

NASA Causeway Bridge Replacement Project
Environmental Assessment

Appendix D

Federal Consistency Determination

**FEDERAL CONSISTENCY DETERMINATION FOR THE
WALLOPS FLIGHT FACILITY CAUSEWAY BRIDGE REPLACEMENT PROJECT**

**NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
GODDARD SPACE FLIGHT CENTER
WALLOPS FLIGHT FACILITY
WALLOPS ISLAND, VA 23337**

The National Aeronautics and Space Administration (NASA), in coordination with the Federal Highway Administration (FHWA) as a Participating Agency, has prepared a Draft Tiered Environmental Assessment (Draft EA) to analyze potential impacts to the environment resulting from the proposed replacement of the Wallops Island Causeway Bridge over Cat Creek (the Project). The Draft EA is tiered from the May 2019 *NASA Wallops Flight Facility Site-wide Programmatic Environmental Impact Statement* (NASA 2019), in which NASA evaluated the environmental consequences of constructing and operating new facilities and infrastructure at Wallops Flight Facility (WFF). Pursuant to Section 307 of the Coastal Zone Management Act (CZMA) of 1972 as amended, and federal consistency regulations at 15 Code of Federal Regulations (CFR) Part 930, Subpart C, NASA has prepared this Federal Consistency Determination (FCD) to evaluate potential effects on Virginia's coastal zone resources from the Proposed Action. Federal actions occurring at WFF that could have reasonably foreseeable effects on coastal zone resources must be consistent to the maximum extent practicable with the enforceable policies of the Virginia Coastal Zone Management Program (CZMP). The evaluation presented in this FCD summarizes information provided in the Draft EA. This FCD has been developed to fulfill obligations of NASA and FHWA, as well as the U.S. Army Corps of Engineers (USACE) and the U.S. Coast Guard (USCG) as Cooperating Agencies, under the CZMA. NASA, as the Lead Agency and project proponent, is responsible for ensuring overall compliance with the CZMA.

The Draft EA Project Area is located within the NASA Goddard Space Flight Center's WFF in Accomack County, Virginia. The Wallops Island Causeway crosses Cat Creek and connects the mainland to Wallops Island, where NASA implements testing and launch activities, Navy training, and maintains research facilities. Wallops Island is a barrier island located along Virginia's Atlantic coast. Marshland, interlaced with small creeks, covers the entire western approach to Wallops Island. Cat Creek is a tidal waterway that connects Bogues Bay and Hog Creek (**Figures 1-1, 1-2 of the Draft EA**).

The existing Causeway Bridge was constructed in 1959-1960 and is beyond the end of its anticipated service life. The Proposed Action being evaluated by the Draft EA consists of site preparation, construction and removal of temporary construction access, construction of a new bridge parallel to the existing bridge on a new alignment, demolition of the existing bridge after the new bridge opens, and ongoing maintenance and repairs over the bridge's 75-year lifespan as

described in **Section 2.3** of the Draft EA. In-water work would include pile driving for bridge construction, temporary construction access which may include construction and demolition of temporary trestles and/or the use of construction vessels, and bridge demolition. Maintenance and repair may also include in-water work depending on the extent of activities. The Proposed Action is being developed as a Design-Build project with the assumption that impacts from the final design would fall within the range of impacts evaluated in the Draft EA. If final design exceeds the thresholds evaluated in the Draft EA, a revised evaluation and determination of federal consistency would be required.

This document provides the Commonwealth of Virginia with NASA's Consistency Determination under CZMA Section 307(c)(1) and 15 CFR Part 930, Subpart C, for the Wallops Flight Facility Causeway Bridge Replacement Project. The information in this Consistency Determination is provided pursuant to 15 CFR 930.39. Consistencies with each of the enforceable policies of the CZMP are addressed below:

I. Tidal and Non-Tidal Wetlands

Consistent to the Maximum Extent Practicable? YES

A delineation of Waters of the U.S. (WOTUS), including wetlands, was performed in 2020, pursuant to the USACE Wetlands Delineation Manual (1987) and subsequent USACE guidance. The delineation was confirmed by the USACE and a Preliminary Jurisdictional Determination (NAO-2020-1762) was issued on November 2, 2020. The delineation figures are provided in **Appendix C of the Draft EA**. The delineation determined that there are 3.29 hectares (ha) (8.14 acres [ac]) of estuarine emergent wetlands and 76 meters (m) (251 linear feet) of tidal waters (Cat Creek) within the Project Area surrounding the Causeway Bridge. No wetlands or waters are found in the staging areas. Unavoidable impacts to wetlands and waters would be necessary for construction and demolition. Impacts would be minimized to the maximum extent practicable. Based on preliminary design, it is anticipated that approximately 0.45 ha (1.10 ac) of permanent and 1.34 ha (3.30 ac) of temporary impacts would be required, including impacts to estuarine emergent, estuarine intertidal, and estuarine open water habitats. The Design-Build contractor would obtain authorization pursuant to the Clean Water Act (CWA), State Water Control Law Virginia Water Protection (VWP) Permit, and state regulations at Virginia Code §28.2-1301-1320, from the USACE, Virginia Department of Environmental Quality (VDEQ), and Virginia Marine Resources Commission (VMRC) as applicable. The project would comply with all monitoring, avoidance, and mitigation requirements specified by these permits.

Periodic maintenance and repair during the 75-year lifespan of the bridge would not likely have impacts on wetlands; however, NASA would evaluate the proposed activities on a case-by-case basis and would obtain permits as needed for impacts to waters and wetlands. The Proposed Action would be consistent with this enforceable policy.

II. Subaqueous Lands

Consistent to the Maximum Extent Practicable? YES

Subaqueous bottom in Cat Creek would be impacted during proposed construction activities, including pile driving, temporary construction access, and bridge demolition. Continued operation of the Proposed Action is not anticipated to disturb subaqueous lands. The Design-Build contractor would obtain authorization from the VMRC and would adhere to all requirements of applicable permits. The Design-Build contractor would implement mitigation measures as necessary during construction to avoid and/or minimize impacts and would utilize applicable best management practices (BMPs), such as the use of sediment curtains, to minimize effects from subaqueous bottom disturbance. The Proposed Action would be consistent with this enforceable policy.

III. Dunes and Beaches

Consistent to the Maximum Extent Practicable? N/A

There are no coastal primary sand dunes or beaches within the Project Area. This enforceable policy is not applicable to the Proposed Action.

IV. Chesapeake Bay Preservation Areas

Consistent to the Maximum Extent Practicable? N/A

Per the Accomack County Zoning Ordinance Article XVI (Chesapeake Atlantic Preservation Area) the Project Area does not fall within Chesapeake/Atlantic Overlay District subject to the Chesapeake Bay Preservation Act. This enforceable policy is not applicable to the Proposed Action.

V. Marine Fisheries

Consistent to the Maximum Extent Practicable? YES

In-water work associated with the Proposed Action with the potential to impact marine fisheries, including shellfish, would include pile driving for bridge construction, temporary construction access which may include construction and demolition of temporary trestles and/or the use of construction vessels, and bridge demolition. As described in **Section 3.8** of the Draft EA, impacts to fish from construction-related stressors including underwater noise from pile driving, water quality and turbidity, habitat alteration, entanglement in in-water structures, and vessel traffic would not result in adverse effects to fish. BMPs such as utilizing a soft start for pile driving activities, use of turbidity control measures, preventing raw concrete from contacting the water, and minimizing construction vessel speed and numbers would minimize effects.

A presence/absence survey for shellfish beds (FHWA 2021) within the Project Area identified Eastern oysters (*Crassostrea virginica*) in the mudflats along the perimeter of the tidal wetlands and adhering to the concrete bridge piers and ribbed mussels (*Geukensia demise*) in the spaces between concrete riprap at the base of the embankment. Oyster beds generally extend an average of 6 m (20 feet) waterward from the vegetated wetland limit in the intertidal mudflats. To minimize impacts, the Design-Build contractor would coordinate with VMRC to determine appropriate minimization measures. It is anticipated that oyster shells and clusters within the project footprint would be relocated to an adjacent and un-impacted reef area. There are no private oyster ground leases or oyster ground applications in Cat Creek in the Project Area, but Cat Creek is designated as a public Baylor Ground. Not all public Baylor Grounds are open to shellfish harvest per 4 Virginia Administrative Code (VAC) 20-720. Cat Creek is not a designated Open Harvest Area. While not documented, blue crab (*Callinectes sapidus*) may also be in the Project Area. Blue crabs, particularly juveniles, use structured habitats including oyster reefs as refuges and nursery areas.

According to the Virginia Coastal Geospatial and Educational Mapping System there are no areas of submerged aquatic vegetation (SAV), Fisheries Management Areas or anadromous fish use areas within the Project Area or vicinity. Fisheries Management Areas are designated by VMRC and include blue crab sanctuaries, striped bass (*Morone saxatilis*) spawning sanctuaries, hard clam harvest areas, oyster management areas, SAV sanctuaries, black drum (*Pogonias cromis*) management areas, shellfish management areas, clean cull areas, artificial fishing reefs, seed areas, and some areas with restrictions.

Periodic maintenance and repair may require in-water work and therefore, may impact marine fisheries by increasing underwater noise and turbidity. NASA would adhere to BMPs similar to those of construction and demolition. The Proposed Action would be consistent with this enforceable policy.

VI. Wildlife and Inland Fisheries

Consistent to the Maximum Extent Practicable? YES

The project would not introduce aquatic nuisance, predatory, or undesirable species. The Virginia Department of Wildlife Resource (VDWR) Fish and Wildlife Information Service (VaFWIS) database indicates confirmed presence of state protected sea turtle species (state endangered Kemp's ridley sea turtle [*Lepidochelys kempii*], state-endangered leatherback sea turtle [*Dermochelys coriacea*], state threatened loggerhead sea turtle [*Caretta caretta*]), state threatened piping plover (*Charadrius melodus*), state endangered Wilson's plover (*Charadrius wilsonia*), and state threatened gull-billed tern (*Gelochelidon nilotica*) within two miles of the Project Area. Piping plover, Wilson's plover, and gull-billed tern are beach nesting bird species, with no suitable habitat in the Project Area.

While sea turtle species may be found in the project vicinity migrating and foraging between May and November, their presence is unlikely. Leatherback and Kemps' ridley sea turtles have never been observed at WFF (NASA 2017). Given the absence of SAV/sea-grass beds in the Project Area, foraging loggerheads are unlikely. If transient individuals are in the Project Area, potential stressors to sea turtles may include underwater noise, entanglement, water quality and benthic habitat effects, interaction with construction vessels, and artificial lighting. BMPs such as utilizing a soft start for pile driving activities, use of turbidity control measures, utilizing sea turtle monitors during pile driving activities, and minimizing construction vessel speed and numbers would minimize effects.

As described in **Section 3.9** of the Draft EA, adverse impacts to sea turtles from these stressors would not be significant. Per Virginia Department of Conservation and Recreation (VDCR) comments provided September 18, 2020, the Proposed Action would not affect state-listed plant or insect species.

Periodic maintenance and repair during the 75-year lifespan of the bridge may result in disturbances to wildlife and inland fisheries during in-water work, removal of vegetation/habitat, the presence of humans and noise, or the presence of vessels. NASA would evaluate the proposed activities on a case-by-case basis and would coordinate with National Oceanic and Atmospheric Administration Fisheries and U.S. Fish and Wildlife Service as needed, and would implement BMPs as discussed above to minimize the potential for adverse effects to species. The Proposed Action would be consistent with this enforceable policy.

VII. Plant Pests and Noxious Weeds

Consistent to the Maximum Extent Practicable? YES

The Proposed Action would not sell, barter, offer for sale, move, transport, deliver, ship, or offer to ship into the Commonwealth any plant pests or noxious weeds, nor import infested or quarantined regulated articles designated by the Board of Agriculture and Consumer Services. The Design-Build contractor would implement project-specific common reed (*Phragmites australis*) management/control, as needed, to minimize the potential for the spread of invasive species. These control measures may include mowing of small infestations, restricted access and cleaning measures for tracked equipment entering areas of known *Phragmites*, and post-construction monitoring. These measures would also minimize the spread of other plant pests and noxious weeds. The Proposed Action would be consistent with this enforceable policy.

VIII. Commonwealth Lands***Consistent to the Maximum Extent Practicable? N/A***

The proposed project does not include Commonwealth lands under the jurisdiction of the VDWR or VDCR. This enforceable policy is not applicable to the Proposed Action.

IX. Point Source Air Pollution***Consistent to the Maximum Extent Practicable? YES***

Accomack County is in an attainment area for all criteria pollutants regulated by the Clean Air Act (CAA). No project activities would substantially degrade or change the area's attainment status. Per 9 VAC5-20-206, Accomack County is not located in a volatile organic compound or nitrogen oxides emission control area. The Proposed Action would adhere to all laws and regulations set forth by the federal CAA and administered by the State Air Pollution Control Board. The project would not involve open burning, the establishment of new or stationary sources of pollutant emissions, or the construction, reconstruction, relocation, or modification of regulated stationary sources. Fugitive dust would be minimized by using control methods outlined in 9 VAC 5-50-60 et seq. of the Regulations for the Control and Abatement of Air Pollution, which may include: use of water or chemicals for dust control, covering of open equipment for conveying and transporting materials, and prompt removal of spilled or tracked dirt or other materials from paved streets and removal of dried sediments resulting from soil erosion. The Proposed Action would be consistent with this enforceable policy.

X. Point Source Water Pollution***Consistent to the Maximum Extent Practicable? N/A***

The Proposed Action does not include point source discharges of process water or wastewater that would necessitate a Virginia Pollutant Discharge Elimination System (VPDES) permit. This enforceable policy is not applicable to the Proposed Action.

XI. Nonpoint Source Water Pollution***Consistent to the Maximum Extent Practicable? YES***

Non-point source pollution would be managed in adherence to applicable state stormwater and erosion and sediment control (ESC) regulations including the Virginia Erosion and Sediment Control Law. The Design-Build contractor would obtain coverage under Virginia's General Permit for Discharges of Stormwater from Construction Activities (Construction General Permit) in accordance with the Virginia Water Quality Standards (9 VAC 25-260-50) and would develop a site-specific Stormwater Pollution Prevention Plan

(SWPPP) in accordance with the Virginia Stormwater Management Program (VSMP) for construction- and demolition-related activities.

To minimize impacts, the Design-Build contractor would develop a site-specific ESC plan prior to ground-disturbing activities in compliance with the VSMP regulations and WFF's Stormwater, Erosion, and Environmental Development (SEED) Program. The contractor would implement BMPs before, during, and after construction to stabilize soils. These BMPs could include using silt fencing, soil stabilization blankets, and matting. Riprap may be used to protect abutments from scour and for slope stabilization. Bare soils would be revegetated with native, non-invasive plants immediately after construction to reduce stormwater runoff. The proposed bridge's stormwater conveyance system could be designed to carry stormwater from the bridge to stabilized outfalls, and potentially into a stormwater treatment BMP at the outlets. Permanent BMPs to capture, convey, and manage stormwater from the bridge deck and approaches would be included in the final bridge design in accordance with FHWA design specification and VSMP regulations for stormwater discharge. The Design-Build contractor would use appropriate BMPs to minimize turbidity during in water work which may include cofferdams or turbidity curtains. These actions would minimize impacts to receiving waters from non-point source pollution.

Maintenance and repair activities may cause non-point source pollution through the transport of sediments, some of which may carry contaminants. Impacts from these activities would be similar to those described above for construction and demolition. NASA would adhere to BMPs similar to those described above and obtain appropriate VSMP permits, as needed. The Proposed Action would be consistent with this enforceable policy.

XII. Shoreline Sanitation

Consistent to the Maximum Extent Practicable? N/A

No sewage systems would be installed or used for the Proposed Action. Therefore, this enforceable policy is not applicable to the Proposed Action.

Based on the information presented herein, and the more detailed analysis presented in the Draft EA, NASA finds that the WFF Causeway Bridge Replacement Project would be consistent to the maximum extent practicable with the enforceable policies of the Virginia CZMP. Pursuant to 15 CFR section 930.41, the Virginia CZMP has 60 days from the receipt of the Draft EA in which to concur with or object to this Consistency Determination, or to request an extension under 15 CFR Section 930.41(b). Virginia's concurrence will be presumed if its response is not received by NASA on the 60th day from receipt of this determination. The Commonwealth's response should be sent to:

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References

- FHWA (Federal Highway Administration). 2021. Wallops Island Causeway Bridge Shellfish Survey, Accomack County, Virginia, July 2021.
- NASA (National Aeronautics and Space Administration). 2017. Environmental Resources Document Goddard Space Flight Center Wallops Flight Facility, August 2017.
- NASA (National Aeronautics and Space Administration). 2019. Wallops Flight Facility Site-wide Programmatic Environmental Impact Statement, Final, May 2019.



Commonwealth of Virginia

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November 16, 2023

Ms. Shari A. Miller
National Aeronautics and Space Administration
Goddard Space Flight Center
Wallops Flight Facility
Code 250.W
Wallops Island, VA 23337
Via email: shari.a.miller@nasa.gov

RE: Draft Environmental Assessment and Federal Consistency Determination for the Wallops Flight Facility Causeway Bridge Replacement Project, Wallops Island, Accomack County, DEQ 23-144F

Dear Ms. Miller:

The Commonwealth of Virginia has completed its review of the Draft Environmental Assessment (EA) and Federal Consistency Determination (FCD) dated September 2023 (received September 21, 2023) for the above referenced project. The Department of Environmental Quality (DEQ) is responsible for coordinating Virginia's review of EAs 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 FCDs submitted pursuant to the Coastal Zone Management Act (CZMA) and providing the state's response. The following agencies participated in the review of the EA and FCD:

Department of Environmental Quality
Department of Conservation and Recreation
Marine Resources Commission
Department of Health
Department of Historic Resources

In addition, the Department of Wildlife Resources, Department of Transportation, Accomack County, and the Accomack-Northampton Planning District Commission were invited to comment on the proposal.

PROJECT DESCRIPTION

The National Aeronautics and Space Administration (NASA) is proposing to replace Wallops Island Causeway Bridge in Accomack County. The project area is within the NASA Goddard Space Flight Center's Wallops Flight Facility on Wallops Island. The Wallops Island Causeway crosses Cat Creek and connects the mainland to Wallops Island. The project includes site preparation, construction and removal of temporary construction access, construction of a new bridge parallel to the existing bridge on a new alignment, demolition of the existing bridge after the new bridge opens, and ongoing maintenance and repairs over the bridge's 75-year lifespan. In-water work would include pile driving for bridge construction, temporary construction access, demolition of temporary trestles and/or the use of construction vessels, and bridge demolition. Maintenance and repair may also include in-water work depending on the extent of activities.

CONCLUSION

Provided activities are performed in accordance with the recommendations which follow in the Impacts and Mitigation section of this report, this proposal is unlikely to have significant effects on ambient air quality, water quality, wetlands, important farmland, forest resources, and historic resources. It is unlikely to adversely affect species of plants or insects listed by state agencies as rare, threatened, or endangered.

ENVIRONMENTAL IMPACTS AND MITIGATION

1. Water Quality and Wetlands. According to the EA (page 3-29), the project is anticipated to result in temporary impacts to 3.30 acres of wetlands and 1.1 acres of permanent impacts. Permits would be required for unavoidable permanent and temporary direct impacts to jurisdictional waters and wetlands. The Design-Build contractor would submit a JPA to VMRC for concurrent review by the Corps, VMRC, DEQ, and Accomack County Wetlands Board.

1(a) Agency Jurisdiction.

(i) Department of Environmental Quality

The State Water Control Board promulgates Virginia's water regulations covering a variety of permits to include the [Virginia Pollutant Discharge Elimination System Permit](#) 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.

(ii) Virginia Marine Resources Commission

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

1(b) Agency Findings.

(i) Department of Environmental Quality

The VWP Permit program at the DEQ Tidewater Regional Office (TRO) finds that permanent and temporary impacts to surface waters and/or wetlands may require VWPP authorization under §401 of the Clean Water Act, Virginia Code §62.1-44.15:20, and Virginia Administrative Code 9 VAC 25-210-10 *et seq.*

(ii) Virginia Marine Resources Commission

VMRC finds that permanent and temporary impacts to tidal wetlands for bridge demolition and reconstruction will require a permit from the Accomack County Local Wetlands Board.

1(c) Requirements. Permanent and temporary impacts to jurisdictional waters will require permitting pursuant to §401 of the Clean Water Act, Virginia Code §62.1-44.15:20, and Virginia Administrative Code 9 VAC 25-210-10 *et seq.* Impacts to tidal wetlands will require a permit from the local Wetlands Board and necessary mitigation will be determined during the permitting process. The permitting process is initiated upon the submission of a Joint Permit Application (JPA) to VMRC, which serves as the clearinghouse for JPA review process. VMRC will distribute the JPA to DEQ, Accomack County Wetlands Board, and the Corps for review under applicable state, local and federal laws and regulations.

1(d) Recommendations. In general, DEQ recommends that stream and wetland impacts be avoided to the maximum extent practicable. To minimize unavoidable

impacts to wetlands and waterways, DEQ recommends the following practices:

- Operate machinery and vehicles outside of streambeds and wetlands; use synthetic mats when in-stream work is unavoidable.
- Preserve the top 12 inches of material removed from wetlands for use as wetland seed and root-stock in the excavated area.
- Erosion and sediment controls should be in place prior to clearing and grading and maintained in good working order to minimize impacts to state waters. The controls should remain in place until the area is stabilized.
- Place heavy equipment, located in temporarily impacted wetland areas, on mats, geotextile fabric, or use other suitable measures to minimize soil disturbance, to the maximum extent practicable.
- Restore all temporarily disturbed wetland areas to pre-construction conditions and plant or seed with appropriate wetlands vegetation in accordance with the cover type (emergent, scrub-shrub, or forested). The applicant should take all appropriate measures to promote revegetation of these areas. Stabilization and restoration efforts should occur immediately after the temporary disturbance of each wetland area instead of waiting until the entire project has been completed.
- Place all materials which are temporarily stockpiled in wetlands, designated for use for the immediate stabilization of wetlands, on mats, geotextile fabric in order to prevent entry in state waters. These materials should be managed in a manner that prevents leachates from entering state waters and must be entirely removed within thirty days following completion of that construction activity. The disturbed areas should be returned to their original contours, stabilized within thirty days following removal of the stockpile, and restored to the original vegetated state.
- Flag or clearly mark all non-impacted surface waters within the project or right-of-way limits that are within 50 feet of any clearing, grading, or filling activities for the life of the construction activity within that area. The project proponent should notify all contractors that these marked areas are surface waters where no activities are to occur.
- Employ measures to prevent spills of fuels or lubricants into state waters.

1(e) CZMA Federal Consistency. The project will be consistent to the maximum extent practicable with the tidal and nontidal wetlands enforceable policy of the Virginia Coastal Zone Management (CZM) Program, provided all required permits and/or authorizations are obtained prior to implementation (see Federal Consistency under the CZMA (pages 15-16) for additional information).

2. State Subaqueous Lands and Fisheries Resources. According to the EA (page 3-61), construction and demolition activities in subaqueous bottoms may cause a temporary increase in the amount of turbidity in the Endangered Species Act (ESA) Action Area; however, increases in turbidity are expected to be short term and localized. One of the major issues associated with suspended sediments is its effect on the respiration of marine fauna. The Design-Build contractor, on behalf of NASA and Federal Highway Administration (FHWA), would need to obtain VMRC Subaqueous Bottom Permits the prior to starting construction (EA, 4-1).

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

2(b) Agency Findings. VMRC concurs that proposed impacts to submerged lands during bridge demolition and reconstruction will require a permit from VMRC. In addition, Cat Creek is designated as public shellfish ground. Turbidity from the proposed activities may impact settlement of oyster spat.

2(c) Requirements. Permanent and temporary impacts to jurisdictional waters will require permitting pursuant to Virginia Code §28.2-1200 through 1400. Impacts to state owned subaqueous lands will require a permit from VMRC and necessary mitigation will be determined during the permitting process. The permitting process is initiated upon the submission of a JPA to VMRC, which serves as the clearinghouse for JPA review process.

2(d) CZMA Federal Consistency. The proposed project will be consistent to the maximum extent practicable with the subaqueous lands and marine fisheries enforceable policies of the Virginia CZM Program provided the applicant obtains and complies with the conditions of the VMRC permit (see Federal Consistency under the CZMA (pages 15-16) for additional information).

3. Erosion and Sediment Control and Stormwater Management. According to the EA (page 3-21), construction and demolition activities on land have the potential to cause soil erosion, which could elevate turbidity levels in the tidal marsh and Cat Creek. Construction of the new alignment embankment would alter stormwater runoff patterns, and removal of vegetation or placement of fill would temporarily result in bare soils. To minimize impacts to soils from erosion, the Design-Build contractor would develop site-specific Erosion and Sediment Control plans prior to ground-disturbing activities in compliance with the Virginia Stormwater Management Program regulations and WFF's Stormwater, Erosion, and Environmental Development (SEED) Program.

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

- Virginia Erosion and Sediment Control Law (§ 62.1-44.15:51 *et seq.*) and *Regulations* (9 VAC 25-840) (VESCL&R);
- Virginia Stormwater Management Act (VSMA, § 62.1-44.15:24 *et seq.*);
- Virginia Stormwater Management Program (VSMP) Regulation (9 VAC 25-870); and
- 2014 General Virginia Pollutant Discharge Elimination System (VPDES) Permit

for Discharges of Stormwater from Construction Activities (9 VAC 25-880).

In addition, DEQ is responsible for the 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 (9 VAC 25-890-40).

3(b) Requirements.

(i) Erosion and Sediment Control and Stormwater Management Plans

In accordance with §62.1-44.15 *et seq.*, electric, natural gas and telephone utility companies, interstate and intrastate natural gas pipeline companies, and railroad companies shall, and federal entities and authorities created pursuant to § 5.2-5102 may, file general erosion and sediment control standards and specifications annually with DEQ for review and approval. Such standards and specifications shall be consistent with the requirements of this article and associated regulations and the Erosion and Sediment Control Law and Stormwater Management Act (§ 62.1-44.15:24 *et seq.*) and associated regulations where applicable. The specifications shall apply to:

- construction, installation, or maintenance of electric transmission, natural gas, and telephone utility lines and pipelines, and water and sewer lines; and
- construction of the tracks, rights-of-way, bridges, communication facilities, and other related structures and facilities of the railroad company.

The applicant must have a certified Responsible Land Disturber in charge of and responsible for carrying out the project-specific erosion and sediment control plan and the land-disturbing activity. As an annual standards and specifications for erosion and sediment control holder, the applicant must have a certified erosion and sediment control inspector that must provide for an inspection during or immediately following initial installation of erosion and sediment controls, at least once in every two-week period, within 48 hours following any runoff producing storm event, and at the completion of the project. The applicant must contact:

standardsandspecs@deq.virginia.gov two weeks prior to land disturbance.

(ii) General Permit for Discharges of Stormwater from Construction Activities (VAR10)

The owner or operator of projects involving land-disturbing activities of equal to or greater than one acre is required to apply for registration coverage under the General Permit for Discharges of Stormwater from Construction Activities and develop a project-specific stormwater pollution prevention plan (SWPPP). 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.
- 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 on [Construction General Permit](#) webpage. [Reference: Virginia Stormwater Management Act 62.1-44.15 *et seq.*; VSMP Permit Regulations 9 VAC 25-880 *et seq.*].

3(c) CZMA Federal Consistency. The proposed project is consistent to the maximum extent practicable with the nonpoint source pollution control enforceable policies of the Virginia CZM Program, provided any required permits and authorizations are obtained and complied with (see Federal Consistency under the CZMA (pages 15-16) for additional information).

4. Air Emissions. According to the EA (page 3-9), air quality effects would occur from combustion emissions of mobile sources due to the use of fossil fuel-powered equipment during construction and demolition activities and from the commute of construction workers to and from the site. Additionally, ground disturbance would create fugitive dust emissions (PM₁₀ and PM_{2.5}). The Design-Build construction contractor would be required to adhere to DEQ's Open Burning Restrictions and Fugitive Dust Precautions (e.g., water may be sprayed to lessen impacts from activities that generate dust). Architectural coatings and sealants used in construction activities would be required to comply with DEQ's volatile organic compound limits. Regional adverse impacts to air quality would be localized, short-term, and negligible.

4(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. As a part of this mandate, EIRs of projects to be undertaken in the state are also reviewed. In the case of certain projects, additional evaluation and demonstration must be made under the general conformity provisions of state and federal law.

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 State 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.*

4(b) Agency Findings. Accomack County is located in a designated ozone attainment area.

4(c) Recommendation. NASA should take all reasonable precautions to limit emissions of volatile organic compounds (VOCs) and oxides of nitrogen (NO_x), principally by controlling or limiting the burning of fossil fuels.

4(d) Requirements.

(i) Fugitive Dust

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.

(ii) Open Burning

Open burning must meet the requirements of 9 VAC 5-130-10 through 9 VAC 5-130-60 and 9 VAC 5-130-100 of the *Regulations* for open burning, and it may require a permit. The *Regulations* provide for, but do not require, the local adoption of a model ordinance concerning open burning. NASA should contact local fire officials to determine what local requirements, if any, exist.

4(e) CZMA Federal Consistency. The proposed project will be consistent to the maximum extent practicable with the point source air pollution enforceable policy of the Virginia CZM Program, provided any required permits are obtained and complied with (see Federal Consistency under the CZMA (pages 15-16) for additional information).

5. Chesapeake Bay Preservation Areas. The EA (Appendix D, Federal Consistency Determination, page 3) states that per the Accomack County Zoning Ordinance Article XVI (Chesapeake Atlantic Preservation Area) the project area does not fall within Chesapeake/Atlantic Overlay District subject to the Chesapeake Bay Preservation Act.

5(a) Agency Jurisdiction. The [DEQ Office of Watersheds and Local Government](#)

[Assistance Programs \(OWLGAP\)](#) 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 Bay Act and *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 landforms and treats them differently.

5(b) Agency Findings. DEQ-OWLGAP concurs that the NASA Flight Facility at Wallops Island is located on land whose perennial waterbodies drain to the Atlantic Ocean, including Cat Creek. Lands analogous to locally designated CBPA lands (RPA and RMA) do not exist within the defined project area, including designated laydown/staging areas affiliated with the bridge replacement project. While the NASA Wallops Flight Center located along Route 175 west of Chincoteague Island and north of the defined project area does contain lands analogous to RPA and RMA, it is not located near the proposed bridge replacement project.

5(c) CZMA Federal Consistency. The proposed project is consistent to the maximum extent practicable with the Chesapeake Bay preservation areas enforceable policy of the Virginia CZM Program (see Federal Consistency under the CZMA (pages 15-16) for additional information).

For additional information, contact DEQ-OWLGAP, Daniel Moore at (804) 774-9577 or daniel.moore@deg.virginia.gov.

6. Floodplain Management. The EA (page 3-31) states that the bridge project area is in the 100-year floodplain Zone VE. Zone VE is defined as areas along coasts subject to inundation by the 1-percent-annual-chance flood event with additional hazards associated with storm-induced waves (FEMA 2015). No staging areas are within a floodplain. The new bridge would result in permanent encroachments to the floodplain beneath the bridge with installation of permanent piers that may differ in number and size from the existing bridge. The Design-Build contractor would be required to conduct hydraulic and hydrologic modeling of the final bridge design to determine the bridge's effects on flood elevations and floodplain functionality, with NASA and FHWA review to reach a final design that would not have adverse impacts to the functionality of the floodplain.

6(a) Agency Jurisdiction. The [DCR Division of Dam Safety and Floodplain Management \(DSFM\)](#) is the lead coordinating agency for the Commonwealth's floodplain management program and the National Flood Insurance Program (Executive

Oder 45). The National Flood Insurance Program (NFIP) is administered by the Federal Emergency Management Agency (FEMA), and communities who elect to participate in this voluntary program manage and enforce the program on the local level through that community's local floodplain ordinance. Each local floodplain ordinance must comply with the minimum standards of the NFIP, outlined in 44 CFR 60.3; however, local communities may adopt more restrictive requirements in their local floodplain ordinance, such as regulating the 0.2% annual chance flood zone (shaded Zone X).

6(b) Requirements. All development within a Special Flood Hazard Area (SFHA) or floodplain, as shown on the locality's Flood Insurance Rate Map (FIRM), must be permitted and comply with the requirements of the local floodplain ordinance. Projects conducted by federal agencies within the SFHA must comply with federal Executive Order 11988: Floodplain Management.

DCR's Floodplain Management Program does not have regulatory authority for projects in the SFHA. The applicant/developer must contact the local floodplain administrator for an official floodplain determination and comply with the community's local floodplain ordinance, including receiving a local permit. Failure to comply with the local floodplain ordinance could result in enforcement action from the locality. NASA is encouraged to reach out to the local floodplain administrator to ensure compliance with the local floodplain ordinance.

6(c) Recommendations. DCR recommends that NASA access the [Virginia Flood Risk Information System \(VFRIS\)](#) to find flood zone information.

For additional information, contact DCR-DSFM, Angela Davis at (804) 371-6135 or angela.davis@dcr.virginia.gov.

7. Solid and Hazardous Wastes and Hazardous Materials. According to the EA (page 3-11), the primary sources of regulated waste generated during the Proposed Action would be demolition debris from the existing bridge and the use of petroleum products in machinery and equipment. NASA would require the Design-Build contractor to evaluate the debris for potential use in VMRC's Artificial Reef Program. NASA discussed the project on March 9, 2023, with VMRC Artificial Reef Program staff, and would continue to work with VMRC through the Design-Build process. Debris not used as artificial reef would be recycled to the extent practicable and would otherwise be disposed of in accordance with local, state, and federal regulations.

7(a) Agency Jurisdiction. On behalf of the Virginia Waste Management Board, the [DEQ Division of Land Protection and Revitalization \(DEQ-DLPR\)](#) is responsible for carrying out the mandates of the Virginia Waste Management Act (Virginia Code §10.1-1400 *et seq.*), as well as meeting Virginia's federal obligations under the Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response Compensation Liability Act (CERCLA), commonly known as Superfund.

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, 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*.

DEQ-DLPR also administers 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 (9 VAC 25-91 *et seq.*) and Underground Storage Tanks (9 VAC 25-580 *et seq.* and 9 VAC 25-580-370 *et seq.*), also known as ‘Virginia Tank Regulations’, and § 62.1-44.34:14 *et seq.* which covers oil spills.

7(b) Agency Findings. DLPR staff conducted a search of solid and hazardous waste databases (including petroleum releases) to identify waste sites in close proximity (200-foot radius) to the project area. The search did not identify any waste sites within the project area which might impact the plan.

DEQ-TRO finds that neither a Hazardous Waste permit nor an EPA ID are required prior to the start of demolition and construction, based on information provided. However, depending on the waste generated and/or managed, an EPA ID may be required in the future. Additional information can be found at [Hazardous Waste Generator Requirements](#) on DEQ’s website.

7(c) Requirements.

(i) Solid and Hazardous Waste Management

Any soil, sediment or groundwater that is suspected of contamination or wastes that are generated during implementation must be tested and disposed of in accordance with applicable federal, state, and local laws and regulations. All waste must be characterized in accordance with the *Virginia Hazardous Waste Management Regulations* prior to management at an appropriate facility. It is the applicant’s responsibility to determine if a solid waste meets the criteria of a hazardous waste and be managed appropriately.

(ii) Asbestos-Containing Materials and Lead-Based Paint

All structures being demolished, renovated or removed should be checked for asbestos-containing materials (ACM) and lead-based paint (LBP) prior to demolition. If ACM or LBP are found, in addition to the federal waste-related regulations listed above, state regulations 9 VAC 20-81-620 for ACM and 9 VAC 20-60-261 for LBP must be followed.

7(d) Recommendation. DEQ encourages the implementation of 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.

Questions and additional information regarding waste comments may be directed to DEQ-DLPR, Nikolas Churchill at (804) 659-2663 or nikolas.churchill@deq.virginia.gov.

8. Pesticides and Herbicides. DEQ recommends that the use of herbicides or pesticides for landscape maintenance should be in accordance with the principles of integrated pest management. The least toxic pesticides that are effective in controlling the target species should be used. Contact the Department of Agriculture and Consumer Services at (804) 786-3501 for more information.

9. Natural Heritage Resources. The EA does not discuss potential project impacts on natural heritage resources.

9(a) Agency Jurisdiction.

(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), authorizes DCR to maintain a statewide database for conservation planning and project review, protect land for the conservation of biodiversity, and 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).

(ii) [The Virginia Department of Agriculture and Consumer Services \(VDACS\).](#)

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

9(b) Agency Findings.

(i) Natural Heritage Resources

DCR-DNH searched its Biotics Data System (Biotics) for occurrences of natural heritage resources from the project area. Biotics documents the presence of natural heritage resources within the project boundary including a 100-foot buffer. However, due to the scope of the activity DCR-DNH does not anticipate that this project will adversely impact these natural heritage resources. Please note, a predictive model identifying potential habitat for Saltmarsh sparrow (*Ammospiza caudacuta*, G2/S2B,S3N/SOC/NL) intersects the project boundary. However, based on DCR biologist's review of the proposed project, a survey is not recommended for the resource.

(ii) Ecological Cores

DCR-DNH finds that the proposed project may impact Ecological Cores (C1, C2) as identified in the [Virginia Natural Landscape Assessment](#). Mapped cores in the project area can be viewed via the [Virginia Natural Heritage Data Explorer](#). Ecological Cores are areas of at least 100 acres of continuous interior, natural cover that provide habitat for a wide range of species, from interior-dependent forest species to habitat generalists, as well as species that utilize marsh, dune, and beach habitats. Interior core areas begin 100 meters inside core edges and continue to the deepest parts of cores. Cores also provide the natural, economic, and quality of life benefits of open space, recreation, thermal moderation, water quality (including drinking water recharge and protection, and erosion prevention), and air quality (including sequestration of carbon, absorption of gaseous pollutants, and production of oxygen). Cores are ranked from C1 to C5 (C5 being the least significant) using nine prioritization criteria, including the habitats of natural heritage resources they contain.

Impacts to cores occur when their natural cover is partially or completely converted permanently to developed land uses. Habitat conversion to development causes reductions in ecosystem processes, native biodiversity, and habitat quality due to habitat loss; less viable plant and animal populations; increased predation; and increased introduction and establishment of invasive species.

(iii) State-listed Plant and Insect Species

DCR-DNH finds that the proposed activity will not affect any documented state-listed threatened and endangered plant or insect species.

(iv) State Natural Area Preserves

DCR finds that there are no State Natural Area Preserves under the agency's jurisdiction in the project vicinity.

9(c) Recommendations.

(i) Natural Heritage Resources Update

Contact DCR-DNH to secure updated information on natural heritage resources if the scope of the project changes and/or six months passes before the project is implemented, since new and updated information is continually added to the Biotics Data System.

(ii) Ecological Cores

DCR-DNH recommends avoidance of impacts to cores. However, when avoidance cannot be achieved, the area of impacts overall should be minimized and the impacted area at the edges of cores should be concentrated so that the most interior remains intact. Since the proposed project may impact one or more cores with very high (C2) to outstanding (C1) ecological integrity, further investigation of these impacts is recommended, DCR-DNH is available to conduct a formal impact analysis upon request. This analysis would estimate impacts to cores and habitat fragments, providing an estimate of the total acreage of direct and indirect impacts of the project.

(iii) Wildlife Resources and Protected Species

The Virginia Department of Wildlife Resources (DWR) 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 response. Access the DWR [Fish and Wildlife Information Service](#) database or contact DWR, Amy Martin at 804-367-2211 or amy.martin@dwr.virginia.gov.

9(d) Conclusion. The Proposed Action is consistent to the maximum extent practicable with the and commonwealth lands enforceable policies of the Virginia CZM Program (see Federal Consistency under the CZMA (pages 15-16) for additional information).

10. Historic and Archaeological Resources. According to the EA (page 3-76), in August of 2020, FHWA, on behalf of NASA, initiated Section 106 coordination of the project with the Virginia Department of Historic Resources (DHR). DHR recommended that a Phase I Archaeological Survey be completed for the Causeway Bridge envelope. A survey was completed which did not identify any geoarchaeological, terrestrial, or underwater cultural resources. DHR reviewed the survey and responded on February 9, 2021, that it concurs that "...no further archaeological work is necessary for the proposed project. No historic properties will be affected by the project."

10(a) Agency Jurisdiction. The [Virginia Department of Historic Resources \(DHR\)](#) conducts reviews of both federal and state projects to determine their effect on historic properties. Under the federal process, DHR is the State Historic Preservation Office, and ensures that federal undertakings-including licenses, permits, or funding-comply with Section 106 of the National Historic Preservation Act of 1966, as amended, and its

implementing regulation at 36 CFR Part 800. Section 106 requires federal agencies to consider the effects of federal projects on properties that are listed or eligible for listing on the National Register of Historic Places. Please see DHR's website for more information about applicable state and federal laws and how to submit an application for review: <http://www.dhr.virginia.gov/StateStewardship/Index.htm>.

10(b) Agency Findings. DHR concurs that it has been in direct consultation with the FHWA and its agents regarding the Proposed Action and reached consensus that the Wallops Island Causeway Bridge Replacement Project will result in no historic properties affected. DHR has no further comment at this time.

For additional information, contact DHR, Chelsea Jeffries at (804) 482-8097 or chelsea.jeffries@dhr.virginia.gov.

11. Water Supply. The EA (page 3-20) states that Cat Creek is part of a complex estuary system, connected to the Atlantic Ocean, where the flow of water (referred to as hydrodynamics) is driven predominantly by the tides and combined storm surges (such as Nor'easters and hurricane events). The EA did not indicate that the Proposed Action would affect drinking water supply sources. Moreover, due to the distance of the mainland water supply wells from the project LOD, no impacts to these wells are anticipated.

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

11(b) Agency Findings. VDH-ODW finds there are no public groundwater wells within a 1-mile radius of the project area, no surface water intakes located within a 5-mile radius of the project area, and the project is not within the watershed of any public surface water intakes.

11(c) Conclusion. VDH-ODW concludes that the Proposed Action will have no apparent impacts to public drinking water sources.

For additional information, contact VDH-ODW, Arlene Fields Warren at (804) 389-2167 or arlene.warren@vdh.virginia.gov.

FEDERAL CONSISTENCY UNDER THE COASTAL ZONE MANAGEMENT ACT

Pursuant to the Coastal Zone Management Act of 1972, as amended, and federal consistency regulations (15 CFR Part 930, Sub-part C, § 930.30 *et seq.*), all federal agency activities affecting any coastal use or resource will be undertaken in a manner consistent to the maximum extent practicable with the enforceable policies of the Virginia Coastal Zone Management (CZM) Program. The Virginia CZM Program consists of a network of programs administered by several agencies. DEQ coordinates

the review of Federal Consistency Determinations with agencies administering the [enforceable policies and advisory policies](#) of the Virginia CZM Program. In order to be consistent with the Virginia CZM Program, all the applicable permits and approvals listed under the enforceable policies must be obtained prior to commencing the project.

A Federal Consistency Determination was submitted that includes an analysis of the enforceable policies of the Virginia CZM Program. Pursuant to 15 CFR §930.41(a), DEQ is allowed up to sixty days to conduct a coordinated review and respond to submitted consistency determinations. The sixty-day review period for NASA's FCD began September 21, 2023 and ends November 20, 2023.

PUBLIC PARTICIPATION

In accordance with Title 15, Code of Federal Regulations (CFR), §930.2, the public was invited to participate in the review of the FCD. Public notice of the proposed action was published in OEIR's Program Newsletter and on the DEQ website from September 25, 2023 through October 23, 2023. No public comments were received in response to the notice.

FEDERAL CONSISTENCY ANALYSIS

According to information provided in the FCD and EA, the Proposed Action would have no effect on the following enforceable policies: dunes and beaches, Chesapeake Bay preservation areas, plant pests and noxious weeds, commonwealth lands, point source water pollution, and shoreline sanitation. The resource agencies responsible for the administration of the enforceable policies of the Virginia CZM Program generally agree with the findings of the FCD. NASA must ensure that the proposed action is consistent with the aforementioned policies. In addition, in accordance with 15 CFR, Subpart C, §930.39(c), DEQ encourages NASA to consider the impacts of the Proposed Action on the advisory policies of the Virginia CZM Program.

FEDERAL CONSISTENCY CONCURRENCE

Based on our review of the FCD, EA and the comments and recommendations submitted by agencies administering the enforceable policies of the Virginia CZM Program, DEQ concurs that the Proposed Action is consistent with the Virginia CZM Program, provided NASA obtains and complies with all applicable permits and approvals associated with the enforceable policies of the Virginia CZM Program. If, prior to implementation, the activities should change significantly and any of the enforceable policies of the Virginia CZM Program would be affected, pursuant to 15 CFR 930.46, NASA must submit a supplemental consistency determination to DEQ for review and concurrence. Other state approvals which may apply to this project are not included in this FCD. Therefore, NASA must ensure that the project is constructed and operated in accordance with all applicable federal, state, and local laws and regulations.

REGULATORY AND COORDINATION NEEDS

1. Surface Waters and Wetlands. A VWP Permit from DEQ-TRO may be required for any anticipated impacts to jurisdictional waters pursuant to Virginia Code §62.1-44.15:20 *et seq.* Tidal wetland impacts may require authorization from the local Wetlands Board. The submission of a JPA to VMRC for proposed impacts to jurisdictional waters will initiate reviews by DEQ, VMRC, Corps and the local wetlands board. For additional information and coordination, contact the DEQ-TRO VWP Permit program, Jeff Hannah at (757) 407-2510 or jeff.hannah@deq.virginia.gov and/or VMRC, Randy Owen at (757) 504-6993 or randy.owen@mrc.virginia.gov.

2. State Subaqueous Lands and Fisheries Resources. Permanent and temporary impacts to state owned bottomlands and fisheries resources under VMRC's jurisdiction will require permitting pursuant to Virginia Code §28.2-1200 through 1400. The submission of a JPA to VMRC for the proposed impacts will initiate agency review. For additional information and coordination contact VMRC, Randy Owen at (757) 504-6993 or randy.owen@mrc.virginia.gov.

3. Nonpoint Source Pollution Control.

3(a) Erosion and Sediment Control and Stormwater Management. The proposed 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.*). More specifically, NASA must comply with its DEQ approved annual standards and specification for erosion and sediment control and stormwater management. The applicant must contact standardsandspecs@deq.virginia.gov two weeks prior to land disturbance. Specific questions should be directed to DEQ-TRO, Courtney Smith at (757) 493-1072 or courtney.smith@deq.virginia.gov.

3(b) General Permit for Stormwater Discharges from Construction Activities (VAR10). For land-disturbing activities of equal to or greater than one acre, NASA is required to apply for registration coverage under the Virginia Stormwater Management Program General Permit for Discharges of Stormwater from Construction Activities (9 VAC 25-880-1 *et seq.*). Specific questions regarding the Stormwater Management Program requirements should be directed to DEQ-TRO, Courtney Smith at (757) 493-1072 or courtney.smith@deq.virginia.gov.

4. Air Quality Regulation. The project activities may be subject to air quality regulations administered by DEQ. Guidance on minimizing the emission of volatile organic compounds (VOCs) and oxides of nitrogen (NO_x) during construction may be obtained from DEQ-TRO staff. The following sections of Virginia Administrative Code may apply:

- fugitive dust and emissions control (9 VAC 5-50-60 *et seq.*); and
- open burning restrictions (9 VAC 5-130).

Contact local fire officials for information on any local requirements pertaining to open burning if applicable. For additional information and coordination, contact DEQ-TRO, John Brandt at (757) 407-2341 or john.brandt@deq.virginia.gov.

5. Floodplain Management. The Proposed Action must comply with local floodplain ordinances. Local floodplain administrator contact information may be found in DCR's [Local Floodplain Management Directory](#).

6. 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. Contact DEQ-TRO, Melinda Woodruff at (757) 407-2516 or melinda.woodruff@deq.virginia.gov, for information on the 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.

6(a) Asbestos-Containing Material. It is the responsibility of the owner or operator of a demolition activity to thoroughly inspect the affected part of the facility prior to demolition for the presence of asbestos, including Category I and Category II nonfriable asbestos containing material (ACM). Upon classification as friable or non-friable, all waste ACM shall be disposed of in accordance with the Virginia Solid Waste Management Regulations (9 VAC 20-80-640) and transported in accordance with the Virginia regulations governing Transportation of Hazardous Materials (9 VAC 20-110-10 *et seq.*). Contact the DEQ-TRO, Melinda Woodruff at (757) 407-2516 or melinda.woodruff@deq.virginia.gov and the Department of Labor and Industry, Doug Wiggins (540) 562-3580 ext. 131 for additional information.

6(b) Lead-Based Paint. The proposed project must comply with the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA) regulations, and with the Virginia Lead-Based Paint Activities Rules and Regulations. For additional information regarding these requirements, contact the Department of Professional and Occupational Regulation at (804) 367-8500.

7. Natural Heritage Resources. Contact DCR-DNH, Rene Hypes at (804) 371-2708 or rene.hypes@dcr.virginia.gov, to secure updated information on natural heritage resources if the scope of the projects change and/or six months passes before the WFMP activities are implemented, since new and updated information is continually added to the Biotics Data System.

7(a) Ecological Cores. Further investigation of project impacts to ecological cores is recommended since it may impact one or more cores with very high (C2) to outstanding (C1) ecological integrity, DCR-DNH is available to conduct a formal impact analysis upon request. For more information about the analysis and service charges, contact DCR-DNH, Joe Weber, DCR Chief of Biodiversity Information and Conservation Tools at joseph.weber@dcr.virginia.gov.

Thank you for the opportunity to review and respond to the EA and FCD for the Wallops Flight Facility Causeway Bridge Replacement Project in Accomack County, Virginia. Detailed comments of reviewing agencies are attached for your review. Please contact me at (804) 659-1915 or John Fisher at (804) 659-1550 for clarification of these comments.

Sincerely,



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

Enclosures

Ec: Allison Tillett, DCR
Lee Brann, DWR
Claire Gorman, VMRC
Roger Kirchen, DHR
Arlene Fields Warren, VDH
Allison Wishon, VDOT
Michael Mason, Accomack County
Elaine Meil, A-NPDC
Suzanne Richert, Wetlands.com



MEMORANDUM

TO: Julia Wellman, DEQ/EIR Environmental Program Planner

FROM: Nikolas I. Churchill, Division of Land Protection & Revitalization Review Coordinator

DATE: September 29, 2023

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

SUBJECT: Environmental Impact Review: 23-144F Causeway Bridge Replacement Project in Accomack County, Virginia.

The Division of Land Protection & Revitalization (DLPR) has completed its review of the National Aeronautics and Space Administration Wallops Flight Facility's September 22, 2023 EIR for 23-144F Causeway Bridge Replacement Project in Accomack County, Virginia.

DLPR staff conducted a search (200 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 search did not identify any waste sites 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 in close proximity to the project area.

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

Petroleum Releases – none in close proximity to the project area.

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.

Asbestos and/or Lead-based Paint

All structures being demolished/renovated/removed should be checked for asbestos-containing materials (ACM) and lead-based paint (LBP) prior to demolition. If ACM or LBP are found, in addition to the federal waste-related regulations mentioned above, State regulations 9VAC 20-81-620 for ACM and 9VAC 20-60-261 for LBP must be followed. Questions may be directed to the DEQ's Tidewater Regional Office at (757) 518-2000.

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 Nikolas Churchill by phone at (804) 659-2663 or email nikolas.churchill@deq.virginia.gov.

Re: NEW PROJECT NASA Causeway Bridge Replacement Project, DEQ 23-144F

Gavan, Larry (DEQ)

Tue 9/26/2023 10:11 AM

To: Wellman, Julia (DEQ) <Julia.Wellman@deq.virginia.gov>

Erosion and Sediment Control/ Stormwater Management Annual

Specifications. In accordance with §62.1-44.15 *et seq.*, electric, natural gas and telephone utility companies, interstate and intrastate natural gas pipeline companies, and railroad companies shall, and federal entities and authorities created pursuant to § 5.2-5102 may, file general erosion and sediment control standards and specifications annually with DEQ for review and approval. Such standards and specifications shall be consistent with the requirements of this article and associated regulations and the Erosion and Sediment Control Law and Stormwater Management Act (§ 62.1-44.15:24 *et seq.*) and associated regulations where applicable. The specifications shall apply to:

- Construction, installation, or maintenance of electric transmission, natural gas, and telephone utility lines and pipelines, and water and sewer lines; and
- Construction of the tracks, rights-of-way, bridges, communication facilities, and other related structures and facilities of the railroad company.

The applicant must have a certified Responsible Land Disturber in charge of and responsible for carrying out the project-specific erosion and sediment control plan and the land-disturbing activity. As an annual standards and specifications for erosion and sediment control holder, The applicant must have a certified erosion and sediment control inspector that must provide for an inspection during or immediately following initial installation of erosion and sediment controls, at least once in every two-week period, within 48 hours following any runoff producing storm event, and at the completion of the project. The applicant must contact: standardsandspecs@deq.virginia.gov two weeks prior to land disturbance.

Virginia Stormwater Management Plan General Permit for Construction Activities

(VAR10). The operator or owner of construction activities involving land disturbance equal to or greater than one acre must register for coverage under the General Permit for Discharges of Stormwater from Construction Activities and develop a project-specific stormwater pollution prevention plan (SWPPP). Construction activities requiring registration also include the 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 ultimately 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 Virginia Stormwater Management Plan (VSMP) Permit Regulations.

Larry Gavan
Site Plan Review Coordinator
Office of Stormwater Management
Department of Environmental Quality
1111 East Main Street, Suite 1400
Richmond, VA 23219
Work Number (804) 965-3320
larry.gavan@deq.virginia.gov

**DEPARTMENT OF ENVIRONMENTAL QUALITY
TIDEWATER REGIONAL OFFICE**

Environmental Impact Review
Coordination Review

To: Office of Environmental Impact Review
From: Jeff Hannah, Regional VWPP Program Manager
Date: October 13, 2023
Project: Causeway Bridge Replacement Project, DEQ #23-144F

As requested, the DEQ Tidewater Regional Office has reviewed the supplied information and offers the following comments:

Air Compliance Program :

The following air regulations may be applicable: Virginia Administrative Code 9 VAC 5-50-60 *et seq.* which addresses the abatement of visible emissions and fugitive dust emissions, and Virginia Administrative Code 9 VAC 5-130-10 *et seq.* which addresses open burning. For additional information, contact John Brandt, DEQ-TRO at (757)407-2341.

Land Program (Solid and Hazardous Waste):

All construction and demolition waste, including any excess soil, must be characterized in accordance with the Virginia Solid and Hazardous Waste Management Regulations and disposed of at an appropriate facility as applicable.

Hazardous Waste (HW) may be generated during destruction/construction of the bridge. No HW permit or EPA ID required prior to start of destruction/construction based on information provided. Dependent upon waste generated and/or managed, an EPA ID may be required in future. Addition information can be found on our webpage: [Hazardous Waste Generator Requirements | Virginia DEQ](#).

For additional information, contact Melinda Woodruff, DEQ-TRO at melinda.woodruff@deq.virginia.gov .

Stormwater:

A construction general permit (CGP) is required prior to commencement of land disturbing activities greater than 1 acre for the discharge of sediment from construction activities. An approved Erosion and Sediment Control Plan (<1 acre of land disturbance) or an approved Stormwater Management Plan (>1 acre of land disturbance) is required prior to commencement of any land disturbing activities. In addition, DEQ is the review authority for state and federal plan review and approval, within the Tidewater Region, to coincide with permit application processing. For additional information, contact Courtney Smith, DEQ-TRO at (757)493-1072.

Virginia Water Protection Permit Program (VWPP):

Potential adverse impacts to water quality and wetlands resulting from surface runoff due to construction activities must be minimized. This can be achieved by using Best Management Practices (BMPs). Permanent or temporary impacts to surface waters and wetlands may require DEQ authorization under §401 of the Clean Water Act, Virginia Code §62.1-44.15:20, and Virginia Administrative Code 9 VAC 25-210-10 *et seq.* Provided that any and all necessary permits are obtained and complied with, the project will be consistent with DEQ program requirements. For additional information, contact Jeff Hannah, DEQ-TRO at (757)407-2510.

Water Permit Program (VPDES):

No comments as there does not appear to be any point source discharges of process water or wastewater associated with this project that would necessitate a VPDES permit.

Petroleum Storage Tank Program:

DEQ records do not indicate any reported petroleum releases along the proposed project footprint. If evidence of a petroleum release is discovered during implementation of this project, it must be reported to DEQ, as authorized by CODE # 62.1-44.34.8 through 19 and 9 VAC 25-580-10 *et seq.* Contact Ms. Melinda Woodruff at (757)407-2516. Petroleum-contaminated soils and ground water generated during implementation of this project must be properly characterized and disposed of properly.

Installation and operation of any regulated petroleum storage tank(s) either AST or UST must also be conducted in accordance with the Virginia Regulations 9 VAC 25-91-10 *et seq* and / or 9 VAC 25-580-10 *et seq.* Documentation and / or questions should be submitted to TRO Tanks at Tidewater Regional Office – 5636 Southern Blvd., Virginia Beach, VA 23462. tro.tanks@deq.virginia.gov.

Based on the submitted information, it appears the proposed project will result in a *[Level of impact]* environmental impact.

RE: NEW PROJECT NASA Causeway Bridge Replacement Project, DEQ 23-144F

Warren, Arlene (VDH)

Fri 9/22/2023 12:49 PM

To: Wellman, Julia (DEQ) <Julia.Wellman@deq.virginia.gov>

Cc: Environmental Impact Review (DEQ) <eir@deq.virginia.gov>

Project #: 23-144F**Project Name: Causeway Bridge Replacement Project**

UPC #: N/A

Location: Accomack County

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**.

There are no public groundwater wells within a 1-mile radius of the project site.

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

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

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

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 F. Warren**

GIS Program Support Technician

Mobile 804-389-2167 (office/cell/text)**Email** [arlene.warren@vdh.virginia.gov] arlene.warren@vdh.virginia.gov

VDH, Office of Drinking Water

109 Governor Street, 6th Floor

Richmond, VA 23219



COMMONWEALTH of VIRGINIA

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

Travis A. Voyles
Secretary of Natural and Historic
Resources

Jamie L. Green
Commissioner

October 27, 2023

Department of Environmental Quality
Attn: Julia Wellman
1111 East Main Street
Richmond, VA 23219

Re: Draft EA/Federal Consistency Determination, NASA
Causeway Bridge Replacement Project, DEQ 23-144F

Dear Ms. Wellman:

This will respond to the request for comments regarding the Draft Environmental Assessment and Federal Consistency Determination for the NASA Causeway Bridge Replacement Project (DEQ #23-144F), prepared by NASA Goddard Space Flight Center, Wallops Flight Facility. Specifically, NASA has proposed to impact tidal wetlands and State-owned subaqueous lands to demolish and replace the causeway bridge that crosses over Cat Creek and connects the mainland to Wallops Island in Accomack County, Virginia.

We reviewed the provided documents and found the proposed project is within the jurisdictional areas of the Virginia Marine Resources Commission (VMRC) and will require a permit from this agency.

Please be advised that the VMRC pursuant to Chapters 12, 13, and 14 of Title 28.2 of the Code of Virginia administers permits required for submerged lands, tidal wetlands, and beaches and dunes. Additionally, 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: Cat Creek is designated as public shellfish ground. Turbidity from the proposed activities may impact settlement of oyster spat. Any permit issued by the VMRC will specify necessary special conditions for the project to minimize these impacts.

Submerged Lands: Impacts to submerged lands during bridge demolition and reconstruction will require a permit from VMRC.

Tidal Wetlands: The permanent and temporary impacts to tidal wetlands for bridge demolition and reconstruction will require a permit from The Accomack County Local Wetlands Board.

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

An Agency of the Natural and Historic Resources Secretariat

www.mrc.virginia.gov

Telephone (757) 247-2200 Information and Emergency Hotline 1-800-541-4646

Department of Environmental Quality
October 27, 2023
Page Two

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.

Please contact me at (757) 504-6993 or by email at randy.owen@mrc.virginia.gov if you have any questions. Thank you for the opportunity to comment.

Sincerely,

A handwritten signature in black ink, consisting of a large, stylized capital letter 'R' followed by a horizontal line extending to the right.

Randy Owen
Chief, Habitat Management Division

RDO/dd
HM

Re: NEW PROJECT NASA Causeway Bridge Replacement Project, DEQ 23-144F

Moore, Daniel (DEQ)

Fri 9/22/2023 12:07 PM

To:Fulcher, Valerie (DEQ) <Valerie.Fulcher@deq.virginia.gov>;Wellman, Julia (DEQ)
<Julia.Wellman@deq.virginia.gov>

The NASA Flight Facility at Wallops Island is located on land whose perennial waterbodies drain to the Atlantic Ocean. Cat Creek - over which the existing bridge on Causeway Road is proposed to be replaced - drains to the Atlantic Ocean as well. Lands analogous to locally designated CBPA lands (RPA and RMA) do not exist within the defined project area, including designated laydown/staging areas affiliated with the bridge replacement project.

The NASA Wallops Flight Center located along Rt. 175 west of Chincoteague Island and north of the defined project area does contain lands analogous to RPA and RMA but is not located near the proposed bridge replacement project.

In response the above, we have no comments related to this project.

Daniel Moore

Principal Environmental Planner
Office of Watersheds and Local Government Assistance
Virginia Department of Environmental Quality
1111 E. Main Street
Richmond, VA 23219
(804) 774-9577
daniel.moore@deq.virginia.gov



COMMONWEALTH of VIRGINIA
DEPARTMENT OF CONSERVATION AND RECREATION

MEMORANDUM

DATE: October 23, 2023
TO: Julia Wellman
FROM: Allison Tillett, Environmental Impact Review Coordinator
SUBJECT: DEQ 23-144F, Causeway Bridge Replacement Project

Division of Planning and Recreation Resources

The Department of Conservation and Recreation (DCR), Division of Planning and Recreational Resources (PRR), develops the *Virginia Outdoors Plan* and coordinates a broad range of recreational and environmental programs throughout Virginia. These include the Virginia Scenic Rivers program; Trails, Greenways, and Blueways; Virginia State Park Master Planning and State Park Design and Construction. PRR also administers the Land & Water Conservation Fund (LWCF) program in Virginia.

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 the project boundary including a 100ft buffer. However, due to the scope of the activity we do not anticipate that this project will adversely impact these natural heritage resources. Please note, a predictive model identifying potential habitat for Saltmarsh sparrow (*Ammodramus caudacuta*, G2/S2B,S3N/SOC/NL) intersects the project boundary. However, based on DCR biologist's review of the proposed project a survey is not recommended for the resource.

In addition, the proposed project may impact Ecological Cores (C1, C2) as identified in the Virginia Natural Landscape Assessment (<https://www.dcr.virginia.gov/natural-heritage/vaconvisvnl>). Mapped cores in the project area can be viewed via the Virginia Natural Heritage Data Explorer, available here: <http://vanhde.org/content/map>.

Ecological Cores are areas of at least 100 acres of continuous interior, natural cover that provide habitat for a wide range of species, from interior-dependent forest species to habitat generalists, as well as species that utilize marsh, dune, and beach habitats. Interior core areas begin 100 meters inside core edges and continue to the deepest parts of cores. Cores also provide the natural, economic, and quality of life benefits of open space, recreation, thermal

moderation, water quality (including drinking water recharge and protection, and erosion prevention), and air quality (including sequestration of carbon, absorption of gaseous pollutants, and production of oxygen). Cores are ranked from C1 to C5 (C5 being the least significant) using nine prioritization criteria, including the habitats of natural heritage resources they contain.

Impacts to cores occur when their natural cover is partially or completely converted permanently to developed land uses. Habitat conversion to development causes reductions in ecosystem processes, native biodiversity, and habitat quality due to habitat loss; less viable plant and animal populations; increased predation; and increased introduction and establishment of invasive species.

DCR recommends avoidance of impacts to cores. When avoidance cannot be achieved, DCR recommends minimizing the area of impacts overall and concentrating the impacted area at the edges of cores, so that the most interior remains intact.

The proposed project may impact one or more cores with very high (C2) to outstanding (C1) ecological integrity. Further investigation of these impacts is recommended and DCR-DNH can conduct a formal impact analysis upon request. This analysis would estimate impacts to cores and habitat fragments, providing an estimate of the total acreage of direct and indirect impacts of the project. For more information about the analysis and service charges, please contact Joe Weber, DCR Chief of Biodiversity Information and Conservation Tools at Joseph.Weber@dcr.virginia.gov.

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 Wildlife Resources (VDWR) 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 <https://services.dwr.virginia.gov/fwis/> or contact Amy Martin at 804-367-2211 or amy.martin@dwr.virginia.gov.

Division of State Parks

DCR's Division of State Parks is responsible for acquiring and managing, state parks. Park development and master planning are managed by the Division of Planning and Recreation Resources. Master plans are required prior to a parks opening and are updated every ten years (Virginia Code § 10.1-200 *et seq.*).

Division of Dam Safety and Floodplain Management

Dam Safety Program:

The Dam Safety program was established to provide proper and safe design, construction, operation and maintenance of dams to protect public safety. Authority is bestowed upon the program according to *The Virginia Dam Safety Act*, Article 2, Chapter 6, Title 10.1 (10.1-604 *et seq.*) of the Code of Virginia and Dam Safety

Impounding Structure Regulations (Dam Safety Regulations), established and published by the Virginia Soil and Water Conservation Board (VSWCB).

Floodplain Management Program:

The National Flood Insurance Program (NFIP) is administered by the Federal Emergency Management Agency (FEMA), and communities who elect to participate in this voluntary program manage and enforce the program on the local level through that community's local floodplain ordinance. Each local floodplain ordinance must comply with the minimum standards of the NFIP, outlined in 44 CFR 60.3; however, local communities may adopt more restrictive requirements in their local floodplain ordinance, such as regulating the 0.2% annual chance flood zone (Shaded X Zone).

All development within a Special Flood Hazard Area (SFHA), as shown on the locality's Flood Insurance Rate Map (FIRM), must be permitted and comply with the requirements of the local floodplain ordinance.

State Agency Projects Only

[Executive Order 45](#), signed by Governor Northam and effective on November 15, 2019, establishes mandatory standards for development of state-owned properties in Flood-Prone Areas, which include Special Flood Hazard Areas, Shaded X Zones, and the Sea Level Rise Inundation Area. These standards shall apply to all state agencies.

1. Development in Special Flood Hazard Areas and Shaded X Zones
 - A. All development, including buildings, on state-owned property shall comply with the locally-adopted floodplain management ordinance of the community in which the state-owned property is located and any flood-related standards identified in the Virginia Uniform Statewide Building Code.
 - B. If any state-owned property is located in a community that does not participate in the NFIP, all development, including buildings, on such state-owned property shall comply with the NFIP requirements as defined in 44 CFR §§ 60.3, 60.4, and 60.5 and any flood-related standards identified in the Virginia Uniform Statewide Building Code.
 - (1) These projects shall be submitted to the Department of General Services (DGS), for review and approval.
 - (2) DGS shall not approve any project until the State NFIP Coordinator has reviewed and approved the application for NFIP compliance.
 - (3) DGS shall provide a written determination on project requests to the applicant and the State NFIP Coordinator. The State NFIP Coordinator shall maintain all documentation associated with the project in perpetuity.
 - C. No new state-owned buildings, or buildings constructed on state-owned property, shall be constructed, reconstructed, purchased, or acquired by the Commonwealth within a Special Flood Hazard Area or Shaded X Zone in any community unless a variance is granted by the Director of DGS, as outlined in this Order.

The following definitions are from Executive Order 45:

Development for NFIP purposes is defined in 44 CFR § 59.1 as “Any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials.”

The Special Flood Hazard Area may also be referred to as the 1% annual chance floodplain or the 100-year floodplain, as identified on the effective Flood Insurance Rate Map and Flood Insurance Study. This includes the following flood zones: A, AO, AH, AE, A99, AR, AR/AE, AR/AO, AR/AH, AR/A, VO, VE, or V.

The Shaded X Zone may also be referred to as the 0.2% annual chance floodplain or the 500- year floodplain, as identified on the effective Flood Insurance Rate Map and Flood Insurance Study.

The Sea Level Rise Inundation Area referenced in this Order shall be mapped based on the National Oceanic and Atmospheric Administration Intermediate-High scenario curve for 2100, last updated in 2017, and is intended to denote the maximum inland boundary of anticipated sea level rise.

“State agency” shall mean all entities in the executive branch, including agencies, offices, authorities, commissions, departments, and all institutions of higher education.

“Reconstructed” means a building that has been substantially damaged or substantially improved, as defined by the NFIP and the Virginia Uniform Statewide Building Code.

Federal Agency Projects Only

Projects conducted by federal agencies within the SFHA must comply with federal Executive Order 11988: Floodplain Management.

DCR’s Floodplain Management Program does not have regulatory authority for projects in the SFHA. The applicant/developer must reach out to the local floodplain administrator for an official floodplain determination and comply with the community’s local floodplain ordinance, including receiving a local permit. Failure to comply with the local floodplain ordinance could result in enforcement action from the locality. For state projects, DCR recommends that compliance documentation be provided prior to the project being funded. For federal projects, the applicant/developer is encouraged reach out to the local floodplain administrator and comply with the community’s local floodplain ordinance.

To find flood zone information, use the Virginia Flood Risk Information System (VFRIS):

www.dcr.virginia.gov/vfris

To find community NFIP participation and local floodplain administrator contact information, use DCR’s Local Floodplain Management Directory: www.dcr.virginia.gov/dam-safety-and-floodplains/floodplain-directory

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

Causeway Bridge Replacement Project, DEQ 23-144F (DHR File No. 2020-4275) | e-Mail #04579

Chelsea Jeffries <Chelsea.Jeffries@dhr.virginia.gov>

Fri 10/20/2023 3:34 PM

To: Wellman, Julia (DEQ) <Julia.Wellman@deq.virginia.gov>

Dear Julia Wellman,

DHR has been in direct consultation with the Federal Highway Administration and its agents regarding this project (see Appendix H of the EIR) and reached consensus that the Wallops Island Causeway Bridge Replacement Project will result in no historic properties affected. DHR has no further comment at this time.

Chelsea Jeffries, Architectural Historian
Office of Review and Compliance
Division of Resource Services and Review
Phone: (804) 482-8097
Chelsea.Jeffries@dhr.virginia.gov