ENVIRONMENTAL APPENDIX

Elizabeth River and Southern
Navigation Improvements
Draft Integrated General Reevaluation
Report and Environmental Assessment

Appendix G – Coastal Zone Management Act Federal Consistency Determination

12 December 2017

U.S. Army Corps
of Engineers
Norfolk District

THE PORT OF VIRGINIA®

ELIZABETH RIVER AND SOUTHERN BRANCH NAVIGATION IMPROVEMENTS

Coastal Zone Management Act

Federal Consistency Determination

Norfolk District

803 Front Street

Norfolk, Virginia 23510-1096

December 6, 2017

US Army Corps of Engineers ®

COASTAL ZONE MANAGEMENT ACT
FEDERAL CONSISTENCY DETERMINATION FOR THE

ELIZABETH RIVER AND SOUTHERN BRANCH NAVIGATION IMPROVEMENTS PROJECT

CONSISTENCY REVIEW: Information to support this Federal Consistency Determination (FCD) (including maps and additional supporting information) can be found in the accompanying Draft General Reevaluation Report and Environmental Assessment. This FCD is being submitted for coordination and concurrence from the Virginia Department of Environmental Quality (VDEQ), including Section 401 Water Quality Certification of all project elements described below.

PROJECT DESCRIPTION:

The lead federal agency for this project is the Department of the Army, U.S. Army Corps of Engineers, Norfolk District and the nonfederal sponsor is the Virginia Port Authority, agent of the Commonwealth of Virginia. Cooperating agencies for this project are the U.S. Environmental Protection Agency, Region 3, the National Oceanographic and Atmospheric Administration/National Marine Fisheries Service, and the U.S. Department of the Navy.

The Elizabeth River and Southern Branch Navigation Improvements study area encompasses the federally improved channel in the Norfolk Harbor and Channels from Lamberts Bend to the Chesapeake Extension in the Elizabeth River, Virginia and dredged material placement/disposal sites. The need for this study arises from transportation inefficiencies currently experienced by commercial vessels in the Elizabeth River and Southern Branch of the Elizabeth River. These inefficiencies are projected to continue in the future.

Deepening the existing channel to various depths was evaluated and two Action Project Alternatives (a National Economic Development Plan and a Locally Preferred Plan) were evaluated in detail as well as the No Action/Future Without Project Alternative. Nonstructural measures such as reducing vessel speed in the channel were also considered.
The Preferred Alternative is the Locally Preferred Alternative, which includes the following features:

- Deepening the channel from Lamberts Bend to Perdue Farms (Segment 1a) from a required depth of 40 feet to 45 feet deep in Segment 1a, and deepening the channel from Perdue Farms to the Norfolk Southern Lift Bridge (Segment 1b) from a required depth of 40 feet to 42 feet.
- Deepening the channel from the Norfolk Southern Lift Bridge to the Gilmerton Bridge (Segment 2), from a required depth of 35 feet to 39 feet deep; and
- Continuing to maintain the channel from the Gilmerton Bridge to the Chesapeake Extension to a required depth of 35 feet (Segment 3).

For the environmental impact analysis we evaluated dredging depths impacts (and associated dredging volume and durations) that are deeper than the required (or target) dredging depth. This is because dredging beyond the required depth sometimes may be allowed for advanced

maintenance and allowable paid and nonpaid overdepth and also because dredging to an exact depth out in the field is not practical. Therefore, the dredging depths, volumes, and durations vary between the economic analysis and the environmental impact analysis in our study. For the environmental impact analysis, we assumed that for construction of Alternative 1 or Alternative 2, the maximum, potential dredging depths would include the required depth in addition to one foot of Advanced Maintenance in addition to two feet of Paid Allowable Overdepth in addition to two feet of Nonpaid Allowable Overdepth and an additional foot of dredging in areas where contaminated dredged material is anticipated (in Segment 1 and Segment 2).

We refer to required dredging depths throughout the text but in terms of the impact analysis (effect determination), the estimated maximum, potential construction dredging depth of Alternative 2, the Preferred Alternative, will be evaluated (Table 1).

The number of vessel calls is anticipated to increase in the future as compared to existing conditions either with or without implementation of the proposed deepening project. However, in future conditions with implementation of the proposed deepening project, we would anticipate that the deepened channel system would allow for the existing larger vessels to transport commodities more efficiently and would result in fewer vessel calls as compared to the future without project condition.

Table 1. Estimated maximum, potential construction dredging volumes and durations and estimated maintenance dredging volumes and duration of the Elizabeth River and Southern Branch Navigation Improvements Project for the No Action/Future Without Project Alternative and Alternative 2, the Preferred Alternative.

				Estimated Construction Maximum				Estimated Maintenance - 50 Years		Summary - Construction Maximum and Maintainance	
Alternative	Required Depth - feet (ft)	Current Volume above Existing Maintained Depth (cubic yards)	Estimated Maximum Depth (ft) = Required Depth + 1 ft Advanced Maintenance + 2 ft Paid Allowable Depth + 2 ft Non-Pay Allowable Overdepth + 1 ft Contamination Removal (select segments only)	Estimated Maximum Volume (cubic yards)	Estimated Maximum Dredging Duration (Months)	Estimated Maximum Total Bottom Disturbance (square feet)	Estimated Maximum Change/Delta (increase) in Bottom Disturbance - (square feet)	Estimated 50 Year Maintenance Volume (cubic yards)	Estimated 50 Year Maintenance Dredging Duration (months)	Estimated Maximum Volume - Volume Above Existing + Allowable Pay + Non-Pay + Maintenance Volume (cubic yards)	Estimated Maximum Construction + 50 Year Maintenance Dredging Duration (months)
No Action Alternative/Future Without Project (NAA/FWOP)- Segment 1 Elizabeth River Reach	40	55,804	46	480,234	0.70	14,345,062	-	1,579,750	3.44	2,115,788.73	4.15
NAA/FWOP - Segment 1 Lower Reach	40	3,818	46	64,783	0.09	5,209,099	-	71,300	0.21	139,901.58	0.31
NAA/FWOP - Segment 1 Middle Reach	40	10,050	46	197,351	2.18	2,064,875	-	38,250	0.29	245,650.50	2.47
NAA/FWOP - Segment 2	35	1,938	40	359,206	4.48	5,020,273	-	884,800	6.27	1,245,944.38	10.75
NAA/FWOP - Segment 3	35	495,977	40	1,222,383	15.25	4,269,028	-	83,350	0.59	1,801,710.10	15.84
Total										**5,548,995.29**	**33.52**
Alternative 2 - Segment 1A	45	63,969	up to 50, 51 in MR	2,499,984	3.65	20,737,337	976,689	1,826,389	3.98	4,390,341.61	7.63
Alternative 2- Segment 1B	42	5,704	up to 48	71,877	0.79	2,039,347	180,960	5,144	0.04	82,724.58	0.83
Alternative 2 - Segment 2	39	1,938	up to 45	1,590,006	19.84	5,729,763	709,490	982,128	6.96	2,574,072.50	26.80
Alternative 2 - Segment 3	35	495,977	40	1,222,383	15.25	4,269,028	-	83,350	0.59	1,801,710.10	15.84
Total										**8,848,848.79**	**51.11**

Dredges used for construction and maintenance of the Preferred Alternative would include hydraulic cutterhead dredges and mechanical dredges. Dredged material that is deemed unsuitable for CIDMMA will be dewatered in accordance with federal and state water quality requirements and taken to existing authorized upland landfills. Potential upland disposal sites for contaminated material may include, but are not limited to the following: Charles City County Landfill, CFS, Tri-City Regional Landfill & Recycling Center, John C. Holland Enterprises Landfill, Southeastern Public Service Authority (SPSA) Regional Landfill, Portsmouth City Craney Island Landfill, Bethel Landfill, King and Queen Sanitary Landfill. Additionally, the following soil processing services may be used which include, but are not limited to, the following: Port Tobacco/Weanack Land, LLC, and Clearfield MMG, Inc. Soil Recycling.

Dredging within the Elizabeth River and Southern Branch Navigation Improvements Project Area is anticipated to generate material with contamination within portions of Segment 1 and within Segment 2 that exceeds the acceptance criteria of CIDMMA. Contaminated dredged material will need to be disposed of at an approved upland site(s). Complete removal of contaminated material to depth may be considered if economically justified based on savings in future operation and maintenance costs consistent with USACE policy (Section 312a of WRDA 90 as amended). An engineered cap may be required to be installed after contaminant removal to isolate the location from the environment and future Operations and Maintenance activities.

PROPERTY CLASSIFICATION: The project occurs on subaqueous land, which is owned by the Commonwealth of Virginia and the CIDMMA which is owned and operated by the USACE.

IMPACTS TO RESOURCES/USES OF THE COASTAL ZONE: See Summaries below.

DETERMINATION: Based upon evaluation of impacts analyzed in the Environmental Assessment and in accordance with Section 307 of the Coastal Zone Management Act (CZMA) and the CZMA Federal Consistency Regulation – 15 C.F.R. Part 930, the USACE determined that the proposed project would be undertaken in a manner consistent to the maximum extent practicable with the enforceable policies of the Commonwealth of Virginia's Coastal Zone Management Program.

Enforceable Policies

The Virginia Coastal Zone Management Program (VCP) contains the below enforceable policies (A-I). More information can be found in the Draft Environmental Assessment for this project.

A. Fisheries Management

The program stresses the conservation and enhancement of finfish and shellfish resources and the promotion of commercial and recreational fisheries to maximize food production and recreational opportunities. This program is administered by the Virginia Marine Resources Commission (VMRC) (Virginia Code §28.2-200 through §28.2-713) and the Virginia Department of Game and Inland Fisheries (VDGIF) (Virginia Code §29.1-100 through §29.1-570).

The proposed project will result in minor, adverse impacts on fishery resources including temporary and localized negative effects on water quality, including decreases in dissolved oxygen, increased turbidity, and total suspended sediment in the water column. These impacts are expected to be temporary. Mobile species will move out of the area and return once dredging has been completed. Additionally, resources could become entrained or injured during dredging operations. However, these impacts would be negligible to minor and would not be anticipated to impact any fishery populations.

B. Subaqueous Lands Management

The management program for subaqueous lands establishes conditions for granting or denying permits to use state-owned bottomlands based on considerations of potential effects to marine and fisheries resources, wetlands, adjacent or nearby properties, anticipated public and private benefits, and water quality standards established by the Virginia Department of

Environmental Quality Water Quality Division. The program is administered by the Virginia Marine Resource Commission (Virginia Code §28.2-1200 through §28.2-1213).

No permit from the Virginia Marine Resources Commission (VMRC) will be required at this time for this project as the dredging and material placement activities are not within the jurisdiction of the VMRC.

*Note that if beach nourishment/beneficial placement of dredged material is included in the project, a permit from VMRC will be required.

C. Wetlands Management

The purpose of the wetlands management program is to preserve tidal wetlands, prevent their despoliation, and accommodate economic development in a manner consistent with wetlands preservation.

The tidal wetlands program is administered by the VMRC (Virginia Code §28.2-1301 through §28.2-1320).

The Virginia Water Protection Permit program administered by the DEQ includes protection of wetlands -- both tidal and non-tidal. This program is authorized by Virginia Code § 62.1-44.15.5 and the Water Quality Certification requirements of §401 of the Clean Water Act of 1972.

There will be no direct or indirect impacts to tidal or nontidal wetlands with implementation of this project.

D. Dunes Management

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

This project will not impact sand dunes.

E. Non-point Source Pollution Control

Virginia's Erosion and Sediment Control Law requires soil-disturbing projects to be designed to reduce soil erosion and to decrease inputs of chemical nutrients and sediments to the Chesapeake Bay, its tributaries, and other rivers and waters of the Commonwealth. This program is administered by DEQ (Virginia Code §62.1-44.15:51 *et seq*.).

Project activities will not generate soil erosion or non-point source pollution subject to the Clean Water Act (CWA), Section 402. Discharges will consist of CWA, Section 404 dredged material discharges at the specified discharge site in the waters of the United States, runoff, and overflow from the contained land disposal, and redeposit of dredged material including excavated materials incidental to mechanized land-clearing, ditching, channelization, and other excavation [33CFR323.2(D)]. Best management practices consistent with the technical

guidance for erosion and sediment control will be incorporated into the project design to address erosion potential of placed dredged material.

F. Point Source Pollution Control

The point source program is administered by the State Water Control Board pursuant to Virginia Code §62.1-44.15. Point source pollution control is accomplished through the implementation of the National Pollutant Discharge Elimination System (NPDES) permit program established pursuant to §402 of the federal Clean Water Act and administered in Virginia as the VPDES permit program. The Water Quality Certification requirements of §401 of the Clean Water Act of 1972 is administered under the Virginia Water Protection Permit program.

This project does not involve point source discharges subject to Section 402 of the Clean Water Act. Dredged material discharges are regulated under Section 404/401 of the Clean Water Act. In accordance with the 02 October 2015 letter from the Virginia Department of Environmental Quality concerning the "Regulation of Dredging and Aquatic Resources Restoration Activities Conducted by the U.S. Army Corps of Engineers in Commonwealth of Virginia Waters," the USACE is requesting CWA Section 401 Water Quality Certification through this determination for dredged material discharges resulting from construction and maintenance of the Elizabeth River and Southern Branch and placement facilities.

G. Shoreline Sanitation

The purpose of this program is to regulate the installation of septic tanks, set standards concerning soil types suitable for septic tanks, and specify minimum distances that tanks must be placed away from streams, rivers, and other waters of the Commonwealth. This program is administered by the Department of Health (Virginia Code §32.1-164 through §32.1-165).

This project involves no septic tanks; therefore, adherence to this program is not applicable to the proposed project.

H. Air Pollution Control

The program implements the Federal Clean Air Act to provide a legally enforceable State Implementation Plan for the attainment and maintenance of the National Ambient Air Quality Standards. This program is administered by the State Air Pollution Control Board (Virginia Code §10.1-1300 through 10.1-1320).

Negligible to minor impacts to air quality would result from air emissions resulting from the combustion of fuel used to operate vessels and equipment (e.g., dredge operation, pumps, transportation, and final dredged material placement/disposal).

I. Coastal Lands Management

State-local cooperative program administered by DEQ's Water Division and 84 localities in Tidewater, Virginia 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 (Virginia Administrative Code 9 VAC 25-830-10 *et seq*.).

There is no Resource Protection Area (RPA) in the area impacted by this project. Therefore, this project will not impact the Chesapeake Bay Preservation Act RPA.

Advisory Policies for Geographic Area of Particular Concern

a. Coastal Natural Resource Areas

These areas are vital to estuarine and marine ecosystems and/or are of great importance to areas immediately inland of the shoreline. Such areas receive special attention from the Commonwealth because of their conservation, recreational, ecological, and aesthetic values. These areas are worthy of special consideration in any planning or resources management process and include the following resources: Wetlands, aquatic spawning, nursery, feeding grounds, coastal primary sand dunes, barrier islands, significant wildlife, habitat areas, public recreation areas, sand and gravel resources, and underwater historic sites.

Based on a review of existing information, this project is not expected to have a significant impact on environmental or cultural resources. There may be threatened and endangered species located in the study area vicinity including avian species, sea turtles, Atlantic sturgeon, and marine mammals. There will be temporary impacts to marine resources from dredging activities, including the direct removal of benthic species and potential adverse effects to finfish from temporary increases in turbidity generated by dredging activities.

b. Coastal Natural Hazard Areas

This policy covers areas vulnerable to continuing and severe erosion and areas susceptible to potential damage from wind, tidal, and storm related events including flooding. New buildings and other structures should be designed and sited to minimize the potential for property damage due to storms or shoreline erosion. The areas of concern are as follows: Highly erodible areas, coastal high hazard areas, including floodplains.

There will be no structures or buildings that are vulnerable to continuing and severe erosion and area susceptible to potential damage from wind, tidal, and storm related events including flooding.

c. Waterfront Development Areas

These areas are vital to the Commonwealth because of the limited number of areas suitable for waterfront activities. The areas of concern are as follows: commercial ports, commercial fishing piers, and community waterfront.

The project area is located entirely in subaqueous land and does not include commercial ports, commercial fishing piers, or community waterfronts.

Advisory Policies for Shorefront Access Planning and Protection

a. Virginia Public Beaches

Approximately 25 miles of public beaches are located in the cities, counties, and towns of Virginia exclusive of public beaches on state and federal land. These public shoreline areas will be maintained to allow public access to recreational resources.

The project will not impact any Virginia public beaches.

b. Virginia Outdoors Plan (VOP)

Planning for coastal access is provided by the DCR in cooperation with other state and local government agencies. The Virginia Outdoors Plan (VOP), which is published by the Department, identifies recreational facilities in the Commonwealth that provide recreational access. The VOP also serves to identify future needs of the Commonwealth in relation to the provision of recreational opportunities and shoreline access. Prior to initiating any project, consideration should be given to the proximity of the project site to recreational resources identified in the VOP.

There are no recreational facilities located in the project area.

c. Parks, Natural Areas, and Wildlife Management Areas

Parks, wildlife management areas, and natural areas are provided for the recreational pleasure of the citizens of the Commonwealth and the nation by local, state, and federal agencies. The recreational values of these areas should be protected and maintained.

There are no parks, natural areas or wildlife management areas located within the project area.

d. Waterfront Recreational Land Acquisitions

It is the policy of the Commonwealth to protect areas, properties, lands, or any estate or interest therein, of scenic beauty, recreational utility, historical interest, or unusual features which may be acquired, preserved, and maintained for the citizens of the Commonwealth.

This project does not limit the ability of the Commonwealth in any way to acquire, preserve, or maintain waterfront recreational lands.

e. Waterfront Recreational Facilities

This policy applies to the provision of boat ramps, public landings, and bridges which provide water access to the citizens of the Commonwealth. These facilities shall be designed, constructed, and maintained to provide points of water access when and where practicable.

This project does not involve the design, construction, or maintenance of any boat ramps, public landings, or bridges.

g. Waterfront Historic Properties

The Commonwealth has a long history of settlement and development, and much of that history has involved both shorelines and near-shore areas. The protection and preservation of historic shorefront properties is primarily the responsibility of the Department of Historic Resources. Buildings, structures, and sites of historical, architectural, and/or archaeological interest are significant resources for the citizens of the Commonwealth. It is the policy of the Commonwealth and the Virginia CZM Program to enhance the protection of buildings, structures, and sites of historical, architectural, and archaeological significance from damage or destruction when practicable.

No waterfront historic properties will be affected by this project.

Determination

Based upon the following information, data, and analysis, the U.S. Army Corps of Engineers, Norfolk District, finds that the Elizabeth River and Southern Branch Navigation Improvements Project is consistent, to the maximum extent practicable, with the enforceable policies of the Virginia Coastal Zone Management Program.

Pursuant to 15 CFR Section 930.41, the Virginia Coastal Resources Management Program has 60 days from receipt of this letter in which to concur with or object to this Consistency Determination, or to request an extension under CFR section 930.41 (b). Virginia's concurrence will be presumed if its response is not received by the U.S. Army Corps of Engineers on the 60th day from receipt of this determination.

_____ _____

Date

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