

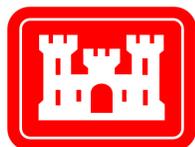
# Draft Supplemental Environmental Assessment Skiffes Creek Federal Navigation Channel Maintenance Dredging

Joint Base Langley-Eustis

Fort Eustis, Virginia



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## I. EXECUTIVE SUMMARY

The purpose of this Supplemental Environmental Assessment (SEA) is to supplement the 2003 Environmental Assessment (EA) for restoring navigation to the Skiffes Creek Channel Project. Several key changes have occurred since the dredging was last performed in 2004. First, Fort Eustis is now aligned with the U.S. Air Force under Langley Air Force Base (LAFB). Environmental impact analysis of projects must follow U.S. Air Force policies. Second, in 2012 the Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*) was listed as a federally endangered species under the Endangered Species Act and its listing generates a need for an updated evaluation of potential impacts. Third, bald eagles (*Haliaeetus leucocephalus*) have been delisted since 2007; however, they are afforded special protection under the Bald and Golden Protection Act and promulgated federal regulations. One new active nest exists near the project area that was not in this location at the time of the 2004 dredging. Fourth, Fort Eustis recently embarked upon major efforts to control the invasive grass, Common Reed (*Phragmites australis*). Control efforts include this plant within a portion of the project area. Lastly, the current upland confined placement facility, the Fort Eustis Dredged Material Management Area (FEDMMA) site, is nearing the end of its life cycle and may reach its maximum capacity following one additional maintenance dredging cycle. The FEDMMA does not have existing capacity to accept dredged material for the current maintenance dredging cycle. Capacity will be constructed for the future maintenance cycle before the site is used. Alternative dredged material placement at the Norfolk Ocean Disposal Site (NODS) have been evaluated for the immediate maintenance dredging cycle and for future maintenance dredging cycles after the FEDMMA has reached the end of its useful life.

These factors constitute the rationale for a SEA. The previous EA did not include this new information. This SEA has been prepared to address these issues and ensure compliance with the National Environmental Policy Act of 1969. This SEA primarily assessed the issues noted since these represent the only changes in the affected environment since the 2003 EA.

## 1 INTRODUCTION

Fort Eustis maintains the Third Port facility located along the Skiffes Creek channel. This facility provides a strategic port facility to support military watercraft and other government agencies in cargo operations, logistics management, training and vessel operation. It consists of a pier for movement control and berthing of approximately 126 military watercraft consisting of tugboats, Logistics Support Vessels, Landing Craft Mechanized and fuel barges. Skiffes Creek must be dredged periodically in order to maintain an operational channel for movement of these watercrafts. Maintenance dredging of the channel was last performed in 2004.

An Environmental Assessment (EA) was prepared in 2003. The 2003 EA evaluated the potential environmental effects associated with maintenance dredging of two unconnected neighboring channels located in Fort Eustis, Virginia (Skiffes Creek Channel and the U. S. Maritime Administration channel) as well as improving the structural integrity of the upland confined placement facility, the Fort Eustis Dredged Material Management Area (FEDMMA) and concluded that no significant impacts would occur. Subsequently, a Finding of No Significant Impacts (FONSI) was signed.

Both the EA prepared in 2003 and this SEA were developed in accordance with the National Environmental Policy Act (NEPA) of 1969, Council on Environmental Quality (CEQ) Implementing Regulations as well as Army and Air Force policies (32 CFR Part 651 and 32 CFR Part 989, respectively). The purpose of these documents is to inform decision makers and the public of the likely environmental consequences of the proposed action and alternatives.

This Supplemental Environmental Assessment (SEA) identifies, documents and evaluates the potential environmental effects due to the following changes since the 2003 EA. Fort Eustis and Langley Air Force Base (LAFB) are now a joint base, Joint Base Langley-Eustis, with the Air Force assuming responsibility for environmental matters on the installation. As such, environmental impact analysis of projects must follow U.S. Air Force policies. Second, the Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*) was listed as a federally endangered species under the Endangered Species Act in 2012. Its listing generates a need for an updated evaluation of potential impacts. Third, bald eagles (*Haliaeetus leucocephalus*) have been delisted since 2007; however, they are afforded special protection under the Bald and Golden Protection Act and promulgated federal regulations. One new active nest exists near the project area. Fourth, Fort Eustis recently embarked upon major efforts to control the invasive grass, Common Reed (*Phragmites australis*). Control efforts include this plant within a portion of the project area. Additionally, the Fort Eustis Dredged Material Management Area (FEDMMA) placement site does not have sufficient capacity to place the dredged material and will need to be restored before dredged material placement. Additional alternative sites have been identified and evaluated for material placement.

### 1.1 Proposed Action

Fort Eustis needs to conduct maintenance dredging of the Skiffes Creek Channel to maintain an operational channel for its watercraft. Once, the FEDMMA is restored, the dredged material may be placed in the previously used upland placement facility. Impacts for alternative sites

were examined for dredged material placement. The Norfolk Ocean Disposal Site (NODS) is also a preferred alternative during the current and future periods when the FEDMMA is unavailable for receiving dredged material.

## 1.2 Background

The 7th Transportation Brigade (Expeditionary) is an assigned tenant element of Fort Eustis. It berths its watercraft at the harbor complex at the Third Port facility at Fort Eustis, Virginia, at the confluence of Skiffes Creek with the James River. The Third Port is a deepwater port used to train personnel in cargo logistics and vessel operations under the management of the 733d Mission Support Group Harbormaster Office. The facility provides a safe harbor for 7th Transportation Brigade (Expeditionary) watercraft fleet and serves as a deployment platform for Army units. In addition, it is a joint service training facility for watercraft operators and cargo handlers. There are 61 vessels and causeway barges that utilize the Third Port facility routinely while over 1,000 additional watercraft of other Services and federal agencies may also operate at Third Port and Skiffes Creek at various times. Additionally, some commercial vessels require access to industrial complexes located upstream on Skiffes Creek. While the watercraft at the Third Port facility are Army property, Third Port is part of Joint Base Langley-Eustis, Fort Eustis which is managed by the U.S. Air Force. Consequently, this assessment is based on U.S. Air Force Environmental Impact Assessment Process (EIAP) policies (Title 32 of the Code of Federal Regulations Part 989).

## 1.3 Purpose and Need

The U.S. Air Force proposes to conduct continued maintenance dredging the navigation channel of Skiffes Creek in a manner consistent with previous dredging operations at this location. The purpose of the proposed action is to provide adequate access for vessels using the Third Port. Current force structuring consists of 61 vessels assigned to the Third Port. These vessels include 3 tug boats (ranging in size from 60 feet to 128 feet in length), 2 Logistics Support Vessels (274 feet), 8 Landing Utility Craft 2000 (174 feet), 12 Landing Craft Mechanized (73 feet), 1 fuel barge, 7 warping tugs, 30 causeway barges, 3 security vessels, 2 Harbormaster vessels, and 2 fire boats.

Current soundings in Skiffes Creek indicate the channel leading to the Third Port and its main pier has shoaled in some locations. Vessels are subject to running aground, hampering navigation. Vessels utilized by the 7th Transportation Brigade (Expeditionary) use seawater to cool the engines and transfer power from bow thrusters. With the current shallow depths, these vessels are drawing silt and muck into these systems resulting in increased maintenance, repairs and downtime for the larger vessels. Because of the shoaling the existing channel width will not allow large vessels to enter and exit the channel simultaneously, thus increasing the time associated with contingency deployments.

## 1.4 Scope

Maintenance dredging of the Skiffes Creek channel has been performed for over 60 years. The last maintenance dredging cycle occurred in 2004. An Environmental Assessment (EA) prepared in 2003, resulted in a Finding of No Significant Impact (FONSI). Maintenance dredging of the Skiffes Creek channel is required to restore and maintain safe navigation in the

channel. The FEDMMA undergoing maintenance and dike heights elevated to construct additional capacity consistent with proposed action assessed in the 2003 EA. The existing footprint of the facility will remain the same. The FEDMMA facility is nearing maximum capacity for the approximately 80-acre site, therefore alternative placement sites are considered to meet immediate and long-term needs for dredged material management. Changes in the status of listed species and evaluation of alternate dredged material placement sites require a supplemental environmental assessment. This supplemental EA evaluates the potential environmental effects of maintenance dredging of the Skiffes Creek channel on the Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*), bald eagle (*Haliaeetus leucocephalus*) and control of invasive vegetation. Specifically, these changes constitute the listing of the Atlantic sturgeon as endangered, the presence of an active bald eagle nest near the immediate vicinity of the project site (that did not exist in 2003) and recent aggressive efforts to control the invasive grass, Common Reed (*Phragmites australis*).

## 1.5 Public and Agency Involvement

The draft SEA was coordinated with the following:

- City of Newport News
- Joint Base Langley-Eustis (JBLE)
- National Oceanic and Atmospheric Administration (NOAA)
- NOAA - National Marine Fisheries Service (NMFS)
- U.S. Army Corps of Engineers (USACE)
- U.S. Coast Guard (USCG)
- U.S. Environmental Protection Agency (EPA)
- U.S. Fish and Wildlife Service (USFWS)
- U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS)
- Virginia Department of Conservation and Recreation (VDCR)
- Virginia Department of Environmental Quality (VDEQ)
- Virginia Department of Game and Inland Fisheries (VDGIF)
- Virginia Department of Health (VDH)
- Virginia Department of Historic Resources (VDHR)
- Virginia Institute of Marine Science (VIMS)
- Virginia Marine Resources Commission (VMRC)

This SEA will be provided electronically to federal, state, and local regulatory agencies as well for public comment for a 30-day comment period. There will also be a link to it on the Norfolk District USACE (<http://www.nao.usace.army.mil/>) website.

## 2 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

### 2.1 Introduction

The 733d Civil Engineer Division, Fort Eustis is responsible for maintenance dredging of the Skiffes Creek Channel to its authorized depth, width, and length. Maintenance dredging is necessary to maintain a safe operational channel for vessels and watercraft accessing the Third Port facility at Fort Eustis. Effects of maintenance dredging and dredged material placement at the FEDMMA were considered in previous environmental assessments.

#### 2.1.1 Proposed Action - Ocean Disposal of Dredged Material

The proposed action considered in this supplemental environmental assessment includes the placement of suitable dredged materials at the Norfolk Ocean Disposal Site (NODS) to meet immediate maintenance dredging needs. Use of the NODS site will also be required to meet the future long-term maintenance dredging and placement needs once the FEDMMA reaches its maximum capacity.

Dredged material determined to be unsuitable for ocean placement in future maintenance dredging cycles will continue to be disposed at the FEDMMA. Once the FEDMMA reaches its maximum capacity unsuitable dredged material would require disposal at appropriate upland placement sites such as Port Weanack, regional landfills and/or treatment facilities.

#### 2.1.2 Proposed Action – FEDMMA Maintenance Activities, Control of Common Reed

The approximately 80-acre upland FEDMMA facility will be available to accept dredged material once new dredged material capacity is constructed. Site upgrades and maintenance are currently in process; however, until appropriate facility upgrades are completed, the dredged material cannot be placed in the upland placement facility. Maintenance of the FEDMMA also includes control of common reed (*Phragmites australis*) through the application of glyphosphate herbicides and imazypur herbicides by certified applicators within label specifications. Common reed is a highly invasive grass that grows in large, monotypic stands in freshwater wetlands and in brackish wetlands where salinity is low enough. One of the largest stands of Common Reed on Fort Eustis is in the FEDMMA.

### 2.2 Project Site

#### 2.2.1 Vicinity Description

The Virginia Peninsula, extending into the Chesapeake Bay, is formed by the York River to the north and the James River to the south. Fort Eustis is on the south side of the peninsula. The cities of Newport News, Hampton, Poquoson, and Williamsburg are near the installation. The north side of Skiffes Creek at Third Port constitutes James City County. Figure 1 shows the regional location of Fort Eustis.

## 2.2.2 Fort Eustis

Fort Eustis occupies approximately 7,900 acres. Recent improvements in GIS data and erosion by storm events/possible rising sea levels represent acreage changes from 8,228 acres noted in the 2003 EA. The installation is flanked by two bodies of water flowing into the James River these being Skiffes Creek to the northwest and Warwick River to the southeast. The Third Port facility is located in the northwest corner of Fort Eustis.

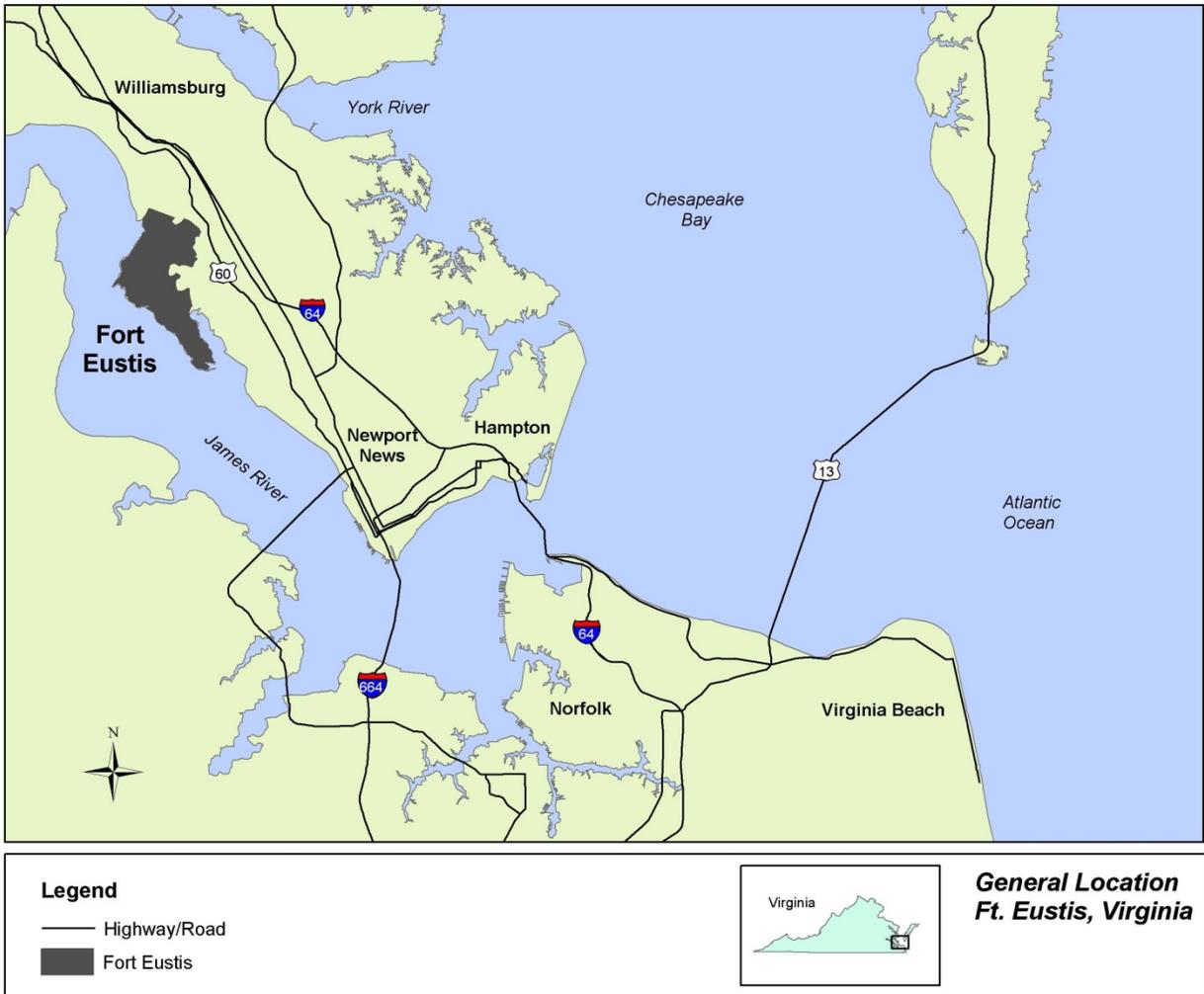


Figure 1 Regional Location of Fort Eustis

## 2.2.3 FEDMMA

The FEDMMA is located on the western portion of Fort Eustis, south of the Third Port facility. It is an approximately 80-acre upland confined placement facility constructed to accommodate dredge material from maintenance dredging. The site is immediately adjacent to a small holding area that contained a heating oil/sludge mixture, residue from a 1979 spill of 5,000 gallons of heating oil. The holding area is a National Priority List (NPL) site and is managed in accordance with the provisions of the Comprehensive Environmental Response, Compensation and Liabilities Act (CERCLA). The selected remedial action, as specified in the Record of Decision and Explanation of Significant Differences for Site 11C – Oil/Sludge Holding Pond, included the

excavation and off-site disposal of approximately 110 cubic yards of buried sludge/contaminated soil and 220 cubic yards of concrete from the site. The Remedial Action was completed 2006 but required long term monitoring (LTM). LTM took place over the next few years and was terminated in 2008. The site was officially closed with unlimited use and unrestricted exposure in September 2008 with EPA and VDEQ concurrence.

Dredged material placement operations at FEDMMA typically occur via hydraulic pipeline to the upland confined placement facility. The pipeline will consist of both floating and submerged pipeline to the shoreline, then cross Harrison Road and into the FEDMMA. A temporary ramp would be built over the pipeline allowing vehicles continued use of Harrison Road.

#### **2.2.4 Skiffes Creek Channel**

Skiffes Creek Channel is located in the lower James River and provides navigation from deep water in the James River Federal Navigation Channel (i.e. Tribell Shoal Channel) to the mouth of Skiffes Creek adjacent to the Third Port facility at Fort Eustis. The channel traverses the eastern half of the James River and is proximate to Hog Island in Surry County located to the west, Jamestown Island to the north and west located in James City County, and Goose Island in the City of Newport News located to the south.

The Skiffes Creek Channel is dredged in accordance with the diagram depicted as Figure 3. The channel consists of three areas with different dimensions. The outer portion of the channel is a 7,800-foot long area, station 0+00 to 77+64.16 (variable width) and -23 feet below mean lower low water (MLLW). The adjacent segment of the channel is 690-foot long area, station 77+64.16 and 83+52.69 (variable width) of -20 feet MLLW. The inner portion of the channel is a 715 foot long area, station 83+52.69 and 90+67.69 (variable width) of -14 feet below MLLW. All of the channel depths include 2 feet of paid allowable overdepth and 1 to 2 feet of nonpaid overdepth dredging consistent with Corps of Engineers policy, EP 1130-2-520. The volumes of nonpaid overdepth may vary depending on the type of dredge plant conducting the work. Mechanical dredges working in soft sediments typically will have a greater nonpaid volume or nonpaid depth than hydraulic cutterhead dredges. Up to 1,000,000 cubic yards of material may be dredged each maintenance cycle from this channel. This will be accomplished using a either a mechanical dredge or hydraulic cutterhead dredge depending on the authorized placement site for each maintenance cycle.

Dredged material placement operations for alternatives requiring mechanical dredging will load the dredged sediments into barges or scows for transport to the disposal area or an off-loading area.

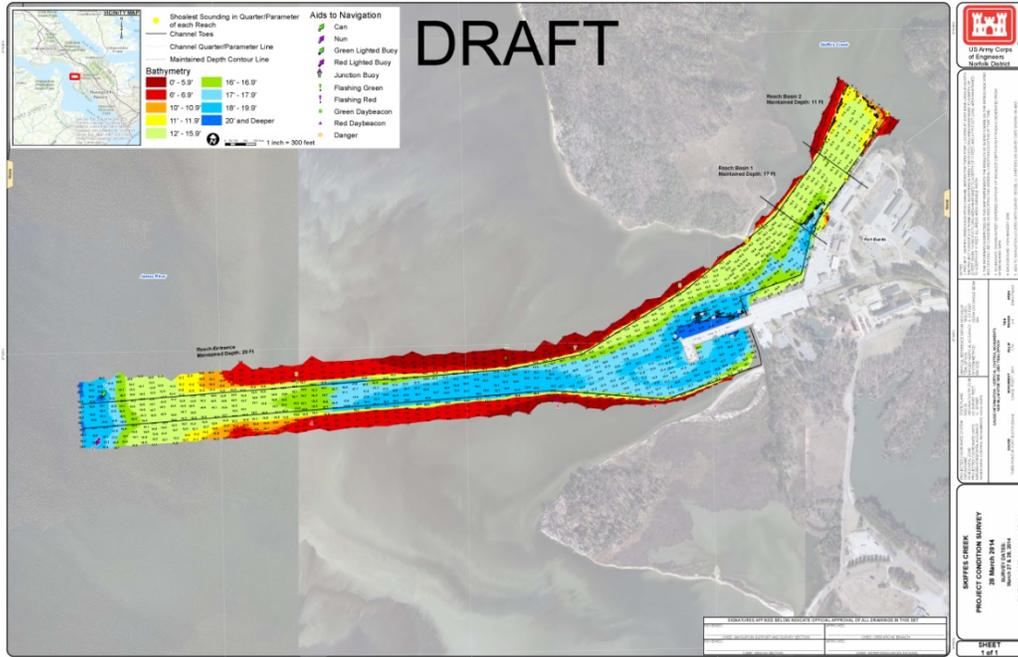


Figure 2 Skiffes Creek Channel, Condition Survey March 2014

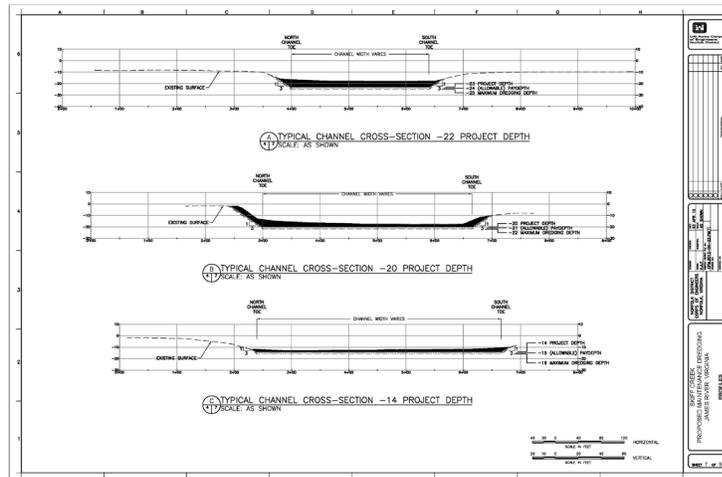


Figure 3 Skiffes Creek Channel Cross-Sections

## 2.2.5 Norfolk Ocean Disposal Site (NODS)

### 2.2.5.1 NODS Site History

Up to 325,000 cubic yards of sediment from the dredging activities associated with the current maintenance dredging cycle of Skiffes Creek Channel are proposed for placement at the NODS. Future maintenance dredging cycles determined to be suitable for placement at the NODS may place up to 1 million cubic yards of dredged material from the channel each cycle. The NODS was officially designated as an ocean placement site in 1993 pursuant to Section 102c of the Marine Protection, Research, and Sanctuaries Act of 1972 (as amended, 33 U.S.C. 1401 et seq).

The site has had a history of ocean disposal, as a portion of the NODS overlaps an area historically used for dredged material disposal prior to the 1960s.

To determine the site's suitability for ocean disposal, a Final Environmental Impact Statement (FEIS) for the NODS was submitted on July 23, 1982 by the U.S. Army Corps of Engineers Norfolk District. The results of the evaluation determined that the site was an acceptable location for ocean dumping. A test dump program conducted in October 1981 demonstrated that there was no evidence of widespread dispersal of dredged material during operations. In late 1981, an archaeological investigation concluded that no sites of archaeological interest would be endangered by disposal operations. As a result of the EIS, the NODS was designated by the U.S. Environmental Protection Agency (USEPA) as an approved ocean disposal location in December of 1986. In August 1993, the site was utilized in conjunction with the construction of the Cheatham Annex Naval Supply Center and the Naval Weapons Stations. These projects required the disposal of 51,000 CY and 475,000 CY dredged material respectively. The sediments from this dredging were primarily silt and clay. Since 2009 additional projects have received authorization to place dredged material at the NODS including the Craney Island Eastward Expansion (CIEE)(24.5 MCY), Norfolk Inner Harbor Channel 50-foot element (1 MCY), Baltimore Harbor Upper Bay Approach Channels, Virginia Department of Transportation – Midtown Tunnel Project (VDOT-MTT)(1.5 MCY), Cheatham Annex Naval Supply Center (48,000 cy), and the Yorktown Naval Weapons Station (65,000 cy). The VDOT-MTT project commenced placement operations at NODS in October 2013.

### **2.2.5.2 NODS Location and Management**

The center of the NODS is located 17 nautical miles east of the mouth of the Chesapeake Bay. The NODS is circular with a radius of 4 nautical miles and an area of approximately 50 square nautical miles. The center of the NODS site is located at 36° 59' north latitude and 75° 39' west longitude. Water depths near the center of the site vary between 43 to 85 feet. Bottom topography is generally flat with depth contours running parallel to the coastline.

Currently the site is designated to receive new work and maintenance dredge material from Norfolk Harbor and the lower Chesapeake Bay. This site is authorized to receive appropriate dredge material from the Thimble Shoals, Cape Henry, Atlantic, Hampton Roads, and York Spit Federal navigation channels. An EIS, titled: "Final Environmental Impact Statement for the Designation of an Ocean Dredged Material Disposal Site Located Offshore Norfolk Virginia" was finalized in March of 1993.

Management of the NODS and dredged material placement operations at NODS are conducted in accordance with the Site Management and Monitoring Plan (SMMP). The SMMP for the NODS site establishes specific requirements for use of the site. The SMMP provides that only dredged material that has been evaluated in accordance the Marine Protection, Research, and Sanctuaries Act (MPRSA) Section 103 regulations may be placed at the site. The SMMP does not specify specific methods of placement, but does require that dredged material be evenly distributed to prevent unacceptable mounding and becoming a hazard to navigation. The management objective for the NODS area is to limit disposal quantities so as not exceed 1.3 billion cubic yards (BCY). The USACE has estimated that up to 250 MCY of dredge material from dredging projects (public and private) may be disposed at the site over the next 50 years.

The quantity of material placed at the site depends on the quality of the dredged material; only material that meets ocean dumping criteria will be placed at the NODS. Acceptable material includes unconsolidated fine to medium grain sands, silts, and clays. No seasonal restrictions to the placement of dredged material have been implemented for the site. The management plan requires that each ocean disposal event be verified and documented through a computer database system. Scow or hopper dredge transits and placement activities at NODS are required to be tracked using the USACE Dredge Quality Management program (formerly “Silent Inspector”) for tracking vessel transit locations and dredged material placement locations and activities.

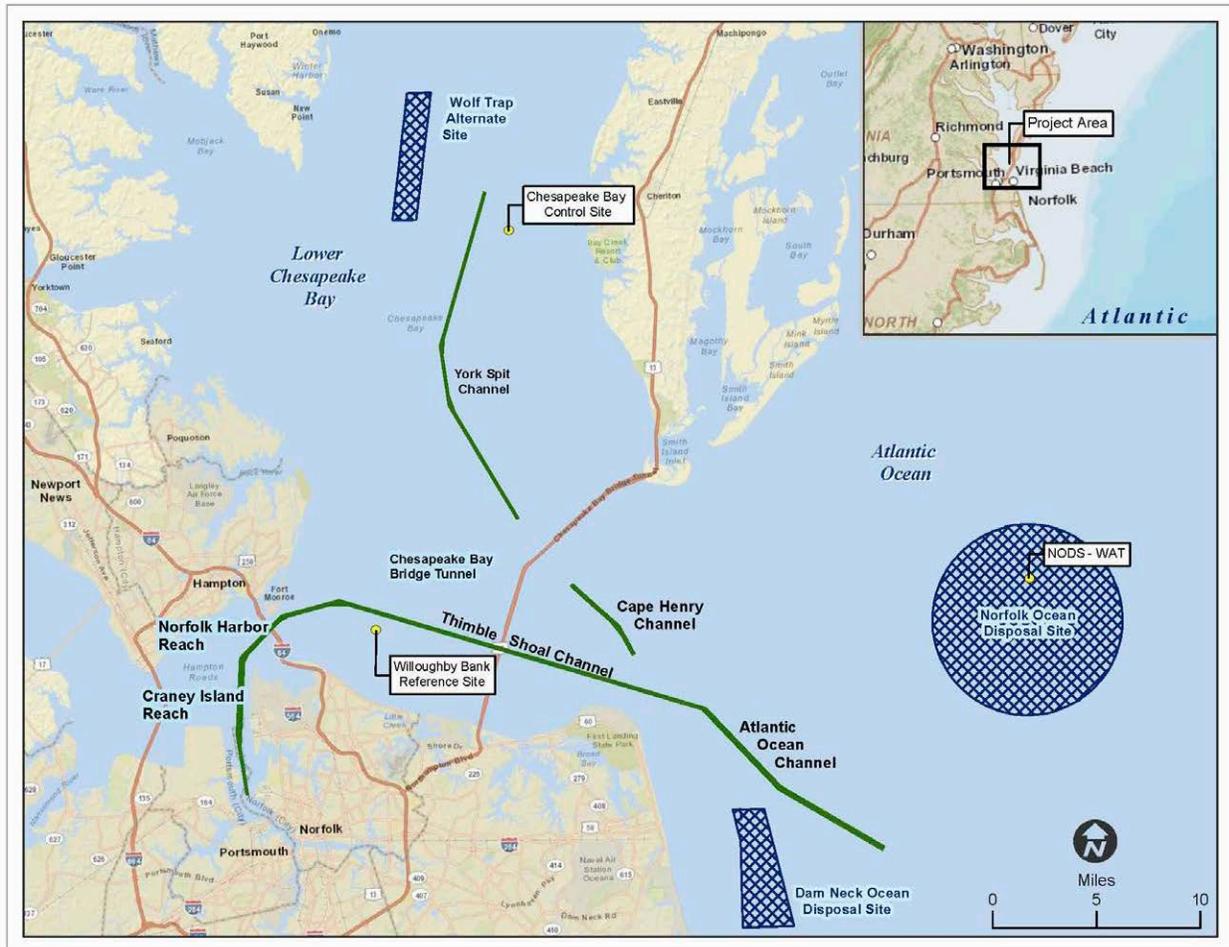


Figure 4 Norfolk Ocean Disposal Site, Location Map

## 2.2.6 Permitted Landfills

Three permitted landfills or treatment facilities are located within the region that may be considered for placement of dredged material considered unsuitable for ocean placement. These landfills are Big Bethel, Charles City, and Clearfield MMG, Inc. Big Bethel and Charles City landfills are located in the City of Hampton and Charles City County respectively. Clearfield MMG treatment facilities are located in the City of Chesapeake and the City of Suffolk. The regional landfill and treatment facilities do not have direct access to navigable waterways and would require truck haul operations to transfer materials to a designated facility. Other permitted

facilities may be considered for disposal as future sediment characterizations, facility capabilities, and operational considerations warrant.

The upland disposal evaluation of the sediments as solid wastes indicates that none of the constituents exceeded the Toxicity Characteristic Leaching Procedure (TCLP) screening criteria, the material passes paint filter test, and the polychlorinated biphenyl (PCB) Aroclors and benzene, toluene, ethylbenzene, and xylene (BTEX) compounds were detected at low concentrations within acceptable limits. Landfills are engineered cells designed to contain municipal solid wastes and collect liquid or leachate that may have percolated through solid waste.

Sanitary landfills and treatment facilities have finite capacity that are generally intended for disposal of municipal wastes streams, or more highly contaminated materials that are not suitable for other disposal alternatives or beneficial uses. Disposal of sediments from dredging projects at upland facilities may require the addition of amendments to reduce the moisture content of saturated sediments to minimize leachate in the landfill system. The addition of amendments results in the bulking of the material creating additional volume or tonnage to be disposed. Permitted facilities often have a maximum volume of material that may be accepted on a daily basis. Constraints for daily disposal volumes can protract dredging schedules. Disposal of sediments from Skiffes Creek Channel at an upland permitted landfill or treatment facility is viable generally for material unsuitable for overboard placement.

### **2.2.7 Other Facilities**

Port Weanack facility located in Charles City County, Virginia were alternatives considered for dredged material placement. The Port Weanack facility was evaluated as a potential placement site. However, the facility is not considered the preferred alternative due to logistics and dredge production constraints.

## **2.3 Impact Topics From 2003 EA Eliminated From Further Analysis and Consideration**

Since the maintenance dredging will not appreciably change from the project conducted in 2004, the following environmental components relating to maintenance dredging and use of the FEDMMA have been adequately assessed by the 2003 EA (See Appendix D).

- Air Quality (RONA)
- Noise
- Water Resources
  - Surface Waters
  - Surface Waters
  - Storm Water Runoff
  - Floodplains
  - Groundwater
  - Water quality
- Biological Resources
  - Terrestrial Vegetation

- Wetlands
- Wildlife
- Essential Fish Habitat

## 2.4 Additional Impact Topics Eliminated From Further Analysis and Consideration

### 2.4.1 Submerged Aquatic Vegetation

Virginia Institute of Marine Science (VIMS) has not identified any SAV in or adjacent to the project area (see Figure 5); therefore, this impact topic was dismissed from further analysis in this SEA.

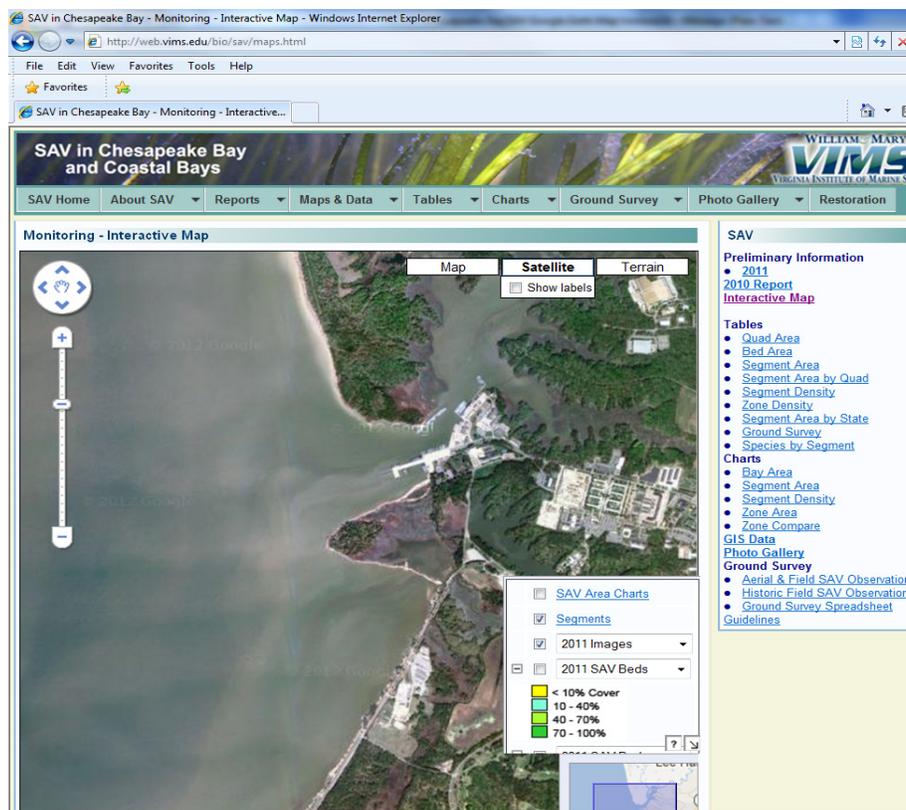


Figure 5 Submerged Aquatic Vegetation in the Vicinity of Skiffes Creek

### 2.4.2 Environmental Justice

On February 11, 1994, President Clinton issued Executive Order 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations”. This order directs agencies to address environmental and human health conditions in minority and low-income communities to avoid the disproportionate placement from any adverse effects by Federal policies and actions on these populations. There are no local residents in the immediate proximity of the Skiffes Creek Channel project. The dredging operations in Skiffes Creek Channel (nor deposition of sediment at the FEDMMA or NODS) do not involve the release or

deposition of hazardous substances or excessive noise level to any local communities. This impact topic was dismissed from further analysis in this SEA.

### **2.4.3 Socioeconomic Resources**

NEPA requires an analysis of impacts to the human environment, which includes economic, social, and demographic elements in the affected area. The current conditions in the project area, as represented by the No-Action Alternative, would not have any impacts to the socioeconomic resources of the surrounding area. The Proposed Action would neither change local and regional land use, nor appreciably affect local businesses or other agencies. Implementation of the Proposed Action could provide a negligible beneficial impact to the nearby surrounding economies resulting from a reliable maintained navigation channel. Maintenance dredging may provide short-term minimal increases in employment opportunities for the construction workforce and revenues for local businesses and government generated from construction activities. Since the impacts to the socioeconomic resources associated with the project would be negligible, this impact topic was dismissed from further analysis in this SEA.

### **2.4.4 Cultural Resources**

Consultation with the State Historic Preservation Office (SHPO) was completed on June 26, 2012. A copy of the consultation letter sent to the SHPO and their response is located in Appendix A. Since the proposed action is maintenance dredging of channels previously dredged, the proposed action would not affect any known architectural or archeological resources listed in or eligible for the NRHP or Virginia Landmarks Register.

## **3 ALTERNATIVES TO THE PROPOSED ACTION**

### **3.1 No Action**

The “No Action” alternative is an estimation of the most probable future conditions expected to occur in the absence of maintenance dredging of the Skiffes Creek Channel. Maintenance dredging would not be performed of sediment accumulated within the Skiffes Creek channel. This alternative would eliminate the environmental impacts to the benthic community in the channel. Discontinued maintenance of the channel would result in the continued reduction in operational depth of the navigation channels. Eventually the channels would reach hydrodynamic equilibrium as determined by the sediment transport, tidal and fluvial currents of Skiffes Creek and the James River. This depth would approximate the adjacent bathymetry of the James River and would not be adequate for Fort Eustis to function in its watercraft operation. Adversely, it would allow the navigation channel to naturally shoal thereby eliminating the benefits of the waterway by closing it off to safe navigation. Eventually vessels would not be able to access the Third Port facility. Training of personnel in cargo logistics and vessel operations would not be able to be performed. The Army would not be able to continue contingency deployments from the Third Port facility. In addition, commercial vessels would not be able to access industrial complexes located upstream.

This alternative was discarded because it fails to meet the project objectives.

### **3.2 Dredged Material Placement at Craney Island Dredged Material Management Area (CIDMMA)**

The U.S. Army Corps of Engineers, Craney Island Dredged Material Management Area (CIDMMA) located in the City of Portsmouth, Virginia was a considered alternative for dredged material placement. The CIDMMA is a Congressionally authorized dredged material placement site. The site is a confined disposal facility located in Norfolk Harbor. CIDMMA was determined not to be a viable alternative since Skiffes Creek Channel is not located within the geographic service area defined in the law authorizing CIDMMA as a dredged material placement facility.

### **3.3 Overboard Placement Areas in the James River**

Historical dredged material overboard placement sites are located along the James River Federal Navigation Project, Tribell Shoal Channel. However, the Virginia Marine Resources Commission has limited the use of these placement sites to the upper most portions of Tribell Shoal Channel due to extensive shellfish resources within this reach of the James River. Additionally, new overboard sites that could accommodate immediate and future maintenance dredging cycles and that are within an economic pumping distance of the project was not considered to be a viable alternative due to the presence and density of shellfish resources including private leased and public baylor oyster grounds (see Figure 6).

### **3.4 Beneficial Uses of Dredged Material**

Beneficial uses of dredged material from Skiffes Creek Channel that may benefit habitat development or restoration were considered in the near shore areas surrounding Skiffes Creek Channel. However, due to the fine-grained nature of the channel sediments and volumes associated with each maintenance cycle, long-term and large scale beneficial uses may conflict with other permitted uses of the waterway, such as the extensive local oyster grounds. The exposed nature of the local shoreline environment, current, and wave energy may constrain the use of the fine-grained dredged material for these beneficial uses. Based on the constraints, beneficial use projects were considered not to be viable at this time. Specific projects may emerge in the future that can accommodate fine-grained sediments and may allow for limited one-time placement of the dredged material.

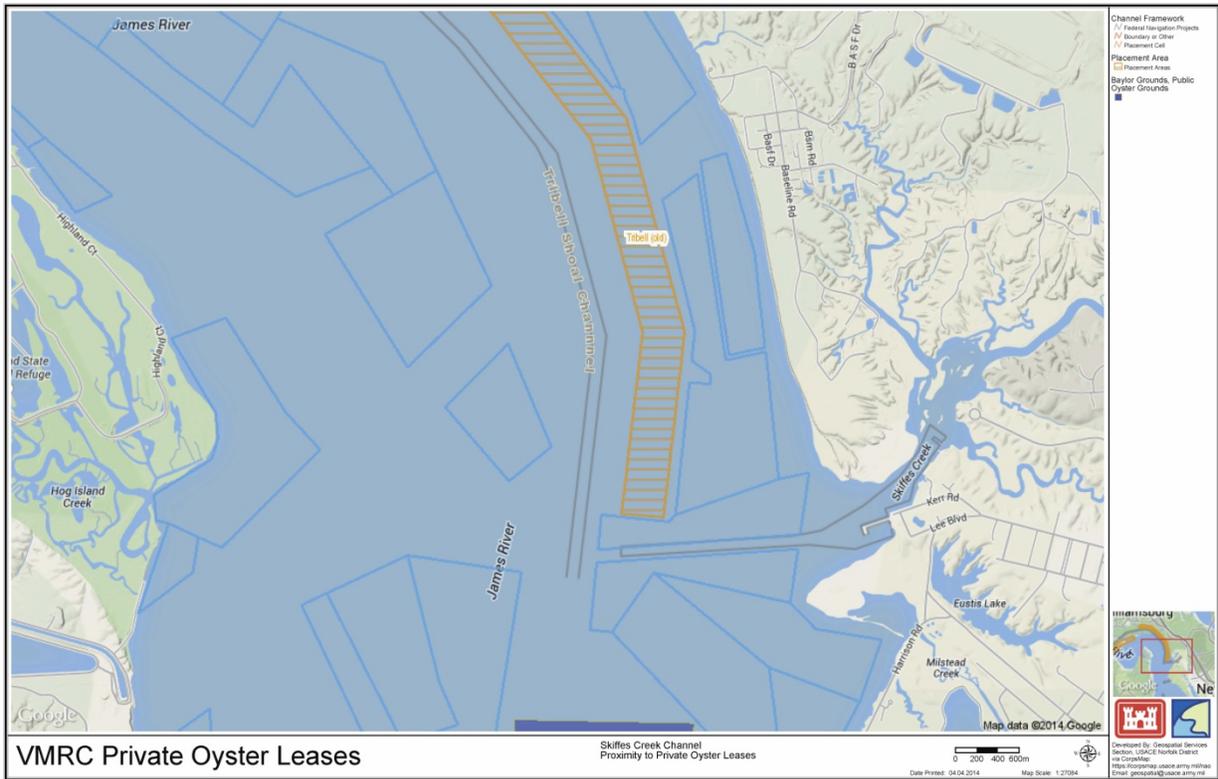


Figure 6 Skiffes Creek Channel Proximity to Private Oyster Leases

## 4 AFFECTED ENVIRONMENT

### 4.1 Overview

Consistent with guidance issued by the Council on Environmental Quality and U.S. Air Force policy, this Supplemental EA focuses specifically on potential impacts relating to the placement of dredged material at the ocean disposal site, Atlantic sturgeon, bald eagles and recent initiatives to control the invasive grass, Common Reed (*Phragmites australis*). These issues did not exist when the original EA was prepared in 2003.

### 4.2 MPRSA - Dredged Material Characterization

To ensure the Proposed Action’s dredged material is suitable for placement at NODS, sediment and site water samples from ten discrete locations within the project’s dredging footprint were collected (see Figure 7). Samples were used to generate five composite samples for analysis of sediment and standard elutriate chemistry and ecotoxicological testing in accordance with Section 103 of the MPRSA. Reference sediments were also collected, evaluated, and used for comparison to the Proposed Action’s sediment. Reference samples were evaluated simultaneously with the project’s dredged material. Reference sediments were collected at an EPA approved location at Willoughby Bank located south of the Thimble Shoals Channel. The reference location was selected as a comparison to the Proposed Action’s sediments with a high proportion of silt and clay.

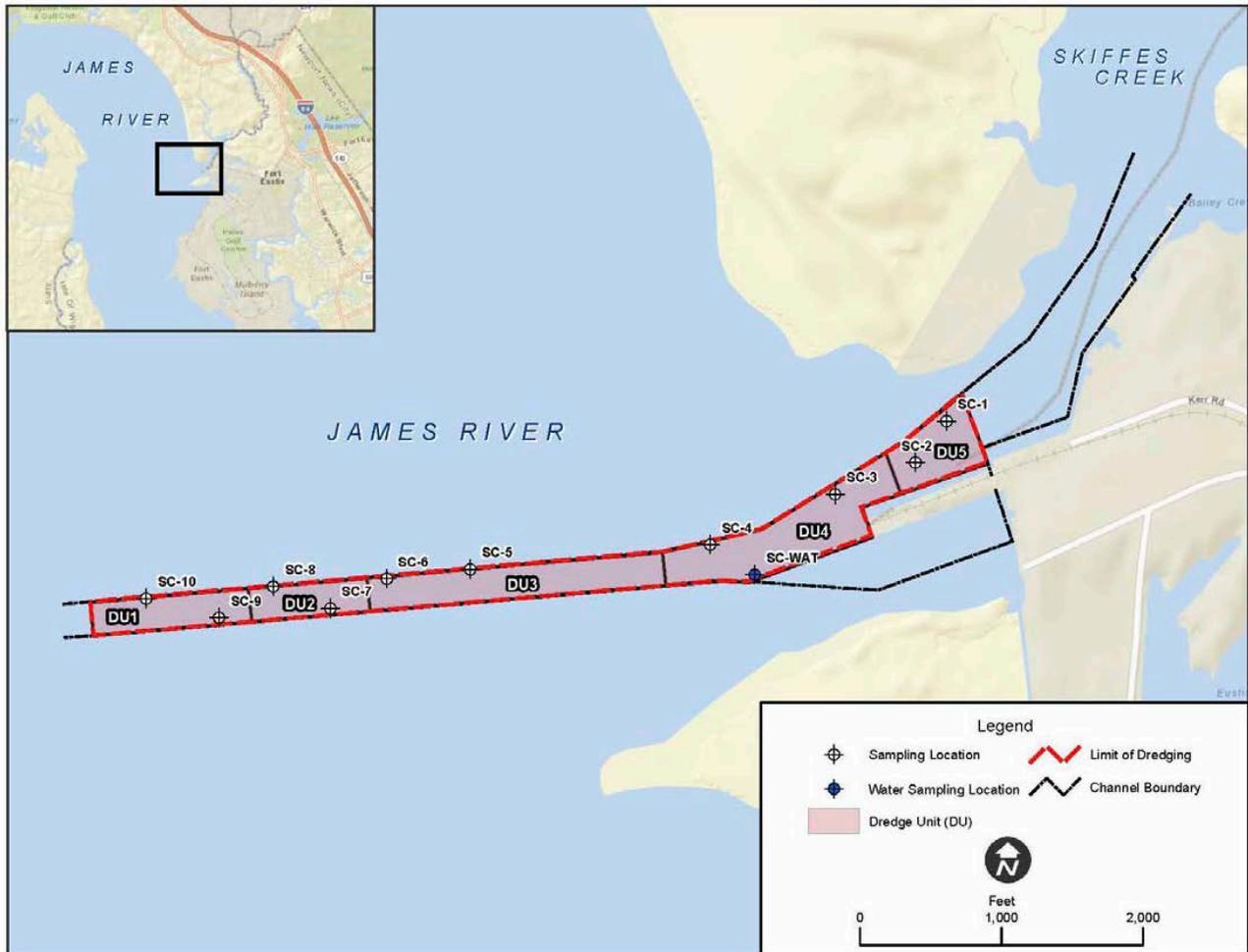


Figure 7 Skiffes Creek Channel Dredged Material Sampling Locations

#### 4.2.1 Applicable Regulations and Testing

Ocean dredged material placement is regulated under Section 103 of the MPRSA of 1972 (Public Law 92-532). The law states that any proposed placement of dredged material into ocean waters must be evaluated through the use of criteria published by the EPA in Title 40 of the Code of Federal Regulations, Parts 220-228 (40 CFR 220-228). The primary purpose of Section 103 of the MPRSA is to limit and regulate adverse environmental impacts of ocean placement of dredged material. Dredged material proposed for ocean placement must comply with 40 CFR 220-228 (Ocean Dumping Regulations) and 33 CFR 320-330 and 335-338 (USACE Regulations for discharge of dredged materials into waters of the U.S.) prior to being issued an ocean placement permit. The technical evaluation of potential contaminant-related impacts that may be associated with ocean placement of dredged material is conducted in accordance with 40 CFR 220-228 and the *Ocean Testing Manual* (EPA/USACE 1991). The criteria in 40 CFR Part 227 are used to determine compliance.

The USACE has MPRSA Section 103 permitting authority for ocean disposal of dredged material and must seek and obtain concurrence from the EPA for the proposed ocean disposal. The EPA has the authority to review, approve or disapprove, or conditionally approve the Corps

Section 103 permit for ocean disposal. Federal agencies conducting permitted activities under Section 103 of the MPRSA are not required to obtain and provide certification of compliance with effluent limitations and water quality standards from state or interstate water pollution control agencies in connection with the transport of dredged material for dumping in ocean waters beyond the territorial sea (33 CFR 324.3(b)(2)).

The Proposed Action's dredged material was evaluated for water column impacts and benthic impacts in four specific cases to comply with the Limiting Permissible Concentration (LPC) (as defined in 40 CFR 227.27):

1. Water quality criteria compliance (liquid phase)
2. Water column toxicity compliance (liquid and suspended particulate phase)
3. Benthic toxicity (solid phase)
4. Benthic bioaccumulation

The USACE has evaluated the need for ocean dumping consistent with 40 CFR Part 227 Subpart C. Materials from previous maintenance dredging of Skiffes Creek Channel have been placed upland at the Fort Eustis Dredge Material Management Area (FEDMMA). The FEDMMA is currently at capacity and will require new construction to build future capacity. The FEDMMA site construction is scheduled for fiscal year (FY) 2015.

Upland placement at privately-owned upland facilities (such as Port Tobacco at Weanack-Shirley Plantation) and upland landfill disposal were both considered as placement options for the dredged material from the Skiffes Creek Channel. The dredged material meets the Proposed Virginia Exclusionary Criteria requirements for upland placement at Port Tobacco at Weanack, the requirements for upland placement at some regional landfills, and the requirements for ocean placement at the NODS. Upland dredged material placement capacity is limited in the southern Virginia region and is preferential for projects with contaminated sediments that cannot meet the requirements for ocean or open-water placement.

Beneficial use (ex., beach nourishment and shoreline stabilization) was also considered as a placement option for the dredged material from Skiffes Creek Channel. The dredged material from the project site is primarily comprised of fine-grained silts and clays that are not suitable for many beneficial use projects, particularly in high-energy environments. Additionally, beneficial uses may be constrained by the large volumes associated with the Skiffes Creek Channel dredging.

In addition to the NODS, another alternative identified to be feasible for dredged material placement of sediments from the Skiffes Creek Channel was Craney Island Dredged Material Management Area (CIDMMA). Dredged material from the Skiffes Creek Channel is precluded from placement at CIDMMA because CIDMMA is restricted to placement of material from dredging to support navigation in Norfolk Harbor and adjacent waters. Material from non-navigation transportation projects or projects beyond CIDMMA's geographic service area are specifically precluded from placement at CIDMMA unless the material is clean and needed for dike construction. Physical and chemical testing of the dredged material from the Skiffes Creek Channel indicated that the sediments would not be suitable for dike construction at CIDMMA.

Therefore, because of the need to reserve limited upland disposal capacity within the region for future projects with contaminated sediment, because the Skiffes Creek Channel material meets the ocean placement criteria, and because that material is not located within the geographic area approved for placement at CIDMMA nor is the dredged material suitable for dike construction at CIDMMA, placement of the dredged material at the NODS is the most viable option. Following the guidance in the *Ocean Testing Manual* (USEPA/USACE 1991), Tier II and Tier III testing was completed by examining physical and chemical properties of the sediment, water column and whole sediment bioassays, and bioaccumulation potential (tissue chemistry) (EA 2014). Because the material meets the ocean placement requirements and because the NODS has sufficient capacity for the material, the most viable option for the dredged material from Skiffes Creek Channel is ocean placement at the NODS. Ocean placement of the dredged material from Skiffes Creek Channel will reserve upland placement capacity for contaminated sediments and will be protective of the resources at the NODS.

#### **4.2.2 Evaluation of the Liquid Phase - Water Quality Criteria (WQC)**

Five standard elutriates were prepared from composite samples from each dredging unit. Standard elutriates were tested for each chemical constituent to determine compliance with applicable Federal water quality criteria and the LPC for the liquid phase dredged material in 40 CFR 227.6 and 227.27.

#### **4.2.3 Evaluation of the Liquid and Suspended Particulate Phases - Water Column Bioassay**

Water column bioassays were conducted using the following three water column species: *Mytilus galloprovincialis* (blue mussel), *Americamysis bahia* (opossum shrimp), and *Menidia beryllina* (inland silverside). The water column species were exposed to a series of standard dilution of elutriates (100, 50, 10, and 1 percent) created from project dredged material. The opossum shrimp and inland silverside tests were measured for effects to organism survival and blue mussel tests measured development effects to embryos. Test survival or effects results from each dilution series were used to calculate LC50/EC50. Dredged material must meet the toxicity threshold of 0.01 of the LC50/EC50 within 4-hours or at the site boundary.

#### **4.2.4 Evaluation of the Solid Phase - Whole Sediment Bioassay**

Ten-day whole sediment bioassays were conducted on dredged material to determine benthic toxicity using two benthic species: *Leptocheirus plumulosus* and *Ampelisca abdita*. The tests were static, non-renewal tests with ten days of exposure to the dredged material and overlying water. Tests measured survival of test organisms in dredged material compared to survival in the reference sediments. To meet the LPC for the solid phase the bioassay organisms in the dredged material must not exhibit mortality that is statistically greater than in the reference sediment and exceeds mortality in the reference sediment by at least 20%.

#### **4.2.5 Evaluation of the Solid Phase - Bioaccumulation Evaluation**

Twenty-eight day bioaccumulation tests were conducted on the solid phase dredged material using two sensitive benthic marine organisms: *Nereis virens* (polychaete) and *Macoma nasuta* (blunt nose clam). The bioaccumulation tests measured the potential for bioaccumulation of contaminants

in organism tissue as a result of exposure to the Skiffes Creek Channel dredged material. Tests organisms were also exposed to reference sediments. Dredged material bioaccumulation tests are compared to reference sediment bioaccumulation tests and are compared to U.S. Food and Drug Administration (FDA) Action Levels. When bioaccumulation of contaminants in dredged material tests exceeds that in the reference sediments, general risk based factors must be assessed to determine compliance with 40 CFR 227.13.

USEPA required a subset of the organism tissue exposed to Skiffes Creek Channel dredged material to be analyzed for lipids and moisture content and the following constituents of concern: metals, PAHs, PCBs, dioxin and furan congeners, and chlorinated pesticides (DDT series only). The constituents selected for analyses in organism tissues samples were determined on constituent detections in the project's sediment chemistry analyses. Pre-test and reference sediment organism tissue were also analyzed.

### **4.3 FEDMMA Maintenance Activities – Control of Common Reed**

One element of maintenance at the FEDMMA is control of common reed (*Phragmites australis*) through the application of glyphosphate and imazpyr herbicides by certified applicators within label specifications. Common reed is a highly invasive grass that grows in large, monotypic stands in freshwater wetlands and in brackish wetlands where salinity is low enough. One of the largest stands of Common Reed on Fort Eustis is in the FEDMMA. It is estimated this plant currently occupies over 600 acres of the installation. It grows in wet open areas such as marshes, floodplains, drainage ditches, lake edges, disturbed areas and dredge spoil areas. It outcompetes native wetland vegetation drastically impacting these habitats. Loss of native vegetative communities eliminates normal biological functioning of wetlands. These thick dense stands are unsuitable for most native wildlife in that movement and access to water becomes greatly restricted. Furthermore, there is little value as food to native wildlife.

Since 2011, aggressive action has been taken to bring this plant under control to alleviate its impacts on the natural environment. Both herbicidal and physical techniques have been used on 300 acres containing Common Reed including that within the FEDMMA. In accordance with the INRMP and Invasive Species Management Plan, Fort Eustis will continue implementation of control methods as available resources dictate. This includes controlling this plant in the FEDMMA and surrounding area.

### **4.4 Protected Species**

#### **4.4.1 Atlantic Sturgeon**

The Atlantic Sturgeon (*Acipenser oxyrinchus*) may be present in the project area based on data from the VDGIF Biota of Virginia Report (see Appendix D “Threatened and Endangered Species Lists” for detailed table listings.) Informal Section 7 consultations regarding the incidence of Atlantic sturgeon within the area of the Proposed Action was submitted to the National Marine Fisheries Service (NMFS) in March 2012 and May 2013 with the recommendation of insignificant adverse effect on Atlantic Sturgeon. The May 2013 informal consultation was initiated to coordinate potential effects to listed species from mechanical dredging methods and dredged material transit and placement at the NODS. The site is not in an area where spawning is known to occur. Small juveniles are not likely using the area, but adults

and sub-adults may transit the project area during migration or to forage. No injuries or mortalities of Atlantic Sturgeon have been reported for the James River as a result of dredging operations. NMFS concurred with the insignificant adverse effect conclusion in letters on April 17, 2012 and June 27, 2013 (see Appendix A “Agency Coordination”).

The Norfolk District initiated formal consultation with NMFS in May 2012 for maintenance dredging of Chesapeake Bay navigation channels, sand borrow for beach nourishment projects, and dredged material placement operations at authorized Chesapeake Bay and ocean dredged material placement sites. The NMFS provided a biological opinion dated October 16, 2012 (F/NER/2012/01586) regarding use of the NODS. “Because any effects to whales are extremely unlikely to occur, all effects to whales are discountable. As such, we have determined that the proposed action is not likely to adversely affect right, humpback or fin whales. These species will not be considered further in this Opinion.” Additionally, NMFS concluded, “For purposes of this consultation, we consider that sediment that is suitable for ocean disposal would not be toxic to marine life and would not be likely to cause adverse effects to sea turtles, Atlantic sturgeon or their prey. Because the material to be disposed will be tested to ensure it is not acutely toxic and will not increase the risk of bioaccumulation of toxins or contaminants in any marine species, effects to sea turtles and Atlantic sturgeon will be insignificant and discountable.”

#### **4.4.2 Bald Eagle**

The bald eagle was listed as endangered throughout the United States in 1978 (43 FR 6233). It was subsequently downlisted to threatened in 1995 (50 CFR Part 17) when the Chesapeake Bay bald eagle recovery population met its population and productivity objectives (USFWS 1990, 1995). The bald eagle was removed from the Federal ESA on 8 August 2007; however, it remains protected under the Bald and Golden Eagle Protection Act (BGEPA) and the Migratory Bird Treaty Act (MBTA), as well as Commonwealth of Virginia laws and regulations. The BGEPA and the MBTA continue to protect bald eagles from a variety of harmful actions and impacts.

The first recorded eagle nest at Fort Eustis was documented in 1987 (NN8701) and became inactive in 2003. It was located along the James River shoreline near Marshy Point and was situated in a large loblolly pine in an area of scattered large pines and hardwoods. Another nest was built in the area west of the original nest in 2002 (NN0201), but fell in 2009. A new nest was found again in 2011 in the original nest tree of NN8701, now NN1001 and remains active. The area has been secured from disturbance and an Eagle Management Area (EMA) has been established.

The second recorded nest, first discovered in 1996, was reported active in 1998 along Jail Creek near the southern tip of Mulberry Island. An EMA was immediately established around it. No young were produced in that nest. After 1998 it remained inactive for 4 years and fell from the tree in 2002. The tree is now dead. The nest was surrounded by expansive marshland designated as an impact area. Although activity is no longer restricted around that nest site, there is little disturbance due to its isolated location.

Another nest was located in 2003 along Jail Creek. Its location is just northwest of the site of the 1996/98 nest but it is not active. A newer nest was constructed in 2004 in a location just southeast of this site on the same island (NN0401), but fell in 2009. Nest NN0301 became active once again in 2009 and remains active. Two more recent nests were discovered in the impact area just west of Curtis point and along the Warwick River (NN0801 and NN0802). A fifth nest was found in 2009 and was active, but portions of the nest fell prior to nesting season completion and remained inactive during the 2009 nesting season. However, this nest is now active. EMAs have recently been delineated around these five nests.

A sixth nest was discovered in Training Area 17C, near Blows Creek (NN0601) in 2006. This nest was considered a Bird Airstrike Hazard (BASH) for Felker Army Airfield and was removed under permit in 2010. A new nest was built 150' south of the original nest and was active. The nest was again removed in 2011 under permit. Mitigation measures have been employed to prevent new nests from that area and a programmatic permit is being discussed with US Fish and Wildlife Service (USFWS). These nests also have designated EMAs. During this time, another nest was built within 100' of the original nest and is currently active.

The seventh nest (NN0503) was found in 2009 northwest of Third Port on a portion of land owned by DOD, but is not utilized by military units. This nest remains active. A potential disturbance for two nests (NN0601 and NN1001) is the over flight by aircraft, because the nests are within the airfield approach and training zones. A former threat to the nests near Marshy Point was falling steel shot from a nearby duck blind. However, in the summer of 2003, the blind was abandoned and dismantled after coordination with the USFWS and consultation with the duck blind owner. In general, the nests are relatively secure at these locations due to the surrounding marsh and forested shoreline, the impact zone restrictions, and the limited access for training and other human activities.

In 2008, Fort Eustis in conjunction with the USFWS prepared a Bald Eagle Management Plan. The Plan was updated in 2013 as part of the revised Fort Eustis Integrated Natural Resources Management Plan (INRMP). In conjunction with this revision, a map depicting all currently known active bald eagle nest sites was prepared (Figure 8). The Bald Eagle Management Plan includes protection of nest trees throughout the year and implements a 660-foot exclusionary buffer around the nest tree during the breeding season (December 15-July 15). This information allows planners, decision-makers and training managers to meet mission requirements while mitigating impacts to nesting bald eagles and their young. Based on this information, only one nest was located in relative proximity to the dredging area of Skiffes Creek. The distance relationship between this nest and the project area is shown in Figure 9. The dredging project is well outside of the 660-foot eagle nest buffer.

### Fort Eustis Bald Eagle Nests and Buffers



**Figure 8 Bald Eagle Nest Sites at Fort Eustis**

Skiff's Creek Dredging Distance From Bald Eagle Nest and 660' Buffer



Figure 9 Bald Eagle Nest Site in Vicinity of Dredging Operations

## 5 ENVIRONMENTAL CONSEQUENCES

### 5.1 Overview

This section describes the environmental consequences of implementing the proposed dredging of Skiffes Creek channel and the associated placement of dredge material in the FEDMMA.

### 5.2 MPRSA- Dredged Material Characterization

#### 5.2.1 Proposed Action

Samples from the project site were collected and analyzed as described in section 4.2. No petroleum or other obvious pollution was observed during sample collection. The evaluation process for ocean disposal emphasizes the potential biological effects, rather than chemical presence of contaminants (EPA/USACE, 1991). Tier II and Tier III evaluations were conducted on the Proposed Action's dredged material. The sediments consisted predominantly of alluvial silts and clays with embedded sands and do not meet exclusion criteria. The MPRSA provides for exclusions to testing if the dredged material consists of the following:

1. Predominantly sand, gravel, or rock and is found in areas of high current or wave energy.
2. Dredged material is for beach nourishment.
3. When the dredged material is substantially the same as the substrate at the proposed disposal site and the material is far removed from known existing and historical sources of pollution.

Tier II investigations typically consist of sediment, water, and elutriate chemistry evaluations. Tier III investigations typically consist of appropriate water column and whole sediment bioassays on appropriate sensitive organisms to determine the potential for significant effects due to acute toxicity or bioaccumulation of constituents in the dredged material over a sufficient period of time.

Dredged material proposed for ocean disposal is required to comply with the LPC (as defined in 40 CFR 227.27) for water column impacts and benthic impacts in four specific cases:

1. Water quality criteria compliance (liquid phase).
2. Water column toxicity compliance (liquid and suspended particulate phase).
3. Benthic toxicity (solid phase).
4. Benthic bioaccumulation.

Summary tables of the evaluation results can be found in Appendix C "MPRSA, Section 103 Evaluation"

The Corps of Engineers will be requesting an independent evaluation from the U.S. Environmental Protection Agency (USEPA) and concurrence with the Corps determination.

### **5.2.1.1 Evaluation of the Liquid Phase – Water Quality Criteria (WQC)**

Compliance with the LPC was determined using the USACE Short-Term Fate of Dredged Material Disposal in Open Water (STFate) model to determine whether the liquid phase dredged material would achieve WQC within the site boundary and/or within 4-hours following dredged material placement. Ammonia had the greatest concentration (Dredging Unit SC-07/08 and SC-09/10,  $\text{NH}_4 = 20 \text{ mg/l}$ ; WQCacute,  $\text{NH}_4 = 4.91 \text{ mg/l}$ ) and was the only constituent that exceeded WQC requiring a 4.1-fold dilution to meet the WQC. The STFate modeling indicated that a 361-fold dilution would occur in the first four hours.

Based on the information above, the liquid phase of the dredged material meets the LPC and is in compliance with 40 CFR 227.6(c)(1) and 227.27(a)(1).

### **5.2.1.2 Evaluation of the Liquid and Suspended Particulate Phases – Water Column Bioassay**

A total of five water column bioassays were conducted on dredged material representative of each dredging unit. The greatest dilution required to meet the toxicity threshold was for dredging unit SC-01/02. The STFate model assumed a 4,600 cy placement/barge volume at the center of NODS. Results of the STFate model indicated that a 16-fold dilution can be achieved within 1-hour following placement and a 449-fold dilution would occur within 4-hours following placement. The leading edge of the plume was estimated to travel approximately 4,173 feet from the placement location within the 4-hours following placement. As a result the maximum volume that may be discharged in a single event during a 4-hour period from dredging unit SC-01/02 is 4,600 cy to comply with the LPC. Dredging unit SC-07/08 required the smallest dilution to meet the toxicity threshold estimating a dilution of 361 to 1 in the 4-hour period following placement. The maximum volume that may be discharged in a single event during a 4-hour period for dredging unit SC-07/08 is 6,800 cy. Dredged material discharge volumes at or below the STFate established maximum volumes for each dredging unit will ensure LPC compliance within the 4-hour period following the placement event and will comply within the site boundary.

Based on the information, the liquid and suspended particulate phase dredged material meets the LPC and complies with 40 CFR 227.6(c)(2) and 227.27(b).

### **5.2.1.3 Evaluation of the Solid Phase – Whole Sediment Bioassay**

A total of five whole sediment bioassays were conducted on dredged material representative of each dredging unit. Mortality in the dredged material whole sediment bioassays is not statistically greater than in the reference sediment and does not exceed the mortality in the reference sediment by 20%. Therefore, the dredged material meets the LPC for benthic toxicity in 40 CFR 227.13(c)(3).

### **5.2.1.4 Evaluation of Solid Phase – Bioaccumulation Evaluation**

None of the tissues samples analyzed in Skiffes Creek Channel dredged material exceeded FDA action levels. Only two constituents, nickel and octachlorodebenzodioxin (OCDD) statistically exceeded the reference site and pre-test tissue concentrations. The mean nickel concentration in clam tissue from dredging units SC-05/06 and SC-09/10 statistically exceeded the mean reference

sediment and pre-test tissue concentrations; however the upper confidence level of the mean did not exceed the USEPA Region 4 background concentration for nickel. OCDD is the least toxic dioxin congener, and the dioxin toxicity equivalence quantity (TEQ) did not statistically exceed the reference sediment TEQ for either sample locations.

Determining compliance with the LPC for benthic bioaccumulation considers at least one of the following factors; number of constituents that statistically exceed reference sediment results, magnitude by which the constituent exceeds reference sample, propensity of the constituent for significant bioaccumulation, toxicological importance of the constituent, and comparison to USEPA Region IV background concentrations for clam tissues. After consideration of various factors, the USACE has determined that dredged material placement at the NODS will not result in ecologically significant bioaccumulation for the individual contaminants.

Based on the above information, the solid phase of the dredged material complies with 40 CFR 227.6(c)(3) and 227.27(b).

### **5.2.2 No-Action Alternative**

Under the No-Action Alternative the Proposed Action would not occur; therefore, there would be no changes to the existing conditions.

## **5.3 FEDMMA Maintenance Activities – Control of Common Reed**

### **5.3.1 Proposed Action**

Maintenance activities at the FEDMMA are necessary to maintain the upland placement site for dredged material placement. Dike construction within the site footprint to build additional capacity will occur to maximize the life of the site. Maintenance activities to control common reed are important to drying of the dredged material and maximizing consolidation of dredged material. Common reed grows in dense stands that hamper dewatering of the site. The Common Reed stand within the FEDMMA was originally treated in 2004 with glyphosate herbicide and with imazypur herbicide in 2011. Herbicide treatment remains the only viable option for controlling this plant in the FEDMMA (prescribed burning is not feasible nor is excavation). Herbicides will continue to be applied by certified applicators within label rates. Placement of dredge material several months after the proposed treatment is not expected to impact efficacy.

### **5.3.2 No-Action Alternative**

Under the No-Action Alternative the Proposed Action would not occur; therefore, there would be no changes to the existing conditions, common reed would continue to dominate the site and continue to impact existing wetland sites on Fort Eustis.

## **5.4 Protected Species**

### **5.4.1 Proposed Action**

#### **5.4.1.1 Atlantic Sturgeon**

On 6 April 2012 all U.S. populations of Atlantic sturgeon became subject to the Endangered Species Act. At that time, five (5) Distinct Population Segments (DPS) were listed as

endangered. Any Atlantic sturgeon originating from these populations could occur in the James River which borders Fort Eustis. Chesapeake Bay DPS are thought to spawn in upstream areas of the James River. Because Third Port is located near the confluence of Skiffes Creek with the James River, Atlantic sturgeon may be in or around the dredge site during dredging activities. Likewise, Atlantic sturgeon may be present at the ocean placement site during dredged material placement activities. However, the sturgeon will likely have the ability to relocate during dredging and dredged material placement operations to avoid any direct physical impacts. The Corps of Engineers has completed informal and formal consultations with NMFS under Section 7 of the Endangered Species Act for actions described in this SEA. In a May 17, 2012 letter, NMFS concurred with the Corps determination that the maintenance dredging project is not likely to adversely affect any listed species under NMFS jurisdiction. In the Oct 16, 2012 Biological Opinion covering dredged material placement operations at NODS, NMFS concluded the disposal activities are not likely to adversely affect sea turtles or Atlantic sturgeon or their prey because the sediment is suitable for ocean disposal and would not be acutely toxic or will not increase the risk of bioaccumulation of toxins or contaminants in any marine species. Therefore, effects to sea turtles and Atlantic sturgeon will be insignificant and discountable. The documents associated with this consultation are included at Appendix E.

#### **5.4.1.2 Bald Eagles**

This species is no longer a federally listed species and it was delisted from the Virginia Threatened and Endangered Species list on January 1, 2013. The number of nest sites on Fort Eustis has increased since 2003. Only one nest site is located in any form of proximity and that includes the active nest site in Training Area 30 as shown in Figure 8. In this case, the distance between the dredging and ocean disposal of dredged material and the nest greatly exceeds 660 feet. Consequently, no impact or disturbance to the adults or young is expected. The dredging does not pose any impacts to foraging or movement of this species on the installation. Maintenance activities at the FEDMMA involving the dike construction and control of common reed are not expected to have impact or disturb adult or young Bald Eagles.

#### **5.4.2 No-Action Alternative**

Under the No-Action Alternative the Proposed Action would not occur; therefore, there would be no impacts to existing wildlife and aquatic biota.

#### **5.5 No-Action Alternative**

Under the No-Action Alternative, the Proposed Action would not occur; therefore, there would be no impacts to water quality, wildlife, or aquatic biota at the dredge site or ocean placement site.

## **6 AGENCY COORDINATION**

### **6.1 Conclusions and Recommendations**

Dredging will be accomplished in the most environmentally acceptable and cost-effective manner. Any effects on the environment will be minimized to the greatest extent practicable and be offset by the project benefits of restoring and maintaining safe navigation and commerce.

Future maintenance dredging and disposal of sediments from the Skiffes Creek will be accomplished in a manner that will not cause long-term adverse effects on the surrounding ecosystem.

Based on this supplemental EA, no significant environmental impacts would result from implementing of the proposed action. Implementation of the proposed action will have no significant direct, indirect, or cumulative effects on the quality of the natural or human environment.

## **7 CONTACT INFORMATION**

If you have any questions or wish to provide comments, please contact Mr. Robert Pruhs of the U.S. Army Corps of Engineers, Norfolk District, at [Robert.S.Pruhs@usace.army.mil](mailto:Robert.S.Pruhs@usace.army.mil) or 757-201-7130.

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