, Class 1.1. Established a 100 lb. Charge build-up area, within the Range 1 explosive arc, before taking out to Whiskey-50. That is introducing a higher NEW capability. Event lasts 6-8hrs (5-20 detonations with each detonation having a maximum NEW of 1.25 lbs).	100% occurs from sunrise to sunset.	240	None	Up to 22 personnel. 1-2 LSSV, 1-2 HMMWV. movement time from JEBFS is 5 min.	AA62 CTG., 12 GA, MK 274 MOD 0, ULTRA VELOCITY SLUG AA63 CTG., 12 GA, MK 275 MOD 0, AVON AA64 CTG., 12 GA, MK 276 MOD 0, LOW VELOCITY BLANK DWEC CTG, 12 GA, MK 277/0, ENHANCED BLANK DWED CTG, 12 GA, MK 279/0, STEEL SLUG DWEE CTG, 12 GA, MK 280 MOD 0, ALUMINUM SLUG DWER CTG, 12GA, MK284/0, CLAYVON DWHH CAP, BLASTING, ELECTRIC, MK18 MOD0 G930 GRENADE, HAND, SMK, WHITE, AN-M8 G945 GRENADE, HAND, SMK, YELLOW, M18 G950 GRENADE, HAND, SMK, RED, M18 G955 GRENADE, HAND, SMK, VIOLET, M18 L601 SIM, HAND GRENADE M116A1/M116E2 M023 CHG, DML, BLK, COMP C-4, 1.25 M131 CAP, BLASTING, NON-ELEC, M7 M456 CORD, DET, REINFORCED, PLIOFILM, PETN M591 DYNAMITE, MILITARY, M1 M648 CUTTER, PROPELLANT ACTUATED, MK 20 MOD 0 M670 FUZE, BLASTING, TIME EXPLOSIVE LOADED M980 CHG, DML, EXPL ROLL, 38 FT, 14 OZ M981 CHG, DML, EXPL ROLL, 25 FT, 22 OZ M995 CHG, DMO, ORD DISP, MK 86/0 M996 CHG, DMO, ORD DISP, MK 87/0 M997 CHG, DMO, ORD DISP, MK 88/0	Explosives on Land, Personnel Movement, Vehicle Movement, Weapons Firing – Blank Fire	Vehicles used to transport personnel to the training location and not part of the training activity.

Table C-2. Alternative 1 Detailed List of Training Events (Continued)

Specific Training Location	Command	Training Event	Event Description	Day/ Night Use	No. of Events per Year	Military Expended Materials	Platforms/ On Foot	Munitions Expended (by Navy Ammunition Logistics Code)	Primary Training Event Activity	Assumptions/ Notes
								M998 CHG, DMO, ORD DISP, MK 89/0 MM51 CHG, EXPL CUT, TAPE, 125 GM/MT MM52 CHG, EXPL CUT, TAPE, 250 GM/MT MM91 INITIATOR, PYRO LEAD MK 24 MOD 0 MN08 IGNITER, TIME FUZE W/SHOCK TUBE CAPABILITY M81 MN44 FIRING DEVICE, MK59/0 MP17 NONEL, MK163 MOD0, 1000FT MW49 CONNECTOR, DET CORD, PLASTIC Not to exceed range limit		
TA Omaha Beach and Building 900	EODGRU 2	Expeditionary Training in Urban Setting on Beach	Creation of a new “East African Village” MOUT at TA Omaha Beach, Ft Story. Existing Building 900 will be incorporated. Planned use of "rebreathers" to sneak up on the beach. Duration of event is 2-6 hours.	100% day	52-100	EOD training aids, cardboard targets, and EOD consumables. Recovered.	- Up to 18 PAX per event - (3-7 vehicles total)HMMWV, LSSV, Gator, MATV, JERRV, Rental Vehicle - Type of Fuel: MOGAS and Diesel - Run Time: less than 30 min - Speed: Less that 5mph - Mvmt Time: 10 min	A080 – CTG, 5.56MM, BLANK XM200, SINGLE ROUND 100ea A111 – CTG, 7.62MM, LKD, BLANK, M82 200ea AA12 – CTG, 9MM, FX MARKING, RED 200ea AA62 – CTG, 12 GA, MK 274 MOD 0, ULTRA VELOCITY SLUG 5ea AA63 – CTG, 12 GA, MK 275 MOD 0, AVON 5ea AA64 – CTG, 12 GA, MK 276 MOD 0, LOW VELOCITY BLANK 5ea AA66 – CTG, 12 GA. MK 278 MOD 0, BLACK POWDER BLANK 5ea DWEC – CTG, 12 GA,MK 277/0, ENHANCED BLANK 5ea DWED – CTG, 12 GA,MK 279/0, STEEL SLUG 5ea DWEE – CTG, 12 GA,MK 280 MOD 0, ALUMINUM SLUG 5ea DWER – CTG, 12GA, MK284/0, CLAYVON 5ea DWHH – CAP, BLASTING, ELECTRIC, MK18 MOD0 10ea G930 – GRENADE, HAND, SMK, WHITE, AN-M8 5ea G940 – GRENADE, HAND, SMK, GREEN, M18 5ea G945 – GRENADE, HAND, SMK, YELLOW, M18 5ea G950 – GRENADE, HAND, SMK, RED, M18 5ea L598 – SIM, BOOBY TRAP, M117 10ea L599 – SIM, BOOBY TRAP, M118	Explosives on Land, Personnel Movement, Vehicle Movement , Weapons Firing - Blank Fire, Weapons Firing - Non-Lethal Training Ammunition	

Table C-2. Alternative 1 Detailed List of Training Events (Continued)

Specific Training Location	Command	Training Event	Event Description	Day/ Night Use	No. of Events per Year	Military Expended Materials	Platforms/ On Foot	Munitions Expended (by Navy Ammunition Logistics Code)	Primary Training Event Activity	Assumptions/ Notes
								10ea L600 – SIM, BOOBY TRAP, M119 10ea L601 – SIM, HAND GRENADE M116A1/M116E2 10ea M023 – CHG,DML,BLK,COMP C-4, 1.25 1ea M131 – CAP, BLASTING, NON-ELEC, M7 10ea M456 – CORD, DET, REINFORCED,PLIOFILM, PETN 5ea M670 – FUZE, BLASTING, TIME EXPLOSIVE LOADED 50ea M980 – CHG, DML, EXPL ROLL, 38 FT, 14 OZ 1ea M981 – CHG, DML, EXPL ROLL, 25 FT, 22 OZ 1ea M985 – CHG, DML, EXPL ROLL, 11 FT 1ea MM30 – MM30 CHG, BOOSTER, 20 GM, MK 140 3 ea MM91 – INITIATOR, PYROTECHNIC LEAD MK 24 MOD 0 10ea MN08 – IGNITER,TIME FUZE W/SHOCK TUBE CAPABILITY M81 10ea MN33 – CORD,DETONATING,HEAVY LOAD,200 GR/FT 5ea MN44 – FIRING DEVICE, MK59/0 10ea MN54 – DETONATOR,PERCUSSION,MK15 5 MOD0 10ea MP17 – NONEL, MK163 MOD0, 1000FT 10ea MP40 – SQUIB, ELEC, MK20 MOD2 10ea MW49 - CONNECTOR, DET CORD, PLASTIC 10ea SS01 – CTG, IMPULSE, ELEC INIT, .50 CAL # 5ea		
TA Utah Beaches I and II	NBG 2	Maritime Prepositioning Squadron - Deep Draft Ship Anchored Off-Shore-(MPSRON)	Increased number of training events by detachment and schoolhouse will be 3 events per year, increasing current total of 1 events per year to 4 combined events per year. These day/night events are based on both basic and advanced schoolhouse pipeline	Bare beach head with significant footprint at all tide levels, available deep water anchorage are needed. 30% of training occurs between 220 and	3	All expended materials are recovered by unit or range control - food and fuel.	1 of each: HMMWV, RHIB, Zodiac, LCAC, Commercial Utility Cargo Vehicle (CUCV). Approx max personnel is 300. 30 to 80 beach hits for all platforms (LCAC, RHIB, and Zodiac).	None	Beach Landings, Personnel Movement, Vehicle Movement	

Table C-2. Alternative 1 Detailed List of Training Events (Continued)

Specific Training Location	Command	Training Event	Event Description	Day/ Night Use	No. of Events per Year	Military Expended Materials	Platforms/ On Foot	Munitions Expended (by Navy Ammunition Logistics Code)	Primary Training Event Activity	Assumptions/ Notes
			training and Amphibious Operations for Assault Craft Unit (ACU Non-Displacement) certification criteria as set forth in Commander, U.S. Fleet Forces Command (CFFC), Surfaces Forces Atlantic (SURFLANT) and Naval Education and Training Command (NETC) directives. A) ULT/ Integrated Beach Training B) Field Training Exercise C) (Integrated CNBG-2 training) ESG/ARG EXERCISE/CERTEX/ JOINT TASK GROUP. A single event will last approximately 30 days with 24 hour operation; the main portion of operations will be conducted during the day. Event is coordinated by CNGB-2.	0700; 70% occurs sunrise to sunset. All high speed movement occurs in open water.			Avg daily op time 16/24hr (idle).			
JEB Little Creek Alternative 1 Training Events										
TA Normandy; TA Delta Dunes	EODGRU 2	EOD MCM ULT (Team Training Phase)	EOD Unit Level Training (ULT) mine countermeasure (MCM) trains EOD techs to explosively exploit various mine shapes. Duration is 6-8 hrs.	EOD is required to operate in any environment day and night as per OPNAVINST 3501.97H	1	None	Up to 24 personnel. 1-2 LSSV, HMMWV	M023 (CHARGE,DEMO,BLOCK,M112,COMP C-4,1-1/4 LB) x 2 , M130 (CAP,BLASTING,SPECIAL,ELECTRIC) X 15, M456 (CORD,DETONATING,REINFORCED) X 75FT, M648 (CUTTER,PROPELLANT ACTUATED) X 1FT, M980 (CHARGE,DEMO,EXPLOSIVE SHEET) x 1ft, M984 (CHARGE,DEMO,EXPLOSIVE SHEET	Explosives on Land, Personnel Movement, Vehicle Movement	Vehicles used to transport personnel to the training location and not part of the training activity. Vehicle Movement to and from the training area is 15 minutes.
TA Normandy; TA Delta Dunes	EODGRU 2	EOD ULT (Team Training Phase)	Field training events used to exercise EOD tactics, techniques and procedures (TTPs) as a small unit of action. Scenarios may include simulating improvised explosive devices, surface ordnance, chemical, nuclear, biological weapons etc. Supports unit level training and assessment, plus final evaluation problems. May include Mobile Diving and Salvage (MDS) team training demolition training. COI trains MDSU personnel on proper explosive demolition techniques. Duration is 6-8 hrs	EOD is required to operate in any environment day and night as per OPNAVINST 3501.97H	1	None	Up to 24 personnel. 1-2 LSSV	M591(DYNAMITE,MILITARY) X 4,M980 (CHARGE,DEMO,EXPLOSIVE SHEET) x 4ft, M023 (CHARGE,DEMO,BLOCK,M112,COMP C-4,1-1/4 LB) x 2, M031 (CHARGE,DEMO,BLOCK) X 4FT, ML13 CHARGE,DEMOLITION,SHAPED X 120FT,	Explosives on Land, Personnel Movement	Vehicles used to transport personnel to the training location and not part of the training activity.

Table C-3. Alternative 2 Detailed List of Training Events

Specific Training Location	Command	Training Event	Event Description	Day/Night Use	No. of Events per Year	Military Expended Materials	Platforms/ On Foot	Munitions Expended (by Navy Ammunition Logistics Code)	Primary Training Event Activity	Assumptions/ Notes
JEB Fort Story Alternatives 2 Training Events										
TA Wilderness	EODGRU 2	EOD Drills Field Training Exercise (FTX)	New MOUT (Columbian/"FARC"). Field training event used to exercise EOD tactics, techniques and procedures (TTPs) as a small unit of action. Scenarios may include simulating improvised explosive devices, surface ordnance, chemical, nuclear, biological weapons etc. Supports unit level training and assessment, plus final evaluation problems. A single event lasts approximately 4 hrs. 5.56mm, SIMUNITION, & UTM: firing takes place 10 min/evolution	60% occurs from sunrise to sunset; 40% occurs between 2200 and 0700. No energetic material at nights.	56	Brass, UTM, SIMUNITION casings. All expended materials are recovered at the end of training and turned into DRMO as scrap metal.	Up to 14 personnel. 5 of each platform: HMMWV, JERRV, Gator. Movement time from JEBFS: vehicle 10 min. Platforms in training area 4hrs.	50 each: A080, AA12, AA21 AA62 CTG., 12 GA, MK 274 MOD 0, ULTRA VELOCITY SLUG AA63 CTG., 12 GA, MK 275 MOD 0, AVON AA64 CTG., 12 GA, MK 276 MOD 0, LOW VELOCITY BLANK DWEC CTG, 12 GA,MK 277/0, ENHANCED BLANK DWED CTG, 12 GA,MK 279/0, STEEL SLUG DWEE CTG, 12 GA,MK 280 MOD 0, ALUMINUM SLUG DWER CTG, 12GA, MK284/0, CLAYVON DWHH CAP, BLASTING, ELECTRIC, MK18 MOD0 L601 SIM, HAND GRENADE M116A1/M116E2 M023 CHG,DML,BLK,COMP C-4, 1.25 M131 CAP, BLASTING, NON-ELEC, M7 M456 CORD, DET, REINFORCED,PLIOFILM, PETN M670 FUZE, BLASTING, TIME EXPLOSIVE LOADED M980 CHG, DML, EXPL ROLL, 38 FT, 14 OZ M981 CHG, DML, EXPL ROLL, 25 FT, 22 OZ MM51 CHG, EXPL CUT, TAPE, 125 GM/MT MM52 CHG, EXPL CUT, TAPE, 250 GM/MT MM91 INITIATOR, PYRO LEAD MK 24 MOD 0 MN08 IGNITER, TIME FUZE W/SHOCK TUBE CAPABILITY M81 MN44 FIRING DEVICE, MK59/0 MP17 NONEL, MK163 MOD0, 1000FT	Explosives on Land, Personnel Movement, Vehicle Movement , Weapons Firing - Blank Fire, Weapons Firing - Non-Lethal Training Ammunition	

Table C-3. Alternative 2 Detailed List of Training Events (Continued)

Specific Training Location	Command	Training Event	Event Description	Day/Night Use	No. of Events per Year	Military Expended Materials	Platforms/ On Foot	Munitions Expended (by Navy Ammunition Logistics Code)	Primary Training Event Activity	Assumptions/ Notes
NALF Fentress Alternative 2 Training Events										
Bunkers; All LZs can be scheduled for Camping; Abandoned runways for convoys	CORIVGRU 2	Unit Level Training Readiness Assessment (ULTRA) (FTX for 450 personnel)	Unit Level (CRS) initiated Field Training Exercise on all required capabilities (EST, AST, VBSS, HVA Escort, and Harbor Security, landside security) to re-enforce sustainment levels and training readiness. This is a CRS (up to 600 personnel) event lasting one to two weeks with blank fire when and where approved. 8 hours of firing per training event. Blanks usage in any training area if brass is policed. Approximately 8 diesel generators (200HP 35 kw) operating 24/7. Pre-planned responses and all escalation of force levels are exercised.	Field training area. 50% occur from sunrise to sunset; 50% occur between 2200 and 0700.. Training conducted all year except during inclement weather.	3	None	On foot (450 personnel, CRS-2 and CRS-4 are about 600 personnel each). 4-6 HMMWV, 4-6 MTVR, 6-8 FL80 (5 ton truck), 10-12 LSSV, 3-vans.	A111 (7.62MM,BLANK) x 1600, A598 (CAL .50 BLANK) x 1600. None planned for recovery.	Equipment Use, Personnel Movement, Vehicle Movement , Weapons Firing - Blank Fire	Vehicle Movement to and from the training area is 60 minutes.
Bunkers; All LZs can be scheduled for Camping; Abandoned runways for convoys	CORIVGRU 2	Unit Level Training Readiness Assessment (ULTRA) (FTX for 143 personnel)	Unit Level (CRC) initiated Field Training Exercise on all required capabilities (EST, AST, VBSS, HVA Escort, Harbor Security, landside security) to re-enforce sustainment levels and training readiness. This is a CRC (143 personnel) event lasting one to two weeks with blank fire when and where approved. 8 hours of firing per training event. Blanks usage in any training area if brass is policed. Diesel generators (200HP 35 kw)used for 24 hour operations. Pre-planned responses and all escalation of force levels are exercised .		1	None	On foot (143 personnel, CRS-2 and CRS-4 are about 600 personnel each). 4-6 HMMWV, 4-6 MTVR, 6-8 FL80 (5 ton truck), 10-12 LSSV, 3-vans.	A111 (7.62MM,BLANK) x 1600, A598 (CAL .50 BLANK) x 1600	Equipment Use, Personnel Movement, Vehicle Movement , Weapons Firing - Blank Fire	
St. Juliens Creek Annex Alternative 2Training Events										
Northeast corner of SJCA surrounding the communications tower	EODGRU 2	EOD Drills Field Training Exercise (FTX)	Advance field training events used to exercise EOD tactics, techniques and procedures (TTPs) as a small unit of action. Scenarios may include simulating improvised explosive devices, surface ordnance, chemical, nuclear, biological weapons etc. Validates unit level training, plus final evaluation problems. A single event lasts 4 hrs.	EOD is required to operate in any environment day and night per OPNAVINST 3501.97H. 60% occurs from sunrise to sunset; 40% occurs between 2200 and 0700.	28	None	Up to 14 personnel. 5 of each platform: HMMWV, LSSV, 15 pax van. movement time from JEBFS: 45 min. Time in area is 4hrs.	None	Personnel Movement, Vehicle Movement	

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Appendix D
Platform Glossary

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Photographs and descriptions in this section provide a general summary of each platform. Variations in model and platform configuration may occur and be dependent on the user.

Vehicle Platforms – General Characteristics

Name: High Mobility Multipurpose Wheeled Vehicle (HMMWV) (5,200-5,900 lb) (BMU, 2014)
Engine/hp: V8 diesel 6.2L or V8 turbo diesel 6.5L
Length: 15 ft
Width: 7 ft 1 in
Height: 8 ft 4 in
Fuel type: Diesel/JP-5
Description: Four-wheel drive vehicle that comes in several variants. Typical use includes movement of personnel and light cargo; it can be transported by air and dropped from a variety of aircraft.

Name: K Loader (cargo loading vehicle) (AMC, 2011)
Engine/hp: various diesel engines
Length: Approximately 29 ft
Width: Approximately 14 ft
Height: varies
Fuel type: Diesel
Description: The loader is used to transport and lift cargo. While this type of vehicle is most commonly used to load/unload pallets of cargo from an aircraft, it can be used for moving cargo to and from any elevated area.

Navy, 2014

Name: Light Service Support Vehicle (LSSV)/ Commercial Utility Cargo Vehicle (CUCV)
Engine/hp: 6.6 liter turbo diesel
Length: varies
Width: varies
Height: varies
Fuel type: Diesel
Description: Truck used for military support such as military police, range control, maintenance, and base facilities. The vehicle is available in several configurations with varying dimensions.

Name: Medium Tactical Vehicle Replacement (MTVR) (7 Ton) (BMU, 2014)
Engine/hp: Caterpillar C13 440 hp 12.8L or Caterpillar C9 400 hp 8.8L
Length: 26 ft 3 in
Width: 8 ft
Height: 12 ft
Fuel type: Diesel
Description: All-wheel drive all-terrain vehicle that comes in several variants. Typical use includes movement of fuel, water, troops, and equipment.

Navy, 2008a

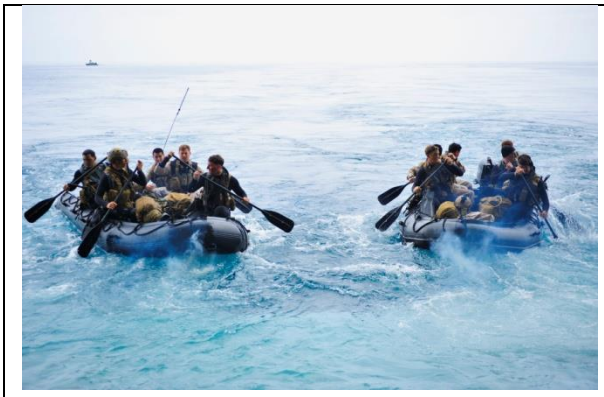
Millennia Military Vehicle (MMV) (7-11K RT Forklift)(Military-Today, 2015)
Engine/hp: 4.5 T diesel/ 110hp
Length: 20 ft 8 in
Width: 8 ft 4 in
Height: 8 ft 5 in
Fuel type: Diesel
Description: The MMV is an all-terrain forklift. The primary use of the MMV is to load/unload and transport palletized/boxed materials.

USMC, 2007

Name: Mine-Resistant Ambush Protected (MRAP)/ Joint EOD Rapid Response Vehicle (JERRV) (14+ Ton) (GDLS, 2014)
Engine/hp: Caterpillar C7 (either 330 hp or 370 hp depending on configuration)
Length: 20.6 ft
Width: 8.6 ft
Height: 10 ft
Fuel type: Diesel/JP-8
Description: Armored fighting vehicle that can be configured for command and control, EOD, patrol, convoy support, reconnaissance, etc. The MRAP is able to transport passengers and equipment in a combat environment.

Vessel Platforms (including amphibious) – General Characteristics

Name: 25 ft Secure All-around Flotation Equipped (SAFE) (Navy, 2017a)
Propulsion/hp: Twin Mercury OPTIMAX outboards 450 hp
Fuel type: diesel fuel marine
Length: 25 ft
Beam: 8 ft 6 in
Displacement: 4.7 tons
Anchor size: varies (smaller than 2 ft x 2 ft and 10 to 20 lbs)
Description: Small boat primarily used for security patrols and operations such as ship boarding, search and seizure tactics, and defensive maneuvering.



Navy, 2013a

Name: Combat Rubber Raiding Craft (CRRC) (aka Zodiac or F470)
Propulsion/hp: 40 hp two-stroke outboard
Fuel type: diesel fuel marine
Length: 15 ft 5 in
Beam: 6 ft 3 in
Displacement:
Anchor size: varies (smaller than 2 ft x 2 ft and 10 to 20 lbs)
Description: Specially fabricated inflatable boat often used by Special Operations Forces/ reconnaissance teams onto beaches, piers, and larger vessels. The CRRC can also be launched from aircraft.

Name: Landing Craft, Air Cushion (LCAC) (Navy, 2013b)
Propulsion/hp: four Allied-Signal TF-40B gas turbines (some have four Vericor Power Systems ETB-40B gas turbines with Full Authority Digital Engine Control.
Fuel type: diesel fuel marine
Length: 91 ft 9.5 in
Beam: 48 ft 4 in
Displacement: 94.5 tons light; 170-182 tons full load

Description: Air cushioned vehicle for transporting, ship-to-shore and across the beach, personnel, weapons, equipment, and cargo of the assault elements of the Marine Air-Ground Task Force.

BMU, 2014

Name: Landing Craft, Mechanized (LCM) (Navy, 2013c)
Propulsion/hp: two Detroit 12V-71 Diesel engines, twin shaft/ 680 HP
Fuel type: diesel fuel marine
Length: 73.7 ft
Beam: 21 ft
Displacement: 105 tons full load
Anchor size: 75 lbs
Description: Landing craft are used by amphibious forces to transport equipment and troops to the shore. LCMs have a bow ramp for onload/offload.

Name: Landing Craft, Utility (LCU) (Navy, 2013c)
Propulsion/hp: two Detroit 12V-71 Diesel engines, twin shaft
Fuel type: diesel fuel marine
Length: 134 ft 9 in
Beam: 29 ft 10 in
Displacement: 200 tons light; 375 tons full load
Anchor size: 75 lbs
Description: Landing craft are used by amphibious forces to transport equipment and troops to the shore. LCUs have both bow and stern ramps for onload/offload.

Navy, 2008b

Name: Lighter Amphibious Resupply Cargo (LARC) (BMU, 2014)
Propulsion/hp: 6-cylinder, 4-cycle John Deere 6081 AFM 75 marine engine, 375 HP
Fuel type: diesel
Length: 35 ft
Width: 10 ft
Height: 10 ft 2 in
Anchor size: NA
Description: Amphibious cargo vehicle primarily used for surf-zone salvage, recovery, command and control roles, and for the transportation of personnel and equipment.

Navy, 2017b

Name: Mark VI Patrol Boat (MK VI) (Navy, 2017c)
Propulsion/hp: Twin MTU 16V2000 (5,200 hp)
Fuel type: diesel fuel marine
Length: 84 ft 9 in
Beam: 20 ft 6 in
Displacement: 83.9 tons
Description: Boat primarily used to patrol littoral areas beyond sheltered harbors and bays for the purpose of force protection.

Navy, 2013e

Name: Rigid Hull Inflatable Boat (RHIB) (Navy, 2013d)
Propulsion/hp: dual Caterpillar 3126 DITA, 6 in-line cylinder diesel (210 hp)
Fuel type: diesel fuel marine
Length: 35 ft 11 in
Beam: 10 ft 7 in
Displacement: 17,400 lbs
Anchor size: varies (smaller than 2 ft x 2 ft and 10 to 20 lbs)
Description: High-speed, high-buoyancy, extreme-weather craft with the primary mission of SEAL insertion/extraction and a secondary mission of marine interdiction operations.

Name: Sea Ark (CRG-2, 2014)
Fuel: DFM/ JP5
Propulsion: twin Konrad 520 outdrives, 420 HP
Length: 34 ft
Beam: 10 ft
Anchor size: 2 ft x 2 ft
Displacement: 15,305 dry
Description: Small boat primarily used for security patrols and operations such as ship boarding, search and seizure tactics, and defensive maneuvering. In addition, this type of boat is also used for transporting personnel and equipment in the riverine environment.

Navy, 2012

Name: SEABOTIX (ROV)
Propulsion/hp: four thrusters (battery powered)
Fuel type: NA
Length: 21 in
Width: 19.7 in
Weight: 61.7 lbs
Anchor size: NA
Description: Small ROV (controlled real-time by a person versus being programmed) used for disposal of mine types, inspections of harbor areas and ship hull components, recovery of intelligence materials, tethered to control systems.

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Appendix E
Air Quality Emissions Calculations – Assumptions and Methods

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AIR QUALITY EMISSIONS CALCULATIONS

This appendix discusses emission factor development and calculations including assumptions employed in the analyses presented in the Air Quality section of Chapter 4 (Section 4.1).

Surface Activities Emissions

Surface activities consist of activities associated with boat traffic and with amphibious vehicle operations occurring on land (amphibious water activities are included in the Atlantic Fleet Training and Testing Environmental Impact Statement/Overseas Environmental Impact Statement). Beach landings include the operation of amphibious assault craft on land. Amphibious assault craft on land includes the time on land during the training event as well as the time on land at JEB Little Creek for taxiing, fueling, and engine tests. On-water Fleet training activities are limited to the Southern Branch of the Elizabeth River and include small boats. Calculations were developed utilizing the propulsion mechanism (outboard motor, inboard motor, fans, etc.). Vessel emission factors were obtained from NAVSEA's Navy and MSC Marine Engine Fuel Consumption and Emissions Calculator Application.

Vessel operations in Table 4.1-1 Regional Air Quality Stressors were assumed to be Riverine Command Boats (RCB), because it is the largest vessel in the small vessel class and thus provides the most conservative emissions estimate. The appropriate emission factors for Riverine Command Boats – Main Propulsion Diesel Engine were used for calculating emissions (Table E-1).

Table E-1. Emission Factors for Diesel Engines

Vessel Type	*Engines*	*HP*	*Engine Type*	*Fuel Type*	*VOC*	*SO_x*	*NO_x*	*CO*	*PM_{10}*	*$PM_{2.5}$*	*CO_2*
RCB	2	850	MPDE	MDO	0.5	3.97	13.2	1.1	0.47	0.43	646.08
LCAC[1]	4	4035	MPGT/SSGTG	Various	3.49	38.34	114.55	18.32	4.30	4.30	20,697

[1]LCAC have 4 engines pairs with 4 being 3,855 HP MPGT (Main Power Gas Turbine) and 4 80 HP SSGTG (Ship Service Gas Turbine Generators)
RCB=Riverine Command Boat; LCAC=Landing Craft Air Cushion; MPDE=Main Power Diesel Engine; MDO=Marine Diesel Oil; MPGT=Main Power Gas Turbine; SSGTG=Ship Service Gas Turbine Generators

Emissions = HP×HR/YR×EF×ENG×CF

Where:

Emissions = Surface craft Emissions (lb. per year)
HP = Horsepower (reflective of a particular load factor/engine power setting)
HR/YR = Hours per year
EF = Emission factor for specific engine type (lb. per hour)
ENG = Number of engines
CF = Conversion Factor for pounds to tons

Diesel engine emission factors were multiplied by the engine horsepower and annual hours of operation to calculate the pounds of pollutant emissions per year. This value was then converted to a tons per year value for comparison with the study area total summed emissions on an individual pollutant basis.

Ordnance and Munitions Emissions

Ordnance and munitions use includes detonation of explosives as part of Navy Explosive Ordnance Disposal (EOD) training as well as small arms blank ammunition fire which occurs as part of several training activities at multiple sites across the region. Available emissions factors (AP-42, Compilation of Air Pollutant Emission Factors) were utilized (USEPA, 2008). For EOD detonations, these factors were then multiplied by the net weight of the explosive (or a conversion factor for pounds per item) and the

number of times that the munition was used during a designated time frame. This calculation provided annual pounds per year of emissions, which were converted to tons per year for comparison purposes. Net Explosive Weights and the number of detonations under each alternative are in Table 4.1-1. For blank weapons fire, it was assumed that actual ammunition types used may vary over time (from 5.56mm up to .50 caliber), so all weapons fire was assumed to be the largest (.50 caliber) in order to provide a conservative impact assessment. Number of rounds to be fired annually under each alternative is provided in Table 4.1-1. Non-lethal munitions were assumed to be paintball guns using compressed carbon dioxide canisters as a propellant. Since there is no detonation associated with firing, only CO_2 emissions as a greenhouse gas was analyzed. It was estimated that approximately 800 rounds can be fired per pound of compressed CO_2. The number of shots annually under each alternative is found in Table 4.1-1.

Emissions = EXP/YR×EF×Net Wt×CF

Where:

Emissions = Ordnance Emissions (tons per year)

EXP/YR = Explosives, propellants, and pyrotechnics used per year

EF = Emissions factor

Net Wt = Net Weight of explosive

CF = Conversion Factor for pounds to tons

Vehicle Emissions

All vehicle emissions factors were developed from the U.S. EPA Motor Vehicle Emissions Simulator (MOVES) 2014a (Tables E-2). These factors were then multiplied by the total number of hours of operation for each appropriate vehicle type as classified in Table E-3. The annual number of pounds of each emission was then converted to tons. Annual emissions for each vehicle type were then summed to calculated total vehicular emissions annually. Annual hours of vehicle operation under each alternative are in Table 4.1-1.

*Emissions = (HR*EF)/2000*

Where:

Emissions = Vehicle Emissions (tons per year)

HR = Hours of vehicle operation per year

EF = Emissions factor (lbs/hr)

Table E-2. Vehicle Exhaust & Worker Trips Emission Factors (pounds per hour)*

	VOC	*SO_x*	*NO_x*	*CO*	*PM 10*	*PM 2.5*	*NH_3*	*CO_2*
LDGV	0.0206	0.0003	0.0149	0.3718	0.0011	0.0005	0.0045	16.1920
LDGT	0.0301	0.0004	0.0241	0.4303	0.0011	0.0005	0.0045	22.7348
HDGV	0.0293	0.0007	0.0412	0.3626	0.0018	0.0011	0.0020	39.7848
LDDV	0.0043	0.0001	0.0048	0.0315	0.0018	0.0011	0.0003	13.8204
LDDT	0.0139	0.0002	0.0150	0.0255	0.0022	0.0015	0.0003	26.3384
HDDV	0.0132	0.0005	0.0948	0.0285	0.0039	0.0028	0.0012	54.7096
MC	0.0955	0.0001	0.0532	0.6292	0.0016	0.0009	0.0005	7.8056

*Assuming an average speed of 20 miles per hour for all vehicle types.
LDGV=light-duty gas vehicle; LDGT=light-duty gas truck; HDGV=heavy-duty gas vehicle; LDDV=light-duty diesel vehicle; LDDT=light-duty diesel truck; HDDV=heavy-duty diesel vehicle; MC=motorcycle

Table E-3. Navy Vehicle Classifications

Navy Vehicle	*Class*
MTVR	HDDV
HMMWV	HDDV
MRAP	HDDV
LARC	HDDV
ATV	MC
Forklift	LDDV

ATV = All-Terrain Vehicle; HDDV=heavy-duty diesel vehicle; LARC = Lighter Amphibious Resupply Cargo; HMMWV = High Mobility Multipurpose Wheeled Vehicle; LDDV=light-duty diesel vehicle; MRAP = Mine-Resistant Ambush Protected; MTVR = Medium Tactical Vehicle Replacement

Generator Emissions

Available emissions factors (AP-42, Compilation of Air Pollutant Emission Factors) were utilized (USEPA, 1996) (Table E-4). These factors were then multiplied by the total number of hours of operation for each generator by size class. The annual number of pounds of each emission was then converted to tons. Annual emissions for each generator were then summed to calculated total generator emissions annually. Generators were assumed to be approximately 200 horsepower (150kW) diesel generators. Annual hours of generator operations under each alternative are in Table 4.1-1.

Emissions = (HR HP*EF)/2000*

Where:

Emissions = Generator Emissions (tons per year)

HR = Hours of generator operation per year

HP = Horsepower rating of generator

EF = Emissions factor (lbs/hp-hr)

Table E-4. Emission Factors for Diesel and Turbine Engines

Pollutant	*Emission Factor (lb/hp-hr)*
NOx	
Uncontrolled	0.031
Controlled	NA
CO	6.68E-03
SOx[1]	2.05E-03
CO_2e	1.15
PM	2.20E-03
TOC	2.98E-03
CH_4[2]	4.63E-04

Source: USEPA, 1996. AP-42, Fifth Edition, Volume I Chapter 3.3: Stationary Internal Combustion Sources

[1]SOx mult times S1= % sulfur in fuel oil

[2]Based on data from 1 engine, TOC is by weight 9% methane and 91% nonmethane

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