
ENVIRONMENTAL APPENDIX D

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

Appendix D – Coordination



**US Army Corps
of Engineers®**

Responses to Comments Received for the Continuing Authorities Program, Section 204, Cedar Island, Virginia, Beneficial Uses of Dredged Material, Draft Integrated Feasibility Report/Environmental Assessment

Commenter	Comment	Date Comment Provided	Comment Response
Commonwealth of Virginia, Department of Environmental Quality	Located in Appendix D, Letter from David K. Paylor, Director Commonwealth of Virginia Department of Environmental Quality and Matthew J. Strickler, Secretary of Natural Resources	6/18/2019	<p>Thank you for providing the conditional concurrence to the Coastal Zone Management Federal Consistency Determination. We concur that any special conditions that are required in the Virginia Marine Resources Commission are required to be followed. We concur that a Virginia Pollutant Discharge Elimination System is not required for this project. Please note that the fugitive dust precautions are not applicable to this project as this project would be conducted in tidal wetlands and also from a hydraulic dredge equipped with a pipeline. Therefore, dredged material would be contained within the dredge and pipeline apparatus. As requested we further investigated the petroleum releases that occurred within the vicinity of the project area and based on our analysis we did not find any evidence that they currently pose a contamination risk to our project. We added further text to Section 4.10 of the Integrated Feasibility Report/Environmental Assessment (IFR/EA) describing the results of our investigation. However, please note the Quinby site is more than 10 miles from our project area and we did not provide additional text on this site as we would not consider this site within our project's Region of Influence.</p>
			<p>Please note that six inches of thin-layer placement was used only for cost estimating and volume maximum analyses. Please note that prior to dredged material application a detailed examination of the topography and reference vegetation elevation data would be conducted prior to placement to determine planned thin-layer placement locations and target elevations. Thank you for the comment regarding use of elevated shell rakes. This can be considered as part of our implementation and adaptive management measures during project implementation.</p>
			<p>We concur that a monitoring and adaptive management plan for the project is required and this is provided in the IFR/EA Appendix J.</p>
			<p>The start date of approximately 2027 was selected to allow for accommodation of planned dredging cycles and to provide time for acquirement of needed project implementation funds. However, this is an approximately and implementation may occur prior to or after this date depending on planned dredging cycles and non-Federal (cost share) and federal funding availability.</p>

			Please note that our project is located at subtidal estuarine waters and tidal wetlands and there would be no anticipated impacts to public groundwater wells. Therefore, we are not planning to field mark wells located in uplands outside of our project impact area.
The Nature Conservancy	Located in Appendix D, Letter from Jill Bieri, Director, Virginia Coast Reserve	6/17/2019	We concur that an interdisciplinary team will be formed that will implement the project - this will include coastal engineers, surveyors, biologists, dredging experts/operators, and planners. Throughout the planning process we have used science-driven processes during the site selection process and this is detailed in Section 2 of the IFR/EA. We concur that science-driven assessment and analyses would continue throughout the project design and implementation. The project monitoring and adaptive management is a critical component of this project and could continue up to 5-10 years past the finalized dredged material placement event..
Accomack - Northampton Planning District Commission	Located in Appendix D, Letter from Curtis Smith, Director of Planning	6/13/2019	During the design and implementation phase of the project additional topographic data will be collected on existing elevations of marsh elevations and also on target reference vegetation elevations. Following the data collection, then additional details regarding topographic data restoration elevations can be determined. Please note the marsh edges are not planned to be at a higher elevation than the marsh interior elevations. We concur that understanding the topography changes between thin-layer placements is important; therefore, please note topographic surveys would be conducted prior to each thin-layer placement operation to ensure that proper thin-layer spraying elevation targets are set. We would look forward to continued coordination with subject matter experts and invite the sharing of references and information on the project. Please note that the survey/monitoring team has not yet been selected for this project and this would not be determined until the design and implementation phase of the project; the survey/monitoring would be conducted by subject matter experts with appropriate credentials.

U.S. Environmental Protection Agency	Located in Appendix D, Email from Carrie Traver, Life Scientist		<p>We concur that there are uncertainties with obtaining optimal elevations and that there is a risk of <i>Phragmites australis</i> invasion. Therefore, we added additional text describing this risk and uncertainty to Section 3.5. We concur that additional characterization of mudflats and vegetation in the Region of Influence would be beneficial. However, detailed mapping of vegetation and mudflats is not planned until the next phase of the project where this would be more fully investigated. The SAV investigation of the project sites was conducted by a 100% visual survey of the area. We do not plan to conduct this survey again in the design and implementation phase as the Recommended Plan occurs in the tidal wetland/mudflat system not in open water SAV habitat.</p>
			<p>Overall based on the magnitude of the project and the fact that we are enhancing an existing habitat there would be minimal impacts to subsidence fishing - we would not likely significantly affect fishery or wildlife populations. Also, this is a beneficial project so we would not anticipate adverse health effects to any member of the population. The coordination that was done with agencies, the public, and tribal governments is detailed in Section 1.7 of the IFR/EA.</p>
			<p>Please note that sea level rise would be a cumulative effect for the No Action/Future Without Project Alternative. We concur with the requested revision to Section 5.17 and have updated the text to indicate the sea level rise effects to wetlands for the No Action/Future Without Project Alternative. Concur to update the Finding of No Significant Impact (FONSI) with the latest coordination/consultation information - the FONSI has been updated.</p>

			<p>At this time we are not planning on a time of year restriction for the dredged material placement but this will be more fully investigated during the design and implementation phase of the project when we coordinate the environmental permits with regulatory agencies and review current wildlife monitoring data. There are no known migratory birds that nest on this particular island but should nesting of migratory birds occur on the island this would be carefully coordinated with regulatory agencies prior to any placement activities. Unfortunately we do not have any data on diamondback terrapins in the project area so their occurrence and nesting status is unknown at this time in the project area. In terms of blue crab impacts, this project overall would overall be highly beneficial as it would served to enhance blue crab nursery habitat. Please note that placement is limited to tidal wetlands and would be of limited elevation as we are enhancing an already existing tidal wetland system. Please note the final Endangered Species Act, Section 7 consultation and associated correspondence is provided in Appendix A and D of the IFR/EA. We concur that additional sediment characterization to determine suitability for wetland enhancement is warranted and this is planned for the design and implementation phase of the project.</p>
			<p>We did not plan on monitoring for wildlife in the area as there is already an extensive avian monitoring program in this area that is conducted by the Center for Conservation Biology. Therefore, our monitoring and adaptive management plan is more focused on hydrology, soil, and vegetation parameters.</p>
			<p>The adaptive monitoring and management schedule is provided in Table 4-1 of the Monitoring and Adaptive Management Plan that is provided in Appendix J. Prior to each dredged material cycle placement, effects of sea level rise and existing topographic levels will be carefully investigated to allow for appropriate placement of dredged material. Please note should additional information be gleaned that would be beneficial for adaptive management, the adaptive management plan can be regularly updated as is noted in Section 1 of the Monitoring and Adaptive Management Plan. It is meant to be a dynamic document that can be updated as needed to best enhance the project performance.</p>

<p>Virginia Coast Reserve Long Term Ecological Research</p>	<p>Located in Appendix D, Email from Cora Johnston, Site Director</p>	<p>6/18/2019</p>	<p>We concur that monitoring and adaptive management are critical to the success of the project. The Monitoring and Adaptive Management Plan is provided as Appendix J in the IFR/EA. We concur that additional sediment characterization to determine suitability for wetland enhancement is warranted and this is planned during the design and implementation phase of the project. Thank you for the information and points of contact regarding monitoring for this project - this is very helpful. We will look forward to coordinating with you further in the future on the marsh accretion data/studies.</p>
	<p>Located in Appendix D, Letter from John Joeckel</p>	<p>6/18/2019</p>	<p>Thank you for your support of the Recommended Plan. We would look forward to continued coordination during the design and implementation phase with experts and interested stakeholders. The contractor that would be performing the thin-layer dredged material placement has not yet been selected and this would be determined during the design and implementation phase; we concur that the contractor must have appropriate credentials to perform the work. During the design and implementation phase of the project additional topographic data will be collected on existing elevations of marsh elevations and also on target reference vegetation elevations. Following the additional data collection then additional details regarding topographic data restoration elevations can be determined. Please note the marsh edges are not planned to be at a higher elevation than the marsh interior elevations. We concur that understanding the topography changes between thin-layer placements is important; therefore, please note topographic surveys would be conducted prior to each thin-layer placement operation to ensure that proper thin-layer spraying elevation targets are set.</p>
			<p>In regards to sedimentation of tidal creeks at the site, the overall goal would be to restore the hydrology and vegetation of the site to a more historical condition. Therefore, we would work to protect natural, historical creeks from potential sedimentation effects (during dredged material placement) utilizing techniques such as turbidity curtains or other potential technologies as appropriate. The plan formulation and site screening selection process for this study is detailed in Section 2 of the IFR/EA.</p>

U.S. Fish and Wildlife Service	Located in Appendix I, Letter from Genevieve LaRouche, Field Supervisor, Chesapeake Bay Field Office	6/13/2019	Thank you for your support of the Recommended Plan. We concur that vegetation monitoring and adaptive management of this project is included and this includes the invasive <i>Phragmites australis</i> (if this species occurs at Site 1 in the future). The Monitoring and Adaptive Management Plan for this project is included as Appendix J of the IFR/EA. Section 4.3 of the Monitoring and Adaptive Management Plan describes the monitoring and success criteria associated with this invasive species and associated adaptive management action. In regards to restoration of vegetation our overall goal is to restore the natural hydrology and vegetation of the site. Currently the site has a variety of vegetation and elevational gradients which will allow for a diversity of vegetation heights and elevational gradients.
Vernon and Cathey Bell	Located in Appendix D, written comment provided at public meeting	6/4/2019	Thank you for your support of the Recommended Plan.



COMMONWEALTH of VIRGINIA

Marine Resources Commission

380 Fenwick Road

Building 96

Fort Monroe, VA 23651

Matthew J. Strickler
Secretary of Natural Resources

Steven G. Bowman
Commissioner

July 9, 2019

Ms. Susan Conner, Chief
Planning & Policy Branch
Department of the Army
U.S. Army Corps of Engineers, Norfolk District
Fort Norfolk
803 Front Street
Norfolk, Virginia 23510

Re: Draft Integrated Feasibility Report
and Environmental Assessment –
Cedar Island Back-barrier

Dear Ms. Conner:

This is to offer our support for submittal of the Draft Integrated Feasibility Report and Environmental Assessment for the beneficial use of dredged material from Finney Creek Channel and the Bradford Bay Channel for enhancement and restoration of the Cedar Island Back-barrier marsh wetlands.

As planning for this project is finalized, we will continue to evaluate options for local sponsorship and to identify funding opportunities to meet cost share requirements by the non-federal sponsor.

Thank you for your work on this issue and identification of opportunities for ecosystem restoration, erosion control and shoreline protection for coastal communities on Virginia's Eastern Shore.

Sincerely,

A handwritten signature in black ink, appearing to read "Tony Watkinson", with a long horizontal flourish extending to the right.

Tony Watkinson
Chief, Habitat Management Division

TW/lra
HM

cc: Matthew J. Strickler, Secretary of Natural Resources
Steven G. Bowman, Commissioner

An Agency of the Natural Resources Secretariat

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Matthew J. Strickler
Secretary of Natural Resources

David K. Paylor
Director

(804) 698-4000
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June 18, 2019

Richard M. Harr, PWS, CES
Water Resources Division
Planning and Policy Branch
Planning Resource Section
Norfolk District, U.S. Army Corps of Engineers
803 Front Street
Norfolk, Virginia 23510

RE: Comments on the Draft Integrated Feasibility Report and Environmental Assessment and Federal Consistency Determination for the Continuing Authorities Program, Section 204, Beneficial Uses of Dredged Material, Cedar Island proposed by the U.S. Army Corps of Engineers, Accomack County, VA (DEQ 19-047F)

Dear Mr. Harr:

The Commonwealth of Virginia has completed its review of the above-referenced documents. The Department of Environmental Quality (DEQ) is responsible for coordinating Virginia's review of federal environmental documents submitted under the National Environmental Policy Act (NEPA) and responding to appropriate federal officials on behalf of the Commonwealth. DEQ is also responsible for coordinating Virginia's review of federal consistency documents submitted pursuant to the Coastal Zone Management Act (CZMA) and providing the state's response. This is in response to the April 16, 2019 Draft Integrated Feasibility Report and Environmental Assessment (EA) and Federal Consistency Determination (FCD) submitted by the U.S. Army Corps of Engineers (Corps) and received by DEQ on May 9, 2019 for the above referenced project. The following agencies participated in the review of this proposal:

Department of Environmental Quality
Department of Game and Inland Fisheries (DGIF)
Department of Conservation and Recreation (DCR)
Department of Health (VDH)
Department of Historic Resources (DHR)
Marine Resources Commission (VMRC)
Virginia Institute of Marine Sciences (VIMS)

In addition, Accomack County, the Town of Wachapreague, and the Accomack-Northampton Planning District Commission and Accomack County were invited to comment on the proposal.

PROJECT DESCRIPTION

The U.S. Army Corps of Engineers (Corps) proposes to conduct the Continuing Authorities Program, Section 204, Beneficial Uses of Dredged Materials, Cedar Island project off of the Atlantic coast of Accomack County, Virginia. The purpose of the project is the beneficial reuse of dredged material from the Finney Creek Channel and the Bradford Bay Channel (federal navigation channels). The Preferred Alternative (Alternative 1A) consists of thin-layer spraying of dredged material over a 194-acre portion of the existing cordgrass-dominated Fools Gut Marsh Island (Site 1A) to enhance the existing wetland. The Fools Gut Marsh Island is located across the navigation channel from the Wachapreague Marina in the Cedar Island Back-barrier tidal wetlands system. The spraying would be completed via a hydraulic cutterhead dredge with a pipeline that would spray the dredged material from the federal navigation channel sites to the southern portion of Fools Gut Marsh Island. The quantity of dredged material is estimated to be 77,435 cubic yards per treatment.

The project lifecycle is approximately 50 years, beginning in 2027 with the initial thin-layer spraying at Site 1A. Topographical surveys followed by the thin-layer spraying would occur again in 2041 and 2055; this schedule coincides with the dredging maintenance cycle for the Bradford Bay and Finney Creek navigation channels and anticipated sea level rise effects. The thin-layer spraying will ensure that the marsh island is properly maintained. The action is limited to placement of the dredged material; the dredging activity is accomplished under a separate authority.

In addition, the Draft Report/EA includes a Federal Consistency Determination (Appendix C) which finds the proposed action consistent to the maximum extent practicable with the enforceable policies of the Virginia Coastal Zone Management Program.

ENVIRONMENTAL IMPACTS AND MITIGATION

1. Wetlands. According to the Draft Report/EA (page 130), Alternative 1A (thin-layer spraying to enhance Fools Gut Marsh Island) would improve the project site by enhancing elevations of the cordgrass-dominated marsh island. The Fools Gut Marsh Island is comprised of emergent, scrub-shrub, and forested tidal wetlands. The action will help preserve the marsh community and diversity in the face of sea level rise. Preservation of the marsh island may reduce erosion and storm threats to shoreline wetlands. Overall, impacts to tidal wetlands are expected to be temporary, minor to moderate and beneficial in the long-term.

During dredge material placement there may be a temporary, minor increase in total suspended solids and turbidity in the water column. This impact will be mitigated by utilizing a Type III Turbidity Curtain.

The Draft Report/EA does not indicate that non-tidal wetlands will be impacted.

1(a) Agency Jurisdiction.

1(a)(i) DEQ. The State Water Control Board promulgates Virginia's water regulations covering a variety of permits to include the [Virginia Pollutant Discharge Elimination System Permit](#) (VPDES) regulating point source discharges to surface waters, Virginia Pollution Abatement Permit regulating sewage sludge, storage and land application of biosolids, industrial wastes (sludge and wastewater), municipal wastewater, and animal wastes, the [Surface and Groundwater Withdrawal Permit](#), and the [Virginia Water Protection \(VWP\) Permit](#) regulating impacts to streams, wetlands, and other surface waters. The VWP permit is a state permit which governs wetlands, surface water, and surface water withdrawals and impoundments. It also serves as §401 certification of the federal Clean Water Act §404 permits for dredge and fill activities in waters of the U.S. The VWP Permit Program is under the Office of Wetlands and Stream Protection, within the DEQ Division of Water Permitting. In addition to central office staff that review and issue VWP permits for transportation and water withdrawal projects, the six DEQ regional offices perform permit application reviews and issue permits for the covered activities:

- Clean Water Act, §401;
- Section 404(b)(i) Guidelines Mitigation Memorandum of Agreement (2/90);
- State Water Control Law, [Virginia Code](#) section 62.1-44.15:20 *et seq.*; and
- State Water Control *Regulations*, 9 VAC 25-210-10.

1(a)(ii) VMRC. The Virginia Marine Resources Commission exerts jurisdiction over impacts to tidal wetlands pursuant to Virginia Code 28.2-1301 through 28.2-1320.

1(b) Agency Findings.

1(b)(i) DEQ. The VWP program at the DEQ Tidewater Regional Office (TRO) did not indicate that non-tidal wetlands would be impacted. Upon receipt of a Joint Permit Application (JPA), DEQ TRO will determine the need for a VWP Permit.

1(b)(ii) VMRC. VMRC stated that the wetland area selected for the thin-layer placement is privately owned.

1(c) Requirement. A VMRC/ local wetlands board permit for tidal wetlands impacts is required. Submit a Joint Permit Application (JPA) to VMRC initiate the permit review process. The applicant must adhere to any special conditions included in the permit.

1(d) CZMA Federal Consistency. On the condition that a JPA is submitted for the project and the required tidal wetlands permit is obtained, the project would be consistent to the maximum extent practicable with the wetlands management enforceable policy of the CZM Program (see Federal Consistency under the CZMA section below for additional information).

2. Subaqueous Lands. The FCD (Appendix C) indicates that subaqueous lands would experience minor impacts from increased total suspended solids (TSS) and turbidity in the water column during material placement. The dredging operation is not within the scope of work of this project.

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

2(b) Agency Finding. VMRC had no comments on anticipated impacts on state-owned submerged lands.

2(c) CZMA Federal Consistency. As proposed, this project is consistent to the maximum extent practicable with the subaqueous lands management enforceable policy of the CZM Program (see Federal Consistency under the CZMA section below for additional information).

3. Dunes Management. The FCD (Appendix C) indicates that dunes will not be impacted.

3(a) Agency Jurisdiction. 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).

3(b) Agency Finding. VMRC stated that there are no beaches or coastal primary sand dunes in close proximity to the project area.

3(c) CZMA Federal Consistency. As proposed, the project is consistent to the maximum extent practicable with the dunes management enforceable policy of the CZM Program (see Federal Consistency under the CZMA section below for additional information).

4. Erosion and Sediment Control and Stormwater Management. According to the Draft Report/EA (page 131), during dredge material placement, a Type III Turbidity Curtain will be utilized to minimize erosion and sediment in the water column.

4(a) Agency Jurisdiction. The DEQ [Office of Stormwater Management](#) administers the following laws and regulations governing construction activities:

- Virginia Erosion and Sediment Control (ECS) Law (§ 62.1-44.15:51 *et seq.*) and Regulations (9VAC25-840) (*VESCL&R*);
- Virginia Stormwater Management Act (§ 62.1-44.15:24 *et seq.*) (*VSWML*);
- Virginia Stormwater Management Program (VSMP) regulation (9VAC25-870) (*VSWMR*); and
- 2014 General Virginia Pollutant Discharge Elimination System (VPDES) Permit for Discharges of Stormwater from Construction Activities (9VAC25-880).

In addition, DEQ is responsible for the Virginia Stormwater Management Program (VSMP) General Permit for Stormwater Discharges from Construction Activities related to Municipal Separate Storm Sewer Systems (MS4s) and construction activities for the control of stormwater discharges from MS4s and land disturbing activities under the Virginia Stormwater Management Program (9VAC25-890-40).

4(b) Requirements.

4(b)(i) Erosion and Sediment Control and Stormwater Management. The Corps and its authorized agents conducting regulated land-disturbing activities on private and public lands in the state must comply with *VESCL&R* and Virginia Stormwater Management Laws and Regulations (*VSWML&R*), including coverage under the general permit for stormwater discharges from construction activities, and other applicable federal non-point source pollution mandates (e.g. Clean Water Act-Section 313, federal consistency under the Coastal Zone Management Act). Clearing and grading activities, installation of staging areas, parking lots, roads, buildings, utilities, borrow areas, soil stockpiles, and related land-disturbing activities that result in the total land disturbance of equal to or greater than 10,000 square feet (2,500 square feet in lands analogous to Chesapeake Bay Preservation Areas) would be regulated by *VESCL&R*. Accordingly, the Corps must prepare and implement an erosion and sediment control (ESC) and stormwater management (SWM) plan to ensure compliance with state law and regulations. The ESC/SWM plan should be submitted to the DEQ Regional Office that serves the areas where the project is located for review for compliance. The applicant is ultimately responsible for achieving project compliance through oversight of on-site contractors, regular field inspection, prompt action against non-compliant sites, and other mechanisms consistent with agency policy.

4(b)(ii) Virginia Stormwater Management Program General Permit for Stormwater Discharges from Construction Activities (VAR10). The operator or owner of a construction activity involving land disturbance of equal to or greater than 1 acre is required to register for coverage under the General VPDES Permit for Discharges of Stormwater from Construction Activities and develop a project specific stormwater pollution prevention plan (SWPPP). The SWPPP must be prepared prior to submission of the registration statement for coverage under the General Permit, and it must

address water quality and quantity in accordance with the *Virginia Stormwater Management Program (VSMP) Regulations*. General information and registration forms for the General Permit are available on DEQ's website at www.deq.virginia.gov/Programs/Water/StormwaterManagement/VSMPPermits/ConstructionGeneralPermit.aspx.

4(c) CZMA Federal Consistency. The project would be consistent to the maximum extent practicable with the nonpoint source pollution control enforceable policy of the Virginia CZM Program, provided the activities comply with the above requirements, and applicable permits are obtained as necessary (see Federal Consistency under the CZMA section below for additional information).

5. Point Source Pollution Control. The FCD (Appendix C) states that the project will not create any point source discharges.

5(a) Agency Jurisdiction. 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 are administered under the Virginia Water Protection Permit program.

5(b) Agency Finding. TRO stated that there do not appear to be any proposed discharges that would necessitate a VPDES permit.

5(c) CZMA Federal Consistency. As proposed, the project is consistent to the maximum extent practicable with the point source pollution control enforceable policy of the Virginia CZM Program (see Federal Consistency under the CZMA section below for additional information).

6. Chesapeake Bay Preservation Areas. The FCD (Appendix C) states that the project will enhance Fools Gut Marsh Island and would not have any negative impacts on Chesapeake Bay Preservation Areas.

6(a) Agency Jurisdiction. The DEQ Office of Local Government Programs (OLGP) administers the Chesapeake Bay Preservation Act (Virginia Code §62.1-44.15:67 *et seq.*) and Chesapeake Bay Preservation Area Designation and Management Regulations (9 VAC 25-830-10 *et seq.*). Each Tidewater locality must adopt a program based on the Chesapeake Bay Preservation Act and the Chesapeake Bay Preservation Area Designation and Management Regulations. The Act and regulations recognize local government responsibility for land use decisions and are designed to establish a framework for compliance without dictating precisely what local programs must look like. Local governments have flexibility to develop water quality preservation programs that reflect unique local characteristics and embody other community goals. Such flexibility

also facilitates innovative and creative approaches in achieving program objectives. The regulations address nonpoint source pollution by identifying and protecting certain lands called Chesapeake Bay Preservation Areas. The regulations use a resource-based approach that recognizes differences between various land forms and treats them differently.

6(b) Agency Findings. The proposed project is located in the Atlantic Ocean watershed and is outside of the Chesapeake Bay watershed; thus there are no comments or requirements under the Chesapeake Bay Preservation Area Designation and Management Regulations or the *Chesapeake Bay Preservation Act*.

6(c) CZMA Federal Consistency. The project is located outside of the Chesapeake Bay watershed. Therefore, the project is consistent to the maximum extent practicable with the coastal lands management enforceable policy of the Virginia CZM Program (see Federal Consistency under the CZMA section below for additional information).

7. Air Pollution Control. According to the Draft Report/EA (page 115), emissions from heavy equipment used during dredge material placement would be directly emitted. However due to the small size of the project and the temporary nature of the activity, the impacts to air quality are expected to be negligible to minor.

7(a) Agency Jurisdiction. The [DEQ Air Division](#), on behalf of the State Air Pollution Control Board, is responsible for developing regulations that implement Virginia's Air Pollution Control Law (Virginia Code §10.1-1300 et seq.). DEQ is charged with carrying out mandates of the state law and related regulations as well as Virginia's federal obligations under the Clean Air Act as amended in 1990. The objective is to protect and enhance public health and quality of life through control and mitigation of air pollution. The division ensures the safety and quality of air in Virginia by monitoring and analyzing air quality data, regulating sources of air pollution, and working with local, state and federal agencies to plan and implement strategies to protect Virginia's air quality. The appropriate DEQ regional office is directly responsible for the issuance of necessary permits to construct and operate all stationary sources in the region as well as monitoring emissions from these sources for compliance. In the case of certain projects, additional evaluation and demonstration must be made under the general conformity provisions of state and federal law.

The Air Division regulates emissions of air pollutants from industries and facilities and implements programs designed to ensure that Virginia meets national air quality standards. The most common regulations associated with major projects are:

- Open burning: 9 VAC 5-130 *et seq.*
- Fugitive dust control: 9 VAC 5-50-60 *et seq.*
- Permits for fuel-burning equipment: 9 VAC 5-80-1100 *et seq.*

7(b) Agency Findings. According to the DEQ Air Division, the project site is located in

a designated ozone attainment area.

7(c) Requirements.

7(c)(i) Fugitive Dust. During construction, fugitive dust must be kept to a minimum by using control methods outlined in 9 VAC 5-50-60 *et seq.* of the *Regulations for the Control and Abatement of Air Pollution*. These precautions include, but are not limited to, the following:

- Use, where possible, of water or chemicals for dust control;
- Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials;
- Covering of open equipment for conveying materials; and
- Prompt removal of spilled or tracked dirt or other materials from paved streets and removal of dried sediments resulting from soil erosion.

7(c)(ii) Open Burning. If project activities include the open burning of construction material or the use of special incineration devices, this activity must meet the requirements under 9 VAC 5-130 *et seq.* of the *Regulations* for open burning, and may require a permit. The *Regulations* provide for, but do not require, the local adoption of a model ordinance concerning open burning. The applicant should contact locality officials to determine what local requirements, if any, exist.

7(d) CZMA Federal Consistency. The project will be consistent to the maximum extent practicable with the air pollution control enforceable policy of the CZM Program, provided adherence to the above requirements (see Federal Consistency under the CZMA section below for additional information).

8. Solid and Hazardous Wastes and Hazardous Materials. The Draft Report/EA (page 123) notes that there is no history or evidence of environmental contamination at the project site. Implementation of Alternative 1A is not expected to result in a release of hazardous, toxic, or radioactive waste. A database review did not identify any waste sites of concern in Accomack County or the local area.

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

spills.

Virginia:

- Virginia Waste Management Act, Virginia Code § 10.1-1400 *et seq.*
- *Virginia Solid Waste Management Regulations*, 9 VAC 20-81
 - (9 VAC 20-81-620 applies to asbestos-containing materials)
- *Virginia Hazardous Waste Management Regulations*, 9 VAC 20-60
 - (9 VAC 20-60-261 applies to lead-based paints)
- *Virginia Regulations for the Transportation of Hazardous Materials*, 9 VAC 20-110.

Federal:

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

8(b) Agency Findings. The DEQ DLPR conducted a search of solid and hazardous waste databases using a 1,000-foot radius. Three petroleum release sites were identified within the project area.

Petroleum releases in close proximity to the project area:

1. PC Number 20185224, Wachapreague Marina, 15 Atlantic Avenue, Wachapreague, Virginia 23480, Release Date: 04/05/2018, Status: Closed.
2. PC Number 19982216, USCG Parramore Beach Station, 42 Atlantic Avenue, Wachapreague, Virginia 23840, Release Date: 03/19/1997, Status: Closed.
3. PC Number 20195209, Walker Revel Property, 20235 Quinby Bridge Rd, Quinby, Virginia 23423, Release Date: 05/07/2019, Status: Open.

8(c) Recommendation. The DEQ's Pollution Complaint (PC) cases identified above should be further evaluated by the project engineer or manager to establish the exact location, nature and extent of the petroleum release and the potential to impact the proposed project. In addition, the project engineer or manager should contact the DEQ's Tidewater Regional Office at (757) 518-2000 (Tanks Program) for further information about the PC cases.

8(d) Requirements.

8(d)(i) Waste Management. Any soil or groundwater that is suspected of contamination

or wastes that are generated during construction-related activities must be tested and disposed of in accordance with applicable federal, state, and local laws and regulations. All construction waste, including excess soil, must be characterized in accordance with the *Virginia Hazardous Waste Management Regulations* prior to disposal at an appropriate facility. It is the generator's responsibility to determine if solid waste meets the criteria of a hazardous waste and is subsequently managed appropriately.

8(d)(ii) Petroleum Releases. If evidence of a petroleum release is discovered during implementation of this project, it must be reported to DEQ, as authorized by Virginia Code § 62.1-44.34.8 through 9 and 9 VAC 25-580-10 *et seq.*

8(e) Pollution Prevention Recommendation. DEQ recommends that the Corps implement pollution prevention principles, including the reduction, reuse, and recycling of all solid wastes generated. All generation of hazardous wastes should be minimized and handled appropriately.

9. Natural Heritage Resources. The Draft Report/EA (page 117) notes that implementation of Alternative 1A would result in a reduction or potential elimination during some dredging cycles of the use of the Bradford Bay Open-Water Disposal Site. This will reduce the burial and smothering of the benthic community at that site. At the dredge placement site, the use of a Type III Turbidity Curtain will reduce the potential impacts to the benthic community during active dredge placement operations.

9(a) Agency Jurisdiction.

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

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

9(b) Agency Findings. DCR's Division of Natural Heritage (DNH) searched its Biotics Data System for occurrences of natural heritage resources in the project vicinity. Biotics documents the presence of natural heritage resources within two miles of the project

area. However, due to the scope of the activity and the distance to the resources, DCR DNH does not anticipate that this project will adversely impact these natural heritage resources

9(b)(i) State-listed Plant and Insect Species. DCR found that the proposed project will not affect any documented state-listed plants or insects.

9(b)(ii) State Natural Area Preserves. There are no State Natural Area Preserves under DCR's jurisdiction in the project vicinity.

9(c) Recommendations. Contact DCR-DNH to secure updated information on natural heritage resources if the scope of the project changes and/or six months has passed before it is utilized. New and updated information is continually added to the Biotics Data System.

10. Wildlife Resources, Fisheries, and Protected Species. The Draft Report/EA (page 120) notes due to the reduction or potential elimination during some dredging cycles of the use of the Bradford Bay Open-Water Disposal Site, the benthic prey and fish community will benefit from a reduction in the burial of the benthic community at that site and a reduction in turbidity in the water column. Additionally, the action is expected to enhance the tidal marsh island habitat at the Fools Gut Marsh Island, to the benefit of wildlife that uses the habitat (Draft Report/EA, page 133).

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

10(b) Agency Findings.

10(b)(i) DGIF Findings. DGIF has reviewed the Recommended Plan (Preferred Alternative; Alternative 1A) for beneficial use of dredged material from the Bradford Bay and Finney Creek navigation channels. DGIF notes that this activity is expected to result in application of six inches of material in the enhancement sites and two inches in wetland restoration areas. As stated in the EA for the project, Virginia's barrier islands represent a unique and fragile ecosystem. The islands serve as important breeding, feeding, and stopover sites for a number of migratory birds, bats, and sea turtles. A number of the species that inhabit the marshes, beaches, flats, and waters found along the barrier islands for some part or all of the year are listed as federal and/or state

threatened or endangered or are included within DGIF's list of Species of Greatest Conservation Need (SGCN).

From Fools Gut Marsh (the project area) and nearby environs, DGIF documents the following listed species and high priority Species of Greatest Conservation Need:

- state threatened gull-billed terns
- state threatened peregrine falcons
- northern diamond-backed terrapins (SGCN Tier IIa)
- American oystercatchers (SGCN Tier IIa)
- laughing gulls (SGCN Tier IVa)
- Forster's terns (SGCN Tier IIa)

In addition to the above species documented from the project area, other listed and imperiled species have the potential to occur in the area if suitable habitats exist. Depending on when and how dredged materials are placed on Fools Gut Marsh it may adversely impact species and resources under DGIF's jurisdiction, including listed species. However, this activity also has the potential to result in significant habitat lift for some of the most imperiled species. For example, laughing gulls and Forster's terns, which nest in marshes and are highly impacted by tidal inundation, could benefit greatly from the increase in marsh elevation resulting from application of dredged materials at Fools Gut Marsh.

10(b)(ii) VIMS Findings. VIMS noted that the proposed placement area of Fools Gut Marsh should benefit from the addition of sediment. Sediment influxes into the area during normal tide cycles have been restricted, particularly along the west side of the marsh along Finney Creek, due to the artificial levee. Sediment addition via thin-layering will increase the height of the marsh platform, increasing the area at appropriate tidal elevations for marsh plants to grow.

The sediment addition will also impact fauna on the target marsh and these impacts are also expected to be temporary. If an area is covered with too much sediment, there is a risk of smothering the existing vegetation and potentially allowing *Phragmites australis* to colonize the higher platform. Approximately six inches of sediment deposition with a two-inch allowance is proposed, which may prove too thick for vegetation survival so planting may be necessary.

Refer to the attached letter from VIMS dated June 14, 2019 for further details.

10(c) DGIF Recommendation. Implement the project with all appropriate sediment and erosion controls in place. Continue to coordinate with the U.S. Fish and Wildlife Service (FWS) and implement the Conservation Measures included within the Biological Opinion for the project.

10(c)(i) Habitat Enhancement. To improve the diversity of species and habitats available at Fools Gut Marsh over the long term, and to support American oystercatcher

conservation, DGIF recommends designing the marsh restoration project such that it includes, where appropriate, deposition of shell material on the outer fringe of marshes to form elevated shell rakes that serve as suitable nesting and roosting habitat for this species and to restore existing shell rakes that are no longer suitable due to erosion and marsh subsidence. DGIF is available to assist the Corps in development of such habitats. Coordinate closely with DGIF's Eastern Shore Biologist, Ruth Boettcher, at 757-709-0766 or Ruth.Boettcher@dgif.virginia.gov, regarding potential impacts upon listed and imperiled wildlife as well as ways to design the project to enhance suitability of the resulting marshes for native wildlife prior to completion of the Final EA for this project and as the project progresses.

10(c)(ii) Monitoring. Restoration/resiliency projects such as that which is being proposed are inherently risky endeavors. This is a dynamic system facing climate change, with accompanying sea level rise and increased storm intensities. To best address the risks involved with this initiative, DGIF recommends that significant pre- and post-project monitoring be performed and that an adaptive management plan be developed for the project. DGIF recommends that any monitoring and adaptive management plans be geared towards 1) monitoring deviations from as-built design and addressing significant shifts; 2) monitoring vegetation within the enhanced and created marshes and wetlands to document changes over time; and 3) monitoring and quantifying project success. The monitoring plan should include triggers for corrective actions to be implemented per an adaptive management plan as well annual reporting requirements. The monitoring results should be leaned upon for understanding when designing future phases of this project.

10(d) VIMS Recommendation. Ideally, the first addition of sediment should occur prior to 2027, as vegetated area is rapidly decreasing. Care should be taken during the thin-layering to avoid the build-up of material at the edges of the project site, which could act as additional levees.

VIMS recommends strict adherence to the monitoring and corrective actions outlined within the project Monitoring and Adaptive Management Plan.

10(e) DGIF Conclusion. DGIF defers the federal consistency determination to VMRC since the site drains to marine waters.

10(f) CZMA Federal Consistency. The proposed project will be consistent to the maximum extent practicable with the fisheries management enforceable policy of the CZM Program, provided Corps obtains and complies with any applicable conditions of the VMRC permit.

11. Public Water Supply. The Section 404(b)(1) Evaluation contained in Appendix B of the Draft Report/EA states that the project will not affect municipal or private water supplies.

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

11(b) Agency Findings. VDH-ODW found that the following public groundwater wells are located within a 1-mile radius of the project site:

<u>PWS ID</u>	<u>City/County</u>	<u>System Name</u>	<u>Facility Name</u>
*3001894	Accomack	Wachapreague Hotel	Well 2
*3001892	Accomack	Island House Restaurant	2010 Well
3001731	Accomack	Rick Hall_Judge Gunter House MLC	Well

*denotes well located within a 1,000-foot radius of the site

11(c) Agency Recommendations. Employ best management practices, including erosion and sedimentation controls and spill prevention controls and countermeasures on the project site. Field mark wells located within a 1,000-foot radius from the project site to protect them from accidental damage during construction.

12. Historic and Archeological Resources. The Draft Report/EA (page 119) states that there is the possibility for early prehistoric sites in the area of potential effect, dating from 6,000 years ago when sea levels were lower. However, thin layer spraying of sediment will not disturb any archaeological resources. A no adverse effect to historic properties determination was made by the Corps and DHR has concurred.

12(a) Agency Jurisdiction. The Department of Historic Resources (DHR) conducts reviews of projects to determine their effect on historic structures or cultural resources under its jurisdiction. DHR, as the designated State’s Historic Preservation Office, ensures that federal actions comply with Section 106 of the National Historic Preservation Act of 1962 (NHPA), as amended, and its implementing regulation at 36 CFR Part 800. The NHPA requires federal agencies to consider the effects of federal projects on properties that are listed or eligible for listing on the National Register of Historic Places. Section 106 also applies if there are any federal involvements, such as licenses, permits, approvals or funding. DHR also provides comments to DEQ through the state environmental impact report review process.

12(b) Agency Findings. The Corps and its agents have been in direct consultation with DHR pursuant to Section 106 of the National Historic Preservation Act regarding this project. The parties have reached a consensus that the CAP Section 204 Beneficial Uses of Dredged Material, Cedar Island, VA (DHR File No. 2018-3259) project will result in no adverse effect to historic properties.

13. Pollution Prevention. DEQ advocates that principles of pollution prevention and sustainability be used in all construction projects as well as in facility operations. Effective siting, planning, and on-site BMPs will help to ensure that environmental impacts are minimized. However, pollution prevention and sustainability techniques also include decisions related to construction materials, design, and operational procedures that will facilitate the reduction of wastes at the source.

13(a) Recommendations. We have several pollution prevention recommendations that may be helpful in the implementation of this project:

- Consider development of an effective Environmental Management System (EMS). An effective EMS will ensure that the proposed facility is committed to complying with environmental regulations, reducing risk, minimizing environmental impacts, setting environmental goals, and achieving improvements in its environmental performance. DEQ offers EMS development assistance and recognizes facilities with effective Environmental Management Systems through its Virginia Environmental Excellence Program (VEEP). VEEP provides recognition, annual permit fee discounts, and the possibility for alternative compliance methods.
- Consider environmental attributes when purchasing materials. For example, the extent of recycled material content, toxicity level, and amount of packaging should be considered and can be specified in purchasing contracts.
- Consider contractors' commitment to the environment (such as an EMS) when choosing contractors. Specifications regarding raw materials and construction practices can be included in contract documents and requests for proposals.
- Choose sustainable materials and practices for infrastructure construction and design, including choosing materials that contain recycled materials.

DEQ's Office of Pollution Prevention provides information and technical assistance relating to pollution prevention techniques and EMS. For more information, contact DEQ's Office of Pollution Prevention, Meghann Quinn at (804) 698-4021.

FEDERAL CONSISTENCY UNDER THE COASTAL ZONE MANAGEMENT ACT

Pursuant to the Coastal Zone Management Act of 1972 (§ 1456(c)), as amended, and the federal consistency regulations implementing the CZMA (15 CFR Part 930, Subpart C, § 930.30 *et seq.*), federal actions that can have reasonably foreseeable effects on Virginia's coastal uses or resources must be conducted in a manner which is consistent, to the maximum extent practicable, with the Virginia Coastal Zone Management (CZM) Program. The CZM Program is comprised of a network of programs administered by several agencies. In order to be consistent with the CZM Program, the federal agency must obtain all the applicable permits and approvals listed under the enforceable policies of the CZM Program prior to commencing the project.

Federal Consistency Public Participation

In accordance with 15 CFR § 930.2, public notice of the proposed action was published in the OEIR Program Newsletter and on DEQ's web site from May 17, 2019 to June 4, 2019. No public comments were received in response to the notice.

Federal Consistency Determination

A Federal Consistency Determination for the proposed project was included in Appendix C of the Draft Report/EA received on May 9, 2019. The document provided an analysis of the project's impact on each of the nine enforceable policies. According to the FCD, the project will be consistent to the maximum extent practicable with Virginia's Coastal Zone Management Program.

The FCD states that proposed activity will have no effect on the following enforceable policies of the Coastal Zone Management Program: dunes management, point source pollution control, coastal lands management and shoreline sanitation.

The project is expected to affect the following enforceable policies: fisheries management, subaqueous lands management, wetlands management, non-point source pollution control, and air pollution control. These impacts and jurisdictional agency comments, recommendations, and requirements are discussed above in the "Environmental Impacts and Mitigation" section of this document.

Additionally, the Corps has considered the Advisory Policies of the CZM Program.

Federal Consistency Conditional Concurrence

Based on our review of the FCD and the comments submitted by agencies administering the enforceable policies of the CZM Program, DEQ **conditionally concurs** that the proposal is consistent to the maximum extent practicable with the CZM Program provided all applicable permits and approvals are obtained as described below in the Regulatory and Coordination Needs section. VMRC will make a consistency decision at the point at which a VMRC wetlands permit is issued for the project (refer to Item 1) in the Environmental Impacts and Mitigation section, pages 2-4).

If, prior to construction, the project should change significantly and any of the enforceable policies of the Virginia CZM Program would be affected, pursuant to 15 CFR 930.66, the applicant must submit supplemental information to DEQ for review and approval. Additionally, other state approvals which may apply to this project are not included in this consistency concurrence. Therefore, the Corps must ensure that this project is operated in accordance with all applicable federal, state and local laws and regulations.

Condition of Concurrence with the FCD

The condition of the Commonwealth's concurrence includes the following authorization under the Virginia CZM Program:

- a permit issued by VMRC for impacts to tidal wetlands authorized under §28.2-1301 through §28.2-1320 of the Virginia Code.

In accordance with the *Federal Consistency Regulations* 15 CFR Part 930, section 930.4, this conditional concurrence is based on the Corps obtaining the necessary authorizations prior to initiating project activities. If the requirements of section 930.4, sub-paragraphs (a)(1) through (a)(3) are not met, this conditional concurrence becomes an objection under 15 CFR Part 930, section 930.63.

REGULATORY AND COORDINATION NEEDS

1. Wetlands. A VMRC/local wetlands board permit is required for the impacts to tidal wetlands. Submit a JPA to VMRC to initiate the permit review process. Coordinate with VMRC (George Badger, 757-414-0710) with questions regarding the JPA review or the required permit.

Upon receipt of the JPA, the DEQ TRO VWP Permit program will review the proposal and determine the need for a VWP permit for non-tidal wetlands. Contact Jeff Hannah (757-518-2146) with questions regarding VWP permitting requirements.

2. Erosion and Sediment Control and Stormwater Management.

2(a) Erosion and Sediment Control and Stormwater Management. This project must comply with Virginia's *Erosion and Sediment Control Law* (Virginia Code § 62.1-44.15:61) and *Regulations* (9 VAC 25-840-30 *et seq.*) and *Stormwater Management Law* (Virginia Code § 62.1-44.15:31) and *Regulations* (9 VAC 25-870-210 *et seq.*) as administered by DEQ. Activities that disturb equal to or greater than 10,000 square feet (2,500 square feet in lands analogous to a Chesapeake Bay preservation Area) would be regulated by *VESCL&R* and *VSWML&R*. Erosion and sediment control, and stormwater management requirements should be coordinated with the DEQ Tidewater Regional Office, Janet Weyland (757-518-2151).

2(b) Virginia Stormwater Management Program General Permit for Stormwater Discharges from Construction Activities (VAR10). For projects involving land-disturbing activities of equal to or greater than one acre the project owner is required to register for coverage under the Virginia Stormwater Management Program General Permit for Discharges of Stormwater from Construction Activities (9 VAC 25-870-1 *et seq.*). Specific questions regarding the Stormwater Management Program requirements should be directed to DEQ, Holly Sepety at (804) 698-4039.

3. Point Source Pollution Control. The Corps must comply with its existing VPDES Individual Permit (VA0024457). Contact the DEQ TRO permit writer (Deanna Austin, 757-518-2008) as necessary for questions related to permit or map requirements as warranted due to project activities.

4. Air Quality Regulations. For more information, questions, and coordination related to air pollution control requirements, contact DEQ TRO, Laura Corl (757-518-2178).

5. Solid and Hazardous Wastes. All solid waste, hazardous waste, and hazardous materials must be managed in accordance with all applicable federal, state, and local environmental regulations. For additional information concerning location and availability of suitable waste management facilities in the project area or if free product, discolored soils, or other evidence of contaminated soils are encountered, contact DEQ-TRO, Sean Priest at (757) 518-2141.

6. Natural Heritage Resources. Contact DCR-DNH, Rene Hypes at (804) 371-2708, to secure updated information on natural heritage resources if the scope of the project changes and/or six months has passed before the project is implemented, since new and updated information is continually added to the Biotics Data System.

7. Wildlife Resources, Fisheries, and Protected Species. Contact Amy Ewing (804-367-2211) with questions related to DGIF's comments and recommendations for habitat enhancement and monitoring.

Coordinate with DGIF's Eastern Shore Biologist, Ruth Boettcher, at 757-709-0766 or Ruth.Boettcher@dgif.virginia.gov, regarding potential impacts upon listed and imperiled wildlife as well as ways to design the project to enhance suitability of the resulting marshes for native wildlife prior to completion of the Final EA for this project and as the project progresses.

Contact VIMS (Emily Hein, 804-684-7482) with questions related to their findings or recommendations.

Thank you for the opportunity to review and respond to the Draft Integrated Feasibility Report and Environmental Assessment and Federal Consistency Determination for the Continuing Authorities Program, Section 204, Beneficial Uses of Dredged Material, Cedar Island proposed by the U.S. Army Corps of Engineers in Accomack County, VA. Detailed comments of reviewing agencies are attached for your review. Please contact me at (804) 698-4204 or Janine Howard at (804) 698-4299 for clarification of these comments.

Sincerely,



Bettina Rayfield, Program Manager
Environmental Impact Review

Ec: Amy Ewing, DGIF
Robbie Rhur, DCR

Corps Continuing Authorities Program, Section 204
Beneficial Uses of Dredged Material, Cedar Island
Feasibility Report/EA and FCD, 19-047F

Arlene Warren, VDH
Roger Kirchen, DHR
Tony Watkinson, VMRC
Emily Hein, VIMS
Michael Mason, Accomack County
Fred Janci, Town of Wachapreague
Elaine Meil, Accomack-Northampton Planning District Commission
Richard Harr, Corps



Howard, Janine <janine.howard@deq.virginia.gov>

ESSLog# 39871_19-047F_USACEBeneficialUseAtFoolsGut_DGIF_AME20190614

1 message

Ewing, Amy <amy.ewing@dgif.virginia.gov>

Fri, Jun 14, 2019 at 9:13 AM

To: Janine Howard <janine.howard@deq.virginia.gov>

Cc: "Boettcher, Ruth" <ruth.boettcher@dgif.virginia.gov>, rr nhreview <nhreview@dcr.virginia.gov>

Janine,

We have reviewed the Recommended Plan (Plan; Preferred Alternative; Alternative 1A) for beneficial use of dredged material from the Bradford Bay and Finney Creek navigation channels. The Plan proposes thin-layer spraying of this material over 194 acres of existing cordgrass-dominated wetlands located at Fools Gut Marsh, just east of the Town of Wachapreague. Thin-layer spraying would be performed via hydraulic cutterhead dredge to which a pipeline has been connected to move the material to the spray area. The assumed project life cycle is 50 years, with spraying proposed to begin in 2027 at Fools Gut Marsh, with repeated applications in 2041 and 2055. The amount of material proposed for placement equals 77,435 cubic yards. This is expected to result in application of 6" of material in the enhancement sites and 2" in wetland restoration areas. Additional topographic surveys, soil testing, and plan revisions will be performed as the project moves forward and prior to placement of any dredged materials.

As stated in the Environmental Assessment (EA) for the project, Virginia's barrier islands represent a unique and fragile ecosystem. The islands serve as important breeding, feeding, and stopover sites for a number of migratory birds, bats, and sea turtles. A number of the species that inhabit the marshes, beaches, flats, and waters found along the barrier islands for some part or all of the year are listed as federal and/or state threatened or endangered or are included within our list of Species of Greatest Conservation Need (SGCN). From Fools Gut Marsh, the intended project site, and nearby environs we document the following listed species and high priority Species of Greatest Conservation Need: state threatened gull-billed terns, state threatened peregrine falcons, northern diamond-backed terrapins (SGCN Tier IIa), American oystercatchers (SGCN Tier IIa), laughing gulls (SGCN Tier IVa), and Forster's terns (SGCN Tier IIa). In addition to these species documented from the project area, other listed and imperiled species have the potential to occur in the area if suitable habitats exist. Depending on when and how dredged materials are placed on Fools Gut Marsh it may adversely impact species and resources under our jurisdiction, including listed species. However, this activity also has the potential to result in significant habitat lift for some of our most imperiled species. For example, laughing gulls and Forster's terns, which nest in marshes and are highly impacted by tidal inundation, could benefit greatly from the increase in marsh elevation resulting from application of dredged materials at Fools Gut Marsh. To improve the diversity of species and habitats available at Fools Gut Marsh over the long term, and to support American oystercatcher conservation, we recommend designing the marsh restoration project such that it includes, where appropriate, deposition of shell material on the outer fringe of marshes to form elevated shell rakes that serve as suitable nesting and roosting habitat for this species and to restore existing shell rakes that are no longer suitable due to erosion and marsh subsidence. We would be happy to assist the Corps in development of such habitats. We recommend close coordination with DGIF's Eastern Shore Biologist, Ruth Boettcher, at 757-709-0766 or Ruth.Boettcher@dgif.virginia.gov, regarding potential impacts upon listed and imperiled wildlife as well as ways to design the project to enhance suitability of the resulting marshes for our native wildlife prior to completion of the Final EA for this project and as the project progresses.

Restoration/resiliency projects such as that which is being proposed are inherently risky endeavors. This is a dynamic system facing Climate Change, with accompanying sea level rise and increased storm intensities. To best address the risks involved with this initiative, we recommend that significant pre- and post-project monitoring be performed and that an adaptive management plan be developed for the project. We recommend that any monitoring and adaptive management plans be geared towards 1) monitoring deviations from as-built design and addressing significant shifts; 2) monitoring vegetation within the enhanced and created marshes and wetlands to document changes over time; and 3) monitoring and quantifying project success. The monitoring plan should include triggers for corrective

actions to be implemented per an adaptive management plan as well annual reporting requirements. The monitoring results should be leaned upon for understanding when designing future phases of this project.

We recommend that this project be implemented with all appropriate sediment and erosion controls in place. We also recommend continued coordination with the USFWS and implementation of the Conservation Measures included within the Biological Opinion for the project.

This project is located within 2 miles of a documented occurrence of a state or federal threatened or endangered plant or insect species and/or other Natural Heritage coordination species. Therefore, we recommend coordination with VDCR-DNH regarding the protection of these resources.

As this site drains to marine waters, we defer the Consistency Determination to VMRC.

Thanks, Amy



Amy Ewing

*Environmental Services Biologist
Manager, Fish and Wildlife Information Services*

P 804.367.2211

Virginia Department of Game & Inland Fisheries

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Howard, Janine <janine.howard@deq.virginia.gov>

NEW PROJECT, ACOE, Beneficial Uses of Dredged Material, DEQ #19-047F

1 message

Henderson, Samantha <samantha.henderson@dhr.virginia.gov>

Fri, Jun 7, 2019 at 10:17 AM

To: Janine Howard <janine.howard@deq.virginia.gov>

Dear Ms. Howard:

Thank you for requesting comments from the Department of Historic Resources on the referenced project. Pursuant to Section 106 of the National Historic Preservation Act, DHR has been in direct consultation with the US Army Corps of Engineers and its agents regarding this project and the parties have reached consensus that the CAP Section 204 Beneficial Uses of Dredged Material, Cedar Island, VA (DHR File No. 2018-3259) project will result in no adverse effect to historic properties. DHR has no further comment at this time.

Regards,

--

Samantha J. Henderson

Project Review Archaeologist

Review and Compliance Division

Virginia Department of Historic Resources

[2801 Kensington Avenue | Richmond, VA 23221](#)(804) 482-6088 | samantha.henderson@dhr.virginia.gov



Howard, Janine <janine.howard@deq.virginia.gov>

Re: NEW PROJECT, ACOE, Beneficial Uses of Dredged Material, DEQ #19-047F

1 message

Gavan, Lawrence <larry.gavan@deq.virginia.gov>
To: Janine Howard <janine.howard@deq.virginia.gov>

Mon, May 13, 2019 at 12:56 PM

(a) Agency Jurisdiction. The Department of Environmental Quality (DEQ) administers the *Virginia Erosion and Sediment Control Law and Regulations (VESCL&R)* and *Virginia Stormwater Management Law and Regulations (VSWML&R)*.

(b) Erosion and Sediment Control and Stormwater Management Plans. The Applicant and its authorized agents conducting regulated land-disturbing activities on private and public lands in the state must comply with *VESCL&R* and *VSWML&R*, including coverage under the general permit for stormwater discharge from construction activities, and other applicable federal nonpoint source pollution mandates (e.g. Clean Water Act-Section 313, federal consistency under the Coastal Zone Management Act). Clearing and grading activities, installation of staging areas, parking lots, roads, buildings, utilities, borrow areas, soil stockpiles, and related land-disturbing activities that result in the total land disturbance of equal to or greater than 10,000 square feet (2,500 square feet in Chesapeake Bay Preservation Area) would be regulated by *VESCL&R*. Accordingly, the Applicant must prepare and implement an erosion and sediment control and stormwater management (ESC/SWM) plan to ensure compliance with state law and regulations. The ESC/SWM plan is submitted to the DEQ Regional Office that serves the area where the project is located for review for compliance. The Applicant is ultimately responsible for achieving project compliance through oversight of on-site contractors, regular field inspection, prompt action against non-compliant sites, and other mechanisms consistent with agency policy. [Reference: *VESCL 62.1-44.15 et seq.*]

(c) General Permit for Stormwater Discharges from Construction Activities (VAR10). DEQ is responsible for the issuance, denial, revocation, termination and enforcement of the Virginia Stormwater Management Program (VSMP) General Permit for Stormwater Discharges from Construction Activities related to municipal separate storm sewer systems (MS4s) and construction activities for the control of stormwater discharges from MS4s and land disturbing activities under the Virginia Stormwater Management Program.

The owner or operator of projects involving land-disturbing activities of equal to or greater than 1 acre is required to register for coverage under the General Permit for Discharges of Stormwater from Construction Activities and develop a project-specific Stormwater Pollution Prevention Plan. Construction activities requiring registration also include land disturbance of less than one acre of total land area that is part of a larger common plan of development or sale if the larger common plan of development will collectively disturb equal to or greater than one acre. The SWPPP must be prepared prior to submission of the registration statement for coverage under the general permit and the SWPPP must address water quality and quantity in accordance with the *VSMP Permit Regulations*. General information and registration forms for the General Permit are available at: <http://www.deq.virginia.gov/Programs/Water/StormwaterManagement/VSMPPermits/ConstructionGeneralPermit.aspx>

[Reference: Virginia Stormwater Management Act 62.1-44.15 et seq.; VSMP Permit Regulations 9VAC25-880 et seq.]

On Mon, May 13, 2019 at 12:02 PM Fulcher, Valerie <valerie.fulcher@deq.virginia.gov> wrote:

Good afternoon- this is a new OEIR review request/project:



Howard, Janine <janine.howard@deq.virginia.gov>

Re: NEW PROJECT, ACOE, Beneficial Uses of Dredged Material, DEQ #19-047F

1 message

Warren, Arlene <arlene.warren@vdh.virginia.gov>
 To: Janine Howard <janine.howard@deq.virginia.gov>

Tue, May 14, 2019 at 12:12 PM

Project Name: ACOE, Beneficial Uses of Dredged Material

Project #: 19-047 F

UPC #: N/A

Location: Town of Wachapreague, Accomack Co.

VDH – Office of Drinking Water has reviewed the above project. Below are our comments as they relate to proximity to **public drinking water sources** (groundwater wells, springs and surface water intakes). Potential impacts to public water distribution systems or sanitary sewage collection systems **must be verified by the local utility.**

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

PWS ID Number	City/County	System Name	Facility Name
3001894	ACCOMACK	WACHAPREAGUE HOTEL	WELL 2
3001892	ACCOMACK	ISLAND HOUSE RESTAURANT	2010 WELL
3001731	ACCOMACK	RICK HALL _JUDGE GUNTER HOUSE MLC_	WELL

There are no surface water intakes located within a 5-mile radius of the project site.

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

Best Management Practices should be employed, including Erosion & Sedimentation Controls and Spill Prevention Controls & Countermeasures on the project site.

Well(s) within a 1,000 foot radius from project site should be field marked and protected from accidental damage during construction.

The Virginia Department of Health – Office of Drinking Water appreciates the opportunity to provide comments. If you have any questions, please let me know.

Best Regards,

Arlene Fields Warren

GIS Program Support Technician

Office of Drinking Water

Virginia Department of Health

109 Governor Street

Richmond, VA 23219

(804) 864-7781

Janine Howard
Environmental Impact Review Coordinator
Virginia Department of Environmental Quality
1111 East Main Street, Suite 1400
Richmond, VA 23219

14 June 2019

Dear Ms. Howard:

Scientists from the Virginia Institute of Marine Science have reviewed the proposal by the US Army Corps of Engineers to place dredged material from Finney Creek and Bradford Bay channels in marshes in the backbarrier of Cedar Island near Wachapreague in Accomack County (Federal Consistency Determination, DEQ #19-047F). The recommended plan (Alternative 1A) is to thin-layer spray the primarily silty dredged material onto the 194-acre *Spartina alterniflora*-dominated vegetated tidal wetland at the southern portion of Fools Gut Marsh Island. Thin-layer spraying is proposed in 2027, 2041, and 2055 (coincident with alternate, seven-year dredge cycles of these channels).

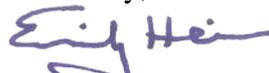
The proposed placement area of Fools Gut Marsh Island should benefit greatly from the addition of sediment. The artificial levee, particularly along the west side of the marsh along Finney Creek, has restricted sediment fluxes into the area during normal tidal cycles, likely reducing inputs of inorganic matter to the marsh and lowering its rate of vertical accretion. This is evidenced by the widespread ponding on the marsh surface, a symptom of marsh drowning due to inability to keep pace with sea-level rise. The addition of sediment via thin-layering will increase the height of the marsh platform, increasing the area at appropriate tidal elevations for marsh plants to grow. Ideally, the first addition of sediment to this area would occur prior to 2027, as vegetated area is decreasing rapidly. As noted in the documentation, care should be taken during thin-layering to avoid the build up of material at the edges of the project site that could act as additional levees.

The thin-layer spraying is proposed to deposit approximately six inches of sediment over the marsh in a slurry. This activity is expected to cause an increase in turbidity, though such impacts are expected to be localized and temporary. The sediment addition will also impact fauna on the target marsh and these impacts are also expected to be temporary. If an area is covered with too much sediment, there is a risk of smothering the existing vegetation and potentially allowing *Phragmites australis* to colonize the higher platform. Approximately six inches of sediment deposition with a two-inch allowance is proposed, which may prove too thick for vegetation survival so planting may be necessary. These concerns are addressed in the project's Monitoring and Adaptive Management Plan, and we recommend strict adherence to the monitoring and corrective actions outlined within those plans.

Thank you for the opportunity to comment on this project. We can review and provide additional comments regarding marine environmental impacts once the project design is further developed.

Please let me know if you have any questions or require additional information.

Sincerely,



Emily Hein

Assistant Director for Advisory Services



COMMONWEALTH of VIRGINIA

Marine Resources Commission
380 Fenwick Road
Bldg 96
Fort Monroe, VA 23651-1064

Matthew J. Strickler
Secretary of Natural Resources

Steven G. Bowman
Commissioner

June 4, 2019

Department of Environmental Quality
Attn: Janine Howard
1111 East Main St.
Richmond, VA 23219

Re: Federal Consistency Determination
Beneficial Uses of Dredged Material Cedar Island,
DEQ #19-047F

Dear Ms. Howard:

This will respond to the request for comments regarding the Federal Consistency Determination for the Continuing Authorities Program, Section 204, Beneficial Uses of Dredged Material, Cedar Island, Virginia project (DEQ #19-047F), prepared by the U.S. Army Corps of Engineers. Specifically, the U.S. Army Corps of Engineers has proposed to beneficially use the dredged material from the Finney Creek Channel and the Bradford Bay Channel for enhancement and/or restoration of the Cedar Island Back-barrier marsh wetlands. The project is located in Accomack County, Virginia. We reviewed the provided project documents and found the proposed project is within the jurisdictional areas of the Virginia Marine Resources Commission (VMRC) and may require a permit from this agency.

Please be advised that the Virginia Marine Resources Commission (VMRC) pursuant to Chapter 12, 13, & 14 of Title 28.2 of the Code of Virginia administers permits required for submerged lands, tidal wetlands, and beaches and dunes. The VMRC administers the enforceable policies of fisheries management, subaqueous lands, tidal wetlands, and coastal primary sand dunes and beaches which comprise some of Virginia's Coastal Zone Management Program. VMRC staff has reviewed the submittal and offers the following comments:

Fisheries and Shellfish: No further comments on anticipated impacts.

State-Owned Submerged Lands: No further comments on anticipated impacts.

Tidal Wetlands: The area selected for thin layer placement is privately owned. A local wetlands permit will be required for the selected alternative.

Beaches and Coastal Primary Sand Dunes: none in close proximity to the project area.

While we have no objection to the consistency findings provided by the applicant, our final consistency recommendation cannot be reached until completion of our permit review process. Any permit issued by the VMRC will specify necessary special conditions for the project.

An Agency of the Natural Resources Secretariat
www.mrc.virginia.gov

Telephone (757) 247-2200 (757) 247-2292 V/TDD Information and Emergency Hotline 1-800-541-4646 V/TDD

Department of Environmental Quality
June 4, 2019
Page Two

If you have any questions please contact me at (757) 414-0710 or by email at hank.badger@mrc.virginia.gov. Thank you for the opportunity to comment.

Sincerely,



George H. Badger, III
Environmental Engineer, Habitat Management

GHB/acl
HM



Howard, Janine <janine.howard@deq.virginia.gov>

Re: Cedar Island Materials Placement

1 message

Owen, Randy <randy.owen@mrc.virginia.gov>
To: "Howard, Janine" <janine.howard@deq.virginia.gov>
Cc: Allison Lay <allison.lay@mrc.virginia.gov>

Mon, Jun 17, 2019 at 1:57 PM

I think this looks good

On Mon, Jun 17, 2019 at 1:53 PM Howard, Janine <janine.howard@deq.virginia.gov> wrote:

Hi Randy,

Thanks for your email. I really just needed to know if a conditional concurrence was necessary or not and based on your email it appears that a conditional concurrence is the way to go. I've edited the draft and have copied the language related to the required tidal wetlands permit and conditional concurrence below. I will shortly send the draft to my manager for her review and the report will be issued tomorrow, so if there is anything you would like changed please let me know ASAP.

Thank you both for your work on this!

(From the environmental impacts and mitigation section:)

1(c) Requirement. A VMRC/ local wetlands board permit for tidal wetlands impacts is required. Submit a Joint Permit Application (JPA) to VMRC initiate the permit review process. The applicant must adhere to any special conditions included in the permit.

1(d) CZMA Federal Consistency. On the condition that a JPA is submitted for the project and the required tidal wetlands permit is obtained, the project would be consistent to the maximum extent practicable with the wetlands management enforceable policy of the CZM Program (see Federal Consistency under the CZMA section below for additional information).

(From the federal Consistency section:)

Federal Consistency Conditional Concurrence

Based on our review of the FCD and the comments submitted by agencies administering the enforceable policies of the CZM Program, DEQ **conditionally concurs** that the proposal is consistent to the maximum extent practicable with the CZM Program provided all applicable permits and approvals are obtained as described below in the Regulatory and Coordination Needs section. VMRC will make a consistency decision at the point at which a VMRC wetlands permit is issued for the project (refer to Item 1) in the Environmental Impacts and Mitigation section, pages 2-4).

If, prior to construction, the project should change significantly and any of the enforceable policies of the Virginia CZM Program would be affected, pursuant to 15 CFR 930.66, the applicant must submit supplemental information to DEQ for review and approval. Additionally, other state approvals which may apply to this project are not included in this consistency concurrence. Therefore, the Corps must ensure that this project is operated in accordance with all applicable federal, state and local laws and regulations.

Condition of Concurrence with the FCD

The condition of the Commonwealth's concurrence includes the following authorization under the Virginia CZM Program:

- a permit issued by VMRC for impacts to tidal wetlands authorized under §28.2-1301 through §28.2-1320 of the Virginia Code.

In accordance with the *Federal Consistency Regulations* 15 CFR Part 930, section 930.4, this conditional concurrence is based on the Corps obtaining the necessary authorizations prior to initiating project activities. If the requirements of section 930.4, sub-paragraphs (a)(1) through (a) (3) are not met, this conditional concurrence becomes an objection under 15 CFR Part 930, section 930.63.

Janine Howard
Environmental Impact Review Coordinator
Virginia Department of Environmental Quality
[1111 East Main Street, Suite 1400](#)
[Richmond, VA 23219](#)
804-698-4299

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On Mon, Jun 17, 2019 at 10:23 AM Randy Owen <randy.owen@mrc.virginia.gov> wrote:

Janine,

I am home today but saw your email this morning. I don't have the one you sent Allison last week asking about our preference for a conditional concurrence, so I don't remember the two choices you gave.

I excerpted this from our comments on the Cedar Island project: "While we have no objection to the consistency findings provided by the applicant, our final consistency recommendation cannot be reached until completion of our permit review process. Any permit issued by the VMRC will specify necessary special conditions for the project." This in short for this project says we have no objections to the applicant's finding of consistency and we believe the project is ok. Our final stance, however, cannot be realized until the actual permit decision is reached with whatever conditions the local wetlands board or Commission decision(s) put on the project. The project can only be deemed consistent with the Commonwealth's Coastal Zone Management Program by VMRC IF the required permit(s) are issued.

If this clears things up, let Allison and I know. If not, she may need to speak with Tony today to further examine your question. I will be in tomorrow after 1pm.

From: Howard, Janine <janine.howard@deq.virginia.gov>
Sent: Monday, June 17, 2019 8:37 AM
To: Randy Owen <randy.owen@mrc.virginia.gov>; Allison Lay <allison.lay@mrc.virginia.gov>
Subject: Cedar Island Materials Placement

Hi Randy and Allison,



DEPARTMENT OF ENVIRONMENTAL QUALITY
TIDEWATER REGIONAL OFFICE
ENVIRONMENTAL IMPACT REVIEW COMMENTS

June 18, 2019

PROJECT NUMBER: 19-047F

PROJECT TITLE: Continuing Authorities Program, Section 204, Beneficial Uses of Dredged Material, Cedar Island, Virginia

As Requested, TRO staff has reviewed the supplied information and has the following comments:

Petroleum Storage Tank Cleanups:

No comments.

Petroleum Storage Tank Compliance/Inspections:

No comments.

Virginia Water Protection Permit Program (VWPP):

The project will be consistent with our program provided a Federal Consistency Determination has been obtained from the DEQ Office of Environmental Impact Review for the proposed project scope prior to undertaking any activities within surface waters.

Air Permit Program :

The following air regulations of the Virginia Administrative Code may be applicable: 9VAC5-50-60 *et seq.* which addresses the abatement of visible emissions and fugitive dust emissions. For additional information, contact Laura Corl at (757) 518-2178.

Water Permit Program :

No comment as there does not appear to be any discharges that would necessitate a VPDES permit. For more information, please contact DEQ Water Permits at tro.vpdespermits@deq.virginia.gov or visit DEQ's website at http://www.deq.virginia.gov/Programs/Water/Permitting_Compliance.aspx

Waste Permit Program :

No comment at this time. Contact Sean Priest at 757-518-2141 or jonathan.priest@deq.virginia.gov if you require additional information.

Storm Water Program:

No Comments

The staff from the Tidewater Regional Office thanks you for the opportunity to provide comments.



DEPARTMENT OF ENVIRONMENTAL QUALITY
TIDEWATER REGIONAL OFFICE
ENVIRONMENTAL IMPACT REVIEW COMMENTS

June 18, 2019

PROJECT NUMBER: 19-047F

PROJECT TITLE: Continuing Authorities Program, Section 204, Beneficial Uses of Dredged Material, Cedar Island, Virginia

Sincerely,

Cindy Robinson
Environmental Specialist II
5636 Southern Blvd.
VA Beach, VA 23462
(757) 518-2167
Cindy.Robinson@deq.virginia.gov



Howard, Janine <janine.howard@deq.virginia.gov>

RE: EIR 19-047_Continuing Authorities Program Section 204 Beneficial Uses of Dredged Material Cedar Island Virginia

1 message

Curtis Davey <curtis.davey@deq.virginia.gov>
To: Janine Howard <janine.howard@deq.virginia.gov>

Mon, Jun 17, 2019 at 9:03 AM

Janine,

Per our phone conversation today, the TRO VWP program concurs with the changes you proposed in the EA/FCD response as described in your June 14, 2019 email (below). Please let me know if you have any other questions.

Thank you,

Curtis Davey

Virginia Dept. of Environmental Quality

Tidewater Regional Office

[5636 Southern Boulevard](#)

[Virginia Beach, VA 23462](#)

(757) 518-2158

From: Howard, Janine <janine.howard@deq.virginia.gov>

Sent: Monday, June 17, 2019 8:15 AM

To: Curtis Davey <curtis.davey@deq.virginia.gov>

Subject: Re: EIR 19-047_Continuing Authorities Program Section 204 Beneficial Uses of Dredged Material Cedar Island Virginia

Hi Curtis,

Thank for reaching out on Friday; I was out of the office in the afternoon.

For this project the dredging activity is not part of the scope of work. The review is solely for the materials placement on Cedar Island. The document states that the dredging activity is accomplished under separate authority and has been previously covered in other NEPA documents.

I just tried calling you and am available all morning to talk if you'd like.

Thank you,

Janine

Janine Howard
Environmental Impact Review Coordinator
Virginia Department of Environmental Quality
[1111 East Main Street, Suite 1400](#)

[Richmond, VA 23219](#)
804-698-4299

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On Fri, Jun 14, 2019 at 2:02 PM Curtis Davey <curtis.davey@deq.virginia.gov> wrote:

Janine,

The proposed dredge spoil will be coming from the Finney Creek and Bradford Bay Federal Navigation Channels. The dredging of these channels does not require a VWP permit provided they receive a Federal Consistency Determination (FCD) from DEQ. If the placement of the dredge spoil is considered part of the project scope (which it typically is), they don't need to submit a JPA to us, they just need an FCD determination from DEQ.

We could say something like "The project will be consistent with our program provided that any applicable portions which do not receive Federal Consistency Determination concurrence from DEQ receives VWP authorization through the Joint Permit Application process and complies with that authorization." I know its wordy.

I tried calling you today, I will be in the office on Monday if you want to give me call.

Thank you,

Curtis Davey
Virginia Dept. of Environmental Quality
Tidewater Regional Office
[5636 Southern Boulevard](#)
[Virginia Beach, VA 23462](#)
(757) 518-2158

----- Forwarded message -----

From: **Howard, Janine** <janine.howard@deq.virginia.gov>

Date: Fri, Jun 14, 2019 at 8:05 AM

Subject: Fwd: EIR 19-047_Continuing Authorities Program Section 204 Beneficial Uses of Dredged Material Cedar Island Virginia

To: Cindy Robinson <cindy.robinson@deq.virginia.gov>

Hi Cindy,

I need some clarification from the VWP folks regarding their comment and what exactly they mean by it. As far as I can tell the project will not impact non-tidal wetlands but will impact tidal wetlands, hence a JPA will be submitted. My assumption is that DEQ VWP would review the JPA to confirm that there are no non-tidal wetland impacts. With that in mind, the following language is what I propose or the EA/FCD response:

1(b) Agency Findings. *The VWP program at the DEQ Tidewater Regional Office (TRO) did not indicate that non-tidal wetlands would be impacted.*

1(c) Requirement. *Submit a Joint Permit Application (JPA) for the activity. Upon receipt of a JPA, DEQ TRO will determine the need for a VWP Permit.*

1(d) CZMA Federal Consistency. *Provided a JPA is submitted for the project, and any required VWP Permit is obtained, the project would be consistent to the maximum extent practicable with the wetlands management enforceable policy of the CZM Program and the VWP Permit Program (see Federal Consistency under the CZMA section below for additional information).*

Would you please run this by VWP and get their concurrence? This response is due by next Tuesday so I'm looking for a reply ASAP, or by mid-day Monday at the latest.

Thank you,

Janine Howard
Environmental Impact Review Coordinator
Virginia Department of Environmental Quality
[1111 East Main Street, Suite 1400](#)

[Richmond, VA 23219](#)

804-698-4299

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----- Forwarded message -----

From: **Robinson, Cindy** <cindy.robinson@deq.virginia.gov>

Date: Tue, Jun 4, 2019 at 12:21 PM

Subject: EIR 19-047_Continuing Authorities Program Section 204 Beneficial Uses of Dredged Material Cedar Island Virginia

To: Howard, Janine <janine.howard@deq.virginia.gov>

DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF AIR PROGRAM COORDINATION

ENVIRONMENTAL REVIEW COMMENTS APPLICABLE TO AIR QUALITY

TO: Janine L. Howard

DEQ - OEIR PROJECT NUMBER: **DEQ #19-047F**

PROJECT TYPE: STATE EA / EIR FEDERAL EA / EIS SCC

X CONSISTENCY DETERMINATION

PROJECT TITLE: **Continuing Authorities Program, Section 204, Beneficial Uses of Dredged Material, Cedar Island, Virginia**

PROJECT SPONSOR: **U.S. Army Corps of Engineers**

PROJECT LOCATION: **X OZONE ATTAINMENT AREA**

REGULATORY REQUIREMENTS MAY BE APPLICABLE TO: CONSTRUCTION
X OPERATION

STATE AIR POLLUTION CONTROL BOARD REGULATIONS THAT MAY APPLY:

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

COMMENTS SPECIFIC TO THE PROJECT:



(Kotur S. Narasimhan)
Office of Air Data Analysis

DATE: May 16, 2019

Matthew J. Strickler
Secretary of Natural Resources

Clyde E. Cristman
Director



Rochelle Altholz
*Deputy Director of
Administration and Finance*

Russell W. Baxter
*Deputy Director of
Dam Safety & Floodplain
Management and Soil & Water
Conservation*

Thomas L. Smith
Deputy Director of Operations

COMMONWEALTH of VIRGINIA
DEPARTMENT OF CONSERVATION AND RECREATION

MEMORANDUM

DATE: June 5, 2019
TO: Janine Howard, DEQ
FROM: Roberta Rhur, Environmental Impact Review Coordinator
SUBJECT: DEQ 19-047F, Cedar Island Beneficial Uses of Dredged Material

Division of Natural Heritage

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

Biotics documents the presence of natural heritage resources within two miles of the project area. However, due to the scope of the activity and the distance to the resources, we do not anticipate that this project will adversely impact these natural heritage resources.

There are no State Natural Area Preserves under DCR's jurisdiction in the project vicinity.

Under a Memorandum of Agreement established between the Virginia Department of Agriculture and Consumer Services (VDACS) and the DCR, DCR represents VDACS in comments regarding potential impacts on state-listed threatened and endangered plant and insect species. The current activity will not affect any documented state-listed plants or insects.

New and updated information is continually added to Biotics. Please re-submit project information and map for an update on this natural heritage information if the scope of the project changes and/or six months has passed before it is utilized.

The Virginia Department of Game and Inland Fisheries (VDGIF) maintains a database of wildlife locations, including threatened and endangered species, trout streams, and anadromous fish waters that may contain information not documented in this letter. Their database may be accessed from <http://vafwis.org/fwis/> or contact Ernie Aschenbach at 804-367-2733 or Ernie.Aschenbach@dgif.virginia.gov. This project is located within 2 miles of documented occurrences of state listed animals. Therefore, DCR recommends coordination with the VDGIF, Virginia's regulatory authority for the management and protection of these species to ensure compliance with the Virginia Endangered Species Act (VA ST §§ 29.1-563 – 570).

The remaining DCR divisions have no comments regarding the scope of this project. Thank you for the opportunity to comment.



MEMORANDUM

TO: Janine Howard, DEQ/EIR Environmental Program Planner

FROM: Carlos A. Martinez, Division of Land Protection & Revitalization Review Coordinator

DATE: June 4, 2019

COPIES: Sanjay Thirunagari, Division of Land Protection & Revitalization Review Manager; file

SUBJECT: Environmental Impact Review: 19-047F Beneficial Use of Dredged Material, Cedar Island, Virginia.

The Division of Land Protection & Revitalization (DLPR) has completed its review of the Army Corps of Engineers' May 13, 2019 EIR for Beneficial Use of Dredged Material in Cedar Island, Virginia.

DLPR staff conducted a search (1000 ft. radius) of the project area of solid and hazardous waste databases (including petroleum releases) to identify waste sites in close proximity to the project area. DLPR identified three (3) petroleum release site within the project area which might impact the project.

DLPR staff has reviewed the submittal and offers the following comments:

Hazardous Waste/RCRA Facilities – none in close proximity to the project area

CERCLA Sites – none in close proximity to the project area

Formerly Used Defense Sites (FUDS) – none in close proximity to the project area.

Solid Waste – None found in close proximity to the project area

Virginia Remediation Program (VRP) – none in close proximity to the project area

Petroleum Releases – three (3) found in close proximity to the project area

1. *PC Number 20185224, Wachapreague Marina, 15 Atlantic Avenue, Wachapreague, Virginia 23480, Release Date: 04/05/2018, Status: Closed.*
2. *PC Number 19982216, USCG Parramore Beach Station, 42 Atlantic Avenue, Wachapreague, Virginia 23840, Release Date: 03/19/1997, Status: Closed.*
3. *PC Number 20195209, Walker Revel Property, 20235 Quinby Bridge Rd, Quinby, Virginia 23423, Release Date: 05/07/2019, Status: Open.*

Please note that the DEQ's Pollution Complaint (PC) cases identified should be further evaluated by the project engineer or manager to establish the exact location, nature and extent of the petroleum release and the potential to impact the proposed project. In addition, the project engineer or manager should contact the DEQ's Tidewater Regional Office at (757) 518-2000 (Tanks Program) for further information about the PC cases.

PROJECT SPECIFIC COMMENTS

None

GENERAL COMMENTS

Soil, Sediment, Groundwater, and Waste Management

Any soil, sediment or groundwater that is suspected of contamination or wastes that are generated must be tested and disposed of in accordance with applicable Federal, State, and local laws and regulations. Some of the applicable state laws and regulations are: Virginia Waste Management Act, Code of Virginia Section 10.1-1400 *et seq.*; Virginia Hazardous Waste Management Regulations (VHWMR) (9VAC 20-60); Virginia Solid Waste Management Regulations (VSWMR) (9VAC 20-81); Virginia Regulations for the Transportation of Hazardous Materials (9VAC 20-110). Some of the applicable Federal laws and regulations are: the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Section 6901 *et seq.*, and the applicable regulations contained in Title 40 of the Code of Federal Regulations; and the U.S. Department of Transportation Rules for Transportation of Hazardous Materials, 49 CFR Part 107.

Pollution Prevention – Reuse - Recycling

Please note that DEQ encourages all construction projects and facilities to implement pollution prevention principles, including the reduction, reuse, and recycling of all solid wastes generated. All generation of hazardous wastes should be minimized and handled appropriately.

If you have any questions or need further information, please contact Carlos A. Martinez by phone at (804) 698-4575 or email carlos.martinez@deq.virginia.gov.



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Street address: 1111 East Main Street, Suite 1400, Richmond, VA 23219

Mailing address: P.O. Box 1105, Richmond, Virginia 23218

www.deq.virginia.gov

Matthew J. Strickler
Secretary of Natural Resources

David K. Paylor
Director

(804) 698-4000
1-800-592-5482

MEMORANDUM

TO: Janine Howard, DEQ Office of Environmental Impact Review

FROM: Valent Lassiter, Principal Environmental Planner

DATE: June 5, 2019

SUBJECT: DEQ 19-047F: Continuing Authorities Program, Section 204, Beneficial Uses of Dredged Material, Cedar Island, Accomack County, VA

We have reviewed the Federal Consistency Determination for the proposed project and offer the following comments regarding consistency with the provisions of the *Chesapeake Bay Preservation Area Designation and Management Regulations* (Regulations):

The proposed project is located in the Atlantic Ocean watershed and is outside of the Chesapeake Bay watershed; thus there are no comments or requirements under the Chesapeake Bay Preservation Area Designation and Management Regulations or the *Chesapeake Bay Preservation Act*.



The Nature Conservancy in Virginia
Virginia Program
P.O. Box 158
11332 Brownsville Rd.
Nassawadox, VA 23413

tel 757-442-3049
fax 757-442-5418
nature.org

June 17, 2019

Richard M. Harr
U.S. Army Corps of Engineers
Norfolk District
Fort Norfolk
803 Front Street
Norfolk, VA 23510-1011

Via email: richard.m.harr@usace.army.mil

Re: Draft Integrated Feasibility Report/Environmental Assessment, Continuing Authorities Program, Section 204, Beneficial Uses of Dredged Materials, Cedar Island, Virginia

Dear Mr. Harr,

I am writing to comment on the Draft Integrated Feasibility Report/Environmental Assessment, Continuing Authorities Program, Section 204, Beneficial Uses of Dredged Materials, Cedar Island, Virginia. The recommended action is to place thin-layer dredge spoil on a saltmarsh, Site 1, adjacent to Wachapreague Channel. Please note that this land is privately owned property protected by a conservation easement held by The Nature Conservancy. We are currently assessing the easement agreement with our legal team and the landowner to determine if this activity would be legally allowed.

After reviewing the draft report the Conservancy recommends that the Army Corps continue to follow a science-based approach for designing and implementing the project, including:

1. An interdisciplinary Army Corps team to conduct the project;
2. Science-based site assessment, selection, design, and implementation;
3. Comprehensive baseline monitoring, at least 18 months (two growing seasons) in advance of project implementation;
4. 5-Year minimum post-monitoring, preferably 10 years; and
5. Adaptive management throughout the project period.

On behalf of The Nature Conservancy I would like to thank you for the opportunity to comment on this proposed project. Please contact me if you have any questions or would like to discuss.

Sincerely yours,

Jill Bieri, Director
Virginia Coast Reserve



A-NPDC

ACCOMACK-NORTHAMPTON PLANNING DISTRICT COMMISSION

PO Box 417 • 23372 FRONT STREET • ACCOMAC, VIRGINIA 23301

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June 13, 2019

U.S. Army Corps of Engineers
Norfolk District
Environmental Analysis Section
803 Front Street
Norfolk, Virginia 23510
Attn.: Richard Harr

Subject: Comments Regarding Draft Integrated Feasibility Report/Environmental Assessment for Continuing Authorities Program, Section 204, Beneficial Uses of Dredged Material, Cedar Island, Virginia

Dear Mr. Harr,

The Accomack-Norhampton Planning District Commission (A-NPDC) has reviewed the Draft Integrated Feasibility Report/Environmental Assessment for Continuing Authorities Program, Section 204, Beneficial Uses of Dredged Material, Cedar Island, Virginia and offers the following comments for consideration.

As the first beneficial use of dredged material project of its kind in our region, the planned activities stand to set an important precedent for what we anticipate to become a regular and common activity for enhancing the resilience of our coastal landforms. We are in agreement with the site selection and general methodology considering the volume of sediment available and other factors, although we request that the document take the following specific comments into consideration:

- The Recommended Plan and the Monitoring and Adaptive Management Plans lack specific information regarding desired topographic conditions following thin-spraying of Fools Gut Marsh Island aside from general descriptions that lead one to infer that the final topography will be essentially level. Dr. Matt Kirwan of VIMS recommended during the plan development process that the final topography be at a slightly higher elevation in the marsh interior to allow for and ensure the natural movement of sediment to the marsh interior and to prevent a dike-effect that can occur if the marsh edges are constructed at a higher elevation than the marsh interior. This strategy should also be incorporated into the Monitoring and Adaptive Management Plan to ensure that proper actions be in place should the topography of the enhanced marsh change between each thin-spray activity.
- The plans identify measures to mitigate accidental sedimentation occurring in waterways adjacent to the site but do not recognize potential impacts to tidal creeks within the site. It is presumed that the same mitigation techniques would be applied to the small interior tidal creeks at the site, but please add this language to the plans as these creeks are important to the overall health of the marshes at the site in that they promulgate the natural movement of sediment to the interior marshes. Being that there is a lack of available bathymetric data to use as a baseline for these interior tidal creeks, please plan acquiring baseline bathymetric data if possible, to support monitoring during and after thin spraying.
- The Monitoring and Adaptive Management Plan should recognize the availability of local subject matter experts and include steps to communicate with them prior to each round of thin spraying. The area is a hub for ecological and environmental research and all new research and data should be taken into consideration prior to each round of thin spraying.



A-NPDC

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- The Monitoring and Adaptive Management Plan does not identify who will be conducting the monitoring activities. The person responsible for monitoring the marsh vegetation and potential adverse impacts from the activities should be a certified professional in the appropriate subject matter.

The planned activities can achieve the desired result of benefitting natural habitats and offsetting some of the impacts of relative sea-level rise and climate change, if done correctly. It is critical that an experienced contractor be selected to implement the thin-spraying activities and/or monitoring the site. The A-NPDC also feels that continued communication with local subject matter experts such as Drs. Matt Kirwan and Chris Hein from VIMS and Dr. Michael Fenster from Randolph-Macon College is an important component to the project's success over the long-term.

We appreciate the opportunity to review and provide comments on the draft plans. If you have any questions regarding these comments, please contact me directly at csmith@a-npdc.org or (757) 787-2936 x114.

Respectfully submitted,

Curtis W. Smith
Director of Planning
Accomack-Northampton Planning District Commission

CC: Susan Conner, USACE; Tony Watkinson, VMRC; Elaine Meil and Shannon Alexander, A-NPDC; John Joeckel, ESRNWC; Drs. Matt Kirwan and Chris Hein, VIMS; Dr. Mike Fenster, R-MC

From: [Traver, Carrie](#)
To: [Harr, Richard M CIV USARMY CENAO \(USA\)](#)
Cc: [Rudnick, Barbara](#); [Regan, Kristin](#)
Subject: [Non-DoD Source] Draft Integrated Feasibility Report/Environmental Assessment, Continuing Authorities Program, Section 204, Beneficial Uses of Dredged Material, Cedar Island, Virginia
Date: Tuesday, June 18, 2019 5:05:15 PM

Dear Mr. Harr:

Thank you for the opportunity to review the Draft Integrated Feasibility Report/Environmental Assessment (EA or Study) for the Continuing Authorities Program, Section 204, Beneficial Uses of Dredged Material, Cedar Island Virginia, dated April 2019.

Cedar Island is a barrier island located within the Delmarva Peninsula off the coast of Wachapreague, Virginia. The western side of Cedar Island (referred to in the EA as the Cedar Island Back-barrier) is flanked by channels, shoreline wetlands, marsh islands, lagoons, and mudflats, which provide important habitat functions, including foraging grounds for migratory bird species and nursery habitat for a variety of fish. The study describes how Cedar Island Back-barrier wetlands are at risk of loss due to the threats of erosion, sea level rise, and subsidence.

The proposed action is to beneficially use the dredged material from the Finney Creek Channel and the Bradford Bay Channel for enhancement and/or restoration of the Cedar Island Back-barrier marsh wetlands. The Recommended Plan is Alternative 1A, which consists of thin-layer spraying of dredged material over 194-acres of Fools Gut Marsh Island via a hydraulic cutterhead dredge equipped with a pipeline. Project construction is anticipated to begin in year 2027, and the assumed project lifecycle is approximately 50 years.

The lead Federal agency for the feasibility Study is the USACE. The non-Federal sponsor for this study is Virginia Marine Resources Commission (VMRC) on behalf of the Commonwealth of Virginia.

USEPA has reviewed the EA in accordance with the National Environmental Policy Act (NEPA) of 1969, Section 309 of the Clean Air Act and the Council on Environmental Quality (CEQ) regulations implementing NEPA (40 CFR 1500-1508). Based our review, we have the following comments for your consideration in the development of the Final EA:

Potential Impacts

In Section 3.5, RISK AND UNCERTAINTY (page 53), Associated Risks does not include a discussion of potential adverse ecological impacts. As noted on pages 130-131 and in page 22 of the Draft Fish and Wildlife Planning Aid Report, if the project is not carefully executed, dredge placement can diminish the natural function of the marsh and lead to colonization of invasive species, primarily *Phragmites australis*.

While Site 1A is predominantly cordgrass-dominated marsh, discussion of potential impacts to other existing habitats that are located in the Region of Influence (ROI) could be expanded in the EA, particularly in the discussion of Affected Environment in Section 4 and Environmental Consequences in Section 5. Section 404 (b) (1) Evaluation (III.E) indicates that mudflats may be impacted; this document concludes there may be temporary, negligible to minor benefits to existing mudflats as maintenance of the marsh island would help to also maintain existing mudflat habitat. It would be helpful to include additional characterization of the extent of mudflats in the project area and the potential impacts to these and other resources in the final EA.

On page 109, Section 4.17 indicates that submerged aquatic vegetation (SAV) is dismissed from further consideration because there is no known SAV is within the ROI. What methods were used during site visits to make the determination that no SAV is present? Over the life of the project, will this be re-evaluated?

Page 126 states that implementation of the project would not “result in measurable changes to environmental resources that individuals involved in subsistence fishing or hunting utilize and would not create disproportionately high and adverse human health or environmental effects on low-income populations, minority populations, or Native American tribes.” The EA would benefit by a description of the factors evaluated to make this determination and documentation of coordination with Native American tribes.

5.17 VEGETATION, WETLANDS, AND SUBMERGED VEGETATION (page 129-130) concludes that the No Action/Future Without Project Alternative has no anticipated impacts to wetlands. However, the conclusion does not appear to be consistent with the discussion in Section 5.17 and with the project purpose and need. Section 5.17 also states that “Based on the results of our ecomodeling analysis... we would anticipate there would be substantive impacts to the marsh community resulting from sea level rise starting in 2039 and potentially total loss of the marsh island by 2047.”

Language on page 149 of the Draft Finding of No Significant Impact regarding IFR/EA agency and public review should be updated to reflect the relevant dates and any comments that may be received.

Wildlife Impacts

As noted by the Virginia Department of Conservation and Recreation (VA DCR), Cedar Island Conservation Site has been given a biodiversity significance ranking of B3, which represents a site of high significance. The Section 404 (b) (1) Evaluation indicates that placement of the dredged material may take place at any time during the year, for a duration of approximately three months (page 198). While the overall impacts are expected to be beneficial, short-term impacts during the application of dredge material on wildlife could be substantial and should be further evaluated so that they can be minimized. Consideration of timing of the dredge placement in relation to lifecycles of key species could be critical in minimizing and mitigating impacts.

In particular, potential impacts on hibernating diamondback terrapins, crab spawning, and migratory bird species should further be evaluated and avoided if possible. Time of year restrictions may reduce impacts.

* The EA does not discuss the potential of Diamondback terrapins (*Malaclemys terrapin*) to occur in the area, including the likelihood of terrapins to hibernate in the ROI. Impacts to terrapins should be evaluated and minimized.

* As indicated in the EA, the coastal bays support an economically important blue crab (*Callinectes sapidus*) fishery. In order to fully evaluate impacts, the life cycle of the crabs, including spawning, should be considered.

* As discussed, the tidal marsh island habitat provides foraging and stopover habitat to more than 30 species of migratory birds. Species of special concern, such as Piping Plover, Roseate Tern, and Red Knot may forage in the action area. Unavailability of feeding and resting grounds during avian migration could adversely impact species; these effects could be mitigated by timing of the dredge material application.

The EA indicates that the Endangered Species Act, Section 7 Biological Assessment has been submitted to the U.S. Fish and Wildlife Service (USFWS) and consultation with the USFWS is ongoing. This correspondence should be included in the final document.

Dredge Material Characterization

The report states no previous contaminant testing of the material has been completed. VA DCR expressed concerns about the use of dredge material, stating that it is not comparable to natural substrates and may result in an alteration of habitat and native vegetation communities. The suitability of the dredged material from the Finney Creek Channel and the Bradford Bay Channel for thin-layer application should be specifically evaluated and addressed.

* Although no known sources may be present in the area, contaminated sediments may occur in the dredge material; therefore, we recommend testing to understand whether the dredge material is contaminated (see the USEPA 1998 Inland Testing Manual) and to further characterize the material for suitability.

* Particle size should also be considered for thin-layer application. While the dredge material is generally characterized as fine-grained, there does not appear to be a specific, recent characterization of the material. The EA cites a report from Priest et al. 1996 that characterized the sediment grain size as 50.2 – 52.0% silt, 31.8-38.2% clay, and 9.8 –18% sand. A high percentage of clay could potentially create issues, including plant mortality.

The Performance Metric for Wetland Soil/Sediment Composition in the Monitoring and Adaptive Management Plan is “wetland soil/sediment composition is adequate to allow for a cordgrass-dominated wetland vegetation community” (Section 4.4). However, it is unclear that the Success Criteria is sufficient to achieve this. (“The dredged material composition shall be free of large trash and debris. Shells do not constitute more than 20% of the soil/sediment composition.”)

Adaptive Management

As recognized in the study, adaptive management will be key to project success. The Adaptive Management Plan states that it is intended to be “a dynamic document that will be updated as necessary during the project phases to reflect the science-based monitoring and adaptive management strategies that may flux over time” (page 460). However, it isn’t clear when key factors will be reevaluated and when the plans will be updated. We recommend including a schedule or plan to update the project considerations as they become known and to incorporate recommendations for project success as additional studies of thin-layer application projects are made.

* The USACE Intermediate Sea Level Rise Curve was used to model sea level rise in the project area. However, as noted, it is unclear how rapidly local relative sea levels will rise into the future as well as how quickly subsidence will occur. When will factors such as sea level rise, erosion rates, and rate of marsh drowning be reevaluated and adjusted?

Another key factor is having experienced personnel direct and oversee the project. Design elevations are critical and may need to be adjusted.

* The Draft Fish and Wildlife Planning Aid Report concludes that “it is essential to use an experienced contractor that can ensure that the thin layer spread elevations are correct” (Page 22). We echo this recommendation for project success.

* As detailed in the EA, a Biologist will be onsite during dredging operations to actively monitor marsh elevations and target spray application areas. We agree that this is an important measure. The Biologist should be experienced in thin-layer application and should be able to have the ability to make field corrections and changes.

The Draft Fish and Wildlife Planning Aid Report also states that a plan for invasive species monitoring and management is a necessary part of the project and recommends inclusion of topographic diversity (e.g. hummocks) to add to the ecological diversity and resiliency of the project. We concur with these recommendations.

In addition, to show that that the functions are being maintained or enhanced as predicted, we recommend monitoring and/or documenting wildlife use of the restoration areas.

We suggest that the EA discuss potential paths forward if any information is discovered during planning of the project that may require changes to the project concept. We suggest that the study consider if additional study would take place through the NEPA process if changes are required. Additional information may, for example, include sample results of dredge sediment, additional modeling, or any pilot testing that may be determined appropriate. Moving forward, we also recommend that you incorporate “lessons learned” from other recent thin-layer application projects to improve the plans and adaptive management actions. We would be glad to coordinate

and share information about other projects to assist you in planning.

We would be pleased to discuss our comments at your convenience. My contact information is below.

Sincerely,
Carrie Traver

Carrie Traver
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From: [Johnston, Cora Ann \(caj2dr\)](#)
To: [Harr, Richard M CIV USARMY CENAO \(USA\)](#)
Subject: [Non-DoD Source] Comment RE: CAP, Section 204, Beneficial Uses of Dredged Material, Cedar Island, Virginia: Release of the Draft Integrated Feasibility Report/Environmental Assessment
Date: Tuesday, June 18, 2019 9:26:52 PM

Please see below a summary comment contributed by the Virginia Coast Reserve Long Term Ecological Research (VCR-LTER) program scientists, including coastal ecologist, hydrologists, and geologists from institutions across the mid-Atlantic.

Overall, the VCR-LTER project scientists do not object to the proposed project. We do encourage careful consideration of the need for before-after, control-impact (BACI) monitoring approaches to adequately understand the processes shaping Fool's Gut marsh and the impact that thin-layering has upon them. A good understanding will require more than a snapshot study in order to establish a robust baseline before management begins (see our potential contributions below). A robust monitoring plan should clearly identify the variables to be measured (preferably both above and below ground), the frequency with which they will be measured, and the spatial distribution (placement) of sampling points. The proposal should also include a plan for data management, sharing, and synthesis suitable to determine whether project goals and objectives have been met. To this point, project goals need to be specific and measurable.

We recommend that managers of the proposed project connect with researchers (Lorie Staver or Michelle Osborn) at Poplar Island in Maryland to learn which monitoring approaches proved most informative during their successful thin-layering project.

VCR-LTER has the skills and expertise to help inform and learn the most from the proposed dredge project.

The current project report indicates that accretion and subsidence rates for the target site are either coarsely estimated from LiDAR or unavailable for our region. VCR-LTER researchers are in the process of collecting accretion data for the backbarrier marshes of Cedar Island, including the Fool's Gut area. These data may prove helpful in determining a pre-treatment baseline of marsh processes.

The proposed thin-layering project provides the opportunity to study many impacts of this beneficial use approach. Along with marsh accretion rates and vegetation cover, deposition on the marsh platform may change the fauna communities inhabiting the marsh, including marsh invertebrates, coastal bird species, and the presence of small mammal species. Changes to one or more of these groups is likely to alter the entire marsh food web in ways that warrant study, especially because changes in fauna can feedback to affect ecosystem functioning of the marsh itself. Members of the LTER may be interested in assisting with these and related studies, as relevant.

VCR-LTER also urges caution and further research into several aspects of the project.

An affiliated USGS researcher reports that similar thin-layering projects by that agency experienced challenges with "achieving target elevation gain due to de-watering, compaction, and erosive loss prior to full vegetation establishment", some of which related to appropriate sediment particle sizes. Thus, we'd encourage further careful consideration of how the material to be applied compares to the sediment naturally deposited on the marsh platform and what influence any differences might have. In a prior collaboration between USACE, VCR-LTER, and TNC on

the Eastern Shore, fine particle dredge spoils dried cement-like, which would be an undesirable outcome.

The stated project goals are to reduce erosion and enhance accretion. We would caution that erosion and accretion are processes influenced by separate conditions; therefore further background research should be done into whether both of the above changes can reasonably be expected as outcomes of thin-layering. We expect that an effect on accretion is more likely than a change in erosion. Helpful background on these processes in Eastern Shore marshes may be found in literature from Patricia Wiberg, Matt Kirwan, and Matt Riedenbach, among others.

Requests for follow-up or further information should be sent to the VCR-LTER Site Director, Dr. Cora Johnston, at coraj@virginia.edu.

Regards,
Cora

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U.S. Army Corps of Engineers, Norfolk District, Environmental Analysis Section
803 Front Street
Norfolk, Virginia 23510
Attn.: Richard Harr, PWS, CES, Richard.M.Harr@usace.army.mil

June 18, 2019

Subject: Comments Regarding Draft Integrated Feasibility Report/Environmental Assessment for Continuing Authorities Program, Section 204, Beneficial Uses of Dredged Material, Cedar Island, Virginia

RE: Correspondence dated March 21, 2018, Curtis Smith A-NPDC to Alicia Logalbo Army Corps of Engineers, Norfolk District

Dear Mr. Harr,

I have reviewed the presentation materials provided by the Norfolk District of the Army Corps of Engineers at the Virginia Institute of Marine Science, Wachapreague Eastern Shore Laboratory that was presented to the public on June 4, 2019. As you might recall, I have participated in discussions with the Norfolk District since 2013 as we all became aware of the destruction caused by Superstorm Sandy in latter 2012, which destroyed the southern end of Cedar Island, opening up Wachapreague Inlet, allowing the waves and swells of the Atlantic Ocean to directly impinge and erode the previously protected salt marsh behind Cedar Island. Thus, six (6) years later we are at this current stage of project evaluation, with commencement of the actual remediation activities not scheduled until 2027, or approximately fourteen (14) years since we began discussing the necessity for this project.

In the past few years, the Accomack-Northampton Planning District Commission (A-NPDC), the Eastern Shore Regional Navigable Waterways Committee (ESRNWC), which I Chair, and professional guidance provided to us by various Virginia Academia in the coastal geological field, we have met or had discussions with you and your Corps of Engineers colleagues on multiple occasions pertaining to potential alternative approaches to this CAP 204 project.

Herein are my personal comments concerning the current Corps CAP 204 project proposal and some reminders of potential alternatives that have not been included in the current proposal but remain of significant concern to this fragile ecosystem and to the coastal seaside Town of Wachapreague.

Current Corps CAP 204 Proposal

The beneficial use of dredged material that will become available from maintaining safe navigation of Bradford's Bay and Finney/Wachapreague Channels versus continuing open water dumping in Bradford's Bay will set an important precedent for what we anticipate to become a regular and common activity for enhancing the resilience of our coastal barrier islands and back bay salt marshes/creeks. Frankly, as has been pointed out to the Corps in other documents, this coastal resilience issue runs the full length, approximately 100 miles, of the seaside of the Eastern Shore from Assateague Island in the north to Fisherman's Island in the south, e.g., coastal erosion of the seaside barrier islands and loss of seaside back bay salt marsh wildlife habitat and increasing loss of protection to mainland infrastructure.

Viable and healthy salt marshes, which can migrate naturally with rising sea levels, provide non-structure flood control for coastal and human protection, reduce coastal erosion and provide the ecological structure needed to maintain coastal habitats, which is an important vital factor that influences coastal resiliency. The Eastern Shore salt marshes provide a valuable ecosystem service by protecting the coastal mainland infrastructure against storm damages by attenuating storm surge and waves and that the absence of salt marshes can amplify the impacts of storm surge and increase the damages potentially suffered in future storm events. Coastal salt marsh ecosystems provide a myriad of services ranging from shoreline protection to fish nurseries.

Therefore, I agree with the site selection and general methodology of thin layer spraying of the selected site, especially when we consider multiple factors including the limitations on the volume of sediment available from

Bradford's and Finney/Wachapreague waterways. Remediation of this marsh location will enhance wildlife habitat as well as providing increased storm surge protection to mainland infrastructure.

I believe the following specific concerns and or activities be included in the final Corps planning for this CAP 204 project:

- The Corps should develop a multi-faceted Project Delivery Team (PDT) that should include official local participation and communication with the A-NPDC and subject matter experts of Virginia Academia, such as Drs. Matt Kirwan and Chris Hein from VIMS and Dr. Michael Fenster from Randolph-Macon College. Participation of the A-NPDC and Virginia Academia will be an important component to the project's success over the long-term. Additionally, the Planning Delivery Team should ensure that prior to each subsequent round of thin layer spraying, there is a need to evaluate any potential adjustments to the thin layer spray plan prior to the next spraying activity.
- The proposal does not identify who will be conducting the thin layer spraying monitoring activities. The individual responsible for monitoring the marsh vegetation and potential adverse impacts from the activities should be a certified professional in the appropriate subject matter.
- The Recommended Plan and the Monitoring and Adaptive Management Plans lack specific information regarding desired topographic conditions following thin layer spraying. The final topography of this marsh site should be at a slightly higher elevation in the marsh interior to allow for and ensure the natural movement of sediment to the marsh interior and to prevent a dike-effect that can occur if the marsh edges are constructed at a higher elevation than the marsh interior.
- The current proposal includes identification measures to mitigate accidental sedimentation occurring in waterways adjacent to the site but does not recognize potential impacts to tidal creeks within the site. It is presumed that the same mitigation techniques would be applied to the small interior tidal creeks at the site.

Alternative Sites That Deserve Future Consideration by the Army Corps of Engineers



The figure above was contained in correspondence dated March 21, 2018, Smith (A-NPDC) to Logalbo (ACoE).

Site 5 in the above figure was described as follows in the Smith 2018 letter as follows:

Located entirely within the one-mile project pumping radius and is presented as a high-priority location. The Denton, et al. (2016) study indicated that this site has experienced significant marsh loss over both the marsh edge and interior of the site dating back to 1871 (see Figure 1 above). A review of the Google Time-lapse tool for the area includes a compilation of aerial photography dating from 1984-2016. This data shows similar marsh loss trends for Site 5 over this time period. Some interesting and potentially important observations that may be drawn from this data. First, immediately following the opening of an ephemeral inlet due east from Site 5 at Cedar Island around 1998-1999, erosion of the edge marsh and degradation/erosion of the interior marsh occurs. This trend continues until the inlet ultimately closes around 2009 and the trend of marsh loss appears to slow or even stop. This observation suggests that temporary (sub-decadal) inlet and over wash activity along southern Cedar Island can have significant impacts on marshes located at least two miles westward of the barrier island. This is significant when determining priorities for potential alternative sites.

The marsh at Site 5 is highly vulnerable and provides critical protection from both the northeast. Should this marsh continue to degrade and erode, it would result in an increase of fetch in Burtons Bay and ultimately increased vulnerability of the critical marshes protecting Wachapreague at Site 1.

One important outlying question regarding the marsh degradation at Site 5 is whether the interior marsh degradation is the result of the increased energy entering the system from the ephemeral inlet that existed to the east of the site or whether the degradation was driven by wave action resulting from increasing fetch from the west as the interior marsh broke down. This information would be necessary to determine how best to design a beneficial use strategy at the site.

The beneficial use strategies at Site 5 would need to include artificial reef structures to protect the eastern and northern marsh edges and potentially need to include artificial reef structures along the western edge of the site. This approach should provide the interior of the site with an adequately low-energy environment where marsh restoration and thin-spraying of spoils could occur and be stabilized.

The proposed high-priority Site 5 provides a unique opportunity to restore and buffer a critical, proximal marsh that should be considered in the Alternative Formulation process.

Whereas, the limitation on dredge material volumes preclude inclusion of Site 5 at this time, the Army Corps should continue to consider the importance of this marsh segment in future habitat restoration/remediation project activities when and if future funding comes available. Dredge materials could be provided from dredging the Waterway on the Coast of Virginia federally designated navigable waterway, Burtons Bay Channel.

Site 4: The description of this site as stated in the Smith 2018 letter: The need for this site remaining in consideration were expressed by the stakeholders. These comments included several ideas and options including reef creation and wetland creation. Site 4 provides critical protection to the Town of Wachapreague and Finney Creek and Bradford Bay Channels. Not carrying this Site forward may be counter-productive to any dredging activities, especially in Finney Creek Channel. Being such, Site 4 should be included in future discussions between USACE, local stakeholders, and VIMS/R-MC.

Reef creation at this site could include the deployment of a series of "living breakwaters" offshore the tidal marsh at the Site using cast concrete structures designed for higher-energy and deeper-water environments, which may be sized for use in upwards of ten feet of water and anchored to the bay bottom. These structures have been proven to be effective in similar environments in other coastal waters in Virginia and are designed to maximize surface area for shellfish accommodation.

Marsh edge erosion is the greatest immediate threat to the marshes in the study area and Site 4 is the most critical with respect to environmental and hazard mitigation benefits of all marshes experiencing edge erosion in the study area. It is important that Site 4 continue to be considered in future discussions between the USACE, local stakeholders, and VIMS/R-MC.

Discussions concerning Site 4 have been held with the Nature Conservancy pursuant to evaluating potential future funding sources for a potential Site 4 project.

Site 3 & Site 9: The Smith letter describes Site 3 as follows:

Site 3 holds potential merit for environmental and hazard mitigation benefits, but not as proposed by the USACE. Rationale for not carrying Site 3 forward was summarized during the February 28 briefing by USACE included pumping distance proximity, although the use of a booster pump arrangement was suggested by stakeholders as a solution to the distance issue, and lack of comments supporting Site 3. While acknowledging that Site 3 has greater challenges regarding logistics, it is requested that the Site be included in future discussions between USACE, local partners, and VIMS/R-MC.

Regarding the lack of public support for Site 3, it may be that Site 3 was not supported because the proposed USACE design for the Site lacks sufficient merit with regards to environmental and hazard mitigation benefits, especially with regards to the dynamic coastal processes occurring presently and over the 50-year project planning horizon. It is requested that the project design for the Site receives complete reconsideration. The current design includes a shore-perpendicular orientation using any combination of thin-layer spraying, reef creation, or wetland creation. The design and orientation of this Site would not provide nearly the level of environmental and hazard mitigation benefit as a shore-parallel design along the back barrier of Cedar Island in this vicinity. Essentially, a shore-parallel back-barrier project could help establish a back-barrier marsh platform that would provide for continued westerly migration of the island. Such a project could also potentially serve as an “anchor” location for accumulation of sediment moving along the barrier chain from north to south via longshore transport. This “anchor” could essentially provide the foundation for what could become a southward pro-grading spit should the southern end of Cedar Island continue to break down.

Site 9 is proposed as an alternative to Site 3 where the proposed shore-parallel orientation within the back-barrier environment could provide a platform over which continued over-wash could naturally occur thereby providing the southern end of Cedar Island an opportunity to stabilize via increased lateral width. This approach could ultimately provide the area to become an “anchor” for continued sediment accumulation via longshore transport from the north which could result in the creation of a pro-gradational spit that provides increased buffer from the Atlantic Ocean over time. The Google Time-lapse images for the area show that the ephemeral inlet in this vicinity has already established a significant sub-aquatic flood tide delta which has supported in marsh growth in certain locations. Marsh restoration in tandem with deployment of artificial reef structures would complement the observed marsh growth trend in this back-barrier area and provide the needed foundation for the southern end of Cedar Island over the coming decades as it continues its over-wash-driven westward movement.

While this option is likely the most complex, it is recommended that it be considered during discussions between the USACE, local stakeholders, and VIMS/R-MC.

The area in the Site 3 & Site 9 zone is the subject of a VIMS NOAA \$250,000 grant and its match toward an engineering design plan to restore and expand a 450-acre marsh along southern Cedar Island on the Eastern Shore and provide resiliency outreach to residents there. Chris Hein, VIMS coastal geologist, said Cedar Island is probably the fastest-eroding island in Virginia. It serves to protect the town of Wachapreague. The project will use the marsh growing behind the barrier island to slow its inland migration. “It’s a new approach to naturally stabilizing a barrier

island by building up its backside,” Hein said. VIMS is partnering on the project with Randolph-Macon College, The George Washington University and the Stantec Inc. consulting engineering firm, based in Canada.

Site 8: The Smith letter evaluates Site 8 as follows:

Site 8 is proposed under the principle that the Alternative Formulation process should consider a longer-term strategy that considers how the barrier island system may evolve within the project’s 50-year planning horizon. The marshes located within these sites would be targeted for thin-layer spraying and/or artificial reef construction in a manner that would ensure the stability of these marshes such that they could serve as the foundation for future barrier island development via natural movement of sand within the system. This phenomenon has been observed where sand is beginning to deposit atop the eastern edge of Club House Marsh on the inside of Wachapreague Inlet. While the evolution of the barrier system in this area over the 50-year planning horizon of this project will undoubtedly be very complex, it is important that the Alternative Formulation process consider this while determining priority sites. Finally, the Site is mostly within the two-mile pumping radius.

Conclusion

Sites 3 through 9 are included herein for the purpose of ensuring these important locations are not completely passed over and forgotten concerning the necessity of mitigating coastal erosion, loss of wildlife habitat and reduction in protection of mainland infrastructure in the Wachapreague, Virginia seaside environs. There are other Corps funding authorities that should be evaluated to address these alternative site projects that are not included within this CAP 204 proposed project.

Further discussions between the ESRNWC, A-NPDC and the Norfolk District should take place concerning potential Corps project funds for these alternative sites. I strongly recommend that between now and the October meeting of the ESRNWC, that Corps Planning review the alternative sites that are included herein, compare to the available Corps authorities and be prepared to provide specific relevant potential Corps funding authorities, including the funding request process that the Corps can take relative to the potential funding of these alternative site projects and provided specific guidance to the Eastern Shore Regional Navigable Waterways Committee at the October meeting.

With all that has been stated herein, I wish to reiterate that I agree with the site selection and general methodology of thin layer spraying of the selected site as proposed by the Corps on June 4th, with the caveats as bulleted concerning the current CAP 204 proposal.

I sincerely appreciate the ability to make comment concerning this CAP 204 project proposal. If I can be of any further assistance in this matter, please do not hesitate to contact me at, seaconsultllc@outlook.com.

Sincerely

John Joeckel

John Joeckel
PO Box 243
Wachapreague, VA 23480
seaconsultllc@outlook.com

CC: Eastern Shore Regional Navigable Waterways Committee
Curtis Smith Accomack-Northampton Planning District Commission
Richard A. Snyder, Director, VIMS Eastern Shore Laboratory

Comment Sheet - CAP, Section 204, Beneficial Uses of Dredged Material Meeting

Please note this is not a questionnaire. The intent of this form is to allow the public and other interested parties to provide written comments to the project.

Name	Organization (if applicable)	Phone Number	Email
VERNON AND CATHEY BELL		(454) 787-3920	shorebells@verizon.net

Please provide your written comment(s) below. If providing comments on multiple sheets, please be sure to number each sheet and provide your name on each sheet.

Based on the presentation and explanations, we are definitely in favor of this project -
VB/CBB



United States Department of the Interior

FISH AND WILDLIFE SERVICE



Virginia Field Office
6669 Short Lane
Gloucester, VA 23061

Date: March 18, 2019

Self-Certification Letter

Project Name: CAP 204, Beneficial Uses of Dredged Material Cedar Island, VA

Dear Applicant:

Thank you for using the U.S. Fish and Wildlife Service (Service) Virginia Ecological Services online project review process. By printing this letter in conjunction with your project review package, you are certifying that you have completed the online project review process for the project named above in accordance with all instructions provided, using the best available information to reach your conclusions. This letter, and the enclosed project review package, completes the review of your project in accordance with the Endangered Species Act of 1973 (16 U.S.C. . 1531-1544, 87 Stat. 884), as amended (ESA), and the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c, 54 Stat. 250), as amended (Eagle Act). This letter also provides information for your project review under the National Environmental Policy Act of 1969 (P.L. 91-190, 42 U.S.C. 4321-4347, 83 Stat. 852), as amended. A copy of this letter and the project review package must be submitted to this office for this certification to be valid. This letter and the project review package will be maintained in our records.

The species conclusions table in the enclosed project review package summarizes your ESA and Eagle Act conclusions. These conclusions resulted in:

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

We certify that use of the online project review process in strict accordance with the instructions provided as documented in the enclosed project review package results in reaching the appropriate determinations. Therefore, we concur with the “no effect” or “not likely to adversely affect” determinations for proposed and listed species and proposed and designated critical habitat; the “may affect” determination for Northern long-eared bat; and/or the “no Eagle Act permit required” determinations for eagles. Additional coordination with this office is not needed.

Candidate species are not legally protected pursuant to the ESA. However, the Service encourages consideration of these species by avoiding adverse impacts to them. Please contact this office for additional coordination if your project action area contains candidate species.

Should project plans change or if additional information on the distribution of proposed or listed species, proposed or designated critical habitat, or bald eagles becomes available, this determination may be reconsidered. This certification letter is valid for 1 year.

Information about the online project review process including instructions and use, species information, and other information regarding project reviews within Virginia is available at our website http://www.fws.gov/northeast/virginiafield/endspecies/project_reviews.html. If you have any questions, please contact Troy Andersen of this office at (804) 824-2428.

Sincerely,



Cindy Schulz
Field Supervisor
Virginia Ecological Services

Enclosures - project review package



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

July 26, 2019

Ms. Alicia Logalbo, Chief
Environmental Analysis Section
Planning and Policy Branch
Norfolk District, US Army Corps of Engineers
803 Front Street
Norfolk, Virginia 23570

Re: Continuing Authorities Program, Section 204
Cedar Island – Draft Integrated Feasibility Report/Environmental Assessment

Dear Ms. Logalbo:

We have reviewed the *Cedar Island Draft Integrated Feasibility Report/Environmental Assessment* (DIFR/EA) which includes an essential fish habitat (EFH) assessment for the proposed beneficial use of dredged sediment from the Finney Creek and Bradford Bay federal navigation channels for restoration and/or enhancements of the Cedar Island back barrier tidal shoreline wetlands and marsh islands located off the coast of Wachapreague, Virginia.

The Fish and Wildlife Coordination Act (FWCA) and the Magnuson-Stevens Fishery Conservation and Management Act (MSA) require you to consult with us on projects such as this that may affect EFH and other aquatic resources. The EFH consultation process is guided by the requirements of our EFH regulation at 50 CFR 600.905, which mandates the preparation of EFH assessments and generally outlines each agency's obligations in the consultation process. Consultations under the FWCA are generally incorporated into the EFH consultation or into comments made on the National Environmental Policy Act (NEPA) document, in this case, the DIFR/EA.

As you know, the study area has been designated as EFH for seventeen federally managed species including, but not limited to, Atlantic butterfish (*Peprilus triacanthus*), bluefish (*Pomatomus saltatrix*), black sea bass (*Centropristis striata*), summer flounder (*Paralichthys dentatus*), windowpane flounder (*Scophthalmus aquosus*), and Atlantic herring (*Clupea harengus*), as well as a number of highly migratory species including the common thresher shark (*Alopias vulpinus*), sand tiger shark (*Carcharias taurus*), sandbar shark (*Carcharhinus plumbeus*), dusky shark (*Carcharhinus obscurus*), and others.

General Comments

The following general comments are provided to assist you in finalizing the DIFR/EA.



DIFR/EA

Section 2.2.3 states the composition of the sediment to be dredged from the channels is described as 50-58% silt, 32% clay, 10-18% sand (Priest et al. 1996). This data is more than 20 years old and sediment characteristics in the channels may have changed. Also, Section 4.9, pg. 90 describes the Bradford Bay sediments as comprised of 55% silt, 43% clay and 2% sand (no reference). We recommend that pre-construction sampling of the texture of the sediments to be dredged so that you may better anticipate the composition of material to be sprayed and plan ahead for any additional BMPs necessary to contain turbidity, the potential need to spread material using heavy equipment, or the presence of acid producing soils which would hamper the restoration of vegetation on the site.

Section 2.3.1.1, pg. 35 discusses the New England Salt Marsh Model (McKinney et al. 2009a) which has been used to determine the value of wetland habitat for terrestrial wildlife and extensively calibrated to assess habitat suitability for bird abundance and species richness (McKinney 2009b). According to the information in the DIFR/EA, this project is anticipated to generate 63.5 habitat units per placement event using this methodology. Although this model may be suitable for assessing to assess bird habitat for New England salt marshes, its suitability for assessing the habitat value Virginia's eastern shore seaside salt marshes as forage, refuge and spawning habitat of several commercially and recreationally important managed fish species has not been documented and the habitat units have little relevance to us. We suggest that the final IFR/EA include a more robust discussion of fisheries habitat improvements anticipated as a result of the project, and that these improvements should be included as project benefit.

Section 3.2, Adaptive Management and Monitoring Plan, pg. 52 discusses the adaptive management plan to monitor and evaluate project success, and states that the plan will be "updated as necessary to reflect science-based restoration goals and strategies for the project." We support this adaptive approach to project management provided the goals of the project are clearly identified prior to material placement and the appropriate adaptive management actions are implemented should annual monitoring indicate that the trajectory for project success is not being achieved.

Section 3.3, Operations and Maintenance, pg. 53 states "once the project has been constructed and turned over, operations, maintenance, repair, replacement, and rehabilitation shall be the primary responsibility of the non-Federal sponsor." However, it unclear to us if the Norfolk District Corps or the non-federal sponsor will be responsible for conducting the necessary vegetative surveys and adaptive management activities during the proposed seven year monitoring period. The party or parties responsible all monitoring and survey work for the 50-year life of the project should be clearly identified in both adaptive management and operations and maintenance plans.

Section 3.6, Best Management Practices (BMPs), pg. 55 discusses the BMPs to be implemented during dredge material spray application to reduce impacts to the aquatic environment. The proposed testing of "soil" for sulfates and anaerobic conditions does not provide parameters or thresholds to determine dredge material suitability for placement. The metrics by which the dredge sediment will be evaluated as being suitable for placement and any measures which may

be employed such as the addition of amendments to achieve such suitability should be clearly defined in the project plans.

Section 4.4, Benthic Fauna, pg. 65 discusses the previous sampling and analysis of the benthic community (USACE 1973). Over the past 46 years, the ecological conditions of the project site have changed as a result of changes in the climate, sea levels and other natural and anthropogenic factors. A current pre-construction benthic survey should be undertaken to better understand the effects of removal of the existing benthic community on EFH with additional, comparable, post-construction surveys occurring during the monitoring period to document benthic recovery or changes in the benthic community as a result of the project. In addition, on page 65, the genus for marine bristleworm is misspelled as *Neresis*; correct spelling is *Nereis*.

Federally listed Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*) have the potential to be present in the project area and should be added to the list of State endangered species (VDGIF) under Section 4.15 pg. 106.

Table 4-12, pg. 110, the designated use of Finney Creek should be changed from “pathogens” to “recreation”.

Appendix J: Monitoring and Adaptive Management

On pg. 464, Table 4-1 discusses re-grading elevations that exceed the target elevations, however little detail is provided regarding how this would be accomplished. The adaptive management plan should discuss the how areas exceeding target elevations will be re-graded to prevent the compaction of the existing marsh sediments.

Section 4.2, Wetland Vegetation Survival and Percent Cover, pg. 466 includes Table 4-2 showing targeted percent cover by year post-construction. The rate of recovery is less than what is typically required for compensatory mitigation projects. The vegetation percent cover targets should be consistent with the EPA/USACE 2008 Compensatory Mitigation Rule or additional supporting information should be provided to explain how the vegetative cover targets were developed.

Magnuson Stevens Fishery Management and Conservation Act

We have reviewed Appendix K, EFH Assessment for this project and offer the following comments and EFH conservation recommendations.

Under your discussion of BMPs to be employed to reduce impacts to EFH, as previously stated, the proposed testing of “soil” for sulfates and anaerobic conditions does not provide parameters or thresholds to determine dredge material suitability for placement. Specific metrics by which the dredge sediment will be evaluated as being suitable for placement and any measures or corrective actions which may be employed, such as amendments, to achieve such suitability should be included in the BMPs and the adaptive management plan.

The descriptions of the life history and habitat requirements for the seventeen federally managed species with EFH designated in the project area is useful information for determining the likelihood of various species and their specific life stages to be present during specific times of

the year. However, a more focused EFH assessment could have been developed by combining this life history information with information on the preferred habitat to identify the species and life stages are likely, or unlikely, to be present in the project area during the time of year when the dredging and placement activities occur. As a result, impacts to EFH and federally managed species may have been better described and certain species and/or life stages could have been eliminated from your list of affected EFH, thereby reducing potential impacts to EFH.

In the EFH assessment, you discuss that implementing Alternative 1A is not predicted to have cumulative or synergistic effects with climate change on fish or EFH. However, the benefits of the proposed project which is being undertaken to counter the effects of climate change (drowned marsh from increased sea level) and the benefits of providing a healthy salt marsh for the refuge, forage and spawning of various life stages of federally managed species, was not discussed. This is a missed opportunity to highlight the ecological benefits of the proposed project. EFH assessment should include an evaluation of both the adverse and positive effects of an action on EFH and federally managed species. In some instances, a project may result in short-term negative effects, but also have long-term positive effects. We consider both when evaluating the effects of an action on our resources and formulating EFH conservation recommendations.

EFH Conservation Recommendations

As the project is currently presented, we are generally supportive of the proposed approach to increase the elevation of the Cedar Island back-barrier marsh through the application of material dredged from Finney Creek and Bradford Bay Channels, applied by spraying slurry material in lifts not to exceed 6-inches for enhancement areas and 2 ft. for restoration areas. However, we recommend pursuant to Section 305(b)(4)(A) of the MSA that you adopt the following EFH conservation recommendations to minimize adverse impacts on EFH:

1. Design and conduct an adequate pre-placement sediment sampling plan to characterize the sediment texture and composition of the material to be dredged from Finney Creek and Bradford Bay Channels so that preventive measures can be employed during placement to contain turbidity on-site to the extent practicable.
2. Define the parameters or thresholds by which the dredged sediment will be analyzed and evaluated for anoxia, sulfates or other constituents as these relate to the suitability of the dredge material for placement.
3. Surround all placement areas during the application of spray-dredge material with Type III silt fence to prevent turbidity from entering adjacent waters and maintain the silt fence for the duration of de-watering until the sediment is consolidated/non-flowable.
4. Define vegetative success criteria in manner consistent with the EPA/USACE 2008 Mitigation Rule.
5. Following material placement, provide us topographic or LIDAR survey information for review and comment prior to taking corrective action such as the application of additional dredge material or the re-grading areas 0.2 ft. above the target elevation.

Please note that Section 305(b)(4)(B) of the MSA requires you to provide use with a written response to these EFH conservation recommendations, including the measures for avoiding, minimizing and mitigating the impacts of the project on EFH. Please also note that EFH consultation must be reinitiated pursuant to 50 CFR 600.920 (j) if new information becomes available or the project is revised in such a manner that affects the basis of the determination above.

Endangered Species Act (ESA)

Threatened and endangered species including sea turtles, marine mammals and Atlantic sturgeon under the jurisdiction of NOAA Fisheries may be present in the project area. In Section 1.8, pg. 20, of the DIFR/EA, you state that there are no anticipated effects to listed species under our purview. However, this may not be an appropriate conclusion due to the proposed use of a hydraulic cutterhead dredge with pipeline and the dredge material placement activities that may have the potential to impact federally listed species. As a result, we suggest contacting our Greater Atlantic Region's Protected Resources Division (PRD) regarding your obligations under Section 7 of the Endangered Species Act (ESA).

Thank you for the opportunity to review and comment on the Cedar Island DIFR/EA and the accompanying EFH assessment (Appendix K). Please contact David O'Brien in our Virginia field office (david.l.obrien@noaa.gov, 804-684-7828) if you have any questions or concerns regarding EFH or other non-ESA listed species. Please contact Brian Hopper of our Protected Resources Division (410 573-4592, brian.d.hopper@noaa.gov) if you have any questions or to discuss your project and obligations under Section 7 of the ESA.

Sincerely,



Louis A. Chiarella
Assistant Regional Administrator
for Habitat Conservation

cc: Richard Harr, NAO ACOE
Brian Hopper, PRD
Emily Hein, VIMS
Tony Watkinson, VMRC
Amy Ewing, VDGIF



DEPARTMENT OF THE ARMY
US ARMY CORPS OF ENGINEERS
NORFOLK DISTRICT
FORT NORFOLK
803 FRONT STREET
NORFOLK VA 23510-1011

July 30, 2019

Louis A. Chiarella
Assistant Regional Administrator
NOAA Fisheries
Habitat Conservation Division
55 Great Republic Drive
Gloucester, MA 01930

**RE: Federal Agency Response – Continuing Authorities Program, Section 204
Beneficial Uses of Dredged Material, Cedar Island, Virginia, Essential Fish
Habitat Conservation Recommendations**

Dear Mr. Chiarella,

This letter is in response to the Essential Fish Habitat (EFH) conservation recommendations for the Continuing Authorities Program, Section 204 Beneficial Uses of Dredged Material, Cedar Island, Virginia Project. Pursuant to Section 305(b)(4)(A) of the Magnuson Stevens Fisheries Conservation and Management Act (MSA), the National Marine Fisheries Service (NMFS) provided the following conservation recommendations to the U.S. Army Corps of Engineers, Norfolk District (USACE):

1. Design and conduct an adequate pre-placement sediment sampling plan to characterize the sediment texture and composition of the material to be dredged from Finney Creek and Bradford Bay Channels so that preventive measures can be employed during placement to contain turbidity on-site to the extent practicable.
2. Define the parameters or thresholds by which the dredged sediment will be analyzed and evaluated for anoxia, sulfates or other constituents as these relate to the suitability of the dredge material for placement.
3. Surround all placement areas during the application of spray-dredge material with Type III silt fence to prevent turbidity from entering adjacent waters and maintain the silt fence for the duration of de-watering until the sediment is consolidated/non-flowable.
4. Define vegetative success criteria in manner consistent with the EPA/USACE 2008 Mitigation Rule.

5. Following material placement, provide us topographic or LIDAR survey information for review and comment prior to taking corrective action such as the application of additional dredge material or the re-grading areas 0.2 ft. above the target elevation.

This letter serves as the USACE's formal response to the EFH conservation recommendations for the Continuing Authorities Program, Section 204 Beneficial Uses of Dredged Material, Cedar Island, Virginia Project as required by 50 Code of Federal Regulations (CFR) 600.920.

Pre-Placement Sediment Sampling Plan

We concur that additional sediment characterization prior to thin-layer dredged material placement characterization is needed. Section 3.6 Best Management Practices and the Monitoring and Adaptive Management Plan found in Appendix J to the Integrated Feasibility Report/Environmental provides an overview of the planned sediment parameters to be assessed during the next phase of the project, the Design and Implementation Phase. During Design and Implementation Phase, a more detailed sediment monitoring plan would be developed that would provide more detailed information on parameters to be monitored, monitoring protocols, sampling replicates, and sampling frequency.

Turbidity Best Management Practices

As described in Section 3.6, Best Management Practices, of the Integrated Feasibility Report/Environmental Assessment (IFR/EA) a Type III Turbidity Curtain would be deployed prior to and during dredged material placement to control turbidity during dredged material placement activities. A silt fence would not be an appropriate Best Management Practice for turbidity control in a dynamic tidal marsh island because of the water velocities and currents that typify the Cedar Island Back-barrier.

Vegetative Success Criteria

Please note that our project is a restoration project not a mitigation project and therefore is not subject to the Compensatory Mitigation for Losses of Aquatic Resources under CWA Section 404 (Final Rule). However, similar to a mitigation project, our project would utilize monitoring, adaptive management, and ecological performance measures that are provided in the Monitoring and Adaptive Management Plan found in Appendix J. Our ecological performance measures were developed to best assess our project goals and objectives associated with the marsh wetland enhancement project. This is also similar to how performance standards are developed for a mitigation project.

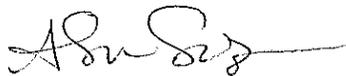
Topographic and LIDAR Data Collection

As detailed in Section 3.1 Description of the Recommended Plan and the Monitoring and Adaptive Management Plan found in Appendix J, topographic surveys would be conducted prior to each dredged material placement. LIDAR data collection is not specifically planned for this project due to its limitations in interpretations in vegetated and shoreline environments for our particular application; however, LIDAR collected by other agencies will be reviewed when available in addition to the collected topographic data. However, for our particular project the topographic data would provide the finest detail available for the elevation data analysis prior to dredged material placement at the marsh island. Because of the sensitivity of the cordgrass (*Spartina alterniflora*) marsh community to minor shifts in elevation, our preferred elevation survey methodology is the finer-level accuracy topographic survey.

Thank you also for providing your general Draft IFR/EA comments and we have provided our responses to your comments as Attachment 1.

If you have any questions or need additional information, I can be contacted via telephone at: (757) 201-7210 or email at Alicia.L.Logalbo@usace.army.mil. Thank you.

Sincerely,



Alicia Logalbo
Chief, Environmental Analysis Section
U.S. Army Corps of Engineers, Norfolk
District

Attachment 1 - Responses to Comments to the Draft Continuing Authorities Program, Section 204, Beneficial Uses of Dredged Material, Cedar Island, Virginia Integrated Feasibility Report/Environmental Assessment

We concur that additional sediment characterization prior to thin-layer dredged material placement characterization is needed. Section 3.6 Best Management Practices and the Monitoring and Adaptive Management Plan found in Appendix J to the Integrated Feasibility Report/Environmental provides an overview of the planned sediment parameters to be assessed during the next phase of the project, the Design and Implementation Phase. During the Design and Implementation Phase, a more detailed sediment monitoring plan would be developed that would provide more detailed information on parameters to be monitored, monitoring protocols, sampling replicates, and sampling frequency.

We concur that implementation of the Preferred Alternatives provides benefits to fisheries habitat improvements and benefits to fish resources are described in Section 5.7 Fishery Resources and Essential Fish Habitat. Overall our project was most focused on benefits to shoreline wetland and marsh islands therefore, we focused our quantitative ecological modeling and benefits evaluation on wetland resources. Therefore, we felt it most appropriate to focus our quantitative analysis on wetland benefits but we also provided a qualitative description of benefits to fishery resources.

Thank you for your support of our dynamic approach to Monitoring and Adaptive Management.

It has not yet determined who will conduct the vegetation surveys as this would be determined during the next phase of the project (the Design and Implementation Phase); however, the construction and initial monitoring and adaptive management of the site would be the responsibility of the USACE. The USACE does not turn over the project to the non-Federal sponsor until the project has met the success criteria outlined in the Monitoring and Adaptive Management Plan found in Appendix J. The Monitoring and Adaptive Management Plan outlines specific ecological performance standards that are to be met the first five years following project implementation. After the fifth year following the final dredged material placement, if all performance standards are being met, the project would then be turned over to the non-Federal sponsor.

No benthic surveys are planned with implementation of this beneficial use project as our project would overall serve to enhance the benthic fauna by reducing open-water placement and serve to enhance the Fools Gut Marsh Island. Any temporary negative impacts from turbidity would be controlled via a Type III Turbidity Curtain and any potential effects to the benefit community from changes in water quality would likely be very difficult to detect. We concur to correct the spelling of *Nereis* and have edited the IFR/EA to incorporate this edit.

Please note that in Section 4.15 Special Status Species we noted that all species that are federally listed are also state-listed and Atlantic Sturgeon was already listed in Table 4-9. Also, the section following on state-listed species is only meant to address state-listed species not previously mentioned. Therefore, no further edit to Table 4-11 is needed.

We concur with the text change to Table 4-12 and have made this revision to the IFR/EA.

Re-grading is a potential adaptive management action if target wetland elevations are exceeded and this is described in the Monitoring and Adaptive Management Plan found in Appendix J. However, we cannot provide a detailed re-grading plan as this would be dependent on the location and volume of re-grading that is necessary and would not be developed until the Design and Implementation Phase of the project (if needed).

Please note that our project is a restoration project not a mitigation project and therefore is not subject to the Compensatory Mitigation for Losses of Aquatic Resources under CWA Section 404 (Final Rule). Please note the Final Rule does not specify vegetation percent cover targets at mitigation sites. However, similar to a mitigation project, our project would utilize monitoring, adaptive management, and ecological performance measures that are provided in the Monitoring and Adaptive Management Plan found in the IFR/EA Appendix J. Our ecological performance measures were developed to best assess our project goals and objectives associated with the marsh wetland enhancement project. This is also similar to how performance standards are developed associated with a mitigation project.

It is difficult to determine when dredges will be available and exact dredging and dredged material placement dates. No Time of Year Restriction is planned for this project. Therefore, for the Essential Fish Habitat Assessment we assumed dredged material placement could occur at any time of the year and evaluated potential impacts to Essential Fish Habitat at any time of the year.

We concur that there are benefits to EFH, however we stated in the IFR/EA that there are no substantive cumulative effects. While there are benefits we would not consider them to be substantive because of the limited scope of the beneficial use project. Our text states in the EFH Assessment that no substantive cumulative effects would be anticipated.

Please note that our Endangered Species Act, Section 7 consultation is limited to the dredged material placement action at the Fools Gut Marsh Island and that any potential impacts to listed species from dredging would be coordinated in a separate consultation process.



COMMONWEALTH of VIRGINIA

Marine Resources Commission
2600 Washington Avenue
Third Floor
Newport News, Virginia 23607

Molly Joseph Ward
Secretary of Natural Resources

John M.R. Bull
Commissioner

November 24, 2015

Ms. Susan Conner, Chief
Planning & Policy Branch
Department of the Army
U.S. Army Corps of Engineers, Norfolk District
Fort Norfolk
803 Front Street
Norfolk, Virginia 23510

Ms. Conner,

This is in response to the potential opportunity identified by the Norfolk District for environmentally beneficial use of materials dredged from the Waterway on the Coast of Virginia in the federally authorized channels near Cedar Island, Virginia. In light of this opportunity we request that the U.S. Army Corps of Engineers investigate the possibility of preparing a feasibility study under its Beneficial Uses of Dredged Materials Program (Section 204 of the Water Resources Development Act of 1992, as amended) to formulate a restoration plan. We believe this project could enhance and restore tidal shoreline wetlands and marsh islands, mudflat habitat, and reef habitat.

We understand the feasibility study would be fully funded by the U.S. Army Corps of Engineers and will investigate alternative solutions to identify a plan to enhance and restore aquatic and ecologically related habitats. Once the study is completed, the VMRC will examine it to determine whether to pursue being a local sponsor of any project that it recommends under the Section 204 program, and identify funding opportunities to meet the local sponsor cost sharing requirement of 35 percent for the construction cost that would exceed the baseline cost of the federal navigation project.

Please include myself and Tony Watkinson, Chief of the VMRC Habitat Management Division, as the point of contact for this project. Thank you for your team's work on this issue.

An Agency of the Natural Resources Secretariat
www.mrc.virginia.gov

Telephone (757) 247-2200 (757) 247-2292 V/TDD Information and Emergency Hotline 1-800-541-4646 V/TDD

Sincerely,

A handwritten signature in black ink, appearing to read "John M.R. Bull". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

John M.R. Bull

CC: Molly Ward, Secretary of Natural Resources

Molly Joseph Ward
Secretary of Natural Resources

Clyde E. Cristman
Director



Rochelle Altholz
Deputy Director of
Administration and Finance

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

Thomas L. Smith
Deputy Director of Operations

COMMONWEALTH of VIRGINIA
DEPARTMENT OF CONSERVATION AND RECREATION

December 29, 2016

Richard Harr
Norfolk District, Corps of Engineers
803 Front Street
Norfolk, VA 23510-1096

Re: Cedar Island, Beneficial Uses of Dredged Material

Dear Mr. Harr:

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

According to the information currently in our files, the Cedar Island Conservation Site is located within the project site. Conservation sites are tools for representing key areas of the landscape that warrant further review for possible conservation action because of the natural heritage resources and habitat they support. Conservation sites are polygons built around one or more rare plant, animal, or natural community designed to include the element and, where possible, its associated habitat, and buffer or other adjacent land thought necessary for the element's conservation. Conservation sites are given a biodiversity significance ranking based on the rarity, quality, and number of element occurrences they contain; on a scale of 1-5, 1 being most significant. Cedar Island Conservation Site has been given a biodiversity significance ranking of B3, which represents a site of high significance. The natural heritage resources of concern at this site are:

Euphobia bombensis	Southern seaside spurge	G4G5/S2/NL/NL
Charadrius wilsonia	Wilson's plover	G5/S1B/NL/LE
Sternula antillarum	Least tern	G4/S2B/NL/NL
Sabatia campanulata	Slender marsh pink	G5/S2/NL/NL
Charadrius melodus	Piping plover	G3/S2B, S1N/LT/LT
Gelochelidon nilotica	Gull-billed tern	G5/S2B/NL/LT
Rynchops niger	Black skimmer	G5/S2B, S1N/NL/NL
	Bird Nesting Colony	G5/SNR/NL/NL
Cakile edentula – Salsola kali Herbaceous Vegetation		
	North Atlantic Upper Beach / Overwash Flat	G4G5/S3/NL/NL

In addition, seven conservation sites are within two miles of the project area, Metompinkin Island, Parramore Island, Curlew Bay Marsh, Wye Channel Marshes, Dawson Shoals, Hummock Cove Marsh, and Wachapreague, each of which have documented natural heritage resources within them (see attached Table for Sites and resources).

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

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

Dredge material is not comparable to natural soil, or sand, and results in an alteration of habitat and vegetative community composition. Phragmites is persistent on the Eastern Shore because the rhizomes are constantly broken off and dispersed by storm events that allow them to enter the waterways. They collect at the high tide lines, establishing new infestations. Dredge-spoil provides the perfect soil medium and disturbance conditions for establishment. The native vegetation requires specific soil conditions and does not tolerate dredge material well. Any native vegetation that does establish is quickly out-competed by Phragmites.

Additionally, Cedar Island is a nesting site for Piping Plovers, Black Skimmers and other shorebirds. Although, the birds may enjoy the artificial habitat created by the initial placing of dredge material, the habitat will be temporary unless measures are taken to prevent Phragmites establishment or the dredge is continually replenished. Either way, natural vegetation establishment and beach or marsh processes will be disrupted. Any perceived benefits to a particular suite of species, in this case nesting shorebirds, should be weighed against the effects on other species and natural ecological processes.

DCR recommends avoiding placing dredge material on Cedar Island or any of the conservation sites within the project area. Due to the legal status of the Gull-billed tern, Wilson's plover, Peregrine falcon, Piping plover, Loggerhead sea turtle, DCR recommends coordination with Virginia's regulatory authority for the management and protection of this species, the VDGIF, to ensure compliance with the Virginia Endangered Species Act (VA ST §§ 29.1-563 – 570). Due to the legal status of the Loggerhead sea turtle and the Piping plover, DCR also recommends coordination with the U.S. Fish and Wildlife Service (USFWS) to ensure compliance with the endangered species legislation.

Finally, Parramore Island Natural Area Preserve has been documented within the project site. Please coordinate with Dot Field, DCR's Eastern Shore Regional Steward, at (757) 787-5989 or dot.field@dcr.virginia.gov for more information about the preserve and associated natural heritage resources.

Under a Memorandum of Agreement established between the Virginia Department of Agriculture and Consumer Services (VDACS) and the Virginia Department of Conservation and Recreation (DCR), DCR represents VDACS in comments regarding potential impacts on state-listed threatened and endangered plant and insect species. The current activity will not affect any documented state-listed plants or insects.

New and updated information is continually added to Biotics. Please re-submit project information and map for an update on this natural heritage information if the scope of the project changes and/or six months has passed before it is utilized.

The Virginia Department of Game and Inland Fisheries (VDGIF) maintains a database of wildlife locations, including threatened and endangered species, trout streams, and anadromous fish waters that may contain information not documented in this letter. Their database may be accessed from <http://vafwis.org/fwis/> or contact Ernie Aschenbach at 804-367-2733 or Ernie.Aschenbach@dgif.virginia.gov.

Should you have any questions or concerns, feel free to contact me at 804-692-0984. Thank you for the opportunity to comment on this project.

Sincerely,



Alli Baird, LA, ASLA
Coastal Zone Locality Liaison



A-NPDC

ACCOMACK-NORTHAMPTON PLANNING DISTRICT COMMISSION
PO Box 417 • 23372 FRONT STREET • ACCOMAC, VIRGINIA 23301
(757) 787-2936 • TOLL FREE (866) 787-3001 • FAX (757) 787-4221
WEBSITE: www.a-npdc.org

March 21, 2018

U.S. Army Corps of Engineers
Norfolk District
Environmental Analysis Section
803 Front Street
Norfolk, Virginia 23510
Attn.: Alicia Logalbo

Subject: Comments Regarding Continuing Authorities Program, Section 204, Beneficial Uses of Dredged Material, Cedar Island, Virginia

Dear Ms. Logalbo,

This correspondence is in response to recent discussions held during the Alternative Formulation Briefing held on February 28, 2018 in Wachapreague, Virginia. As noted in previous discussions and correspondence from the Accomack-Northampton Planning District Commission (A-NPDC) and the Eastern Shore of Virginia Regional Navigable Waterways Committee (ESRNWC), it has been requested that the Cedar Island Section 204 project involve feedback and guidance from academic experts from the Virginia Institute of Marine Science (VIMS) and Randolph-Macon College (R-MC), who have the foremost understanding of the project study area. A-NPDC staff have reached out to and held phone conversations with three professors from VIMS and R-MC to solicit their initial feedback on the USACE preferred alternatives identified in the presentation provided during the February 28, 2018 meeting in Wachapreague. These phone conversations were intended to serve as a first step attempt to initiate what are desired to become a series of discussions between USACE, local stakeholders and academic institutions in the months during the development of the Draft Detailed Project Report and NEPA Document.

It is important to emphasize that the following comments are not intended to be comprehensive and final in nature, but rather serve as the initiation of what hopefully will be an ongoing line of communication. Further and most importantly, the comments provided herein do not represent an official comment from VIMS or R-MC.

Recommended Resources

The following is a precursory list of recommended resources that were used in the development of the comments and concepts presented within this letter. They are presented to USACE as it is believed that they would be beneficial to the alternative formulation process (in no particular order):

- [Deaton, et al, "Barrier island migration dominates ecogeomorphic feedbacks and drives salt marsh loss along the Virginia Atlantic Coast, USA" \(2016\)](#)
 - Note: The study includes a very important figure included below as Figure 1, which clearly shows the significant widespread loss of barrier island land mass and the substantial deterioration of the back-barrier saltmarsh over the decades caused by various natural processes in the Wachapreague-Cedar Island area back-barrier salt marshes and lagoons. Thus, the need to evaluate various alternative sites as part of this project as suggested herein. The figure depicts:
 - A: Virginia (VA; USA) barrier islands. Numbers in parentheses are island-averaged long-term (A.D. 1851–1852 to 2010) and short-term (1980–2010; in brackets) shoreline retreat rates (in m yr.⁻¹) from linear regressions of shoreline position and date.

- B: Marsh extent (blue lines) behind Cedar and northern Parramore Islands in the mid- to late 1800s.
- C: Marsh extent in 2009.
- D: The gain and loss in marsh area in the intervening ~140 yr. Data for 1854 (northern Cedar) and 1871 (southern Cedar and northern Parramore) are derived from National Oceanic and Atmospheric Administration (NOAA) topographic sheets. Modern data are derived from digital classification of 2009 aerial orthoimagery.

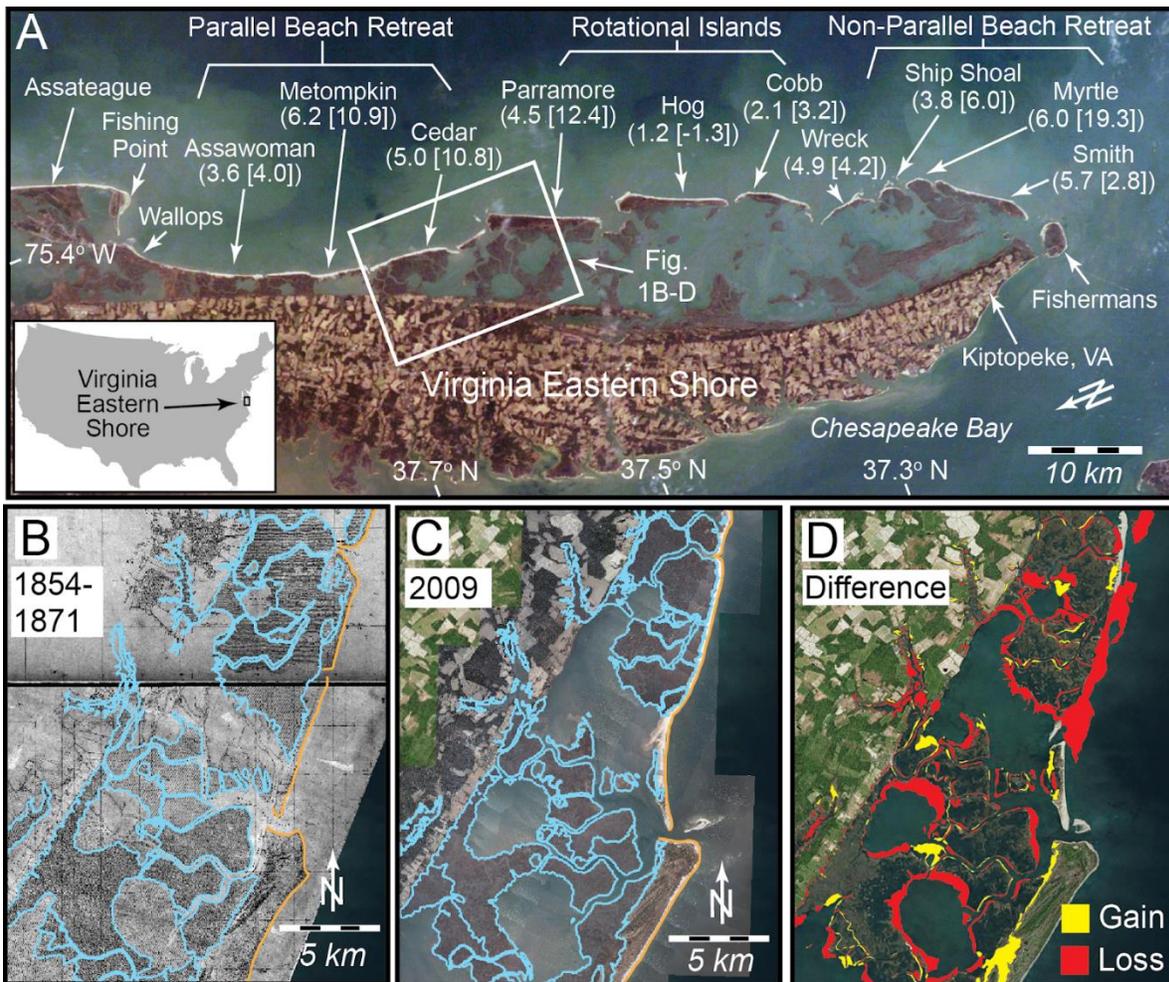


Figure 1: From Deaton, et al, “Barrier island migration dominates ecogeomorphic feedbacks and drives salt marsh loss along the Virginia Atlantic Coast, USA” (2016)

- Fenster, et al., “Grain-size distributions and coastal morphodynamics along the southern Maryland and Virginia barrier islands” (2015)
- Mariotti and Fagherazzi “Critical width of tidal flats triggers marsh collapse in the absence of sea-level rise” (2013).
- Raff, Jessica L., “Thresholds of barrier island change: A case study of Parramore Island, Virginia Eastern Shore” (2017). *Undergraduate Honors Theses. Paper 1063*
- [Eastern Shore of Virginia Coastal Resilience Tool](#)
 - Future Habitat App: includes dynamic SLAMM model outcomes for the study area and may give general sense of which marshes are relatively most vulnerable to sea-level rise
 - Coastline Change App: illustrates historical barrier island shoreline evolution dating back to 1851

Comments on USACE Alternative Sites -

The following comments have been organized by the Alternatives put forth in the USACE Alternative Formulation Briefing presentation dated February 28, 2018.

Alternative Site 1 -

Thin-layer spraying at Site 1 may likely prove the greatest combination of environmental and hazard mitigation benefits of the four sites identified by USACE. Additional consideration of the A-NPDC Alternatives 5 through 9 should include analysis and comparison of marsh elevations between sites. In general, thin-layer spraying should be prioritized for marshes with the lowest elevations in order to achieve the greatest short-term environmental and hazard mitigation benefits. Such a comparison may be completed with available LiDAR data (2011, 2015) for the area. The 2015 LiDAR data includes the greatest vertical elevation resolution and may be most useful. A-NPDC staff are willing and able to assist with this elevation data exercise.

Additionally, thin-layer spraying on this or any marsh site should be conducted in a manner that focuses on placing spoil on the interior of the marsh and avoids creation of a berm or levee effect by placing greater amounts of spoil on the marsh edges. Focusing placement on the interior and limiting placement on the marsh edges allows for the natural movement of sediment to continue at its current rate.

Alternative Site 2 -

Any combination of thin-layer spraying, reef creation, or wetland creation may be technically feasible as stated by USACE, but the site includes greater potential use conflicts as stated during the February 28 briefing and would not provide the same level of environmental and hazard mitigation benefits as Alternative Site 1 or A-NPDC Alternative Sites 5 through 9. Regarding hazard mitigation specifically, the greatest vulnerability of higher energy events impacting Wachapreague occur from the northeast to easterly directions, and the other noted alternatives address this vulnerability whereas Site 2 does not.

Alternative Site 3-

Site holds potential merit for environmental and hazard mitigation benefits, but not as proposed by the USACE. Rationale for not carrying Site 3 forward was summarized during the February 28 briefing by USACE included pumping distance proximity, although the use of a booster pump arrangement was suggested by stakeholders as a solution to the distance issue, and lack of comments supporting Site 3. While acknowledging that Site 3 has greater challenges regarding logistics, it is requested that the Site be included in future discussions between USACE, local partners, and VIMS/R-MC.

Regarding the lack of public support for Site 3, it may be that Site 3 was not supported because the proposed USACE design for the Site lacks sufficient merit with regards to environmental and hazard mitigation benefits, especially with regards to the dynamic coastal processes occurring presently and over the 50-year project planning horizon. It is requested that the project design for the Site receives complete reconsideration. The current design includes a shore-perpendicular orientation using any combination of thin-layer spraying, reef creation, or wetland creation. The design and orientation of this Site would not provide nearly the level of environmental and hazard mitigation benefit as a shore-parallel design along the back barrier of Cedar Island in this vicinity. Essentially, a shore-parallel back-barrier project could help establish a back-barrier marsh platform that would provide for continued westerly migration of the island. Such a project could also potentially serve as an “anchor” location for accumulation of sediment moving along the barrier chain from north to south via longshore transport. This “anchor” could essentially provide the foundation for what could become a southward prograding spit should the southern end of Cedar Island continue to break down. The A-NPDC has summarized these ideas and presented them collectively as Alternative Site 9 described later in this letter.

Alternative Site 4-

While Site 4 was not recommended to be carried forward by USACE during the February 28 briefing, comments concerning the need for this site remaining in consideration were expressed by the stakeholders. These comments included several ideas and options including reef creation and wetland creation. Site 4 provides critical protection to the Town of Wachapreague and Finney Creek and Bradford Bay Channels. Not carrying this Site forward may be counter-productive to any dredging activities, especially in Finney Creek Channel. Being such, Site 4 should be included in future discussions between USACE, local stakeholders, and VIMS/R-MC.

Reef creation at this site could include the deployment of a series of “living breakwaters” offshore the tidal marsh at the Site using cast concrete structures designed for higher-energy and deeper-water environments such as the one depicted in Figure 2, which may be sized for use in upwards of ten feet of water and anchored to the bay bottom. These structures have been proven to be effective in similar environments in other coastal waters in Virginia and are designed to maximize surface area for shellfish accommodation.



Figure 2 - Example of living breakwater which could be scaled appropriately and utilized in relatively higher-energy environment at Site 4.(Photo from OystersForLife.com)

Marsh edge erosion is the greatest immediate threat to the marshes in the study area and Site 4 is the most critical with respect to environmental and hazard mitigation benefits of all marshes experiencing edge erosion in the study area. It is important that Site 4 continue to be considered in future discussions between the USACE, local stakeholders, and VIMS/R-MC.

Additional Alternative Sites -

Figure 3 shows the location of proposed Alternative Sites for consideration in future discussions between the USACE, local stakeholders, and VIMS/R-MC.

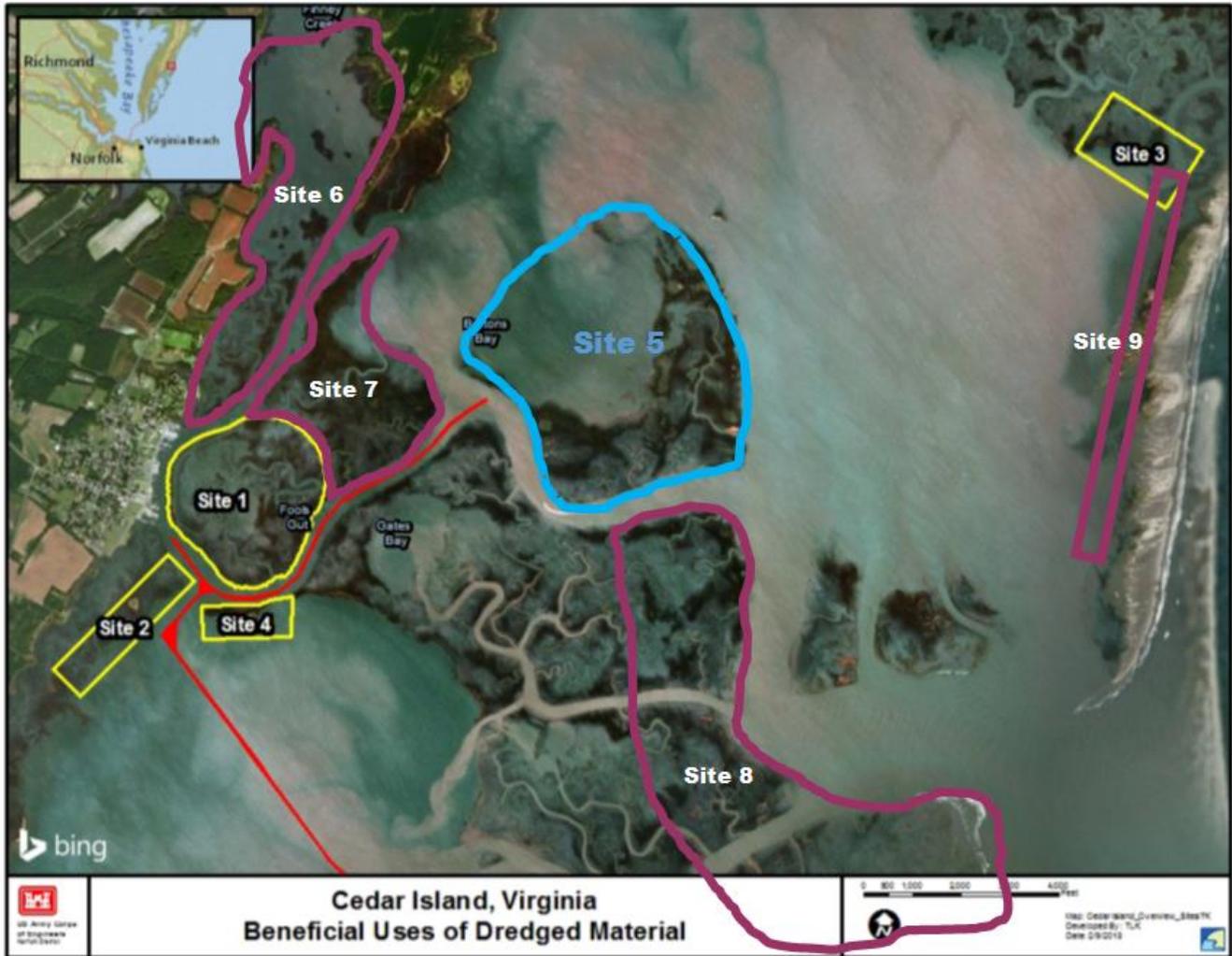


Figure 3 - Area map modified from USACE map presented on February 28, 2018 showing suggested additional potential sites for alternatives. Sites 5 through 9 are requested to be considered during future discussions with the USACE, local stakeholders, and VIMS/R-MC academic experts. The site highlighted blue (Site 5) is presented as a high priority location based on observed marsh degradation over the past 3 decades and its potential benefits to the overall ecosystem and hazard mitigation. The sites highlighted in magenta are presented as additional alternatives which require additional discussion and review of available data to determine if they hold similar levels of potential benefit as Site 5 and USACE Sites 1-4.

Alternative Site 5-

Proposed Alternative Site 5 is located entirely within the one-mile project pumping radius and is presented as a high-priority location. The Deaton, et al. (2016) study indicated that this site has experienced significant marsh loss over both the marsh edge and interior of the site dating back to 1871 (see Figure 1 above). A review of the [Google Timelapse tool for the area](#) includes a compilation of aerial photography dating from 1984-2016. These data shows similar marsh loss trends for Site 5 over this time period. Some interesting and potentially important observations may be drawn from these data. First, immediately following the opening of an ephemeral inlet due east from Site 5 at Cedar Island around 1998-1999, erosion of the edge marsh and degradation/erosion of the interior marsh occurred. This trend continued until the inlet ultimately closed around 2009 and the trend of marsh loss appeared to slow or even stop. This observation suggests that temporary (sub-decadal) inlet and overwash activity along southern Cedar Island can have significant impacts on marshes located at least two miles westward of the barrier island. This phenomenon is significant when determining priorities for potential alternative sites.

The marsh at Site 5 is highly vulnerable and provides critical protection from the predominant northeast storm wave approach. Should this marsh continue to degrade and erode, it would result in an increase of fetch in Burtons Bay and ultimately increased vulnerability of the critical marshes protecting Wachapreague at Site 1. The primary concern is that losing the marsh at Site 5 could start a “domino effect” of marsh loss.

One important outlying question regarding the marsh degradation at Site 5 is whether the interior marsh degradation is the result of the increased energy entering the system from the ephemeral inlet that existed to the east of the site or whether the degradation was driven by wave action resulting from increasing fetch from the west as the interior marsh broke down. This information would be necessary to determine how best to design a beneficial use strategy at the site.

The beneficial use strategies at Site 5 would need to include artificial reef structures to protect the eastern and northern marsh edges and potentially need to include artificial reef structures along the western edge of the site. This approach should provide the interior of the site with an adequately low-energy environment where marsh restoration and thin-spraying of spoils could occur and be stabilized.

The proposed high-priority Site 5 provides a unique opportunity to restore and buffer a critical, proximal marsh and provide the greatest protection to Wachapreague from storm surge that should be considered in the Alternative Formulation process.

Alternative Site 6-

Similar to Site 5, the proposed Site 6 has experienced extensive marsh degradation as documented by Deaton, et al. (2016) and the [Google Timelapse dataset for the area](#). Marsh degradation began approximately in the mid-late 1990s in the upper and mid reaches of Nickawampus and Finney Creeks. This trend continued through the 2000s as the degradation expanded to the outer reaches of the area. In the recent years during the 2010s, the marshes in this area closer to Wachapreague have begun and continued to degrade. An important first step for determining the priority level of this site would be to compare its marsh elevations with those from surrounding marshes. As stated previously, priority should be considered for marshes with lowest elevations.

While the reasons for this marsh degradation are likely more complex than the phenomena described previously for Site 5, the observed marsh degradation presents an opportunity for marsh restoration and protection. A “worst case scenario” for the degradation trends described for Site 6, is that they constitute what could be a continuing trend of marsh degradation in what are currently healthy and thriving marshes east and northeast of Wachapreague at Sites 1 and 7. If this is to be the case, then Site 6 deserves consideration for inclusion in the Alternative Formulation process, especially since it is entirely within both the one and two-mile pumping radius areas. At the very least, a marsh restoration and thin-spraying strategy at this Site would be more desirable than what is proposed at Site 2.

Alternative Site 7-

While proposed Site 7 has not experienced the same levels of marsh loss as Sites 5 and 6 as documented by Deaton, et al. (2016 - ***net marsh gain actually reported for this area) and the Google Timelapse, the site is very proximal (entirely within one-mile pumping radius) to dredging and would provide excellent environmental and hazard mitigation benefits (especially from the north and northeast). A strategy for this site could solely be thin-layer spraying. As with other sites, it would be important to compare the marsh elevations from Site 7 with those from other areas to determine this Sites priority level.

Alternative Site 8-

Site 8 is proposed under the principle that the Alternative Formulation process should consider a longer-term strategy that considers how the barrier island system may evolve within the project’s 50-year planning horizon.

The marshes located within these sites would be targeted for thin-layer spraying and/or artificial reef construction in a manner that would ensure the stability of these marshes such that they could serve as the foundation for future barrier island development via natural movement of sand within the system. This phenomenon has been observed where sand is beginning to deposit atop the eastern edge of Club House Marsh on the inside of Wachapreague Inlet. While the evolution of the barrier system in this area over the 50-year planning horizon of this project will undoubtedly be very complex, it is important that the Alternative Formulation process consider this while determining priority sites. Finally, the Site is mostly within the two-mile pumping radius.

Alternative Site 9

Site 9 is proposed as an alternative to Site 3 where the proposed shore-parallel orientation within the backbarrier environment could provide a platform over which continued overwash could naturally occur thereby providing the southern end of Cedar Island an opportunity to stabilize via increased lateral width. This approach could ultimately provide the area to become an “anchor” for continued sediment accumulation via longshore transport from the north which could result in the creation of a progradational spit that provides increased buffer from the Atlantic Ocean over time. The [Google Timelapse images for the area](#) show that the ephemeral inlet in this vicinity has already established a significant sub-aquatic flood tide delta which has supported marsh growth in certain locations. Marsh restoration in tandem with deployment of artificial reef structures would complement the observed marsh growth trend in this backbarrier area and provide the needed foundation for the southern end of Cedar Island over the coming decades as it continues its overwash-driven westward movement.

It is not certain that a similar approach to stabilize and support a barrier island via backbarrier marsh creation has been attempted elsewhere; however, it is believed that the proposed approach for the southern end of Cedar Island is possible based off understanding gained from available research and resources. Further, it is recognized that while this option is likely the most complex and potentially the riskiest of all identified alternatives, it also holds the greatest potential for providing environmental and hazard mitigation benefits. Therefore, it is recommended that it be considered during discussions between the USACE, local stakeholders, and VIMS/R-MC.

Summary

The A-NPDC has not provided comments on the Cedar Island project to date due to information provided by USACE staff during the December 2016 Public Scoping meeting where it was stated that an ongoing stakeholder communication process was imminent. To date, this has not been the case and being such, the A-NPDC has engaged three professors from VIMS and R-MC following the February 2018 Alternative Formulation Briefing. These academic experts have generously agreed to take part in the project planning process over the coming months. The A-NPDC respectfully requests that the USACE accept a standing offer to collaborate with local stakeholders and the academic experts to continue to develop alternatives that could provide the maximum level of environmental and hazard mitigation benefit. The A-NPDC offers to assist with coordination of the meetings and provide any other assistance necessary.

Additional resources have been provided to highlight the need for additional consideration and discussion during the Alternative Formulation process. Comments regarding the existing four Alternative Sites have been provided in addition to five additional Alternative Sites not previously recognized by the USACE. One of the five proposed Alternative Sites (Site 5) is presented as a high-priority alternative.

We are confident that an optimal alternative providing the greatest level of benefit is available within the list of alternatives (including both USACE and A-NPDC sites) provided herein. We anticipate the opportunity to continue the critical technical and logistical discussions necessary to identify an optimal direction that achieves the intent of the Section 204 Project Authority.

Respectfully submitted,

A handwritten signature in black ink, appearing to be 'C. W. Smith', written in a cursive style.

Curtis W. Smith
Director of Planning
Accomack-Northampton Planning District Commission

CC: Susan Conner, USACE; Tony Watkinson, VMRC; Elaine Meil, A-NPDC; John Joeckel, ESRNWC; Drs. Matt Kirwan and Chris Hein, VIMS; Dr. Mike Fenster, R-MC

Cc: Amy Ewing, VDGIF
Troy Andersen, USFWS
Dot Field, DCR



DEPARTMENT OF THE ARMY
US ARMY CORPS OF ENGINEERS
NORFOLK DISTRICT
FORT NORFOLK
803 FRONT STREET
NORFOLK VA 23510-1011

WR-PE

June 3, 2019

Kimberly Penrod
Delaware Nation
PO Box 825
Anadarko, OK 73005

Dear Ms. Penrod,

The U.S. Army Corps of Engineers (USACE) and the Virginia Marine Resource Commission (VMRC) announce the release of the Draft Continuing Authorities Program, Section 204 Beneficial Uses of Dredged Material Cedar Island, Virginia Integrated Feasibility Study/Environmental Assessment. An electronic copy of the Draft Integrated Feasibility Report/Environmental Assessment is available for public viewing at the Continuing Authorities Program, Section 204, Beneficial Uses of Dredged Material study website:

<https://www.nao.usace.army.mil/About/Projects/Cedar-Island-CAP-204/>

The public is invited to submit public comments at the meeting and/or submit comments to Richard Harr, USACE, via email/mail/telephone at richard.m.harr@usace.army.mil/ATTN: Richard Harr, Department of the Army, U.S. Army Corps of Engineers, Norfolk District, Fort Norfolk, 803 Front St., Norfolk, VA 23510/(757)201-7746, until June 18, 2019.

Sincerely,

John H. Haynes, RPA

John H. Haynes, Jr., RPA
Archaeologist & Tribal Liaison
US Army Corps of Engineers, Norfolk District
Planning Branch, Environmental Analysis



**DEPARTMENT OF THE ARMY
US ARMY CORPS OF ENGINEERS
NORFOLK DISTRICT
FORT NORFOLK
803 FRONT STREET
NORFOLK VA 23510-1011**

WR-PE

June 3, 2019

Chief Robert Gray
Pamunkey Tribal Government
191 Lay Landing Road
King William, VA 23086-2133

Dear Chief Gray,

The U.S. Army Corps of Engineers (USACE) and the Virginia Marine Resource Commission (VMRC) announce the release of the Draft Continuing Authorities Program, Section 204 Beneficial Uses of Dredged Material Cedar Island, Virginia Integrated Feasibility Study/Environmental Assessment. An electronic copy of the Draft Integrated Feasibility Report/Environmental Assessment is available for public viewing at the Continuing Authorities Program, Section 204, Beneficial Uses of Dredged Material study website:

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Sincerely,

John H. Haynes, RPA

John H. Haynes, Jr., RPA
Archaeologist & Tribal Liaison
US Army Corps of Engineers, Norfolk District
Planning Branch, Environmental Analysis



DEPARTMENT OF THE ARMY
US ARMY CORPS OF ENGINEERS
NORFOLK DISTRICT
FORT NORFOLK
803 FRONT STREET
NORFOLK VA 23510-1011

WR-PE

June 3, 2019

Allyn Cook-Swarts
Administrator
Pamunkey Indian Tribe
1054 Pocahontas Trail
King William, VA 23086

Dear Ms. Cook-Swarts,

The U.S. Army Corps of Engineers (USACE) and the Virginia Marine Resource Commission (VMRC) announce the release of the Draft Continuing Authorities Program, Section 204 Beneficial Uses of Dredged Material Cedar Island, Virginia Integrated Feasibility Study/Environmental Assessment. An electronic copy of the Draft Integrated Feasibility Report/Environmental Assessment is available for public viewing at the Continuing Authorities Program, Section 204, Beneficial Uses of Dredged Material study website:

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Sincerely,

John H. Haynes, RPA

John H. Haynes, Jr., RPA
Archaeologist & Tribal Liaison
US Army Corps of Engineers, Norfolk District
Planning Branch, Environmental Analysis



DEPARTMENT OF THE ARMY
US ARMY CORPS OF ENGINEERS
NORFOLK DISTRICT
FORT NORFOLK
803 FRONT STREET
NORFOLK VA 23510-1011

WR-PE

June 3, 2019

Samantha Henderson
Virginia Department of Historic Resources
2801 Kensington Avenue
Richmond, VA 23221

Dear Ms. Henderson,

The U.S. Army Corps of Engineers (USACE) and the Virginia Marine Resource Commission (VMRC) announce the release of the Draft Continuing Authorities Program, Section 204 Beneficial Uses of Dredged Material Cedar Island, Virginia Integrated Feasibility Study/Environmental Assessment. An electronic copy of the Draft Integrated Feasibility Report/Environmental Assessment is available for public viewing at the Continuing Authorities Program, Section 204, Beneficial Uses of Dredged Material study website:

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Sincerely,

John H. Haynes, RPA

John H. Haynes, Jr., RPA
Archaeologist & Tribal Liaison
US Army Corps of Engineers, Norfolk District
Planning Branch, Environmental Analysis



DEPARTMENT OF THE ARMY
US ARMY CORPS OF ENGINEERS
NORFOLK DISTRICT
FORT NORFOLK
803 FRONT STREET
NORFOLK VA 23510-1011

WR-PE

June 3, 2019

Susan Bachor
Delaware Tribe of Indians
P.O. Box 64
Pocono Lake, PA 18347

Dear Ms. Bachor,

The U.S. Army Corps of Engineers (USACE) and the Virginia Marine Resource Commission (VMRC) announce the release of the Draft Continuing Authorities Program, Section 204 Beneficial Uses of Dredged Material Cedar Island, Virginia Integrated Feasibility Study/Environmental Assessment. An electronic copy of the Draft Integrated Feasibility Report/Environmental Assessment is available for public viewing at the Continuing Authorities Program, Section 204, Beneficial Uses of Dredged Material study website:

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Sincerely,

John H. Haynes, RPA

John H. Haynes, Jr., RPA
Archaeologist & Tribal Liaison
US Army Corps of Engineers, Norfolk District
Planning Branch, Environmental Analysis



DEPARTMENT OF THE ARMY
US ARMY CORPS OF ENGINEERS
NORFOLK DISTRICT
FORT NORFOLK
803 FRONT STREET
NORFOLK VA 23510-1011

March 27, 2018

Planning and Policy Branch

Subject: Fish and Wildlife Coordination Act Guidance and Report Request: Continuing Authorities Program, Section 204, Beneficial Uses of Dredged Material, Cedar Island, Virginia Feasibility Study.

U.S. Fish and Wildlife Service
Chesapeake Bay Field Office
Mr. Chris Guy
177 Admiral Cochrane Drive
Annapolis, Maryland 21401

Dear Mr. Guy:

We are requesting the assistance of the U.S. Fish and Wildlife Service (USFWS), Chesapeake Bay Field Office, to determine the need for preparation of a Planning Aid Report (PAR), in accordance with Fish and Wildlife Coordination Act (16 U.S.C. 661-666c; Act of March 10, 1934, as amended), for the Continuing Authorities Program, Beneficial Uses of Dredged Material Feasibility Study located at Cedar Island, Virginia.

The feasibility study was authorized through Section 204 of the Water Resources Development Act of 1992 provides authority for the Corps of Engineers to plan, design and build project, restore and create aquatic and ecologically related habitats in connection with dredging of authorized Federal navigation projects. The lead federal agency for the study is the U.S. Army Corps of Engineers (USACE), and the nonfederal sponsor is the Virginia Marine Resource Commission (VMRC). At this time, National Environmental Policy Act (NEPA) scoping has been conducted for the study and the preparation of an Environmental Assessment (EA) is currently being written.

The project is located at the back-barrier of Cedar Island which is located off the coast of Wachapreague, Virginia. Cedar Island is located centrally within the barrier island chain with Metompkin Inlet separating Cedar Island from Metompkin Island to the north of Wachapreague inlet separating Cedar Island from Parramore Island to the south. The western side of Cedar Island (referred to as the back-barrier) is flanked by channels, tidal wetlands and marshes, lagoons, and mudflats. Enclosure 1 provides a map of the project study area, federal navigation channels within the study area in blue and current dredged material placement.

Based on the plan formulation to date, the measures being considered include thin-layer placement of dredged material onto existing tidal wetlands, tidal wetland creation, reef habitat creation and various alternatives have been formulated that consider application of these measures at potential project sites in the Cedar Island Back-Barrier.

Based on the scope of this study and the resources involved, the USACE is requesting a PAR to be prepared. We would also welcome the participation of the USFWS in the consideration of alternatives, in our planning and cooperating agency meetings, and in the development of a Planning Aid Letter and/or a Planning Aid Report throughout our study planning processes.

We respectfully request a response by May 31, 2018, if possible, so that we can properly coordinate a Scope of Work and transfer of funds for the preparation of the PAR. In the interim, please do not hesitate to contact me at richard.m.harr@usace.army.mil or (757) 201- 7746, if you have any questions or need additional information. Thank you for your assistance.

Sincerely,

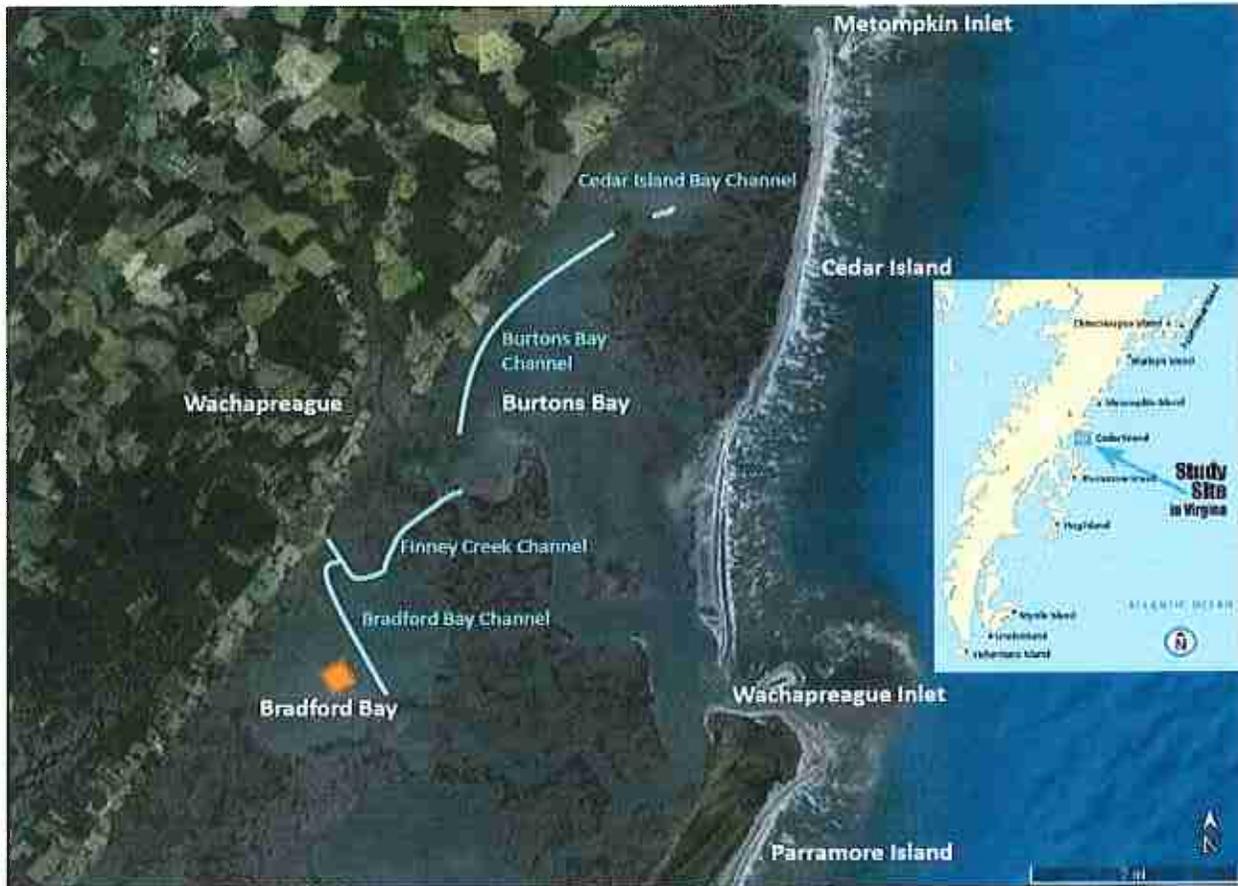
A handwritten signature in black ink, appearing to read 'R. M. Harr', written over a horizontal line.

Richard M. Harr, PWS, CES
Environmental Scientist
Environmental Analysis Section

Copies furnished:

Troy Anderson, U.S. Fish and Wildlife Service Virginia Field Office

Enclosure 1 – Study location, federal navigation channels within the study area in blue and current dredged material placement (orange box in Bradford Bay).





DEPARTMENT OF THE ARMY
US ARMY CORPS OF ENGINEERS
NORFOLK DISTRICT
FORT NORFOLK
803 FRONT STREET
NORFOLK VA 23510-1011

March 23, 2018

Ms. Christine Vaccaro
Protected Resources Division
NOAA Fisheries, Greater Atlantic Region
55 Great Republic Drive
Gloucester, MA 01930

Dear Ms. Vaccaro:

The U.S. Army Corps of Engineers (USACE), Norfolk District, in sponsorship with the Virginia Marine Resource Commission, has initiated a Continuing Authorities Program, Section 204, Beneficial Uses of Dredged Material, Cedar Island, Virginia feasibility study. The project is located at the back-barrier of Cedar Island which is located off the coast of Wachapreague, Virginia. Cedar Island is located centrally within the barrier island chain with Metompkin Inlet separating Cedar Island from Metompkin Island to the north of Wachapreague inlet separating Cedar Island from Parramore Island to the south. The western side of Cedar Island (referred to as the back-barrier) is flanked by channels, tidal wetlands and marshes, lagoons, and mudflats. Enclosure 1 provides a map of the project study area.

The primary purpose of the project is to beneficially use the dredged material from Finney Creek Channel and Bradford Bay Channel for the enhancement, expansion, and protection of the Cedar Island back-barrier shoreline wetlands and marsh islands.

Based on the plan formulation to date, the measures being considered include thin-layer placement of dredged material onto existing tidal wetlands, tidal wetland creation, reef habitat creation and various alternatives have been formulated that consider application of these measures at potential project sites in the Cedar Island Back-Barrier.

The purpose of this letter is to request the official protected species list under the jurisdiction of the National Marine Fisheries Service pursuant to Section 7 of the Endangered Species Act as well as to request any initial comments or direction you have in terms of initiation of this consultation. We will conduct further coordination with you upon receipt of these lists, and after potential project alternatives are further refined.

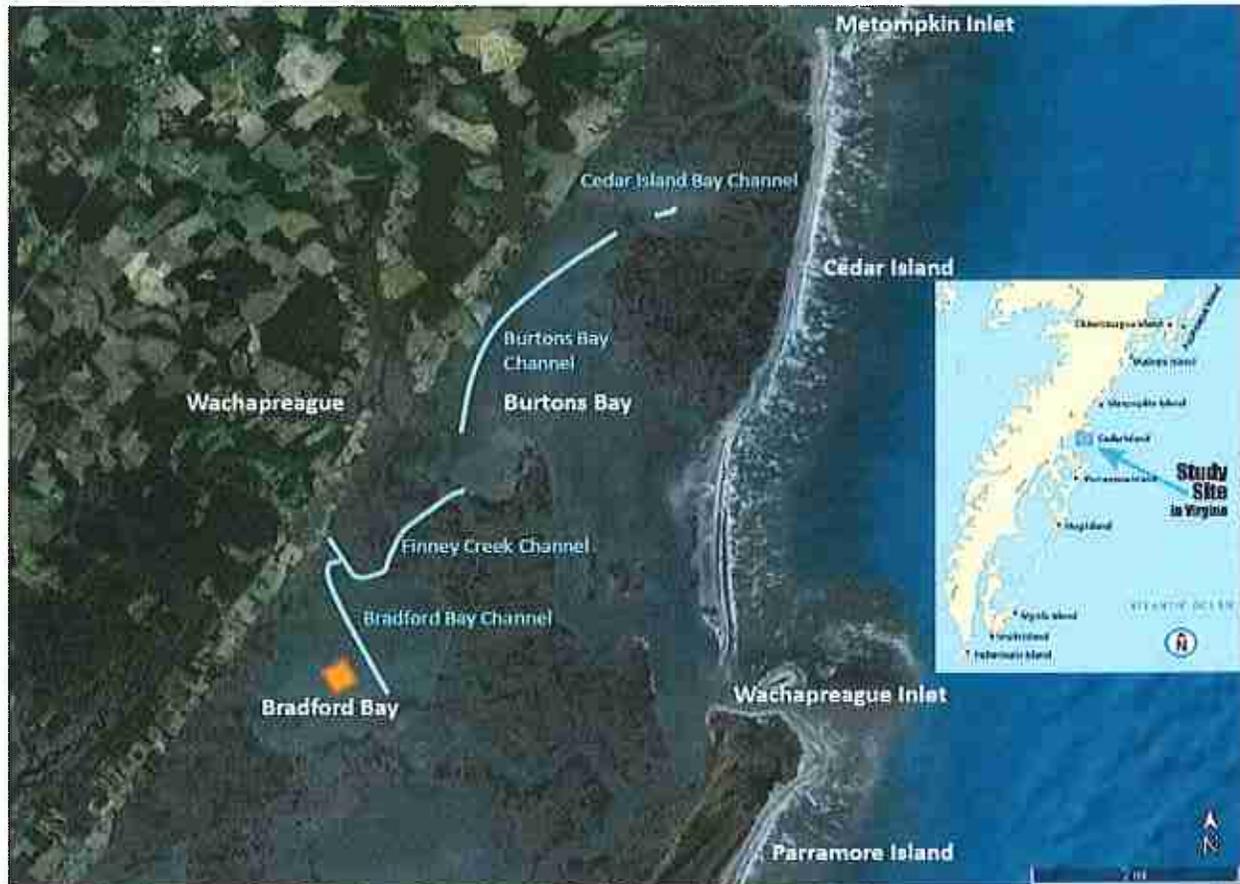
Thank you for your attention to this project. Please do not hesitate to contact me at (757) 201-7746 or richard.m.harr@usace.army.mil if you have any questions or need any additional information related to this study. We look forward to working with you.

Sincerely,

A handwritten signature in black ink, appearing to read "R. M. Harr".

Richard M. Harr, PWS, CES
U.S. Army Corps of Engineers, Norfolk District

Enclosure 1 - Study location, Federal navigation channels within the study area in blue and current dredged material placement (orange box in Bradford Bay).





DEPARTMENT OF THE ARMY
US ARMY CORPS OF ENGINEERS
NORFOLK DISTRICT
FORT NORFOLK
803 FRONT STREET
NORFOLK VA 23510-1011

March 27, 2018

Mr. David O'Brien
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Habitat Conservation Office
Virginia Field Office
P.O. Box 1346
Gloucester, Virginia 23062

Re: Request Official Listing of Essential Fish Habitat: Continuing Authorities Program, Section 204, Beneficial Uses of Dredged Material, Cedar Island, Virginia Feasibility Study.

Dear Mr. O'Brien:

The U.S. Army Corps of Engineers (USACE), Norfolk District, in sponsorship with the Virginia Marine Resource Commission (VMRC), has initiated a Continuing Authorities Program, Section 204, Beneficial Uses of Dredged Material, Cedar Island, Virginia Feasibility Study. The project is located at the Back-Barrier of Cedar Island which is located off the coast of Wachapreague, Virginia. Cedar Island is located centrally within the barrier island chain with Metompkin Inlet separating Cedar Island from Metompkin Island to the north of Wachapreague Inlet separating Cedar Island from Parramore Island to the south. The western side of Cedar Island (referred to as the Back-Barrier) is flanked by channels, tidal wetlands and marshes, lagoons, and mudflats. Enclosure 1 provides a map of the project study area, federal navigation channels within the study area in blue and current dredged material placement.

The primary purpose of the project is to beneficially use the dredged material from Finney Creek Channel and Bradford Bay Channel for the enhancement, expansion, and protection of the Cedar Island back-barrier shoreline wetlands and marsh islands.

Based on the plan formulation to date, the measures being considered include thin-layer placement of dredged material onto existing tidal wetlands, tidal wetland creation, reef habitat creation and various potential alternatives have been formulated that consider application of these measures at potential project sites in the Cedar Island Back-Barrier.

The U.S. Army Corps of Engineers is requesting the official listing of Essential Fish Habitat that occurs within the potential area of impact of the project.

If you have any questions or need additional information, I can be reached via telephone at: (757) 201-7746 or email at richard.m.harr@usace.army.mil. Thank you for your assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "Richard M. Harr".

Richard M. Harr, PWS, CES
Environmental Scientist
Environmental Analysis Section

Enclosure 1. Study location, federal navigation channels within the study area in blue and current dredged material placement (orange box in Bradford Bay).





United States Department of the Interior



FISH AND WILDLIFE SERVICE
Virginia Ecological Services Field Office
6669 Short Lane
Gloucester, VA 23061-4410
Phone: (804) 693-6694 Fax: (804) 693-9032
<http://www.fws.gov/northeast/virginiafield/>

In Reply Refer To:

March 09, 2018

Consultation Code: 05E2VA00-2018-SLI-2188

Event Code: 05E2VA00-2018-E-05168

Project Name: Beneficial Uses of Dredged Material, Cedar Island, Virginia

Subject: Updated list of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*). Any activity proposed on National Wildlife Refuge lands must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered

species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
 - USFWS National Wildlife Refuges and Fish Hatcheries
-

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Virginia Ecological Services Field Office

6669 Short Lane

Gloucester, VA 23061-4410

(804) 693-6694

Project Summary

Consultation Code: 05E2VA00-2018-SLI-2188

Event Code: 05E2VA00-2018-E-05168

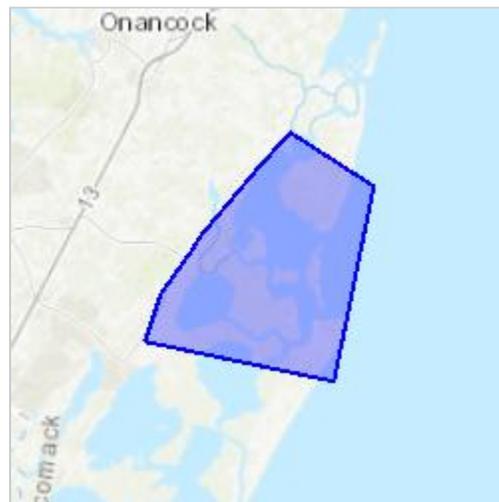
Project Name: Beneficial Uses of Dredged Material, Cedar Island, Virginia

Project Type: LAND - RESTORATION / ENHANCEMENT

Project Description: Placement of dredged material to enhance/create existing wetlands

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/37.60604856482235N75.64188887236821W>



Counties: Accomack, VA

Endangered Species Act Species

There is a total of 9 threatened, endangered, or candidate species on this species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

Mammals

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Birds

NAME	STATUS
Piping Plover <i>Charadrius melodus</i> Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered. There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6039	Threatened
Red Knot <i>Calidris canutus rufa</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened
Roseate Tern <i>Sterna dougallii dougallii</i> Population: northeast U.S. nesting pop. No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2083	Endangered

Reptiles

NAME	STATUS
Hawksbill Sea Turtle <i>Eretmochelys imbricata</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3656	Endangered
Kemp's Ridley Sea Turtle <i>Lepidochelys kempii</i> There is proposed critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/5523	Endangered
Leatherback Sea Turtle <i>Dermochelys coriacea</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1493	Endangered
Loggerhead Sea Turtle <i>Caretta caretta</i> Population: Northwest Atlantic Ocean DPS There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1110	Threatened

Flowering Plants

NAME	STATUS
Seabeach Amaranth <i>Amaranthus pumilus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8549	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

USFWS National Wildlife Refuge Lands And Fish Hatcheries

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

The following FWS National Wildlife Refuge Lands and Fish Hatcheries lie fully or partially within your project area:

FACILITY NAME	ACRES
Chincoteague National Wildlife Refuge Chincoteague National Wildlife Refuge P.O. Box 62 Chincoteague Island, VA 23336-0062 (757) 336-6122 https://www.fws.gov/refuges/profiles/index.cfm?id=51570	6,490

From: [LaBudde, Gregory \(DHR\)](#)
To: [Haynes, John H Jr CIV USARMY CENAO \(US\)](#)
Subject: [Non-DoD Source] Continuing Authorities Program, Section 204, Beneficial Uses of Dredged Material, Cedar Island, VA (DHR File No. 2018-3259) | e-Mail #02929
Date: Monday, March 19, 2018 11:07:24 AM

Mr. Haynes:

The Department of Historic Resources (DHR) has received through our ePIX system the Beneficial Uses of Dredged Material, Cedar Island, VA project (DHR File No. 2018-3259) for our review and comment. Based on the information provided, it is DHR's opinion that the historic properties within the area of potential effects will not be adversely affected by the undertaking.

Implementation of the undertaking in accordance with the finding of no adverse effect as documented fulfills the federal agency's responsibilities under Section 106 of the National Historic Preservation Act. If for any reason the undertaking is not or cannot be conducted as proposed in the finding, consultation under Section 106 must be reopened.

Thank you for your consideration of historic resources. Please contact me if you have any questions or if we may provide any further assistance.

Sincerely,

Greg LaBudde, Archaeologist

Review and Compliance Division

Department of Historic Resources

2801 Kensington Avenue

Richmond, VA 23221

phone: 804-482-6103

fax: 804-367-2391

gregory.labudde@dhr.virginia.gov <<mailto:roger.kirchen@dhr.virginia.gov>>

From: [ePIX Portal](#)
To: [Haynes, John H Jr CIV USARMY CENAO \(US\)](#)
Subject: [Non-DoD Source] Continuing Authorities Program, Section 204, Beneficial Uses of Dredged Material, Cedar Island, VA (2018-3259) | e-Mail #01289
Date: Wednesday, February 28, 2018 3:44:58 PM

Dear Mr. John Haynes:

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

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

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

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

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

Sincerely,

Gregory LaBudde
Office of Review and Compliance
Division of Resource Services and Review

Print

Create New Application

This electronic form is to be used for the submission of new projects only. If you wish to submit additional information in support of an existing project, please contact the reviewer assigned to that project.

Before using this form, please understand that the information being requested is important to our review. Incomplete information may lead to delays in the review of your project. Please read all questions carefully and respond as completely as possible. For security purposes, *your ePIX session will timeout after 20 minutes of inactivity* and any unsaved changes will be discarded. To ensure that no information is lost, we recommend saving your application after the completion of each section. If you have questions concerning the completion of this application, please contact DHR staff at ePIX@dhr.virginia.gov.

SECTION I. CONTACT INFORMATION

Submitted By

Please indicate what your role in this project is:

Applicant Role

If Other, please specify

SECTION II. GENERAL PROJECT INFORMATION

Project Name

Agency Project Number

Associated DHR File Number

Project Street Address

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

City/County Name
Accomack

Town/Locality, if applicable Wachapreague

Agency Involvement

Please select one of the following options as they relate to the project you are submitting:

My project involves a federal or state agency and requires review by DHR under the National Historic Preservation Act (Sections 106 or 110), Virginia Environmental Impact Reports Act or other provision of state or federal law.

I am seeking Technical Assistance from DHR in the assessment of potential impacts of my project on historic resources (e.g. federal or state involvement anticipated, initial project scoping, local government proffer or ordinance).

It is important that you know the nature of the federal or state involvement in your project. Please note that there are a number of state-managed programs that are federally funded (e.g. Transportation Enhancement Grants, some recreational trail grant programs, and many DHCD programs). Understanding the involvement of the agency and the program is helpful for our review.

In some cases there are multiple agencies involved in a project. In these cases, there is generally a "lead" agency. In order to help clarify this, please list the agencies in the order of their involvement in the project. If, for example, there are two agencies providing funding, please provide the contact information for the primary source of federal funding first.

Please select the agency, relationship, contact and click the **Select** button:

Agency	Relationship
Army Corps of Engineers	Federally Funded

SECTION III. PROJECT DESCRIPTION and CURRENT AND PAST LAND USE

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

Overview and existing conditions

Please provide a general description of the project.

The Alternative Formulation Briefing slide show in PDF format will be uploaded. This gives detailed description and illustration of the project alternatives that have been developed and are under

Project Description consideration.

How many acres does the project encompass?

Number of Acres 186

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

The areas consist of salt marsh, open water, mud flats. The acreage Current Condition given is for Site 1, Site 2 is 60 acres.

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

A levee was built along the northwestern edge of Site 1, along Wachapreague Channel, in the 1930's. Although still evident it does not perform to reduce storm wave action now, as was intended. The Previous Modifications project would not directly affect the remains of the levee.

Work involving buildings or structures

Does the project involve the rehabilitation, addition to, alteration, or demolition of any building structure over 50 years of age?

Buildings Over 50 Years No

If yes, please describe the work that is proposed in detail. Current photographs of affected building or structure, architectural or engineering drawings, project specifications and maps may be uploaded at the end of the application.

Details

Work involving ground disturbance

Is there any ground-disturbance that is part of this project?

Ground Disturbance Yes

If yes, describe the nature and horizontal extent of ground-disturbing activities, including construction, demolition, and other proposed disturbance. Plans, engineering drawings, and maps may be uploaded on the next page at the end of the application.

Containment fencing (i.e., silt fences) would be temporarily deployed during construction. The only ground disturbance would be from Extent of Activities driving in stakes.

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

Two feet or less: There may be an estimated maximum of 1.5 miles of silt fencing deployed. With a 1x2" stake driven every five feet this Depth would result in .0008 acre of ground disturbance.

How large is the area where ground-disturbing activities will take place? (in acres)

Area Size.0008

SECTION IV. AREA OF POTENTIAL EFFECT (APE)

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

An example of a direct effect is the demolition of an historic building while an indirect effect would be the alteration of an historic setting resulting from the construction of a communications tower or the introduction of noise as the result of the construction of factory. An area such as the footprint of a proposed building is obviously within the APE, but you must also consider visual effects on the property and the limits of all ground-disturbing activity. So, any project may have two APEs - one for direct effects and one for indirect effects.

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

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

This project would add material to surfaces, and cause minimal ground disturbance during construction. The changes in landscape, i.e. restoring areas to former status as salt marsh, would have no visual effects to historic properties. Therefore the APE is considered APE to be limited to the alternative project sites.

SECTION V. CONSULTING PARTIES AND PUBLIC INVOLVEMENT

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

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

The non-federal partner in this project is the Virginia Marine Resources Commission. The Town of Wachapreague has been closely Consulting Parties consulted as well.

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

Public Involvement A public meeting was held in Wachapreague

SECTION VI. PREVIOUSLY IDENTIFIED HISTORIC RESOURCES

In order for this application to be considered complete, you must determine if there are any known historic resources in the APE and provide this information to us. This step is generally referred to as a DHR Archives Search. More information on how to acquire this information can be found in our guidance document [Obtaining an Archives Search](#).

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

Surveys No

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

Survey Reports

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

Recorded Resources No

You must upload in Section VIII of this application the Archives Search Map showing previously recorded resources in the APE and the DSS reports for all previously recorded resources.

SECTION VII. ADDITIONAL CONTACTS TO THE APPLICATION

Last Name	First Name	Organization
Haynes	John	Army Corps of Engineers

SECTION VIII. UPLOAD FILES FOR THE APPLICATION

Document Name	File Name	Note
Map of previously recorded resources	V-CRIS Map for Cedar I CAP.pdf	
Other - Brief Project Description	Pages from Bell Isle and Cedar Is CAPs-3.pdf	
Detailed project description	AFB Briefing_20180215.pdf	

	Alternative Formulation Briefing Slideshow
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EASTERN SHORE NEWS

**Classified Ad Receipt
(For Info Only - NOT A BILL)**

Customer: U. S. ARMY CORPS OF ENGINEERS
Address: 803 FRONT ST
NORFOLK VA 23510
USA

Ad No.: 0001713179
Pymt Method Invoice
Net Amt: \$489.06

Run Times: 3

No. of Affidavits: 1

Run Dates: 11/12/16, 11/26/16, 12/03/16

Text of Ad:

**Continuing Authorities Program, Section 204,
Cedar Island, Virginia Beneficial Uses of
Dredged Material Scoping Meeting**

The U.S. Army Corps of Engineers (USACE) and the Virginia Marine Resource Commission (VMRC) announce the initiation of the Continuing Authorities Program, Section 204 Beneficial Uses of Dredged Material Cedar Island, Virginia Feasibility Study and invite the public to attend a scoping meeting on December 6, 2016 from 4:30 p. m. - 7:30 p. m. at the, Virginia Institute of Marine Science's Eastern Shore Laboratory, 40 Atlantic Avenue, Wachapreague, Virginia 23480. The format of the meeting will be an informal open-house, where the public can attend any time during the meeting hours and staff from the USACE and VRMC will be available to answer questions. The purpose of the meeting is to provide the public an opportunity to learn more about the study and to solicit the public's help in identifying issues, alternatives, and potential impacts to be considered in the study. The USACE plans to prepare an Environmental Assessment to evaluate environmental impacts from reasonable project alternatives and to determine the potential for significant impacts.

The public is invited to submit scoping comments at the meeting and/or submit comments to Richard Harr, USACE, via email/mail/telephone at richard.m.harr@usace.army.mil

ATTN: Richard Harr, Department of the Army, U.S. Army Corps of Engineers, Norfolk District, Fort Norfolk, 803 Front St., Norfolk, VA 23510/(757)201-7746, until December 30, 2016.

0001713179-01

Cedar Island, Virginia Continuing Authorities Program, Section 204 Beneficial Uses of Dredged Material Study Public Scoping Meeting Sign-In Sheet. All attendees please sign in here and provide your contact information. Thank you.

Name and Organization (if applicable)	Address	Phone Number	Email	Would you like to be added to the mailing list for this project (Yes/No)?
Merzweher Payne	Leicester		wether33@verizon.net	Yes
Zach K. Lewis III	Wachapreague VA	741-1829		
Jill Bieri TNC		757-442-5416	jbieri@tnc.org	Yes
JEFF DEEM	WACHAPREAGUE, VA	703-407-0963	JEFF.DEEM@GMAIL.COM	YES
SEAN FATE	WACHAPREAGUE	787-5575	SFATE@VIMS.EDU	YES
Charlie FARLOW	DUMFRIES VA 23417 16115 BARTON BEACH DR	789 9325	HarborMaster@CapeCharles.org	Yes
Richard SNYDER	VIMS ESC WACHAPREAGUE	757-5707289	rsnyder@vims.edu	Yes
John Boeckel	PO Box 243 Wachapreague, VA	757-7822347	JBoeckel@peacora.org	Yes
Rob Bloxam	PO Box 27 Mappsville Va	757-824-3456	Robloxam@verizon.net	Yes
Deborah Christie	B Kern St - Mancelona VA	757-709-9483	deborah.christie@gmail.com	yes

Cedar Island, Virginia Continuing Authorities Program, Section 204 Beneficial Uses of Dredged Material Study Public Scoping Meeting Sign-In Sheet. All attendees please sign in here and provide your contact information. Thank you.

Name and Organization (if applicable)	Address	Phone Number	Email	Would you like to be added to the mailing list for this project (Yes/No)?
ARF SCHWARZSCHILD	4231 WILLIS WHARF RD	757-678-6489	ARTHUR@VIRGINIA.EDU	
BLAKE JOHNSON	PO BOX 197 WACHAPREAGUE	757-572-6411	blakerjohnson@mac.com	Y
ROBERT HANSON	PO BOX 175 WACHAPREAGUE			Y
TIMOTHY KILLMON	PO BOX 265 WACHAPREAGUE	757-909-4443	tkillmon@verizon.net	Y
BARRY TRUITT	PO Box 153 Machipongo	VA 23005	barrytrutt@verizon.net	Y
STEVEN SALZMAN	25222 COSTS WICK RD ACCOMAC VA 23301		SALZMANSTEVEN@GMAIL.COM	Y
DON FREDHOLM	25278 SEASIDE CT ACCOMAC VA 23301		MOSSO@VERIZON.NET	Y
Emily Hein, VIMS		804-684-7482	eahain@vims.edu	Y
BM2 RYAN SANCHEZ / BM2 CODY AKLUS	42 ATLANTIC AVE 23450	757 787 9526		
Fred Janci, Mayor Town of Wachapreague	PO Box 188 40 Brooklyn Ave Wachapreague	603-359-5806	jancifred@yahoo.com	Y

Comment Sheet - Continuing Authorities Program, Section 204, Cedar Island, Virginia Beneficial Uses of

Please note this is not a questionnaire. The intent of this form is to allow the public and other interested parties to provide written comments to the project.

Name	Organization (if applicable)	Phone Number	Email
ROBERT HODGSON	WACHAPREAGUE RESIDENT	782-2454	

Please provide your written comment(s) below. If providing comments on multiple sheets, please be sure to number each sheet and provide your name on each sheet.

I like one - Expand idea to raise up old WPA wave barrier through use of spoils & other enhancements such as oyster reefs etc.
- Provide more method of keeping the haul over sediment free.

Comment Sheet - Continuing Authorities Program, Section 204, Cedar Island, Virginia Beneficial Uses of

Please note this is not a questionnaire. The intent of this form is to allow the public and other interested parties to provide written comments to the project.

Name	Organization (if applicable)	Phone Number	Email
TIMOTHY H. KILLMOR	CEDAR ISLAND LAND OWNER	757-787-4443	TKILLMOR1@VERIZON.NET

Please provide your written comment(s) below. If providing comments on multiple sheets, please be sure to number each sheet and provide your name on each sheet.

SPOIL SITE #2 - Concept could cause filling of the drains that lead to the bay. This would eliminate the navigation of small guts from homes to the bay

Spoil site #3 - Concern that the NE storms, etc., would wash fill into Burtons Bay. Could the S end be hardened/protected on Oceanside to prevent future erosion?

add site #4 - Add Accomack Hunt Club marsh area. The marsh ^{is suffering} currently direct loss from ocean waves.

Spoil site #1 - Expand current program to include rebuilding eastern side of channel using environmental practices - oyster reefs, etc.

Comment Sheet - Continuing Authorities Program, Section 204, Cedar Island, Virginia Beneficial Uses of

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Name	Organization (if applicable)	Phone Number	Email
AILEEN Joekel	Town of Wachapreague		aileen@baykeepers.net

Please provide your written comment(s) below. If providing comments on multiple sheets, please be sure to number each sheet and provide your name on each sheet.

Barr work for protection of town using spuds from local dredge of marshes

Comment Sheet - Continuing Authorities Program, Section 204, Cedar Island, Virginia Beneficial Uses of

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Name	Organization (if applicable)	Phone Number	Email
RICHARD SNYDER PhD	VIMS-ESC	7575707289	rsnyder@vims.edu

Please provide your written comment(s) below. If providing comments on multiple sheets, please be sure to number each sheet and provide your name on each sheet.

- Thin layer on existing marshes to help maintain them
- BAY DISPOSAL WOULD INHIBIT FURTHER SEAGRASS RESTORATION

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Name	Organization (if applicable)	Phone Number	Email
RYAN SANCHEZ (UNITED STATES COAST GUARD)	USCG	757-787-9526	CHRISTOPHER.P.ANDERSON XXXXXX @USCG.VA.MIL

Please provide your written comment(s) below. If providing comments on multiple sheets, please be sure to number each sheet and provide your name on each sheet.

- THE COAST GUARD WOULD BENEFIT GREATLY WITH THE DREDGING OF BURTON BAY IN ORDER TO RESPOND TO SEARCH AND RESCUE CASES.
- NOTICED A LARGE SAND BAR FORMING JUST SOUTH OF HUMMOCK CHANNEL (RED BUOY #6 IN WACHAPREAGUE CHANNEL)
- ANOTHER SHOAL (SAND) FORMING. NORTH WEST OF #7 BUOY (GREEN). AT WACHAPREAGUE INLET.