ENVIRONMENTAL APPENDIX C

CONTINUING AUTHORITIES PROGRAM, SECTION 204, BENEFICIAL USES OF DREDGED MATERIAL,

CEDAR ISLAND, VIRGINIA

Appendix C – Coastal Zone Management Act Federal Consistency Determination

US Army Corps of Engineers ®

COASTAL ZONE MANAGEMENT ACT
FEDERAL CONSISTENCY DETERMINATION FOR THE

CONTINUING AUTHORITIES PROGRAM, SECTION 204,
BENEFICIAL USES OF DREDGED MATERIAL,
CEDAR ISLAND, VIRGINIA

FEDERAL CONSISTENCY DETERMINATION

CONSISTENCY REVIEW: Information to support this Federal Consistency Determination (including maps and additional supporting information) can be found in the Continuing Authorities Program, Section 204, Beneficial Uses of Dredged Material, Final Integrated Feasibility Report/Environmental Assessment (IFR/EA).

PROJECT DESCRIPTION: The U.S. Army Corps of Engineers is the lead federal agency for this feasibility study and the non-Federal sponsor is the Commonwealth of Virginia acting through its agent the Virginia Marine Resources Commission.

The Water Resources Development Act of 1992, Continuing Authorities Program Section 204, provides authority for the U.S. Army Corps of Engineers (USACE) to beneficially use material dredged from authorized Federal navigational channels for the protection, restoration, and creation of aquatic and related habitats.

Cedar Island is a barrier island located within the Delmarva Peninsula in the Virginia Coast Reserve, the largest expanse of protected coastal habitat in the United States. Cedar Island is located centrally within the barrier island chain with the Metompkin Inlet separating Cedar Island from Metompkin Island to the north and Wachapreague Inlet separating Cedar Island from Parramore Island to the south. The western side of Cedar Island (referred to as the Cedar Island Back-barrier) is flanked by channels, tidal wetlands and marsh islands, lagoons, and mudflats. The Atlantic (eastern side) of Cedar Island comprised of beach and dune habitat and relic tidal wetlands. The coastal mainland Town of Wachapreague is located on the mainland, west of the Cedar Island Back-barrier.

This study area initially consisted of the Cedar Island and the associated Cedar Island Back-barrier. However, as the study progressed, the study area was scoped to only include the Cedar Island Back-barrier.

The primary goal of this project is to beneficially use the dredged material from the Finney Creek Channel and the Bradford Bay Channel for restoration and/or enhancements of the Cedar Island back-barrier tidal shoreline wetlands and/or marsh islands.

The Recommended Plan (or Preferred Alternative) is Alternative 1A which consists of thin-layer spraying of dredged material over the existing cordgrass-dominated Fools Gut Marsh Island to enhance and maintain the existing wetland system. Site 1 is located at

a 194 acre portion of the Fools Gut Marsh Island that is located across the navigation channel from the Wachapreague Marina in the Cedar Island Back-barrier. The thin-layer spraying would be done via a hydraulic cutterhead dredge equipped with a pipeline that would spray the dredged material from the Federal navigation channel sites that would include Finney Creek and Bradford Bay Channel to the southern portion of the Fools Gut Marsh Island.

Prior to the initial thin-layer spraying of dredged material, a topographic survey would be conducted to measure reference wetland elevations and to identify target spray wetland enhancement locations at Site 1. Physical field markers would be placed at the enhancement site with elevation target information to assist dredge/pipeline operators to correctly locate and place the correct volume of dredged material at the wetland site. Geospatial target wetland enhancement locations will also be provided to the dredge/pipeline operator. A turbidity curtain would be temporarily placed along the edge of the affected marsh island areas to reduce any potential turbidity issues that could be caused by thin-layer spraying into the adjacent navigation channel and Bradford Bay. A Biologist will be onsite during dredging operations to actively monitor marsh elevations and target spray application areas.

The quantity of dredged material sprayed during each treatment of the wetland site would be approximately 77,435 cubic yards.

The assumed project lifecycle is approximately 50 years. The project construction is anticipated to begin in year 2027 with the initial thin-layer spraying to occur over the 194 acres in Site 1. Topographic surveys followed by thin-layer spraying would then occur over the site as needed in year 2041 and 2055. The rehabilitations are assumed to use approximately the same dredging volume as the initial construction. This schedule was chosen to coincide with the dredging maintenance cycle that supports the Bradford Bay and Finney Creek navigation channel and anticipated sea level rise effects to ensure we spray at appropriate timeframes to ensure the marsh island is properly maintained.

PROPERTY CLASSIFICATION: The Fools Gut Marsh Island is an undeveloped tidal wetland habitat located in the Cedar Island Back-Barrier. The Bradford Bay and Finney Creek are authorized Federal navigation channels.

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

DETERMINATION: Based upon evaluation of impacts analyzed in the Final IFR/EA 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 Norfolk District, U.S. Army Corps of Engineers 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 Final IFR/EA.

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).

With implementation of Alternative 1A, use of the Bradford Bay Open-Water Disposal Site would be reduced or potentially eliminated during some dredging cycles. This would help to reduce potential burial (and smothering) and water quality impacts to the fish and benthic communities. This would result in a temporary and minor benefit to the fish and benthic communities located in and immediately adjacent to the open-water dredged material disposal site.

During dredged material placement activities at the Fools Gut Marsh Island there may be a negligible to minor increase in Total Suspended Solids and turbidity in the water column adjacent to the dredged material placement site. However, we would deploy a temporary, Type III Turbidy Curtain prior to placement operations in order to reduce the potential impacts to local water quality and the benthic and fish community during dredged material placement operations. Because the turbidity would be mitigated by Best Management Practices (BMPs), we would not anticipate any resulting burial or mortality of the benthic or fish communities. With implementation of Alternative 1A, fish species would likely escape any direct physical impacts from the placement of the thin-layer of dredged material due to the relatively slow progress of the placement. Most fish species would also have the ability to avoid areas temporarily impacted by increased turbidity. We would anticipate that impacts to the fish and benthic communities would be temporary, adverse, and negligible to minor.

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).

The scope of this project is limited to dredged material placement on the existing Fools Gut Marsh Island. The dredging operations would be covered under a separate EA and separate project authority and not within the scope of this project. Therefore, there would only be negligible to minor impacts to subtidal habitats resulting from adverse, temporary, negligible to minor Total Suspended Solids and turbidity into the water column from the beneficial dredged material placement activities. A Type III Turbidity Curtain would be deployed prior to any dredged material placement activities to reduce any potential impacts to water quality and subtidal habitats.

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.

Based on the results of our ecomodeling analysis detailed in the Final IFR/EA we would anticipate there would be substantive impacts to the Fools Gut Marsh Island in the Cedar Island Back-Barrier resulting from sea level rise starting in 2039 and potentially total loss of the marsh island by 2047. The thin-layer spraying will serve to preserve the existing marsh community and marsh diversity on the marsh island. The Fools Gut Marsh Island has a mixture of emergent, scrub-shrub, and forested wetlands and therefore, by maintaining this marsh island it will help to preserve vegetation community diversity. In addition, preservation of this marsh island may also help to mitigate erosion and storm threats to shoreline wetlands located west of the Fools Gut Marsh Island.

Best Management Practices would be put in place to ensure the proper volume and locations of beneficial use application will be applied to the marsh island. Vegetative and topographic surveys will be done prior to beneficial dredged material application to help ensure the proper thin-layer spraying locations are identified. Field stakes with elevation targets will be placed in the wetland to assist the dredge pipeline operators spray the appropriate volume of dredged material to the marsh island. If dredged material was oversprayed it could result in higher than planned elevations that could result in vegetation species community shifts and potentially invasion of the invasive common reed (*Phragmites australis*) that occurs in some of the high marsh shoreline

wetlands along Wachapreague. An Adaptive Management and Monitoring Plan has been developed and is provided in Appendix J of the Final IFR/EA that will be used to help address any potential project issues such as these that could occur out in the field. Overall, potential adverse effects would be addressed by the BMPs and also by the Monitoring and Adaptive Management Plan. Therefore, overall anticipated effects to wetlands would be beneficial. Therefore, anticipated effects to wetlands would be beneficial, temporary, and minor to moderate. No wetland or other resource mitigation would be required for 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 would 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.*).

Implementation of the Recommend Plan, Alternative 1A would be in compliance with Virginia's Erosion and Sediment Control Law. A Type III Turbidity Curtain would be deployed prior to any dredged material placement activities to reduce any potential impacts to water quality.

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.

Implementation of Alternative 1A would not generate any point source discharges and no VPDES Individual Permit would not be required.

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 Recommended Plan.

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).

There will be temporary, negligible to minor, air pollution increases from dredged material placement equipment, these increases will be short-term and below *de minimis* levels.

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.*).

This project would serve to enhance the Fools Gut Marsh Island and there would be no negative impacts to the Chesapeake Bay Preservation Act Resource Protection Area.

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.

The project would serve to enhance the Fools Gut Marsh Island located in the Cedar Island Back-barrier and would help to address some of the impacts of subsidence and sea level rise. Overall this project would serve to enhance and maintain approximately 194 acres of tidal marsh island that provides important wildlife habitat and fishery nursery areas. Also, utilization of the Bradford Bay Open-Water Dredged Material Disposal Site located in the subtidal area of Bradford Bay would be reduced which would help to reduce water quality and burial impacts to benthic fauna and the local fish community.

With implementation of Alternative 1A there would be some temporary, negative impacts to water quality and fishery resources during dredged material placement however these would be negligible to minor and largely controlled through deployment of a turbidity curtain.

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 constructed with implementation of Alternative 1A.

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 at the Bradford Bay and Finney Creek Channels and the Fools But Marsh Island; therefore, there are no commercial ports, commercial fishing piers, or community waterfronts located in the project area.

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 would 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, designated 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 of Virginia 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 would 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 Continuing Authorities Program, Section 204, Beneficial Uses of Dredged Material, Feasibility Report/Environmental Assessment 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.

7-17-19
Date

for
Susan Conner
Chief, Planning and Policy
Norfolk District, USACE