Appendix A
Relevant Laws and Regulations

The Navy has prepared this Environmental Assessment (EA) based on federal and state laws, statutes, regulations, and policies pertinent to the implementation of the Proposed Action, including the following:

- National Environmental Policy Act (NEPA; 42 United States Code [U.S.C.] sections 4321–4370h), which requires an environmental analysis for major federal actions that have the potential to significantly impact the quality of the human environment
- Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations [CFR] parts 1500–1508)
- Navy's Procedures for Implementing NEPA (32 CFR part 775), which provides Navy policy for implementing Council on Environmental Quality regulations and NEPA
- Clean Air Act (42 U.S.C. section 7401 et seq.)
- Clean Water Act (33 U.S.C. section 1251 et seq.)
- Rivers and Harbors Act (33 U.S.C. section 407)
- Coastal Zone Management Act (16 U.S.C. section 1451 et seq.)
- National Historic Preservation Act (54 U.S.C. section 306108 et seq.)
- Endangered Species Act (16 U.S.C. section 1531 et seq.)
- Magnuson-Stevens Fishery Conservation and Management Reauthorization Act (16 U.S.C. section 1801 et seq.)
- Marine Mammal Protection Act (16 U.S.C. section 1361 et seq.)
- Migratory Bird Treaty Act (16 U.S.C. section 703–712)
- Bald and Golden Eagle Protection Act (16 U.S.C. section 668–668d)
- Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. section 9601 et seq.)
- Emergency Planning and Community Right-to-Know Act (42 U.S.C. sections 11001–11050)
- Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. section 136 et seq.)
- Resource Conservation and Recovery Act (42 U.S.C. section 6901 et seq.)
- Toxic Substances Control Act (15 U.S.C. sections 2601–2629)
- Farmland Protection Policy Act (7 U.S.C. 4201 et seq.)
- Executive Order (EO) 11988, *Floodplain Management*
- EO 11990, *Protection of Wetlands*
- EO 12088, *Federal Compliance with Pollution Control Standards*
- EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations*
- EO 13045, *Protection of Children from Environmental Health Risks and Safety Risks*
- EO 13175, *Consultation and Coordination with Indian Tribal Governments*
- EO 13834, *Efficient Federal Operations*

Consistency with Other Federal, State, and Local Laws, Plans, Policies, and Regulations

In accordance with 40 CFR section 1502.16(c), analysis of environmental consequences shall include discussion of possible conflicts between the Proposed Action and the objectives of federal, regional, state, and local land use plans, policies, and controls. Table A-1 identifies the principal federal and state laws and regulations that are applicable to the Proposed Action and describes briefly how compliance with these laws and regulations would be accomplished.

Table A-1 Principal Federal and State Laws Applicable to the Proposed Action

Federal, State, Local, and Regional Land Use Plans, Policies, and Controls	***Status of Compliance***
NEPA; CEQ-NEPA implementing regulations; Navy procedures for implementing NEPA	This Environmental Assessment has been prepared in accordance with NEPA, as implemented by the CEQ and Navy regulations.
Clean Air Act	The Proposed Action would comply with applicable federal and state air quality regulations. King George County is in attainment for all criteria pollutants; a General Conformity applicability analysis and Record of Non-Applicability are not required.
Clean Water Act	All of the action alternatives would require a Joint Permit Application (Nationwide Permit 14 for Linear Transportation Projects) from USACE, VMRC, Virginia DEQ, and the King George Wetlands Board. As more than one acre of land, a Construction General Permit under the National Pollutant Discharge Elimination System would be required. All action alternatives would disturb wetlands pursuant to Section 404. See discussion under Executive Order 11990, *Protection of Wetlands*, on page A-3, and USACE's Preliminary Jurisdictional Determination on page B-134.
Rivers and Harbors Act	A permit for bridge construction under Section 9 would be required from the U.S. Coast Guard.
Coastal Zone Management Act	The Navy submitted a Federal Consistency Determination package to Virginia DEQ; DEQ concurs that the Proposed Action is consistent to the maximum extent practicable with the enforceable policies of Virginia's Coastal Zone Management Program, provided that the Navy obtains and complies with all applicable permits, approvals, and regulatory requirements. See page B-31.
National Historic Preservation Act	The Navy will execute a Programmatic Agreement with the Virginia Department of Historic Resources to continue consultation as project development progresses regarding adverse effects from the bridge demolition and disturbance of existing and potential sites. See Appendix D.
Endangered Species Act	No effect on threatened or endangered species would be expected. No formal consultation with the U.S. Fish and Wildlife Service or NOAA Fisheries under section 7 is required. See pages B-93 and B-133.
Magnuson-Stevens Fishery Conservation and Management Reauthorization Act	No significant impacts on essential fish habitat are expected. Informal consultation with NOAA Fisheries will occur during the design phase. See page B-116.
Marine Mammal Protection Act	Marine mammals have not been observed near the project site and are not expected to be indirectly affected. No impacts are expected.
Migratory Bird Treaty Act	No impacts on migratory birds would be expected.

Federal, State, Local, and Regional Land Use Plans, Policies, and Controls	***Status of Compliance***
Bald and Golden Eagle Protection Act	No impacts on bald eagles would be expected.
Comprehensive Environmental Response, Compensation, and Liability Act	Not applicable. The Proposed Action does not involve using or storing hazardous or toxic chemicals, beyond minimal quantities associated with construction.
Emergency Planning and Community Right-to-Know Act	Not applicable. Chemical substances would remain the same; reporting requirements would continue.
Federal Insecticide, Fungicide, and Rodenticide Act	Not applicable. The Navy would continue to use any pesticides or pesticide-treated products in accordance with applicable labeling.
Resource Conservation and Recovery Act	No changes would occur in the way that hazardous wastes are handled, stored, or disposed of.
Toxic Substances Control Act	Not applicable. Chemical substances would remain the same; reporting requirements would continue.
Farmland Protection Policy Act	NSF Dahlgren soils, and projects that affect them, are not subject to Farmland Protection Policy Act requirements.
Executive Order 11988, *Floodplain Management*	Much of the project area is within the 100-year floodplain. If impacts cannot be avoided, minimization measures to restore and preserve the floodplain will be designed and implemented.
Executive Order 11990, *Protection of Wetlands*	The new bridge would unavoidably result in fill material in jurisdictional, tidal wetlands associated with Gambo Creek. Design plans have not yet been drafted, so the area of direct impacts is not known. The Navy will obtain all required permits pursuant to Section 404 of the Clean Water Act and implement all necessary mitigations, so there would be no net loss of wetlands pursuant Executive Order 11990. The Navy will also implement measures to minimize short-term disturbance of wetlands during bridge construction. See USACE's Preliminary Jurisdictional Determination on page B-134.
Executive Order 12088, *Federal Compliance with Pollution Control Standards*	The Proposed Action would comply with applicable pollution controls required by construction permits.
Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations*	No disproportionately high or adverse effects on minority or low-income populations would occur.
Executive Order 13045, *Protection of Children from Environmental Health Risks and Safety Risks*	No disproportionate effects on children would occur.
Executive Order 13089, *Coral Reef Protection*	Not applicable.
Executive Order 13175, *Consultation and Coordination with Indian Tribal Governments*	No traditional cultural properties are known to be located within or near the project site. Consultation has been initiated with federally recognized tribes. The Pamunkey Indian Tribe will be a consulting party pursuant to Section 106 of the National Historic Preservation Act; see correspondence beginning on page B-143.
Executive Order 13834, *Efficient Federal Operations*	The Proposed Action does not include changes in operations.

Key: CEQ = Council on Environmental Quality; DEQ = Department of Environmental Quality; NEPA = National Environmental Policy Act; NOAA = National Oceanic and Atmospheric Administration; NSF = Naval Support Facility; SHPO = State Historic Preservation Office; USACE = U.S. Army Corps of Engineers; VMRC = Virginia Marine Resources Commission.

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Appendix B
Public Involvement and Agency Correspondence Materials

Contents of Appendix B

General Agency Review and Public Involvement for the Draft EA

Agency Letter for Draft EA (February 13, 2020)

The following letter was distributed to all the agencies, as listed beginning on page B-9.

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND WASHINGTON
1314 HARWOOD STREET SE
WASHINGTON NAVY YARD DC 20374-5018

IN REPLY REFER TO:
5090
Ser 00/037
13 February 2020

Tucker Smith, Chief, Northern Section
Norfolk District
U.S. Army Corps of Engineers
803 Front Street
Norfolk, VA 23510

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT FOR GAMBO CREEK BRIDGE REPLACEMENT AT NAVAL SUPPORT ACTIVITY DAHLGREN, DAHLGREN, VIRGINIA

Dear Mr. Smith:

The Department of the Navy has prepared a Draft Environmental Assessment (EA) in compliance with the National Environmental Policy Act of 1969 (NEPA) to assess the potential impacts associated with providing a replacement bridge that carries Tisdale Road traffic over Gambo Creek at Naval Support Facility (NSF) Dahlgren in the vicinity of the current Gambo Creek Bridge (#158). The existing bridge is deteriorating and does not meet current engineering standards for width and load ratings to support fire trucks and other equipment that provide critical installation services. NSF Dahlgren is in Dahlgren, Virginia, which is in King George County (see Figure 1).

The EA evaluates three action alternatives and the No Action Alternative:

- Alternative 1/Preferred Alternative—demolishing the current bridge and then constructing a wider bridge in its place (see Figure 2);
- Alternative 2—constructing a wider bridge to the south of the existing bridge and then demolishing the current bridge (see Figure 3);
- Alternative 3—constructing a bridge of similar width to the south of the existing bridge and repairing the existing bridge so each bridge provides one-way traffic (see Figure 4); and

5090
Ser 00/037
13 February 2020

- No Action Alternative—continuing to use the existing Gambo Creek Bridge with only minimal maintenance, which would ultimately result in the bridge failing and its eventual closure.

The Proposed Action would also include replacing utilities, constructing new foundation pilings, and realigning the roadway, if required. The current Gambo Creek Bridge has utility lines attached to the structure that include water, sanitary sewer, power lines, and telecommunication. Under the Proposed Action, the utility lines would either be reattached to the new or repaired bridge, or the utility lines would installed underground across Gambo Creek.

All action alternatives would result in impacts on wetlands, an increase in impervious surface, unavoidable construction within the Gambo Creek floodplain, and potential impacts on cultural resources. In addition, the Gambo Creek Bridge is adjacent to several installation restoration sites.

The Department of the Navy would like to invite your organization to review the Draft EA, which can be found online at: https://www.cnic.navy.mil/regions/ndw/installations/nsa_south_potomac/installations/nsf_dahlgren/om/environmental-assessment.html. The Draft EA is available for a 30-day public comment period beginning February 14, 2020. Comments on the Draft EA may be submitted via email to NAVFACWashNEPA@navy.mil, or via U.S. mail, no later than 30 days from receipt of this letter, to Naval Facilities Engineering Command Washington, ATTN: Jennifer Steele, NAVFAC Washington, 1314 Harwood Street SE, Building 212, Washington Navy Yard, DC 20374.

The Department of the Navy thanks you for your interest and participation in the public comment period. If you have any questions or need further information on this project, please contact Ms. Steele at NAVFACWashNEPA@navy.mil or (202) 685-8008.

Sincerely,

THOMAS P. LEWIS
Environmental Business Line Coordinator
By direction

Enclosures: 1. Figure 1 Naval Support Facility Dahlgren Location Map
2. Figure 2 Alternative 1 (Existing) Alignment, Aerial & Map Views—Preferred Alternative
3. Figure 3 Alternative 2 (Southern) Alignment, Aerial & Map Views
4. Figure 4 Alternative 3 (Parallel) Alignment, Aerial & Map Views

Copy to: Ms. Jennifer Steele, NAVFAC Washington NEPA Project Manager

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13 February 2020

ENCLOSURE 1: FIGURE 1 NAVAL SUPPORT FACILITY DAHLGREN LOCATION MAP

3

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ENCLOSURE 2: FIGURE 2 ALTERNATIVE 1 (EXISTING) ALIGNMENT—
PREFERRED ALTERNATIVE

Aerial View

Map View

4

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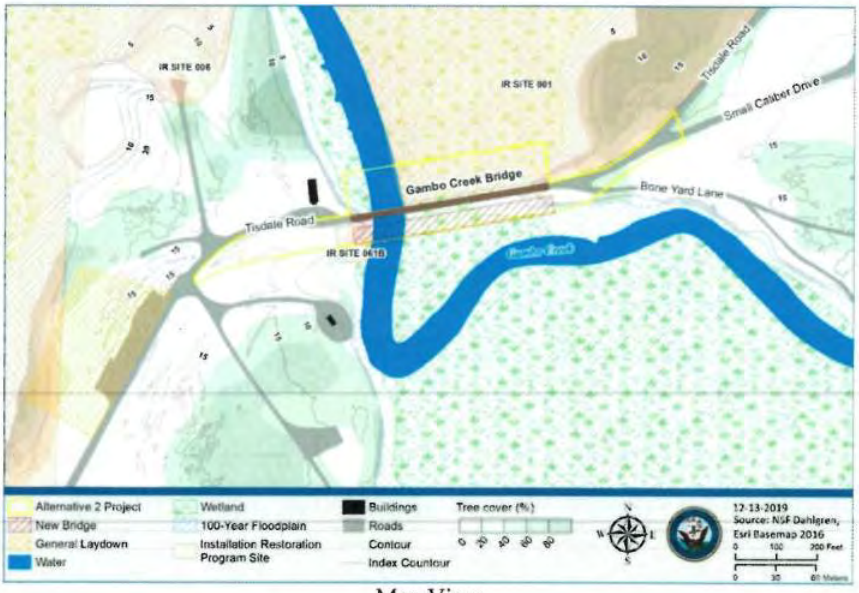
ENCLOSURE 3: FIGURE 3 ALTERNATIVE 2 (SOUTHERN) ALIGNMENT

Aerial View



Map View

5

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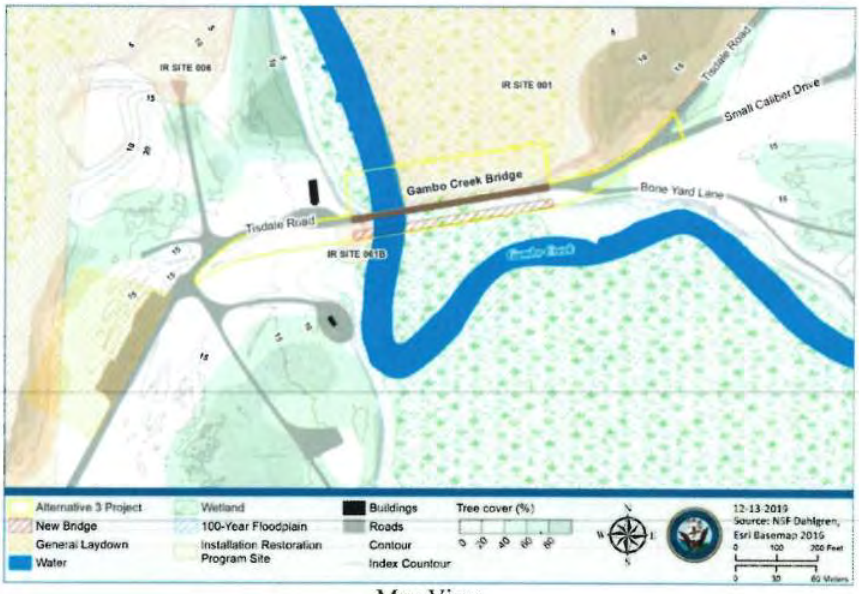
13 February 2020

ENCLOSURE 4: FIGURE 4 ALTERNATIVE 3 (PARALLEL) ALIGNMENT

Aerial View



Map View

6

Agency and Native American Tribal Distribution List for Draft EA

FEDERAL AGENCIES

U.S. Army Corps of Engineers

Tucker Smith, Chief, Northern Section
Norfolk District
U.S. Army Corps of Engineers
803 Front Street
Norfolk, VA 23510

U.S. Fish and Wildlife Service

Cindy Schultz, Field Supervisor
Virginia Field Office
U.S. Fish and Wildlife Service
6669 Short Lane
Gloucester, VA 23061

NOAA Fisheries

Virginia Field Office
Greater Atlantic Regional Fisheries Office
NOAA Fisheries, Habitat Management
1375 Greate Road
Gloucester Point, VA 23062

U.S. Coast Guard

Mr. Hal Pitts
Bridge Branch (dpb)
Commander, Fifth Coast Guard District
431 Crawford Street
Portsmouth, VA 23704-5004

STATE AGENCIES

State Historic Preservation Officer

Julie Langan, SHPO
Department of Historic Resources
2801 Kensington Avenue
Richmond, VA 23221

Federal Consistency Coordinator

Bettina Rayfield, Manager
Environmental Impact Review and Long Range Priorities Program
Department of Environmental Quality
1111 East Main Street, Suite 1400
(Mailing: PO Box 1105)
Richmond, VA 23219

Virginia Department of Environmental Quality

Thomas A. Faha, Regional Director
Northern Regional Office
13901 Crown Court
Woodbridge, VA 22193

Department of Conservation and Recreation

Natural Heritage
Department of Conservation and Recreation
600 East Main Street, 24th Floor
Richmond, VA 23219

Dam Safety and Floodplain Management
Department of Conservation and Recreation
600 East Main Street, 24th Floor
Richmond, VA 23219

Wayne Davis, Manager
East Area Virginia Soil and Water Conservation Board
772 Richmond Beach Road, No. 6
(Mailing: PO Box 1425)
Tappahannock, VA 22560

Virginia Marine Resources Commission

Tony Watkinson, Chief
Habitat Management
380 Fenwick Road
Fort Monroe, VA 23651

Virginia Department of Transportation

Marcie Parker, PE, District Engineer
Fredericksburg District
Virginia Department of Transportation
87 Deacon Road
Fredericksburg, VA 22405

Annette F. Adams, PE
Structure and Bridge Program Area,
Fredericksburg District
Virginia Department of Transportation
87 Deacon Road
Fredericksburg, VA 22405

COUNTY AGENCIES

Local Wetland Board

Michael Newchok
King George Wetlands Board
10459 Courthouse Drive, Suite 200
King George, VA 22485

Engineering and Public Works

Travis Quesenberry, County Engineer
Engineering and Public Works
10459 Courthouse Drive, Suite 200
King George, VA 22485

NATIVE AMERICAN TRIBAL CONTACTS

Pamunkey Indian Tribe

Honorable Robert Gray
Chief
Pamunkey Indian Tribe
1054 Pocahontas Trail
King William, VA 23086

Chickahominy Indian Tribe

Honorable Stephen R. Adkins
Chickahominy Indian Tribe
8200 Lott Cary Road
Providence Forge, VA 23140

Chickahominy Indians Eastern Division

Honorable Gerald Stewart
Assistant Chief
Chickahominy Indians Eastern Division
2895 Mount Pleasant Road
Providence Forge, VA 23140

Upper Mattaponi Tribe

Honorable W. Frank Adams
Chief
Upper Mattaponi Tribe
13476 King William Road
King William, VA 23086

Rappahannock Tribe, Inc.

Honorable G. Anne Richardson
Chief
Rappahannock Tribe, Inc.
The Powhatan Confederation, Tribal Office
5036 Indian Neck Road
Indian Neck, VA 23148

Nansemond Indian Tribe

Honorable Samuel M. Bass
Chief
Nansemond Indian Tribe
1001 Pembroke Lane
Suffolk, VA 23434

Monacan Indian Nation

Honorable Dean Branham
Chief
Monacan Indian Nation
PO Box 960
Amherst, VA 24521

Delaware Nation

P.O. Box 825
Anadarko, OK 73005

Delaware Tribe

Brice Obermeyer, Director, Delaware Tribe
Historic Preservation Office
Roosevelt Hall, Rm 212
1200 Commercial Street
Emporia, KS 66801

Affidavit of Publication for the Notice of Availability for the Draft EA (February 14, 2020)

The Free Lance-Star

Advertising Affidavit

THE FREE LANCE-STAR
1340 Central Park Blvd
Suite 100
Fredericksburg, Va 22401

MARSTEL-DAY, LLC
701 KENMORE AVE, SUITE 220
FREDERICKSBURG, VA 22401

Date
February 16, 2020

Date	Category	Description	Ad Size	Total Cost
02/16/2020	Any-Main-FLS	GAMBO CREEK BRIDGE REPLACEMENT	2 x 6.00 IN	1,035.60

Naval Support Activity South Potomac
Notice of Availability for an Environmental Assessment for Gambo Creek Bridge Replacement at Naval Support Facility Dahlgren, Dahlgren, Virginia

Pursuant to Section 102(2)(c) of the National Environmental Policy Act of 1969 (NEPA) and the Council on Environmental Quality's regulations implementing the procedural provisions of NEPA (40 CFR Parts 1500-1508), the U.S. Department of the Navy gives notice that an Environmental Assessment (EA) has been prepared to evaluate the potential impacts on the human and natural environment of providing a replacement bridge that carries Dahlgren Road traffic over Gambo Creek at Naval Support Facility Dahlgren in the vicinity of the current Gambo Creek Bridge ([illegible]). The existing bridge is deteriorating and does not meet current engineering standards for width and load ratings to support fire trucks and other equipment that provide critical installation services.

The EA evaluates three alternatives: (1) demolishing the current bridge and then constructing a wider bridge in its place, (2) constructing a wider bridge to the south of the existing bridge and then demolishing the current bridge, and (3) constructing a bridge of similar width to the south of the existing bridge and repairing the existing bridge so each provides one-way traffic. The Proposed Action would also include replacing utilities (i.e., electric, water, sewer, and communications), constructing new foundation pilings, and realigning the roadway if required. All alternatives would be expected to result in impacts on the Gambo Creek floodplain, wetlands, and archaeological sites.

The Draft EA is available at the following website: [illegible]

Comments on the EA must be received by March 15, 2020, to be considered in the Final EA. Please submit comments to Jennifer Steele, NAVFAC Washington, 1314 Harwood St SE, Bldg 212, Washington, DC 20374, or by e-mail at [illegible]

Proof of Publication

I hereby certify that the attached notice was published in The Free Lance-Star, a newspaper published daily in Fredericksburg, Va. on the following date(s);

02/14, 02/15, 02/16/2020

____ **Listed additionally on-line @ Fredericksburg.com**

Newspaper reference: 0001063117

Julie Gilliam

Publisher, Supervisor or Accounting Assistant

Sworn to and subscribed before me this

16th Day of February 2020

Kimberly B Harris

Notary Public

Kimberly B. Harris
NOTARY PUBLIC
Commonwealth of Virginia
Notary Registration Number 356753
Commission Expires January 31, 2021

State of Virginia
County/City ____________________

My Commission expires ____________________

Federal Consistency Determination under the Coastal Zone Management Act

Letter to Bettina Rayfield, Virginia Department of Environmental Quality (January 29, 2020)

DEPARTMENT OF THE NAVY
NAVAL SUPPORT ACTIVITY SOUTH POTOMAC
6509 SAMPSON ROAD, BLDG 101
DAHLGREN, VIRGINIA 22448

5090
Ser PRSD41TW/005
January 29, 2020

Ms. Bettina Rayfield
Office of Environmental Impact Review
Virginia Department of Environmental Quality
1111 East Main Street, Suite 1400
PO Box 1105
Richmond, VA 23219

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT FOR GAMBO CREEK BRIDGE REPLACEMENT AT NAVAL SUPPORT FACILITY DAHLGREN, DAHLGREN, VIRGINIA

Dear Ms. Rayfield:

In accordance with the Federal Coastal Zone Management Act of 1972 (CZMA), as amended, Naval Support Activity South Potomac requests concurrence with the Federal Consistency Determination for the proposed replacement bridge to carry Tisdale Road traffic over Gambo Creek at Naval Support Facility Dahlgren, in King George County, Virginia.

The Navy actions shall be carried out in a manner that are consistent to the maximum extent practicable with Virginia's enforceable policies. Pursuant to 15 CFR Section 930.41, the Navy shall presume concurrence if a response or request for extension is not received within 60 days from the receipt of this letter.

Please direct all written correspondence to:

ATTN: Director, Environmental Program
Department of the Navy
PWD South Potomac
18329 Thompson Road, Suite 226
Dahlgren, Virginia 22448-5110

For more information please contact Mr. Travis Wray at travis.wray@navy.mil and copy Ms. Jennifer Steele at jennifer.l.steele1@navy.mil, or by telephone at (540) 653-4186 and (202) 685-8008, respectively.

Sincerely,

JEFFREY C. BOSSART
By direction

Enclosures: 1. Coastal Zone Management Act Federal Consistency Determination

Copy to:
Ms. Jennifer Steele, NAVFAC Washington

COASTAL ZONE MANAGEMENT ACT FEDERAL CONSISTENCY DETERMINATION FOR GAMBO CREEK BRIDGE REPLACEMENT AT NAVAL SUPPORT FACILITY DAHLGREN, DAHLGREN, VIRGINIA

This document provides the Commonwealth of Virginia with the Navy's Consistency Determination under Section 307(c) of the Coastal Zone Management Act and 15 CFR Part 930, subpart C, for the proposed replacement bridge to carry Tisdale Road traffic over Gambo Creek at Naval Support Facility (NSF) Dahlgren, Dahlgren, Virginia, which is located in King George County (see Figure 1 in Attachment C). The information in this Federal Consistency Determination is provided pursuant to 15 CFR 930.39.

Summary of Preferred Action and Alternatives

The Proposed Action would provide a bridge to carry Tisdale Road traffic over Gambo Creek at NSF Dahlgren. Gambo Creek Bridge (#158), the existing bridge, is a reinforced concrete structure that was built in 1940 primarily as a railroad trestle for the movement of 16-inch guns mounted on flatcars. When rail car movement was phased out, it became a vehicular bridge.

The proposed bridge would be constructed of steel pile foundations and a prestressed concrete spread box beam structure. It would be sized for two-way traffic and capable of supporting a minimum 50,500-pound (25.25-ton) truck, which is the heaviest vehicle in the fire department's fleet. Although the height of the proposed bridge is unknown at this time, it would likely be similar to the height of the existing bridge, which is 13 feet 3 inches from the bottom of concrete pier (pile caps) to the top of concrete decking (approximately 15 feet above mean sea level). The bridge would meet Federal Highway Administration engineering standards.

Utility lines would be relocated during construction. The following utilities would run either on the bridge structure or would be relocated under the creek bed: three-phase electrical lines and conduit; 6-inch cast iron drainage piping for storm drain for the bridge deck; 25-pair telephone coaxial cable and jacketing; 100-pair telephone coaxial cable inside a rigid galvanized steel conduit; 2- to 8-inch galvanized steel conduits with sealed joints containing protected network fiber optic lines; 4-inch cast iron sanitary sewer force main; and 10-inch cast iron potable waterline with insulation and jacketing. The Navy is considering the options of reattaching utilities to the proposed bridge or boring utilities underneath Gambo Creek using a technique such as horizontal directional drilling.

A laydown area for construction equipment would be west of the bridge in an area consisting of gravel and mowed grass. Temporary access roads would be built along the approach roadway. An additional temporary impact area to the north of the bridge is anticipated to be used to install cofferdams during in-water construction and allow minor diversions of flow on the eastern bank.

The Navy is analyzing three action alternatives and the No Action Alternative.

Enclosure 1

1

Under Alternative 1, which is the preferred alternative, the existing bridge would be completely demolished, and then rebuilt on the existing footprint. The new bridge would be approximately twice as wide as the existing bridge to carry two-way traffic and to support a 50,500-pound truck, at a minimum (see Figure 2 in Attachment C). Alternative 1 would result in the following:

- 8,730 square feet of bridge demolition
- 20,100 square feet of new bridge construction
- 63,860 square feet of temporary wetlands impacts
- 3,340 square feet of tree loss
- 2,920 square feet of new impervious surfaces

Under Alternative 2, a new bridge would be constructed to the south of the existing bridge, and the existing bridge would be demolished. The new bridge would be approximately twice as wide as the existing bridge to carry two-way traffic and to support a 50,500-pound truck, at a minimum (see Figure 3 in Attachment C). Alternative 2 would result in the following:

- 20,100 square feet of new bridge construction
- 67,520 square feet of temporary wetlands impacts
- 10,790 square feet of tree loss
- 30,040 square feet of new impervious surfaces

Under Alternative 3, a new bridge similar in width to the existing bridge would be constructed to the south of the existing bridge, and the existing bridge would be repaired. Given the advanced state of deterioration of the existing bridge, it cannot feasibly be repaired to return to its original weight limits. The new bridge would be capable of supporting a 50,500-pound truck, at a minimum. Traffic would be one-way on the new bridge but with contraflow lane reversal when necessary for large vehicles that cannot pass on the existing bridge (see Figure 4 in Attachment C). Alternative 3 would result in the following:

- 9,980 square feet of new bridge construction
- 70,190 square feet of temporary wetlands impacts
- 8,290 square feet of tree loss
- 22,210 square feet of new impervious surfaces

Under the No Action Alternative, the existing bridge would continue to be used with only minimal maintenance. The Gambo Creek Bridge could ultimately fail, putting missions, facilities, and operations at risk from loss of utility service.

The Navy has determined that implementation of the Proposed Action at any of the three alternatives would result in short-term, minor, adverse impacts on air quality, water resources including wetlands and the floodplain, geological resources, infrastructure, and hazardous materials and wastes during construction activities. There would also be long-term, minor, adverse impacts on water resources, cultural resources, and biological resources from the increase in impervious surfaces, loss of habitat, and impacts on cultural resources. Table 1

summarizes the potential effects of the alternatives on the natural and cultural resource areas evaluated in detail in the Environmental Assessment (EA). Table 2 compares the potential impacts of either reattaching utility lines to the bridge, similar to the current configuration, or using horizontal directional drilling or similar technique to bore utilities well below the existing creek bed and wetland areas.

All action alternatives would result in impacts on wetlands, an increase in impervious surface, unavoidable construction within the Gambo Creek floodplain, and potential impacts on cultural resources. In addition, Gambo Creek Bridge is adjacent to several installation restoration sites. Any fill within jurisdictional wetlands will be permitted and mitigated in accordance with Section 404 of the Clean Water Act. The Navy will also preserve and restore as much of the 100-year floodplain as possible, per Executive Order 11988. The Navy is consulting with the State Historic Preservation Officer regarding a Phase III Work Plan and Memorandum of Agreement for demolition of the bridge (Alternatives 1 and 2), which is a contributing element to a historic district, and impacts on an archaeological site.

Coastal Zone Enforceable Policies

The Virginia Coastal Zone Management Program contains nine enforceable policies. Attachment A presents each of the enforceable policies and the applicability of the Proposed Action to those policies.

Conclusion

Based upon these and other findings in the EA (see also Tables 1 and 2 in Attachment B for a summary of anticipated impacts), the Navy finds that the replacement of the Gambo Creek Bridge at NSF Dahlgren, Dahlgren, Virginia, is consistent to the maximum extent practicable with the enforceable policies of the Virginia Coastal Zone Management Program.

Pursuant to 15 CFR 930.41, the Virginia Coastal Zone Management Program has 60 days from the receipt of this letter 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 the Navy on the 60th day from receipt of this determination. The State's response should be sent via mail to Jeffrey Bossart, PWD South Potomac, 18329 Thompson Road, Suite 226, Washington Navy Yard, Dahlgren, Virginia 22448-5110.

3

ATTACHMENT A: PROPOSED ACTION'S EFFECT ON COASTAL ZONE ENFORCEABLE POLICIES

Enforceable Policies	Federally Proposed Action's Effect
Fisheries Management The program stresses the conservation and enhancement of finfish and shellfish resources and the promotion of commercial and recreational fisheries to maximize food production and recreational opportunities. This program is administered by the Marine Resources Commission (MRC) (Virginia Code §28.2-200 through §28.2713) and the Department of Game and Inland Fisheries (DGIF) (Virginia Code §29.1-100 through §29.1-570). The State Tributyltin (TBT) Regulatory Program has been added to the Fisheries Management program. The General Assembly amended the Virginia Pesticide Use and Application Act as it related to the possession, sale, or use of marine antifoulant paints containing TBT. The use of TBT in boat paint constitutes a serious threat to important marine animal species. The TBT program monitors boating activities and boat painting activities to ensure compliance with TBT regulations promulgated pursuant to the amendment. The MRC, DGIF, and Virginia Department of Agriculture and Consumer Services share enforcement responsibilities (Virginia Code §3.1-249.59 through §3.1-249.62).	**Minor Effect** Essential fish habitat for life stages of several species may occur in the vicinity of the Gambo Creek Bridge based on salinity and proximity to the Potomac River: juvenile/adult bluefish (Pomatomus saltatrix), juvenile/adult summer flounder (Paralichthys dentatus), egg/larvae/juvenile/adult red hake (Urophycis chuss), and juvenile windowpane flounder (Scophthalmus aquosus). No habitat areas of particular concern are present. Essential fish habitat in the vicinity of the project area is for highly mobile species and life stages, except for egg and larval red hake. Juvenile and adult fish could avoid construction noise and general disturbances within the project area. The Navy would implement appropriate best management practices in accordance with regulations and ongoing consultation with NOAA Fisheries to reduce the potential impact of construction noise on fish. During construction, best management practices and minimization measures would be implemented on-land and in-water to minimize the effects of turbidity on essential fish habitat. Implementation of the Proposed Action under any of the action alternatives would not be expected to have long-term impacts on finfish or shellfish resources, or adversely affect ongoing conservation or enhancement measures that promote fishery resources. No paints containing tributyltin would be used under this Proposed Action.

Enforceable Policies	Federally Proposed Action's Effect
Subaqueous Lands Management The management program for subaqueous lands establishes conditions for granting or denying permits to use state-owned bottomlands based on considerations of potential effects on marine and fisheries resources, wetlands, adjacent or nearby properties, anticipated public and private benefits, and water quality standards established by the DEQ Water Division. The program is administered by the MRC (Virginia Code §28.2-1200 through §28.2-1213)	**No Effect** None of the action alternatives would involve any encroachment in, on, or over state-owned subaqueous lands.
Wetlands Management The purpose of the wetlands management program is to preserve tidal wetlands, prevent their despoliation, and accommodate economic development in a manner consistent with wetlands preservation. (i) The tidal wetlands program is administered by the MRC (Virginia Code §28.2-1301 through §28.2-1320). The Virginia Water Protection Permit program administered by the DEQ includes protection of wetlands --both tidal and non-tidal. This program is authorized by Virginia Code § 62.1-44.15.5 and the Water Quality Certification requirements of §401 of the Clean Water Act of 1972.	**Minor Effect** The Proposed Action would unavoidably span Gambo Creek and associated estuarine subtidal and intertidal wetlands. Short-term disturbances of wetlands are estimated to affect all of the action alternatives and would, conservatively, include as much as 63,860 square feet under Alternative 1; 75,520 square feet under Alternative 2; and 70,193 square feet under Alternative 3. Indirect impacts would be minimized through stormwater management practices and structures as well as implementation of an erosion and sediment control plan. Construction disturbance would be short term and minor. Bridge designs have not been finalized, but the Navy will apply for permits and mitigate any discharge of fill material within jurisdictional wetlands associated with the construction of new abutments and aprons for the proposed bridge in accordance with Section 404 of the Clean Water Act.

Enforceable Policies	Federally Proposed Action's Effect
Dunes Management Dune protection is carried out pursuant to the Coastal Primary Sand Dune Protection Act and is intended to prevent destruction or alteration of primary dunes. This program is administered by the Marine Resources Commission (Virginia Code §28.2-1400 through §28.2-1420).	**No Effect** None of the alternatives would affect sand dunes; no sand dunes are located on NSF Dahlgren.
Non-point Source Pollution Control Virginia's Erosion and Sediment Control Law requires soil-disturbing projects to be designed to reduce soil erosion and to decrease inputs of chemical nutrients and sediments to the Chesapeake Bay, its tributaries, and other rivers and waters of the Commonwealth. This program is administered by the Department of Conservation and Recreation (DCR) (Virginia Code §10.1-560 et.seq.).	**Minor Effect** The Proposed Action under any of the action alternatives would result in construction that exceeds 1 acre, requiring a General Permit for Stormwater on Construction Sites. As a component of the General Permit, the construction contractor would develop a stormwater pollution prevention plan (SWPPP) to address stormwater during construction, including erosion and sediment control. The permit also requires the contractor to regularly inspect stormwater discharges from construction at the site to ensure that BMPs are controlling the discharge of pollutants to the maximum extent practicable and are meeting water quality standards. Use of erosion and sediment control practices during the construction phase would minimize adverse impacts from non-point source pollution on surface water bodies.

Enforceable Policies	Federally Proposed Action's Effect
Point Source Pollution Control The point source program is administered by the State Water Control Board pursuant to Virginia Code §62.1-44.15. Point source pollution control is accomplished through the implementation of the National Pollutant Discharge Elimination System (NPDES) permit program established pursuant to §402 of the federal Clean Water Act and administered in Virginia as the VPDES permit program. The Water Quality Certification requirements of §401 of the Clean Water Act of 1972 is administered under the Virginia Water Protection Permit program.	**No Effect** Following construction, which would require permit coverage for construction activities, no new point sources of pollution are associated with the Proposed Action under any of the alternatives. The new bridge would comply with all post-development stormwater requirements associated with increases in impervious surfaces.
Shoreline Sanitation The purpose of this program is to regulate the installation of septic tanks, set standards concerning soil types suitable for septic tanks, and specify minimum distances that tanks must be placed away from streams, rivers, and other waters of the Commonwealth. This program is administered by the Department of Health (Virginia Code §32.1-164 through §32.1-165).	**No Effect** None of the alternatives would result in the installation of septic tanks along shorelines.
Air Pollution Control The program implements the federal Clean Air Act to provide a legally enforceable State Implementation Plan for the attainment and maintenance of the National Ambient Air Quality Standards. This program is administered by the State Air Pollution Control Board (Virginia Code §10.1-1300 through 10.1-1320).	**Minor Effect** Construction activities under any of the action alternatives would generate short-term, minor emissions of criteria pollutants while equipment is operating. These emissions would represent only a minor increase in regional emissions and would not be significant. No changes in long-term emissions would be expected. No violations of National Ambient Air Quality Standards would occur.

Enforceable Policies	Federally Proposed Action's Effect
Coastal Lands Management This program is a state-local cooperative program administered by the DCR's Division of Stormwater Management – Local Implementation (previously the Division of Chesapeake Bay Local Assistance) and 88 localities in Tidewater, Virginia established pursuant to the Chesapeake Bay Preservation Act; Virginia Code §§ 10.1-2100 through 10.1-2114 and Chesapeake Bay Preservation Area Designation and Management Regulations; Virginia Administrative code 9 VAC10-20-10 et seq.	**Minor Effect** All alternative sites under the Proposed Action are within Resource Protection Areas associated with Gambo Creek and surrounding tidal wetlands. Since the new bridge is needed to replace (or supplement, under Alternative 3) an existing bridge across Gambo Creek, the bridge is inherently a water-dependent use, which is an allowable use so long as it does not conflict with the King George Comprehensive Plan, complies with performance criteria (which are defined in 9 Virginia Administrative Code 25-830-130), locates non-water-dependent uses outside the Resource Protection Area, and provides minimum disturbance necessary (9 Virginia Administrative Code 25-830-140 1 b). The Navy has prepared an EA, which contains detailed analyses on water resources; as bridge design progresses, the Navy will obtain all permits and comply with permit conditions for the protection of sensitive resources as discussed under preceding enforceable policies.

ATTACHMENT B: IMPACT SUMMARY TABLES

Table 1 Summary of Potential Impacts on Resource Areas for No Action Alternative, Alternative 1, Alternative 2, and Alternative 3

Resource Area	*No Action Alternative*	*Alternative 1: Existing Bridge Alignment (Preferred Alternative)*	*Alternative 2: Southern Bridge Alignment*	*Alternative 3: Parallel Bridge Alignment*
Air Quality	Minor regional increases from growth in the county. No significant impacts.	Short-term, minor emissions from the operation of heavy equipment during site preparation, construction, and demolition activities. No increases in the long term. No significant impacts.	Short-term, minor emissions from the operation of heavy equipment during site preparation, construction, and demolition activities. No increases in the long term. No significant impacts.	Short-term, minor emissions from the operation of heavy equipment during site preparation, construction, and demolition activities. No increases in the long term. No significant impacts.
Water Resources	No change in baseline conditions. No significant impacts.	Short-term, minor impacts on jurisdictional wetlands and water bodies from construction disturbance. Final bridge designs would likely result in fill within the jurisdictional wetland to construct new abutments and bridge apron. Any fill within jurisdictional wetlands would be permitted and mitigated in accordance with Section 404 of the Clean Water Act. With mitigations and Section 404 permitting for impacts on jurisdictional wetlands, no significant impacts.	Similar to Alternative 1, but with increased impacts on jurisdictional wetlands and surface waters due to the larger footprint. With mitigations and Section 404 permitting for impacts on jurisdictional wetlands, no significant impacts.	Similar to Alternative 1, but with increased impacts on jurisdictional wetlands and surface waters due to the larger footprint. With mitigations and Section 404 permitting for impacts on jurisdictional wetlands, no significant impacts.
Geological Resources	No change in baseline conditions. No significant impacts.	Long- and short-term, minor effects on geological resources from increase in impervious surface and construction. No significant impacts.	Long- and short-term, minor effects on geological resources from increase in impervious surface and construction. No significant impacts.	Long- and short-term, minor effects on geological resources from increase in impervious surface and construction. No significant impacts.

Resource Area	*No Action Alternative*	*Alternative 1: Existing Bridge Alignment (Preferred Alternative)*	*Alternative 2: Southern Bridge Alignment*	*Alternative 3: Parallel Bridge Alignment*
Cultural Resources	Long-term, minor, adverse effect to the Dahlgren Mainside Historic District due to bridge deterioration. No significant impacts.	Long-term, minor, adverse effect on the bridge and Dahlgren Mainside Historic District due to demolition, and construction of wider bridge that would affect Site 44KG0157. Navy is preparing a Phase III Work Plan for Site 44KG0157 and the eastern side of bridge and a Memorandum of Agreement in consultation with the State Historic Preservation Officer. No significant impacts with execution of mitigation measures.	Long-term, minor, adverse effect on the bridge and Dahlgren Mainside Historic District due to demolition, and construction of wider bridge that would destroy Site 44KG0157. Navy is preparing a Phase III Work Plan for Site 44KG0157 and the eastern side of bridge and a Memorandum of Agreement in consultation with the State Historic Preservation Officer. No significant impacts with execution of mitigation measures.	Beneficial effects on the bridge due to planned repairs of the bridge. Long-term, minor, adverse effect from the construction of a second bridge that would affect Site 44KG0157. Navy is preparing a Phase III Work Plan for Site 44KG0157 and the eastern side of bridge and a Memorandum of Agreement in consultation with the State Historic Preservation Officer. No significant impacts with execution of mitigation measures.

Resource Area	*No Action Alternative*	*Alternative 1: Existing Bridge Alignment (Preferred Alternative)*	*Alternative 2: Southern Bridge Alignment*	*Alternative 3: Parallel Bridge Alignment*
Biological Resources	No change in baseline conditions. No significant impacts.	Short-term, negligible impacts on terrestrial wildlife, Atlantic and shortnose sturgeon, bald eagle, northern long-eared bat, tri-colored bat, little brown bat, and peregrine falcon; these resources would be only temporarily or indirectly affected, if at all, during construction activities. Short-term, minor impacts on vegetation, aquatic habitats, submerged aquatic vegetation, alewife, blueback herring, red hake, and monarch butterfly; these resources could occur within the project area and be affected by construction but affected habitat and duration would be minor. No significant impacts.	Short-term, negligible impacts on Atlantic and shortnose sturgeon, northern long-eared bat, tri-colored bat, little brown bat, and peregrine falcon; these resources would be only temporarily or indirectly affected, if at all, during construction activities. Short-term, minor impacts on aquatic habitats, submerged aquatic vegetation, alewife, blueback herring, red hake, and bald eagle; these resources could occur within the project area and be affected by construction but affected habitat and duration would be minor. Long-term, negligible impacts on vegetation, terrestrial wildlife, and monarch butterfly. No significant impacts.	Short-term, negligible impacts on Atlantic and shortnose sturgeon, northern long-eared bat, tri-colored bat, little brown bat, and peregrine falcon; these resources would be only temporarily or indirectly affected, if at all, during construction activities. Short-term, minor impacts on submerged aquatic vegetation, alewife, and blueback herring, and red hake; these resources could occur within the project area and be affected by construction but affected habitat and duration would be minor. Long-term, negligible impacts on bald eagle and terrestrial wildlife. Long-term minor impacts on vegetation, aquatic habitats, and monarch butterfly. No significant impacts.
Infrastructure	Ongoing minimal maintenance could result in bridge closure and loss of utility services. Major impacts are possible.	Minor, short-term impacts on utility service. Long-term beneficial effects from a safer, more reliable bridge. No significant impacts.	Minor, short-term impacts on utility service; possible relocation of communications panels or lines. Long-term beneficial effects from a safer, more reliable bridge. No significant impacts.	Minor, short-term impacts on utility service; possible relocation of communications panels or lines. Improvements over No Action for long-term safety and reliability, but less beneficial than Alternatives 1 or 2. No significant impacts.

Resource Area	*No Action Alternative*	*Alternative 1: Existing Bridge Alignment (Preferred Alternative)*	*Alternative 2: Southern Bridge Alignment*	*Alternative 3: Parallel Bridge Alignment*
Hazardous Materials and Wastes	Continued operation with existing management plans and policies that govern hazardous materials and wastes. No significant impact.	Short-term impacts associated with increased use of hazardous materials and generation of hazardous wastes. Demolished bridge components may contain special hazards; wastes would be characterized and disposed of appropriately. Short-term potential to encounter hazards associated with the active range and contamination from Installation Restoration Site 001; surveys and clearing/remediation prior to beginning construction activities would occur. No significant impacts.	Similar to but greater than Alternative 1 because of the larger project site, which increases use of hazardous materials and generation of hazardous waste, and the potential to encounter munitions-related hazards and contamination. No significant impacts.	Similar to but slightly less that Alternative 2 because the bridge would not be demolished, which decreases potential for hazardous waste or special hazards. No significant impacts.

Table 2 Summary of Potential Impacts on Resource Areas for Options for Bridge Utilities

Resource Area	*Option A: Aboveground Utilities*	*Option B: Underground Utilities*
Air Quality	Negligible emissions during utility installation. No significant impacts when combined with any of the action alternatives described in Table 1.	Short-term, negligible-to-minor emissions from trenching and drilling equipment and associated fugitive dust during construction. No significant impacts when combined with any of the action alternatives described in Table 1.
Water Resources	Short-term, minor impacts on water resources. No significant impacts when combined with any of the action alternatives described in Table 1.	Short-term, minor impacts on water resources. Trenching and drilling for utilities would occur outside of and below wetlands. No significant impacts when combined with any of the action alternatives described in Table 1.
Geological Resources	Negligible impacts during construction. No significant impacts when combined with any of the action alternatives described in Table 1.	Short-term, minor impacts during construction. No significant impacts when combined with any of the action alternatives described in Table 1.
Cultural Resources	No adverse effects; no significant impacts when combined with any of the action alternatives described in Table 1.	If trenching or drilling for utilities avoids known archaeological sites, there is no need for mitigation measures. No significant impacts when combined with any of the action alternatives described in Table 1.
Biological Resources	Short-term, negligible impacts on biological resources. No significant impacts when combined with any of the action alternatives described in Table 1.	Short-term, negligible impacts on biological resources. No significant impacts when combined with any of the action alternatives described in Table 1.
Infrastructure	Minor, short-term impacts on utility service. No significant impacts when combined with any of the action alternatives described in Table 1.	Minor, short-term impacts on utility service. No significant impacts when combined with any of the action alternatives described in Table 1.
Hazardous Materials and Wastes	Negligible additional impacts when combined with any of the action alternatives described in Table 1.	Minor additional impacts from increased potential for munitions-related hazards and contamination. No significant impacts when combined with any of the action alternatives described in Table 1.

ATTACHMENT C: FIGURES

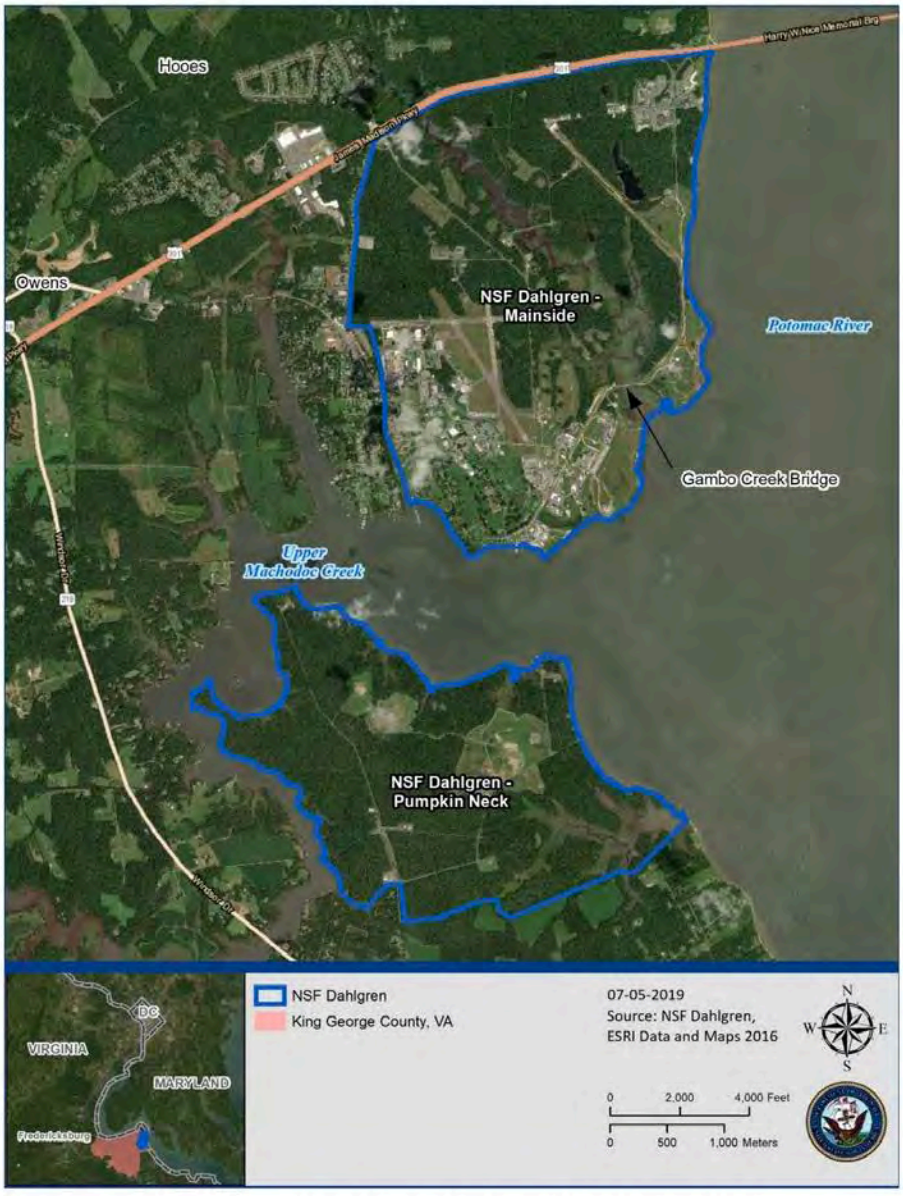


Figure 1 **Naval Support Facility Dahlgren Location Map**

Aerial View

Map View

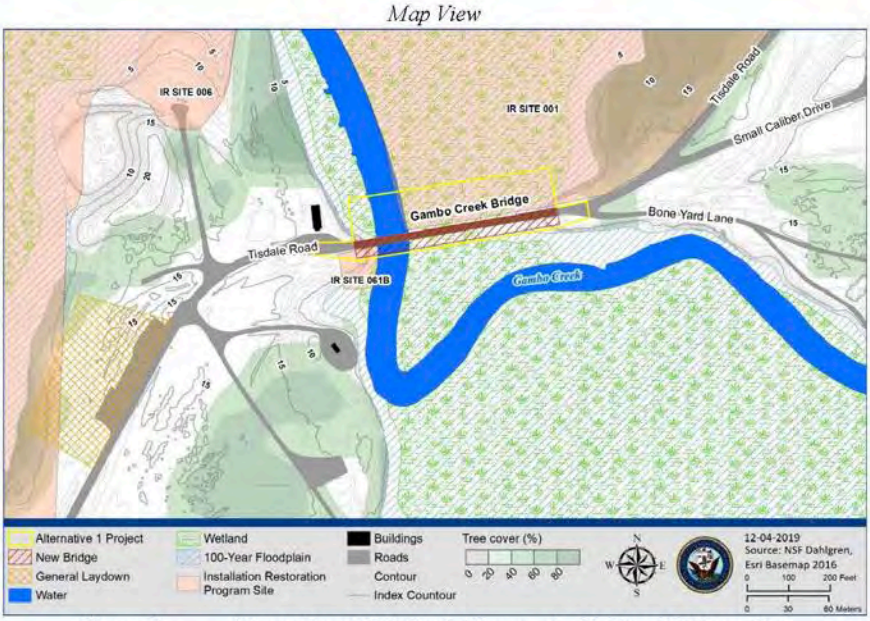


Figure 2 Alternative 1 (Existing) Alignment—Preferred Alternative

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Aerial View

Map View

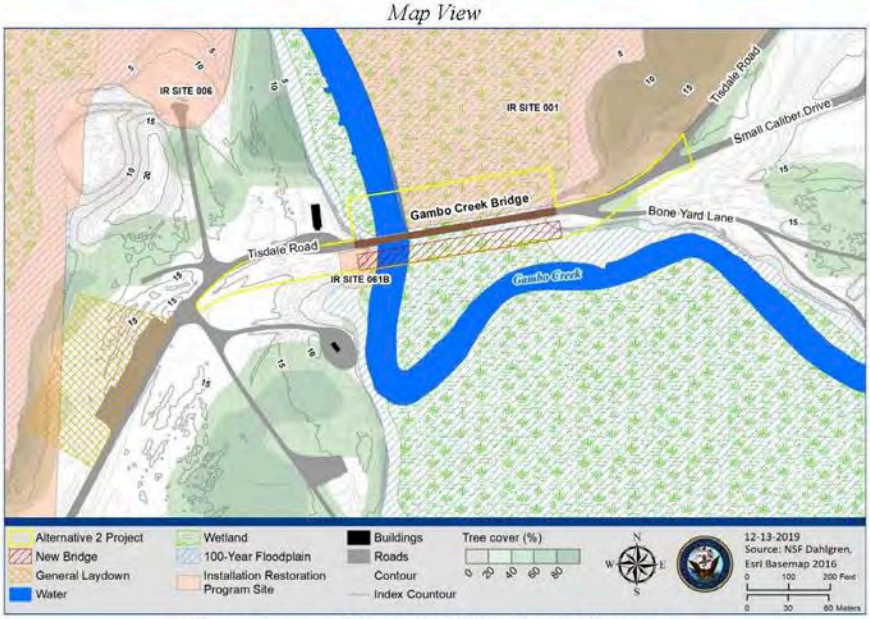

Figure 3 Alternative 2 (Southern) Alignment

16

Aerial View

Map View

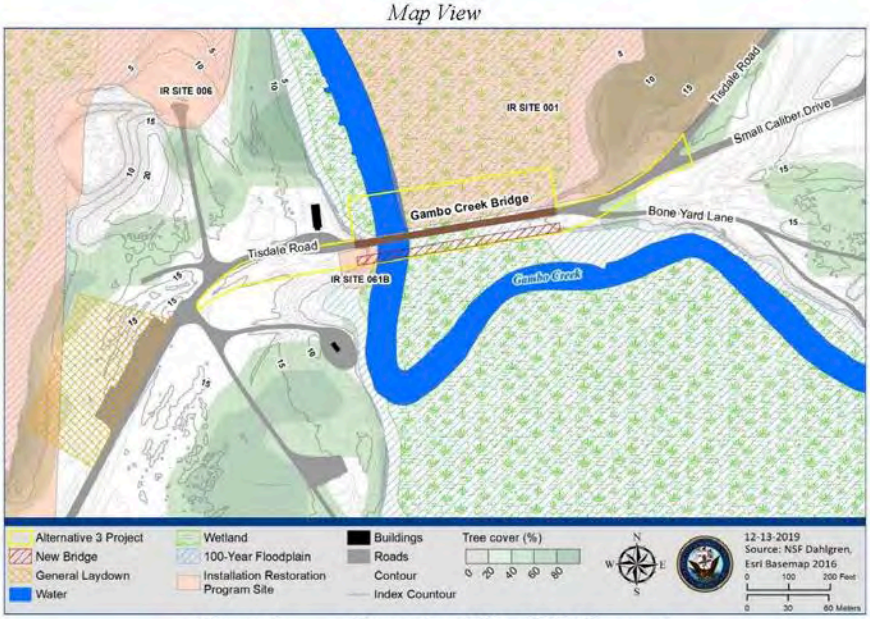

Figure 4 Alternative 3 (Parallel) Alignment

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Response from Department of Environmental Quality (March 23, 2020)

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

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Matthew J. Strickler
Secretary of Natural Resources

David K. Paylor
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(804) 698-4000
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March 23, 2020

Ms. Jennifer Steele
NAVFAC Washington
1314 Harwood Street SE
Washington Navy Yard, DC 20374
Via email: navfacwashnepa@navy.mil

RE: Environmental Assessment and Federal Consistency Determination for the Gambo Creek Bridge Replacement, Department of the Navy, Naval Support Facility Dahlgren, King George County, DEQ 20-020F.

Dear Ms. Steele:

The Commonwealth of Virginia has completed its review of the February 2020 Draft Environmental Assessment (EA) (received February 13, 2020) and Federal Consistency Determination (FCD) dated January 29, 2020 (received February 5, 2020) submitted by the Department of the Navy for the above referenced project. The Department of Environmental Quality (DEQ) is responsible for coordinating Virginia's review of National Environmental Policy Act (NEPA) documents 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 and locality participated in the review of the EA and FCD:

Department of Environmental Quality
Department of Conservation and Recreation
Department of Game and Inland Fisheries
Marine Resources Commission
Department of Health
Department of Historic Resources
King George County

In addition, the George Washington Regional Commission was invited to comment on the proposal.

Gambo Creek Bridge Replacement
EA and FCD, DEQ 20-020F

PROJECT DESCRIPTION

The Department of the Navy (Navy) proposes to replace the Gambo Creek Bridge (#158) which serves to carry traffic on Tisdale Road over Gambo Creek at Naval Support Facility (NSF) Dahlgren in King George County. The Navy is analyzing three action alternatives and a No Action Alternative. Under Alternative 1 (preferred alternative), the existing bridge would be completely demolished, and a new bridge rebuilt on the existing footprint. Under Alternative 2, the bridge would be built to the south of the existing footprint. Once the new bridge is completed, the existing bridge would be demolished. Under Alternative 3, the existing bridge would be repaired, and a parallel bridge would be built to the south of the existing footprint.

The new bridge would be approximately twice as wide as the existing bridge to carry two-way traffic and to support a 50,500-pound truck, at a minimum. Alternative 1 would result in the following:

- 8,730 square feet of bridge demolition;
- 20,100 square feet of new bridge construction;
- 63,860 square feet of temporary wetlands impacts;
- 3,340 square feet of tree loss; and
- 2,920 square feet of new impervious surfaces.

All action alternatives would result in impacts on wetlands, an increase in impervious surface, unavoidable construction within the Gambo Creek floodplain, and potential impacts on cultural resources. The Proposed Action would include replacing utilities (i.e., electric, water, sewer, and communications) that are located on the current bridge. New foundation pilings would be required, and the existing bridge would be demolished under two of the action alternatives. Construction activities are anticipated to begin in fiscal year 2021.

ENVIRONMENTAL IMPACTS AND MITIGATION

1. Water Quality and Wetlands. According to the EA (page 3-14), wetlands adjacent to Gambo Creek near the Proposed Action are subject to the ebb and flow of tides. Gambo Creek a relatively permanent water body that flows directly to the Potomac River, which is a traditional navigable water. Therefore, all the wetlands delineated near the Proposed Action are presumed to be jurisdictional to the U.S. Army Corps of Engineers (Corps). A wetland delineation of the project site will be coordinated with the Corps for an approved jurisdictional determination. If final design plans would result in the permanent fill of less than one-third acre, the Navy could pursue coverage under the Corps Nationwide Permit 14 for Linear Transportation Projects (EA, page 3-19). However, if the design plans would result in the permanent fill of more than one-third acre, a Joint Permit Application would be needed for impacts on tidal wetlands.

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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 Northern Regional Office (NRO) finds that it appears a VWP Permit will be required for anticipated project impacts to jurisdictional waters.

(ii) Virginia Marine Resources Commission

VMRC finds that a wetlands permit from the King George County Wetlands Board may be required if the county determines that the proposed project constitutes a "fill."

1(c) Requirements. Permanent and temporary impacts to surface waters and wetlands 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.* 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, King George 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 construction vehicles outside of stream-beds 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 Proposed Action is consistent to the maximum extent practicable with the wetlands management enforceable policy of the Virginia Coastal Zone Management (CZM) Program, provided any required permits and/or

authorizations are obtained prior to construction (see Federal Consistency Under the CZMA (pages 18 and 19) for additional information).

2. State Subaqueous Lands. The EA does not include a discussion of potential project impacts to state subaqueous lands. However, according to the Navy's FCD (page 5), none of the action alternatives would involve any encroachment in, on, or over state-owned subaqueous lands.

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 finds that, in keeping with previous advice from the Virginia Attorney General concerning project-adjacent federal lands, a subaqueous lands permit will not be required since VMRC has determined that the project does not constitute a "fill." In addition, VMRC has no objection to the consistency finding provided by the Navy in its FCD.

2(c) CZMA Federal Consistency. The Proposed Action is consistent to the maximum extent practicable with the subaqueous lands management enforceable policy of the Virginia CZM Program (see Federal Consistency Under the CZMA (pages 18 and 19) for additional information).

For additional information and coordination, contact VMRC, Jeff Madden at (757) 247-2276 or jeff.madden@mrc.virginia.gov.

3. Erosion and Sediment Control and Stormwater Management. According to the EA (page 3-26), an erosion and sediment control plan would be developed with best management practices (BMPs) to minimize impacts as a result of demolition and construction. The area of disturbance under Alternative 1 would be approximately 80,080 square feet, which is larger than one acre and would therefore require a Virginia Pollutant Discharge Elimination System permit for discharges of stormwater from construction activities.

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

The Navy and its authorized agents conducting regulated land-disturbing activities on private and public lands in the state must comply with *VESCL&R* and *VSWML&R*, including coverage under the general permit for stormwater discharge from construction activities, and other applicable federal nonpoint source pollution mandates (e.g. Clean Water Act-Section 313, federal consistency under the Coastal Zone Management Act). Clearing and grading activities, installation of staging areas, parking lots, roads, buildings, utilities, borrow areas, soil stockpiles, and related land-disturbing activities that result in the total land disturbance of equal to or greater than 2,500 square feet in lands analogous to a Chesapeake Bay Preservation Area would be regulated by *VESCL&R*. Accordingly, DEQ-OSWM concurs that the Navy must prepare and implement an erosion and sediment control (ESC) plan to ensure compliance with state law and regulations.

Land-disturbing activities that result in the total land disturbance of equal to or greater than 2,500 square feet on lands analogous to Chesapeake Bay Preservation Area would be regulated by *VSWML&R*. Accordingly, the Navy must prepare and implement a Stormwater Management (SWM) plan to ensure compliance with state law and regulations. The ESC/SWM plan is submitted to DEQ-NRO, which serves the area where the project is located, for review for compliance. The Navy is ultimately responsible for achieving project compliance through oversight of on-site contractors, regular field inspection, prompt action against non-compliant sites, and other mechanisms consistent with agency policy. [Reference: VESCL 62.1-44.15 *et seq.*]

(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 at http://www.deq.virginia.gov/Programs/Water/StormwaterManagement/VSMPPermits/ConstructionGeneralPermit.aspx. [Reference: Virginia Stormwater Management Act 62.1-44.15 *et seq.*; VSMP Permit Regulations 9 VAC 25-880 *et seq.*].

3(c) Recommendations. DEQ-NRO recommends the consideration of the use of permeable paving for parking areas and walkways where appropriate. Denuded areas should be promptly revegetated following construction work.

3(d) CZMA Federal Consistency. The Proposed Action is consistent to the maximum extent practicable with the nonpoint source pollution control enforceable policies of the Virginia CZM Program, provided the required permits and authorizations are obtained and complied with (see Federal Consistency Under the CZMA (pages 18 and 19) for additional information).

4. Air Quality Regulation. According to the EA (page 3-8), under Alternative 1, short-term, minor air emissions would result from operating heavy equipment during site preparation, construction, and demolition activities. No increases in long-term emissions would occur.

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. According to the DEQ Air Division, the project site is located in a designated ozone attainment area.

4(c) Recommendation. The Navy 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

If project activities include the open burning or use of special incineration devices for the disposal of land clearing debris, this activity must meet the requirements of 9 VAC 5-130-10 through 9 VAC 5-130-60 and 9 VAC 5-130-100of 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. The Navy should contact King George County fire officials to determine what local requirements, if any, exist.

4(e) CZMA Federal Consistency. The Proposed Action is consistent to the maximum extent practicable with the air pollution control enforceable policy of the Virginia CZM Program, provided any required permits are obtained and complied with (see Federal Consistency Under the CZMA (pages 18 and 19) for additional information).

5. Chesapeake Bay Preservation Areas. The EA (page 3-20) states that Gambo Creek is considered a Chesapeake Bay Preservation Area (i.e., Resource Protection Area). The Navy will coordinate further with DEQ pursuant to the Coastal Zone Management Act.

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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 land forms and treats them differently.

5(b) Chesapeake Bay Preservation Areas. DEQ-OWLGAP notes that, in King George County, the areas protected by the Chesapeake Bay Preservation Act, as locally implemented, require conformance with performance criteria. These areas include Resource Protection Areas (RPAs) and Resource Management Areas (RMAs) as designated by the local government. RPAs include:

- tidal wetlands;
- certain non-tidal wetlands;
- tidal shores; and
- a 100-foot vegetated buffer area located adjacent to and landward of these features and along both sides of any water body with perennial flow.

All areas of the county not included in the RPA are designated as RMA.

5(c) Requirements. DEQ-OWLGAP notes that 9 VAC 25-830-150 B of the *Regulations* exempts the construction, installation, operation and maintenance of public roads and their appurtenant structures in accordance with:

(i) regulations promulgated pursuant to the Erosion and Sediment Control Law and the Virginia Stormwater Management Act,
(ii) an erosion and sediment control plan and stormwater management plan approved by DEQ, or
(iii) local water quality protection criteria at least as stringent as the above state requirements.

The exemption of public roads is further conditioned on the following:

a. Optimization of the road alignment and design, consistent with other applicable requirements, to prevent or otherwise minimize (i) encroachment in to the RPA and (ii) adverse effects on water quality; and
b. Local governments may choose to exempt (i) all public roads as defined in 9

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VAC 25-830-40 of the *Regulations*, or (ii) only those public roads constructed by the Virginia Department of Transportation.

Land disturbance within the RMA is subject to the general performance criteria as specified in 9 VAC 25-830-130 of the *Regulations*. Land-disturbing activities within the RMA must:

- comply with the requirements of the *Virginia Erosion and Sediment Control Handbook* for land disturbances over 2,500 square feet, and
- satisfy stormwater management criteria consistent with water quality protection provisions of the *Virginia Stormwater Management Regulations*.

5(d) CZMA Federal Consistency. The Proposed Action is consistent to the maximum extent practicable with the coastal lands management enforceable policy of the Virginia CZM Program, provided all activities are conducted in accordance with the above conditions as administered by DEQ (see Federal Consistency Under the CZMA (pages 18 and 19) for additional information).

6. Floodplain Management. The EA (page 3-19) states that the bridge construction would be within the 100-year floodplain associated with Gambo Creek. Short-term, minor impacts on floodplains from construction activities adjacent to and within the creek would be expected. Executive Order (EO) 11988 directs agencies to avoid impacts on floodplains or, if impacts cannot be avoided, to develop measures to minimize impacts and restore and preserve the floodplain, as appropriate. The Navy would attempt to minimize long-term impacts on the existing floodplain by restoring and preserving the existing floodplain to the extent practicable to reduce flood risk.

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. The Navy is encouraged to reach out to the local floodplain administrator to ensure compliance with the local floodplain ordinance.

6(c) Recommendations. DCR recommends the Navy access the Virginia Flood Risk Information System (VFRIS) at www.dcr.virginia.gov/vfris to find flood zone information. Local floodplain administrator contact information may be found on DCR's Local Floodplain Management Directory at www.dcr.virginia.gov/dam-safety-and-floodplains/floodplain-directory.

7. Solid and Hazardous Wastes and Hazardous Materials. According to the EA (page 3-68), construction activities would use hazardous materials and generate hazardous wastes in small quantities. Construction contractors are responsible for ensuring that the transport, use, storage, and disposal of hazardous materials and wastes complies with all applicable federal and state regulations. Adherence to policies, procedures, and regulations would minimize the potential impacts from exposure and accidental releases during construction.

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 (500-foot radius) to the project site. The search did not identify any waste sites within the project area which might impact the project.

7(c) Requirements.

(i) Solid and Hazardous Waste Management

Any soil that is suspected of contamination or wastes that are generated during construction must be tested and disposed of in accordance with applicable federal, state, and local laws and regulations. All construction 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) Petroleum Contamination

If evidence of a petroleum release is discovered during implementation of this project, report the contamination to DEQ-NRO in accordance with Virginia Code §62.1-44.34.8 through 9 and 9 VAC 25-580-10 *et seq.* Petroleum-contaminated soils and groundwater must be handled in accordance with DEQ regulatory guidelines.

(iii) Petroleum Storage Tank Compliance and Inspections

The installation and use of an AST with a capacity of greater than 660 gallons for the temporary storage of fuel (>120 days) must comply with the requirements in 9 VAC 25-91-10 *et seq.*

7(d) Recommendations. 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, Carlos Martinez at (804) 698-4575 or carlos.martinez@deq.virginia.gov.

8. Pesticides and Herbicides. DEQ recommends that the use of herbicides or pesticides for construction or 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.

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9. Natural Heritage Resources. The EA (3.5 Biological Resources, pages 3-37 through 3-40) included a search of the Virginia Natural Heritage database, which identified the potential for natural heritage resources in the project area. However, the EA concluded that there is a low likelihood for the presence of identified resources at the project site.

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. According to the information currently in Biotics, natural heritage resources have not been documented within the project boundary including a 100 foot buffer. The absence of data may indicate that the project area has not been surveyed, rather than confirm that the area lacks natural heritage resources. In addition, the project boundary does not intersect any of the predictive models identifying potential habitat for natural heritage resources.

(ii) 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.

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(iii) 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) Recommendation. 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.

10. Wildlife Resources and Protected Species. According to the EA (page 3-46), short-term, negligible and minor, adverse impacts on biological resources would be expected from Alternative 1. Impacts would result from bridge demolition, roadway construction, cofferdam installation, and pile driving for the new bridge. Construction activities would result in noise (including underwater acoustic noise resulting from pile driving), fugitive dust, increased sedimentation and turbidity within the water column, temporary alteration of the flow of Gambo Creek, and direct impacts on aquatic habitats. No long-term adverse impacts on biological resources are anticipated.

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

10(b) Agency Findings. DGIF finds that Gambo Creek has been designated a Potential Anadromous Fish Use Area. The Potomac River downstream of this site has been designated a Confirmed Anadromous Fish Use Area.

10(c) Recommendations.

(i) Protection of Fisheries Resources

The Navy is encouraged to consider the following measures for the protection of fisheries resources.

- Adhere to a time-of-year restriction from February 15 through June 30 of any year.
- Conduct instream activities during low- or no-flow conditions.
- Use non-erodible cofferdams or turbidity curtains to isolate the construction area.

- Block no more than 50% of the streamflow at any given time (minimal overlap of construction footprint notwithstanding).
- Stockpile excavated material in a manner that prevents reentry into the stream.
- Restore original streambed and streambank contours.
- Revegetate barren areas with native vegetation.
- Implement strict erosion and sediment control measures.
- Design and perform instream work in a manner that minimizes impacts upon natural streamflow and movement of resident aquatic species.
- Use matting made from natural/organic materials such as coir fiber, jute, and/or burlap to minimize potential wildlife entanglements resulting from use of synthetic/plastic erosion and sediment control matting.
- Install concrete (e.g. Tremie method, grout bags, and poured concrete) "in the dry" to allow the concrete to harden and cure prior to contact with open water to minimize harm to the aquatic environment.
- Construct stream crossings via clear-span bridges. However, if this is not possible, countersink culverts below the streambed at least 6 inches or use bottomless culverts to allow passage of aquatic organisms.
- Install floodplain culverts to carry bankfull discharges.

The following general recommendations should be considered to minimize the adverse impacts of linear utility/road project development on wildlife resources:

- Avoid and minimize impacts to undisturbed forest, wetlands, and streams to the fullest extent practicable.
- Maintain naturally vegetated buffers of at least 100 feet in width around wetlands and on both sides of perennial and intermittent streams, where practicable.
- Conduct significant tree removal and ground clearing activities outside of the primary songbird nesting season of March 15 through August 15.
- Implement and maintain appropriate erosion and sediment controls throughout project construction and site restoration.
- Use matting made from natural/organic materials such as coir fiber, jute, and/or burlap to minimize potential wildlife entanglements resulting from use of synthetic/plastic erosion and sediment control matting.

DGIF understands that adherence to these general recommendations may be infeasible in some situations. DGIF is available to work with the Navy to develop project specific measures as necessary to minimize project impacts upon wildlife resources.

10(d) Conclusion. The Proposed Action is consistent to the maximum extent practicable with the fisheries management enforceable policy of the Virginia CZM Program, provided project activities adhere to erosion and sediment controls (see Federal Consistency Under the CZMA (pages 18 and 19) for additional information).

11. Historic and Archaeological Resources. According to the EA (page 3-35), under Alternative 1, the current bridge would be demolished, which would have a direct adverse effect on the bridge because it is a contributing resource to the Dahlgren

Mainside Historic District. There would be no direct or indirect effects on Building 469, an adjacent contributing resource. The bridge would be replaced with another bridge of similar length and profile and would not adversely affect the viewsheds between the bridge, Building 469, and the surrounding landscape. The Navy is consulting with the State Historic Preservation Office (SHPO) about adverse effects that would result from the bridge demolition and possible disturbance of adjacent archaeological sites. The Navy is also preparing a Phase III data recovery plan for that part of Site 44KG0157 that would be disturbed. Phase III data recovery would be a mitigation measure in the Memorandum of Agreement (MOA) between the Navy and the SHPO. With the mitigation measures in the MOA, implementation of Alternative 1 would not result in significant impacts on cultural resources.

11(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.

11(b) Agency Findings. DHR notes that the Navy has initiated consultation with DHR on this project. However, the consultation is ongoing due to the need for additional information.

11(c) Requirements. The Navy must continue to coordinate with DHR to ensure compliance with Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulation at 36 CFR Part 800.

12. Water Supply and Wastewater. According to the EA (page 2-2), a 4-inch cast iron sanitary sewer force main and a 10-inch cast iron potable waterline are carried along the bridge. The Navy is considering reattaching utilities to the proposed bridge or boring utilities underneath Gambo Creek. There is a potential for minor effects on surface water and groundwater due to Installation Restoration (IR) Site 001, which is believed to have soil contamination from its historic use as a bombing range, as well as potential unexploded ordinance (UXO). While no ground-disturbing activities would occur within IR Site 001, there is the potential that sediment contaminated with heavy metals could exist at the bridge site.

12(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.

12(b) Agency Findings. VDH-ODW finds two public groundwater wells within a 1-mile radius of the project site (NSF Dahlgren (PWS ID 6099340), Well 1-Building 1288 (Bronson Well) and Well 3-Building 274A (Reservoir Well)). There are no surface water intakes located within a 5-mile radius of the project site, and the project is not within the watershed of any public surface water intakes.

12(c) Requirement. Potential impacts on public water distribution systems or sanitary sewage collection systems must be verified by the local utility.

12(d) Recommendations. VDH-ODW recommends that BMPs should be employed, including erosion and sediment controls and spill prevention controls and countermeasures on the project site.

For additional information, contact VDH-ODW, Arlene Fields Warren at (804) 864-7781 or arlene.warren@vdh.virginia.gov.

13. Local Government Review.

13(a) Agency Jurisdiction. In accordance with CFR 930, Subpart A, § 930.6(b) of the *Federal Consistency Regulations*, DEQ, on behalf of the state, is responsible for securing necessary review and comment from other state agencies, the public, regional government agencies, and local government agencies, in determining the Commonwealth's concurrence or objection to a federal consistency certification.

13(b) Agency Findings. King George County has no concerns regarding the project.

For additional information, contact King George County, Neiman Young (County Administrator) at (540) 775-9181 or nyoung@co.kinggeorge.state.va.us.

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

14(a) Recommendations. We have several pollution prevention recommendations that may be helpful in constructing or operating this facility:

- Consider development of an effective Environmental Management System (EMS). An effective EMS will ensure that the proposed facility is committed to complying with environmental regulations, reducing risk, minimizing environmental impacts, setting environmental goals, and achieving improvements in its environmental performance. DEQ offers EMS development assistance and recognizes facilities with effective Environmental Management

Systems through its Virginia Environmental Excellence Program (VEEP). VEEP provides recognition, annual permit fee discounts, and the possibility for alternative compliance methods.

- Consider environmental attributes when purchasing materials. For example, the extent of recycled material content, toxicity level, and amount of packaging should be considered and can be specified in purchasing contracts.
- Consider energy efficiency when choosing materials and products, like insulation, fixtures, and HVAC systems.
- Consider contractors' commitment to the environment when choosing contractors. Specifications regarding raw materials and construction practices can be included in contract documents and requests for proposals.
- Choose sustainable materials and practices for building construction and design.
- Integrate pollution prevention techniques into the facility maintenance and operation, to include inventory control for centralized storage of hazardous materials. Maintenance facilities should have sufficient and suitable space to allow for effective inventory control and preventive maintenance.

DEQ's Office of Pollution Prevention provides information and technical assistance relating to pollution prevention techniques and EMS. If interested, please contact Meghann Quinn at (804) 698-4021 or meghann.quinn@deq.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 separately from the EA 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 of the Navy's FCD began February 5, 2020 and ends April 3, 2020.

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 FCC. Public notice of the Proposed Action was published in OEIR's Program Newsletter and on the DEQ website from February 14,

2020 through March 13, 2020. 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: subaqueous lands management, dunes management, point source pollution control, 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. The Navy 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 the Navy to consider project impacts 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 the Navy obtains and complies with all applicable permits and approvals associated with the enforceable policies of the Virginia CZM Program. If, prior to construction, 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, the Navy must submit 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, the Navy must ensure that this 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-NRO may be required for anticipated impacts to jurisdictional waters pursuant to Virginia Code §62.1-44.15:20 *et seq*. In addition, the Navy should contact the King George Wetlands Board to determine the need for any necessary authorization. The submission of a JPA to VMRC for any 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-NRO VWP Permit program, Trisha Beasley at (703) 583-3940 or trisha.beasley@deq.virginia.gov, VMRC, Jeff Madden at (757) 247-2276 or jeff.madden@mrc.virginia.gov and/or King George County Wetlands Board, Michael Newchok at (540) 775-8556 or mnewchok@co.kinggeorge.state.va.us.

2. Nonpoint Source Pollution Control.

2(a) Erosion and Sediment Control and Stormwater Management. The Proposed Action must comply with Virginia's *Erosion and Sediment Control Law* (Virginia Code §

62.1-44.15:61) and *Regulations* (9 VAC 25-840-30 *et seq.*) and *Stormwater Management Law* (Virginia Code § 62.1-44.15:31) and *Regulations* (9 VAC 25-870-210 *et seq.*) as administered by DEQ in Virginia. Activities that disturb 2,500 square feet or more in CBPAs would be regulated by *VESCL&R* and *VSWML&R*. Erosion and sediment control and stormwater management requirements should be coordinated with DEQ-NRO, Kelly Vanover at (804) 837-1073 or kelly.vanover@deq.virginia.gov.

2(b) General Permit for Stormwater Discharges from Construction Activities (VAR10). For land-disturbing activities of equal to or greater than one acre, the Air Force 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-NRO, Kelly Vanover at (804) 837-1073 or kelly.vanover@deq.virginia.gov.

3. Air Quality Regulation. Guidance on minimizing the emission of volatile organic compounds (VOCs) and oxides of nitrogen (NO_x) during construction may be obtained from DEQ-NRO staff. This project may be subject to air quality regulations administered by DEQ. 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 King George County fire officials for information on any local requirements pertaining to open burning. For additional information and coordination, contact DEQ-NRO, Justin Wilkinson at (703) 583-3820 or justin.wilkinson@deq.virginia.gov.

4. Chesapeake Bay Preservation Areas. Under 9 VAC 25-830-150 B of the *Regulations*, the construction, installation, operation and maintenance of public roads and their appurtenant structures is exempt provided certain conditions are met. In addition, project activities impacting areas analogous to RPA and RMA must comply with the *Regulations* (9 VAC 25-830-130 and 9 VAC 25-830-140) as administered by DEQ. To ensure compliance with the *Regulations*, contact DEQ-OWLGAP, Daniel Moore at (804) 698-4520 or daniel.moore@deq.virginia.gov.

5. Floodplain Management. The Proposed Action must comply with the King George County floodplain ordinance. For additional information and coordination, contact King George County, Kyle Conboy at (540) 775-8558 or kylec@co.kinggeorge.state.va.us.

6. Solid and Hazardous Wastes.

6(a) Waste Management. All solid waste, hazardous waste, and hazardous materials must be managed in accordance with all applicable federal, state, and local environmental regulations. Contact DEQ-NRO, Richard Doucette at (703) 583-3813 or richard.doucette@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(b) Petroleum Contamination. If evidence of a petroleum release is discovered during implementation of the Proposed Action, contact the local fire marshal with any personal safety concerns and report the contamination to DEQ-NRO, Randy Chapman at (703) 583-3816 or randy.chapman@deq.virginia.gov (Virginia Code §62.1-44.34.8 through 9 and 9 VAC 25-580-10 *et seq.*).

6(c) Petroleum Storage Tanks. The use of above-ground ASTs with a capacity of greater than 660 gallons for temporary fuel storage (>120 days) must be conducted in accordance with 9 VAC 25-91-10 *et seq*. Contact DEQ-NRO, Randy Chapman at (703) 583-3816 or randy.chapman@deq.virginia.gov, for additional details.

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 project changes and/or six months passes before the Proposed Action is implemented, since new and updated information is continually added to the Biotics Data System.

8. Wildlife Resources. Contact DGIF, Amy Ewing at (804) 367-2211 or amy.ewing@dgif.virginia.gov, on recommendations for the general protection of wildlife resources associated with the development of the property.

9. Historic and Archaeological Resources. In accordance with Section 106 of the National Historic Preservation Act, as amended, and its implementing regulation 36 CFR 800, the Navy must continue to coordinate on the development of a MOA with DHR to ensure compliance with the Act. For additional information and coordination, contact DHR, Marc Holma at (804) 482-6090 or marc.holma@dhr.virginia.gov.

Thank you for the opportunity to review and respond to the EA and FCD for the Gambo Creek Bridge Replacement at NSF Dahlgren in King George County. Detailed comments of reviewing agencies are attached for your review. Please contact me at (804) 698-4204 or John Fisher at (804) 698-4339 for clarification of these comments.

Sincerely,

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

Enclosures

21

Gambo Creek Bridge Replacement
EA and FCD, DEQ 20-020F

Ec: Robbie Rhur, DCR
Amy Ewing, DGIF
Jeff Madden, VMRC
Roger Kirchen, DHR
Arlene Fields Warren, VDH
Neiman Young, King George County
Linda Millsaps, GWRC
Travis Wray, Navy
Jeffrey Bossart, Navy

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DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF AIR PROGRAM COORDINATION

ENVIRONMENTAL REVIEW COMMENTS APPLICABLE TO AIR QUALITY

TO: John Fisher

We thank **OEIR** for providing DEQ-AIR an opportunity to review the following project:

Document Type: Federal Consistency Determination
Project Sponsor: Department of the Navy
Project Title: Gambo Creek Bridge Replacement at Naval Support Facility Dahlgren
Location: King George County
Project Number: DEQ #20-020F

Accordingly, I am providing following comments for consideration.

PROJECT LOCATION: **X OZONE ATTAINMENT AREA**

REGULATORY REQUIREMENTSMAY BE APPLICABLE TO: **X CONSTRUCTION**
☐ OPERATION

STATE AIR POLLUTION CONTROL BOARD REGULATIONS THAT MAY APPLY:

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

COMMENTS SPECIFIC TO THE PROJECT:

K. S. Narasimhan

(Kotur S. Narasimhan)
Office of Air Data Analysis **DATE: February 10, 2020**

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

MEMORANDUM

TO: John Fisher, DEQ/EIR Environmental Program Planner

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

DATE: March 6, 2020

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

SUBJECT: Environmental Impact Review: 20-020F Gambo Creek Bridge Replacement at Naval Support Facility Dahlgren in Dahlgren, Virginia.

The Division of Land Protection & Revitalization (DLPR) has completed its review of the Department of the Navy's February 10, 2020 EIR for Gambo Creek Bridge Replacement at Naval Support Facility Dahlgren in Dahlgren, Virginia.

DLPR staff conducted a search (500 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 areas.***

CERCLA Sites – ***none in close proximity to the project areas.***

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

Solid Waste – ***none in close proximity to the project areas.***

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

Petroleum Releases – ***none in close proximity to the project areas.***

PROJECT SPECIFIC COMMENTS

None

GENERAL COMMENTS

Soil, Sediment, Groundwater, and Waste Management

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

Pollution Prevention – Reuse - Recycling

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

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

Commonwealth of Virginia

Fisher, John <john.fisher@deq.virginia.gov>

Re: NEW PROJECT Navy Gambo Creek Bridge Replacement, DEQ #20-020F

1 message

Holland, Benjamin <benjamin.holland@deq.virginia.gov> Thu, Feb 13, 2020 at 9:20 AM
To: John Fisher <John.Fisher@deq.virginia.gov>

Northern Regional Office comments regarding the Federal Consistency Determination for *Gambo Creek Bridge Replacement at Naval Support Facility Dahlgren, DEQ #20-020F*, are as follows:

Land Protection Division – The project manager is reminded that if any solid or hazardous waste is generated/encountered during construction, the project manager would follow applicable federal, state, and local regulations for their disposal.

Air Compliance/Permitting - The project manager is reminded that during the construction phases that occur with this project; the project is subject to the Fugitive Dust/Fugitive Emissions Rule 9 VAC 5-50-60 through 9 VAC 5-50-120. In addition, should any open burning or use of special incineration devices be employed in the disposal of land clearing debris during demolition and construction, the operation would be subject to the Open Burning Regulation 9 VAC 5-130-10 through 9 VAC 5-130-60 and 9 VAC 5-130-100.

Virginia Water Protection Permit (VWPP) Program – The project manager is reminded that a VWP permit from DEQ appears to be required, should impacts to surface waters be necessary. DEQ VWP staff recommends that the avoidance and minimization of surface water impacts to the maximum extent practicable as well as coordination with the US Army Corps of Engineers. Upon receipt of a Joint Permit Application for the proposed surface water impacts, DEQ VWP Permit staff will review the proposed project in accordance with the VWP permit program regulations and current VWP permit program guidance. VWPP staff reserve the right to provide comment upon receipt of a permit application requesting authorization to impact state surface waters, and at such time that a wetland delineation has been conducted and associated jurisdiction determination made by the U.S. Army Corps of Engineers.

Erosion and Sediment Control and Storm Water Management – Non-point-source pollution control, as described on Page 6 of the report, is no longer administered by the Department of Conservation and Resources. DEQ has regulatory authority for the Virginia Pollutant Discharge Elimination System (VPDES) programs related to municipal separate storm sewer systems (MS4s) and construction activities. Erosion and sediment control measures are addressed in local ordinances and State regulations. Additional information is available at http://www.deq.virginia.gov/Programs/Water/StormwaterManagement.aspx. Non-point source pollution resulting from this project (e.g., bridge/roadway construction, utility installation and horizontal drilling) should be minimized by using effective erosion and sediment control practices and structures. Consideration should also be given to using permeable paving for parking areas and walkways where appropriate, and denuded areas should be promptly revegetated following construction work. If the total land disturbance exceeds 10,000 square feet, an erosion and sediment control plan will be required. Some localities also require an E&S plan for disturbances less than 10,000 square feet. A stormwater management plan may also be required. For any land disturbing activities equal to one acre or more, you are required to apply for coverage under the VPDES General Permit for Discharges of Storm Water from Construction Activities. The Virginia Stormwater Management Permit Authority may be DEQ or the locality.

On Mon, Feb 10, 2020 at 2:23 PM Fulcher, Valerie <valerie.fulcher@deq.virginia.gov> wrote:

> **Good afternoon - this is a new OEIR review request/project:**
>
> **Document Type: Federal Consistency Determination**
> **Project Sponsor: Department of the Navy**
> **Project Title: Gambo Creek Bridge Replacement at Naval Support Facility Dahlgren**
> **Location: King George County**

Commonwealth of Virginia

Fisher, John <john.fisher@deq.virginia.gov>

Re: NEW PROJECT Navy Gambo Creek Bridge Replacement, DEQ #20-020F

1 message

Gavan, Lawrence <larry.gavan@deq.virginia.gov> Mon, Feb 10, 2020 at 2:45 PM
To: "Fisher, John" <john.fisher@deq.virginia.gov>

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

(b) Erosion and Sediment Control and Stormwater Management Plans. The Applicant and its authorized agents conducting regulated land-disturbing activities on private and public lands in the state must comply with *VESCL&R* and *VSWML&R*, including coverage under the general permit for stormwater discharge from construction activities, and other applicable federal nonpoint source pollution mandates (e.g. Clean Water Act-Section 313, federal consistency under the Coastal Zone Management Act). Clearing and grading activities, installation of staging areas, parking lots, roads, buildings, utilities, borrow areas, soil stockpiles, and related land-disturbing activities that result in the total land disturbance of equal to or greater than 10,000 square feet (2,500 square feet in Chesapeake Bay Preservation Area) would be regulated by *VESCL&R*. Accordingly, the Applicant must prepare and implement an erosion and sediment control (ESC) plan to ensure compliance with state law and regulations. Land-disturbing activities that result in the total land disturbance of equal to or greater than 1 acre (2,500 square feet in Chesapeake Bay Preservation Area) would be regulated by *VSWML&R*. Accordingly, the Applicant must prepare and implement a Stormwater Management (SWM) plan to ensure compliance with state law and regulations. The ESC/SWM plan is submitted to the DEQ Regional Office that serves the area where the project is located for review for compliance. The Applicant is ultimately responsible for achieving project compliance through oversight of on-site contractors, regular field inspection, prompt action against non-compliant sites, and other mechanisms consistent with agency policy. [Reference: VESCL 62.1-44.15 et seq.]

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

The owner or operator of projects involving land-disturbing activities of equal to or greater than 1 acre is required to register for coverage under the General Permit for Discharges of Stormwater from Construction Activities and develop a project-specific Stormwater Pollution Prevention Plan. Construction activities requiring registration also include land disturbance of less than one acre of total land area that is part of a larger common plan of development or sale if the larger common plan of development will collectively disturb equal to or greater than one acre The SWPPP must be prepared prior to submission of the registration statement for coverage under the general permit and the SWPPP must address water quality and quantity in accordance with the *VSMP Permit Regulations*. General information and registration forms for the General Permit are available at: http://www.deq.virginia.gov/Programs/Water/StormwaterManagement/VSMPPermits/ConstructionGeneralPermit.aspx
[Reference: Virginia Stormwater Management Act 62.1-44.15 et seq.; VSMP Permit Regulations 9VAC25-880 *et seq.]*

COMMONWEALTH of VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY
Street address: 1111 East Main Street, Suite 1400, Richmond, VA 23219
Mailing address: P.O. Box 1105, Richmond, Virginia 23218
www.deq.virginia.gov

Matthew J. Strickler
Secretary of Natural Resources

David K. Paylor
Director

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

MEMORANDUM

TO: John Fisher, Environmental Impact Review Coordinator

FROM: Daniel Moore, Principal Environmental Planner

DATE: February 19, 2020

SUBJECT: DEQ - 20-020F– FCD/Navy: Naval Support Facility Dahlgren – Gambo Creek Bridge Replacement, King George County

We have reviewed the Federal Consistency Determination for the proposed project at Naval Support Facility Dahlgren in King George County and offer the following comments regarding consistency with the provisions of the *Chesapeake Bay Preservation Area Designation and Management Regulations* (Regulations):

In King George County, the areas protected by the *Chesapeake Bay Preservation Act*, as locally implemented, require conformance with performance criteria. These areas include Resource Protection Areas (RPAs) and Resource Management Areas (RMAs) as designated by the local government. RPAs include tidal wetlands, certain non-tidal wetlands and tidal shores. RPAs also include a 100-foot vegetated buffer area located adjacent to and landward of these features and along both sides of any water body with perennial flow. All areas of the County not included in the RPA are designated as RMAs.

Under the Federal Consistency Regulations of the *Coastal Zone Management Act of 1972*, federal actions in Virginia must be conducted in a manner "consistent to the maximum extent practicable" with the enforceable policies of the Virginia Coastal Zone Management Program. The Coastal Lands Management enforceable policy is administered through the Chesapeake Bay Preservation Act and Regulations. Federal actions on installations located within Tidewater Virginia are required to be consistent with the performance criteria of the Regulations on lands analogous to locally designated RPAs/RMAs, as provided in 9VAC25-830-130 and 140 of the Regulations, including: a) compliance with the requirements of the *Virginia Erosion and Sediment Control Handbook*, and stormwater management criteria consistent with water quality

protection provisions of the *Virginia Stormwater Management Regulations* and, b) the requirement to minimize land disturbance (including access and staging or laydown areas), retain existing vegetation and minimize impervious cover. For land disturbance over 2,500 square feet, the project must comply with the requirements of the *Virginia Erosion and Sediment Control Handbook*.

The proposed project includes demolition of the existing circa-1940 reinforced concrete bridge and replacement with one of three design alternatives. Alternative One (preferred) includes 63,860 square feet of permitted and temporary wetlands impacts, 3,340 square feet of tree removal, 2,920 square feet of new impervious surface and a temporary laydown area west of the new bridge for storage materials during construction. The new bridge will utilize a steel pile foundation and pre-stressed spread box beam construction, be sized for two-way traffic, and meet FWHA engineering standards. The new bridge footprint will encompass the existing bridge footprint in order to minimize changes to Tisdale Road as it approaches the bridge.

9VAC25-830-150 B of the Regulations exempts the construction, installation, operation and maintenance of public roads and their appurtenant structures in accordance with (i) regulations promulgated pursuant to the Erosion and Sediment Control Law and the Virginia Stormwater Management Act, (ii) an erosion and sediment control plan and stormwater management plan approved by DEQ, or (iii) local water quality protection criteria at least as stringent as the above state requirements. The exemption of public roads is further conditioned on the following:

a. Optimization of the road alignment and design, consistent with other applicable requirements, to prevent or otherwise minimize (i) encroachment in to the RPA and (ii) adverse effects on water quality; and
b. Local governments may choose to exempt (i) all public roads as defined in 9VAC25-830-40 of the Regulations, or (ii) only those public roads constructed by the Virginia Department of Transportation.

Provided adherence to the above requirements, the proposed activity would be consistent with the *Chesapeake Bay Preservation Act* and the Regulations.

2

Commonwealth of Virginia

Fisher, John <john.fisher@deq.virginia.gov>

ESSLog# 40370_20-020F_GamboCreekBridge_DGIF_AME20200313

1 message

Ewing, Amy <amy.ewing@dgif.virginia.gov> Fri, Mar 13, 2020 at 2:33 PM
To: John Fisher <john.fisher@deq.virginia.gov>

John,
We have reviewed the subject project that proposes to replace the bridge over Gambo Creek at Naval Support Facility Dahlgren. Gambo Creek has been designated a Potential Anadromous Fish Use Area. The Potomac River downstream of this site has been designated a Confirmed Anadromous Fish Use Area. Therefore, we recommend that all instream work in Gambo Creek adhere to a time of year restriction from February 15 through June 30 of any year. In addition, We recommend conducting any in-stream activities during low or no-flow conditions, using non-erodible cofferdams or turbidity curtains to isolate the construction area, blocking no more than 50% of the streamflow at any given time (minimal overlap of construction footprint notwithstanding), stockpiling excavated material in a manner that prevents reentry into the stream, restoring original streambed and streambank contours, revegetating barren areas with native vegetation, and implementing strict erosion and sediment control measures. We recommend that instream work be designed and performed in a manner that minimizes impacts upon natural streamflow and movement of resident aquatic species. To minimize potential wildlife entanglements resulting from use of synthetic/plastic erosion and sediment control matting, we recommend use of matting made from natural/organic materials such as coir fiber, jute, and/or burlap. To minimize harm to the aquatic environment and its residents resulting from use of the Tremie method to install concrete, installation of grout bags, and traditional pouring of concrete, we recommend that such activities occur only in the dry, allowing all concrete to harden and cure prior to contact with open water. Due to future maintenance costs associated with culverts, and the loss of riparian and aquatic habitat, we prefer stream crossings to be constructed via clear-span bridges. However, if this is not possible, we recommend countersinking any culverts below the streambed at least 6 inches, or the use of bottomless culverts, to allow passage of aquatic organisms. We also recommend the installation of floodplain culverts to carry bankfull discharges.

To minimize the adverse impacts of linear utility/road project development on wildlife resources, we offer the following general recommendations: Avoid and minimize impacts to undisturbed forest, wetlands, and streams to the fullest extent practicable; maintain naturally vegetated buffers of at least 100 feet in width around wetlands and on both sides of perennial and intermittent streams, where practicable; conduct significant tree removal and ground clearing activities outside of the primary songbird nesting season of March 15 through August 15; and, implement and maintain appropriate erosion and sediment controls throughout project construction and site restoration. To minimize potential wildlife entanglements resulting from use of synthetic/plastic erosion and sediment control matting, we recommend use of matting made from natural/organic materials such as coir fiber, jute, and/or burlap. We understand that adherence to these general recommendations may be infeasible in some situations. We are happy to work with the applicant to develop project specific measures as necessary to minimize project impacts upon the Commonwealth's wildlife resources.

Assuming adherence to erosion and sediment controls, we find this project consistent with the Fisheries Management Section of the CZMA.

Thanks, Amy

Amy Ewing
Environmental Services Biologist
Manager, Fish and Wildlife Information Services
P 804.367.2211
Virginia Department of Game & Inland Fisheries
CONSERVE. CONNECT. PROTECT.

A7870 Villa Park Drive, P.O. Box 90778, Henrico, VA 23228
www.dgif.virginia.gov

Commonwealth of Virginia

Fisher, John <john.fisher@deq.virginia.gov>

Re: NEW PROJECT DRAFT EA FOR Navy Gambo Creek Bridge Replacement, DEQ #20-020F

1 message

Holma, Marc <marc.holma@dhr.virginia.gov> Thu, Mar 19, 2020 at 11:37 AM
To: "Fisher, John" <john.fisher@deq.virginia.gov>

John,

The Navy has initiated consultation with DHR on this project, but we have not concluded our review due to the need for more information. Please request the Navy continue to consult with DHR pursuant to Section 106.

Thanks.
Marc

On Thu, Mar 19, 2020 at 11:34 AM Fisher, John <john.fisher@deq.virginia.gov> wrote:

Hi Marc:

Any comments on the Navy's EA and FCD for the Gambo Creek Bridge replacement project? I assume you cover NSF Dahlgren. Maybe not.

John

John E. Fisher
Virginia Department of Environmental Quality
Division of Environmental Enhancement
Office of Environmental Impact Review
1111 East Main Street, Suite 1400
Richmond, Virginia 23219
(804) 698-4339
john.fisher@deq.virginia.gov

For program updates and public notices please subscribe to Constant Contact

On Fri, Feb 21, 2020 at 11:21 AM Fulcher, Valerie <valerie.fulcher@deq.virginia.gov> wrote:

Good morning, everyone: The Department of the Navy has sent the Draft Environmental Assessment (DEA) for Gambo Creek Bridge Replacement . Please review under the same review number (DEQ 20-020F) and send comments to John (Fisher) by the same deadline as the FCD (MARCH 6, 2020). You can view the documents at the following link: https://www.cnic.navy.mil/regions/ndw/installations/nsa_south_potomac/installations/nsf_dahlgren/om/environmental-assessment.html

Valerie

On Mon, Feb 10, 2020 at 2:22 PM Fulcher, Valerie <valerie.fulcher@deq.virginia.gov> wrote:

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

Document Type: Federal Consistency Determination
Project Sponsor: Department of the Navy
Project Title: Gambo Creek Bridge Replacement at Naval Support Facility Dahlgren
Location: King George County
Project Number: DEQ #20-020F

The document is attached.

Commonwealth of Virginia

Fisher, John <john.fisher@deq.virginia.gov>

RE: NEW PROJECT Navy Gambo Creek Bridge Replacement, DEQ #20-020F

1 message

Neiman C. Young, PhD. <nyoung@co.kinggeorge.state.va.us> Tue, Feb 11, 2020 at 7:45 AM
To: "John.Fisher@deq.virginia.gov" <John.Fisher@deq.virginia.gov>
Cc: "Fulcher, Valerie" <valerie.fulcher@deq.virginia.gov>

Mr. Fisher,

King George County has no concerns regarding this project.

NEIMAN C. YOUNG, PhD

County Administrator

King George County

10459 Courthouse Drive, Suite 200

King George, VA 22485

540.775.9181

nyoung@co.kinggeorge.state.va.us

From: Fulcher, Valerie <valerie.fulcher@deq.virginia.gov>
Sent: Monday, February 10, 2020 2:23 PM
To: rr dgif-ESS Projects <essprojects@dgif.virginia.gov>; Roberta Rhur <robbie.rhur@dcr.virginia.gov>; odwreview (VDH) <odwreview@vdh.virginia.gov>; Carlos Martinez <carlos.martinez@deq.virginia.gov>; Kotur Narasimhan <kotur.narasimhan@deq.virginia.gov>; Lawrence Gavan <larry.gavan@deq.virginia.gov>; Daniel Moore <daniel.moore@deq.virginia.gov>; Holly Sepety <holly.sepety@deq.virginia.gov>; Benjamin Holland <benjamin.holland@deq.virginia.gov>; Roger Kirchen <roger.kirchen@dhr.virginia.gov>; Anthony Watkinson <tony.watkinson@mrc.virginia.gov>; millsaps@gwregion.org; Neiman C. Young, PhD. <nyoung@co.kinggeorge.state.va.us>
Cc: John Fisher <john.fisher@deq.virginia.gov>
Subject: NEW PROJECT Navy Gambo Creek Bridge Replacement, DEQ #20-020F

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

Document Type: Federal Consistency Determination

Project Sponsor: Department of the Navy

Project Title: Gambo Creek Bridge Replacement at Naval Support Facility Dahlgren

Location: King George County

Commonwealth of Virginia

Fisher, John <john.fisher@deq.virginia.gov>

Re: NEW PROJECT DRAFT EA FOR Navy Gambo Creek Bridge Replacement, DEQ #20-020F

1 message

Warren, Arlene <arlene.warren@vdh.virginia.gov> Mon, Feb 24, 2020 at 12:49 PM
To: John Fisher <john.fisher@deq.virginia.gov>
Cc: rr Environmental Impact Review <eir@deq.virginia.gov>

Project Name: EA FOR Navy Gambo Creek Bridge Replacement
Project #: 20-020 F
UPC #: N/A
Location: King George Co.
VDH – Office of Drinking Water has reviewed the above project. Below are our comments as they relate to proximity to **public drinking water sources** (groundwater wells, springs and surface water intakes). Potential impacts on public water distribution systems or sanitary sewage collection systems **must be verified by the local utility.**

The following public groundwater wells are located within a 1-mile radius of the project site:

PWS ID Number	City/County	System Name	Facility Name
6099340	KING GEORGE	NAVAL SUPPORT FACILITY_ DAHLGREN	WELL 1 - BLDG 1288 (BRONSON WELL)
6099340	KING GEORGE	NAVAL SUPPORT FACILITY_ DAHLGREN	WELL 3 - BLDG 274A (RESERVOIR WELL)

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

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

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

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

Best Regards,

Arlene Fields Warren

GIS Program Support Technician

Office of Drinking-Water

Virginia Department of Health

109 Governor Street

Richmond, VA 23219

(804) 864-7781

COMMONWEALTH of VIRGINIA

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

Matthew J. Strickler
Secretary of Natural Resources

Steven G. Bowman
Commissioner

March 5, 2020

Department of Environmental Quality
Attn: John Fisher
Office of Environmental Impact Review
P.O. Box 1105
Richmond, VA 23218

Re: Federal Consistency Determination and Environmental Assessment
Gambo Creek Bridge Replacement at Naval Support Facility Dahlgren
DEQ #20-020F

Dear Mr. Fisher:

This will respond to the request for comments regarding the Federal Consistency Determination and Environmental Assessment for the Gambo Creek Bridge Replacement at Naval Support Facility Dahlgren project (DEQ #20-020F), prepared by the Department of the Navy. Specifically, the Navy has proposed to replace the current bridge over Gambo Creek with a new one in the same footprint. The project is located in King George County, Virginia.

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

We reviewed the provided project documents. A wetlands permit from the King George County Local Wetlands Board may be required if the County determines that the proposed project constitutes a "fill". In keeping with previous Attorney General advice concerning project adjacent federal lands; a permit will not be required from VMRC, since we have determined that the subaqueous aspects of this project do not constitute a "fill".

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

As such, this project has no foreseeable impact on the VMRC's enforceable policies. While we have no objection to the consistency findings provided by the applicant.

An Agency of the Natural Resources Secretariat
www.mrc.virginia.gov
Telephone (757) 247-2200 (757) 247-2292 V/TDD Information and Emergency Hotline 1-800-541-4646 V/TDD

If you have any questions please contact me at (757) 247-2276 or by email at jeff.madden@mrc.virginia.gov. Thank you for the opportunity to comment.

Sincerely,

Jeffrey P. Madden
Environmental Engineer, Habitat Management

JPM/keb
HM

COMMONWEALTH of VIRGINIA

DEPARTMENT OF CONSERVATION AND RECREATION

MEMORANDUM

DATE: March 6, 2020

TO: John Fisher, DEQ

FROM: Roberta Rhur, Environmental Impact Review Coordinator

SUBJECT: DEQ 20-020F, Gambo Creek Bridge Replacement at Naval Support Facility Dahlgren

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.

According to the information currently in Biotics, natural heritage resources have not been documented within the submitted project boundary including a 100 foot buffer. The absence of data may indicate that the project area has not been surveyed, rather than confirm that the area lacks natural heritage resources. In addition, the project boundary does not intersect any of the predictive models identifying potential habitat for natural heritage resources.

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

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

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

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

Division of Dam Safety and Floodplain Management

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) 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. As per Executive Memorandum 2-97, development in a floodplain by an agency of the Commonwealth, or by its contractor, shall comply with the locally adopted floodplain management ordinance. Additionally, new state-owned buildings shall not be constructed in the SFHA unless a variance is granted by the Department of General Services. Projects conducted by federal agencies within the SFHA must comply with Executive Order 11988: Floodplain Management.

The NFIP defines development 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."* (44 CFR 59.1)

The NFIP defines Special Flood Hazard Area (SFHA) as *"the land in the flood plain within a community subject to a 1 percent or greater chance of flooding in any given year. The area may be designated as Zone A on the FHBM. After detailed ratemaking has been completed in preparation for publication of the flood insurance rate map, Zone A usually is refined into Zones A, AO, AH, A1-30, AE, A99, AR, AR/A1-30, AR/AE, AR/AO, AR/AH, AR/A, VO, or V1-30, VE, or V."* (44 CFR 59.1)

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 if the project is located in the SFHA, this project must 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 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.

U.S. Fish and Wildlife Service and Related State Agency Coordination under Endangered Species Act

Letter from Virginia Department of Conservation and Recreation (March 11, 2020)

Matthew J. Strickler
Secretary of Natural Resources

Clyde E. Cristman
Director

Rochelle Altholz
Deputy Director of Administration and Finance

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

Thomas L. Smith
Deputy Director of Operations

COMMONWEALTH of VIRGINIA
DEPARTMENT OF CONSERVATION AND RECREATION

March 11, 2020

Jennifer Steele
Department of the Navy
NACFAC Washington
Washington Nay Yard, DC 20374

Re: Gambo Creek Bridge Replacement at Naval Support Facility Dahlgren Draft EA

Dear Ms. Steele:

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

According to the information currently in Biotics, natural heritage resources have not been documented within the submitted project boundary including a 100 foot buffer. The absence of data may indicate that the project area has not been surveyed, rather than confirm that the area lacks natural heritage resources. In addition, the project boundary does not intersect any of the predictive models identifying potential habitat for natural heritage resources.

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

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

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

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

Should you have any questions or concerns, please contact me at 804-225-2429. Thank you for the opportunity to comment on this project.

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

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

Sincerely,

Tyler Meader
Natural Heritage Locality Liaison

U.S. Fish and Wildlife Service IPaC List of Threatened and Endangered Species (March 24, 2020)

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

In Reply Refer To:
Consultation Code: 05E2VA00-2020-SLI-0820
Event Code: 05E2VA00-2020-E-07694
Project Name: Gambo Creek Bridge Replacement

March 24, 2020

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

To Whom It May Concern:

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

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

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

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

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

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

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

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

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

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

Attachment(s):

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

Official Species List

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

This species list is provided by:

Virginia Ecological Services Field Office
6669 Short Lane
Gloucester, VA 23061-4410
(804) 693-6694

Project Summary

Consultation Code: 05E2VA00-2020-SLI-0820

Event Code: 05E2VA00-2020-E-07694

Project Name: Gambo Creek Bridge Replacement

Project Type: BRIDGE CONSTRUCTION / MAINTENANCE

Project Description: The Navy is proposing to provide a bridge that carries Tisdale Road traffic over Gambo Creek at Naval Support Facility Dahlgren in Dahlgren, VA. Gambo Creek Bridge is a reinforced concrete structure that was built in 1940 primarily as a railroad trestle for the movement of 16-inch guns mounted on flatcars. When rail car movement was phased out, it became a vehicular bridge. The existing physical bridge is deteriorating, and inspections have concluded that the structure is structurally deficient, functionally obsolete by current FHWA standards, and in poor condition overall. Current conditions of the structure have resulted in vehicle weight restrictions that prohibit installation fire trucks from crossing the bridge. As a result, the Navy is proposing to replace the bridge to meet current FHWA engineering standards to safely and adequately support mission activities and safety requirements. The proposed bridge would be located either on the same footprint as the current bridge, or just south of the current alignment. The proposed bridge would be constructed of steel pile foundations and a prestressed concrete spread box beam structure. It would be sized for two-way traffic and capable of supporting a minimum of a 25.25 ton truck. Proposed site improvements include a bridge structure, steel piles, guardrails, concrete abutments, concrete wingwalls, and traffic control fencing and gates. Site preparation would include the excavation and the temporary shoring for abutments and piers. During construction, cofferdams would be used when work below the waterline is required. Utility lines that currently run either under or on the bridge structure would be relocated during construction. Utility lines would either be reattached to the proposed bridge or bored underneath Gambo Creek using a technique such as horizontal directional boring. Construction activities are anticipated to begin in fiscal year 2021.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/38.33282841534456N77.023056303292 73W

Counties: King George, VA

Endangered Species Act Species

There is a total of 1 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

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

Critical habitats

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

USFWS National Wildlife Refuge Lands And Fish Hatcheries

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

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA

U.S. Fish and Wildlife Service Verification Letter under Programmatic Biological Opinion on Final 4(d) Rule for the Northern Long-eared Bat and Activities Excepted from Take Prohibitions (March 24, 2020)

United States Department of the Interior

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

In Reply Refer To:
Consultation Code: 05E2VA00-2020-TA-0820
Event Code: 05E2VA00-2020-E-07707
Project Name: Gambo Creek Bridge Replacement

March 24, 2020

Subject: Verification letter for the 'Gambo Creek Bridge Replacement' project under the January 5, 2016, Programmatic Biological Opinion on Final 4(d) Rule for the Northern Long-eared Bat and Activities Excepted from Take Prohibitions.

Dear Jennifer Steele:

The U.S. Fish and Wildlife Service (Service) received on March 24, 2020 your effects determination for the 'Gambo Creek Bridge Replacement' (the Action) using the northern long-eared bat (*Myotis septentrionalis*) key within the Information for Planning and Consultation (IPaC) system. This IPaC key assists users in determining whether a Federal action is consistent with the activities analyzed in the Service's January 5, 2016, Programmatic Biological Opinion (PBO). The PBO addresses activities excepted from "take"[1] prohibitions applicable to the northern long-eared bat under the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

Based upon your IPaC submission, the Action is consistent with activities analyzed in the PBO. The Action may affect the northern long-eared bat; however, any take that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o). Unless the Service advises you within 30 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that the PBO satisfies and concludes your responsibilities for this Action under ESA Section 7(a)(2) with respect to the northern long-eared bat.

Please report to our office any changes to the information about the Action that you submitted in IPaC, the results of any bat surveys conducted in the Action area, and any dead, injured, or sick northern long-eared bats that are found during Action implementation. If the Action is not completed within one year of the date of this letter, you must update and resubmit the information required in the IPaC key.

If the Action may affect other federally listed species besides the northern long-eared bat, a proposed species, and/or designated critical habitat, additional consultation between you and this Service office is required. If the Action may disturb bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act is recommended.

---

[1]Take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct [ESA Section 3(19)].

Action Description
You provided to IPaC the following name and description for the subject Action.

1. Name

Gambo Creek Bridge Replacement

2. Description

The following description was provided for the project 'Gambo Creek Bridge Replacement':

> The Navy is proposing to provide a bridge that carries Tisdale Road traffic over Gambo Creek at Naval Support Facility Dahlgren in Dahlgren, VA. Gambo Creek Bridge is a reinforced concrete structure that was built in 1940 primarily as a railroad trestle for the movement of 16-inch guns mounted on flatcars. When rail car movement was phased out, it became a vehicular bridge. The existing physical bridge is deteriorating, and inspections have concluded that the structure is structurally deficient, functionally obsolete by current FHWA standards, and in poor condition overall. Current conditions of the structure have resulted in vehicle weight restrictions that prohibit installation fire trucks from crossing the bridge. As a result, the Navy is proposing to replace the bridge to meet current FHWA engineering standards to safely and adequately support mission activities and safety requirements. The proposed bridge would be located either on the same footprint as the current bridge, or just south of the current alignment. The proposed bridge would be constructed of steel pile foundations and a prestressed concrete spread box beam structure. It would be sized for two-way traffic and capable of supporting a minimum of a 25.25 ton truck. Proposed site improvements include a bridge structure, steel piles, guardrails, concrete abutments, concrete wingwalls, and traffic control fencing and gates. Site preparation would include the excavation and the temporary shoring for abutments and piers. During construction, cofferdams would be used when work below the waterline is required. Utility lines that currently run either under or on the bridge structure would be relocated during construction. Utility lines would either be reattached to the proposed bridge or bored underneath Gambo Creek using a technique such as horizontal directional boring. Construction activities are anticipated to begin in fiscal year 2021.

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/38.33282841534456N77.02305630329273W

Determination Key Result

This Federal Action may affect the northern long-eared bat in a manner consistent with the description of activities addressed by the Service's PBO dated January 5, 2016. Any taking that may occur incidental to this Action is not prohibited under the final 4(d) rule at 50 CFR §17.40(o). Therefore, the PBO satisfies your responsibilities for this Action under ESA Section 7(a)(2) relative to the northern long-eared bat.

Determination Key Description: Northern Long-eared Bat 4(d) Rule

This key was last updated in IPaC on May 15, 2017. Keys are subject to periodic revision.

This key is intended for actions that may affect the threatened northern long-eared bat.

The purpose of the key for Federal actions is to assist determinations as to whether proposed actions are consistent with those analyzed in the Service's PBO dated January 5, 2016.

Federal actions that may cause prohibited take of northern long-eared bats, affect ESA-listed species other than the northern long-eared bat, or affect any designated critical habitat, require ESA Section 7(a)(2) consultation in addition to the use of this key. Federal actions that may affect species proposed for listing or critical habitat proposed for designation may require a conference under ESA Section 7(a)(4).

Determination Key Result

This project may affect the threatened Northern long-eared bat; therefore, consultation with the Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.) is required. However, based on the information you provided, this project may rely on the Service's January 5, 2016, *Programmatic Biological Opinion on Final 4(d) Rule for the Northern Long-Eared Bat and Activities Excepted from Take Prohibitions* to fulfill its Section 7(a)(2) consultation obligation.

Qualification Interview

1. Is the action authorized, funded, or being carried out by a Federal agency?

   Yes

2. Have you determined that the proposed action will have "no effect" on the northern long-eared bat? (If you are unsure select "No")

   No

3. Will your activity purposefully **Take** northern long-eared bats?

   No

4. Is the project action area located wholly outside the White-nose Syndrome Zone?

   Automatically answered

   No

5. Have you contacted the appropriate agency to determine if your project is near a known hibernaculum or maternity roost tree?

   Location information for northern long-eared bat hibernacula is generally kept in state Natural Heritage Inventory databases – the availability of this data varies state-by-state. Many states provide online access to their data, either directly by providing maps or by providing the opportunity to make a data request. In some cases, to protect those resources, access to the information may be limited. A web page with links to state Natural Heritage Inventory databases and other sources of information on the locations of northern long-eared bat roost trees and hibernacula is available at www.fws.gov/midwest/endangered/mammals/nleb/nhisites.html.

   Yes

6. Will the action affect a cave or mine where northern long-eared bats are known to hibernate (i.e., hibernaculum) or could it alter the entrance or the environment (physical or other alteration) of a hibernaculum?

   No

7. Will the action involve Tree Removal?

   Yes

8. Will the action only remove hazardous trees for the protection of human life or property?

   No

9. Will the action remove trees within 0.25 miles of a known northern long-eared bat hibernaculum at any time of year?

   No

10. Will the action remove a known occupied northern long-eared bat maternity roost tree or any trees within 150 feet of a known occupied maternity roost tree from June 1 through July 31?

    No

Project Questionnaire

If the project includes forest conversion, report the appropriate acreages below. Otherwise, type '0' in questions 1-3.

1. Estimated total acres of forest conversion:

0.25

2. If known, estimated acres of forest conversion from April 1 to October 31

0.25

3. If known, estimated acres of forest conversion from June 1 to July 31

0

If the project includes timber harvest, report the appropriate acreages below. Otherwise, type '0' in questions 4-6.

4. Estimated total acres of timber harvest

0

5. If known, estimated acres of timber harvest from April 1 to October 31

0

6. If known, estimated acres of timber harvest from June 1 to July 31

0

If the project includes prescribed fire, report the appropriate acreages below. Otherwise, type '0' in questions 7-9.

7. Estimated total acres of prescribed fire

0

8. If known, estimated acres of prescribed fire from April 1 to October 31

0

9. If known, estimated acres of prescribed fire from June 1 to July 31

0

If the project includes new wind turbines, report the megawatts of wind capacity below. Otherwise, type '0' in question 10.

10. What is the estimated wind capacity (in megawatts) of the new turbine(s)?

0

Species Conclusions Table Submitted to USFWS Virginia Field Office (April 2, 2020)

Species Conclusions Table

Project Name: Gambo Creek Bridge Replacement

Date: March 2020

Species / Resource Name	Conclusion	ESA Section 7	Notes / Documentation
Northern Long-eared Bat *Myotis septentrionalis* (Threatened, state-threatened)	Potential habitat present. This species has not been documented in 2015, 2017, 2018, or 2019 monitoring on NSF Dahlgren (NAVFAC Washington, 2017; NAVFAC Washington, 2018; NAVFAC Washington, 2019).	May affect.	Completed online determination key through IPaC.
Sensitive joint-vetch *Aeschynomene virginica* (Threatened, state-endangered)	No suitable habitat (Marstel-Day & VDCR-DNH, 2018).	No effect.	This species was not included in the IPaC Species List (USFWS, 2019). Coordination with the Virginia Department of Conservation and Recreation's Division of Natural Heritage also did not identify any known habitat of rare, threatened, or endangered plant species within 100 feet of the Gambo Creek Bridge (Meader, 2020). This species occurs in fresh to slightly brackish marshes within the intertidal zone, typically occurring at the outer fringe of marshes or shores (Wray, 2013). Surveys for this species were conducted along the entirety of Gambo Creek by a qualified investigator in 2017. The investigator of the 2017 survey noted that most of the marshes surveyed (included all of the project area and surrounding areas) did not have potential to support this species (Marstel-Day & VDCR-DNH, 2018).

Species / Resource Name	Conclusion	ESA Section 7	Notes / Documentation
Rusty-patched bumble bee *Bombus affinis* (Endangered)	No suitable habitat.	No effect.	This species was not included in the IPaC Species List (USFWS, 2019) or identified as a county where the species may be present by the USFWS Southwestern Virginia Field Office (Project Reviews, Step 2 (C)). However, the Draft Integrated Natural Resources Management Plan recognizes that this area is part of its historical range and habitat could be present in surrounding areas (Wray, 2019). Species typically inhabits open grasslands and tallgrass prairies of the Upper Midwest and Northeast. This habitat is not present at the project site. This species has not been documented at NSF Dahlgren (Wray, 2013; Wray, 2019).
Dwarf wedgemussel *Alasmidonta heterodon* (Endangered, state-endangered)	No suitable habitat.	No effect.	This species was not included in the IPaC Species List (USFWS, 2019). However, it is included as a species potentially present within 2 miles of the project area based on the Virginia Department of Game and Inland Fisheries' online database, VaFWIS (VDGIF, 2020). A freshwater mollusk, the dwarf wedgemussel would not be expected at the project location in Gambo Creek, which is tidally influenced and brackish near the confluence into the Potomac River. This species has not been documented at NSF Dahlgren (Wray, 2013; Wray, 2019).

Species / Resource Name	Conclusion	ESA Section 7	Notes / Documentation
Eastern black rail *Laterallus jamaicensis jamaicensis* (Proposed threatened, state-endangered)	Suitable habitat present; species has not been documented at NSF Dahlgren.	Not likely to adversely affect.	This species was not included in the IPaC Species List (USFWS, 2019). However, it is included as a species potentially present within 2 miles of the project area based on the Virginia Department of Game and Inland Fisheries' online database, VaFWIS (VDGIF, 2020). Species is found in salt, brackish, and freshwater marshes. Habitat is possibly suitable, though the species has not been documented at the installation (Wray, 2013; Wray, 2019).
Critical habitat	No critical habitat present.	No effect.	
Monarch butterfly *Danaus plexippus* (Under review)	Potential habitat present, and no current survey conducted. This species has been observed on NSF Dahlgren.	Not applicable.	The Navy is currently updating the NSF Dahlgren Integrated Natural Resources Management Plan (Wray, 2019) and developing a Monarch Butterfly Habitat Conservation Plan that promotes pollinator habitat and identifies areas for pollinator habitat restoration at NSF Dahlgren as well. Vegetation clearing would be reviewed according to the installation's Comprehensive Work Approval Process to minimize impacts on this species.
Northern red-bellied cooter *Pseudemys rubriventris* (Under review)	Potential habitat present, and no current survey conducted. This species is relatively common and well-documented in a 2014 survey on NSF Dahlgren.	Not applicable.	Consistent with the NSF Dahlgren Integrated Natural Resources Management Plan update, which is currently being drafted (Wray, 2019), the Navy would review proposed wetland disturbances and in-water work projects related to construction through the installation's Comprehensive Work Approval Process to eliminate or minimize impacts on habitat used by this species.

Species / Resource Name	Conclusion	ESA Section 7	Notes / Documentation
Spotted turtle *Clemmys guttata* (Under review)	Potential habitat present and no current survey conducted. This species has been historically observed on NSF Dahlgren. It was not documented in a 2014 survey, but two observations have since been noted on NSF Dahlgren.	Not applicable.	Consistent with the NSF Dahlgren Integrated Natural Resources Management Plan update, which is currently being drafted (Wray, 2019), the Navy would review proposed wetland disturbances and in-water work projects related to construction through the installation's Comprehensive Work Approval Process to eliminate or minimize impacts on habitat used by this species.
Tri-colored bat *Perimyotis subflavus* (Under review, state-endangered)	Potential habitat present. This species has been documented in acoustic monitoring 2015, 2017, 2018, and/or 2019 on NSF Dahlgren but not physically captured (NAVFAC Washington, 2017; NAVFAC Washington, 2018; NAVFAC Washington, 2019).	Not applicable.	By implementing measures intended to minimize impacts on the Northern Long-eared Bat, the Navy would also minimize impacts on this species.
Little brown bat *Myotis lucifugus lucifugus* (Under review, state-endangered)	Potential habitat present. This species has been documented in acoustic monitoring 2015, 2017, 2018, and/or 2019 on NSF Dahlgren but not physically captured (NAVFAC Washington, 2017; NAVFAC Washington, 2018; NAVFAC Washington, 2019).	Not applicable.	By implementing measures intended to minimize impacts on the Northern Long-eared Bat, the Navy would also minimize impacts on this species.

References

Marstel-Day, & VDCR-DNH. (2018, February). *Sensitive Joint-Vetch (RT&E) Survey at Naval Support Facility Dahlgren, VA*. Prepared for NAVFAC Washington under contract by Marstel-Day, LLC and Virginia Department of Conservation and Recreation Division of Natural Heritage.

Meader, T. (2020, March 11). Letter from Tyler Meader (Natural Heritage Locality Liaison, Department of Conservation and Recreation) to Jennifer Steele (NAVFAC Washington) regarding the Gambo Creek Bridge replacement at Naval Support Facility Dahlgren.

NAVFAC Washington. (2017, January). *Report for Bat Surveys at Multiple Installations at NSF Dahlgren, Virginia; NSA Annapolis, NSF Carderock, and NAS Patuxent RIver, Maryland; and U.S. Naval Observatory and Joint Base Anacostia-Bolling, Washington, DC*. Prepared by Marstel-Day and Conservation and Management, Inc.

NAVFAC Washington. (2018, January). *NSF Dahlgren and NSF Indian Head Bat Survey and Anabat Data Analysis*. Prepared by Marstel-Day, LLC and Conservation and Management, Inc.

NAVFAC Washington. (2019, December). *Draft Task Summary Report for Task Order 18F5125 Task 9G Bat Survey at Joint Base Anacostia-Bolling*. Prepared by Marstel-Day, LLC and Conservation Management Institute.

USFWS. (2019, November 25). *IPaC Species Report*. Retrieved from IPaC Information for Planning and Consultation: https://ecos.fws.gov/ipac/

VDGIF. (2020, March 16). VaFWIS Search Report, 2 mile radius around point 38.3324300 -77.0241099 in 099 King George County, VA. Retrieved from https://vafwis.dgif.virginia.gov/fwis/

Wray. (2013, October). *Integrated Natural Resources Management Plan Naval Facility Support Dahlgren, Dahlgren, Virginia*. Prepared by Dr. Thomas Wray II.

Wray, T. (2019, October). *Draft Update NSF Dahlgren Integrated Natural Resources Management Plan*.

Self-Certification Letter Using U.S. Fish and Wildlife Service Virginia Ecological Services Online Project Review Process

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Virginia Field Office
6669 Short Lane
Gloucester, VA 23061

Date:

Self-Certification Letter

Project Name:

Dear Applicant:

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

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

- "no effect" determinations for proposed/listed species and/or proposed/designated critical habitat; and/or
- Action may affect the northern long-eared bat; however, any take that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR § 17.40(o) [as determined through the Information, Planning, and Consultation System (IPaC) northern long-eared bat assisted determination key]; and/or
- "may affect, not likely to adversely affect" determinations for proposed/listed species and/or proposed/designated critical habitat.

VERSION 3.1

We certify that use of the online project review process in strict accordance with the instructions provided as documented in the enclosed project review package results in reaching the appropriate determinations. Therefore, we concur with the determinations described above for proposed and listed species and proposed and designated critical habitat. Additional coordination with this office is not needed.

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

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

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

Sincerely,

Cindy Schulz
Field Supervisor
Virginia Ecological Services

Enclosures - project review package

VERSION 3.1

Email Correspondence from USFWS Virginia Field Office Regarding Self Certification for Draft EA (April 9, 2020)

From: Case, Rachel L <rachel_case@fws.gov> On Behalf Of Virginia Field Office, FW5
Sent: Thursday, April 9, 2020 11:57 AM
To: Wray, Travis W CIV USN (USA) travis.wray@navy.mil
Subject: [Non-DoD Source] Re: [EXTERNAL] Self Certification Letter - Draft Environmental Assessment for Gambo Creek Bridge Replacement at Naval Support Activity Dahlgren, Dahlgren, Virginia

Hi Travis,

Thanks for sending this over. We have no further comments or concerns regarding this project.

All the best,

Rachel

_____

From: Wray, Travis W CIV USN (USA)
Sent: Thursday, April 2, 2020 3:15 PM
To: Virginia Field Office, FW5
Cc: Steele, Jennifer L CIV USN NAVFAC WASHINGTON DC (USA); Wray, Travis W CIV USN (USA)
Subject: [EXTERNAL] Self Certification Letter - Draft Environmental Assessment for Gambo Creek Bridge Replacement at Naval Support Activity Dahlgren, Dahlgren, Virginia

VAFWS:

Attached are the documents for the online review process for the Gambo Creek Bridge Replacement EA at Naval Support Facility Dahlgren. Let me know if you also need the references listed on the Species Conclusion Table and I can send those in a separate email.

Please let Jenn Steele and I know if you have any questions during your review and thanks,

Travis Wray

NSF Dahlgren Natural Resources and Restoration
540-653-4186
travis.wray@navy.mil

NOAA Fisheries Coordination under Endangered Species Act and Magnuson-Stevens Fisheries Conservation and Management Act

Correspondence to NOAA Fisheries regarding Essential Fish Habitat (February 6, 2020)

From: Wray, Travis W CIV USN (USA) <travis.wray@navy.mil>
Sent: Thursday, February 6, 2020 3:25 PM
To: nmfs.gar.efh.consultation@noaa.gov
Cc: Wray, Travis W CIV USN (USA) travis.wray@navy.mil
Subject: EFH Assessment for Gambo Creek Bridge Replacement at NSFDL

NOAA EFH Office:

Attached is the NOAA EFH Assessment Worksheet and supporting documentation for an upcoming project at Naval Support Facility Dahlgren. According to NOAA's Habitat Protection Mapper, EFH has been designated for eight fish species in the vicinity of Gambo Creek at the confluence with the Potomac River. The project area is roughly 2,020 meandering feet upstream from that location.

The project is currently in the EA phase with three Alternative Actions so details are very limited as the design has yet to be developed. The Navy believes the proposed action will have minimal effects on EFH.

Please let me know if you have any questions or need any additional information. Initial consultation with NOAA for the Atlantic and shortnose sturgeon is being handled in separate correspondence.

Thanks,

Travis Wray
NSF Dahlgren Natural Resources and Restoration
540-653-4186
travis.wray@navy.mil

NOAA Fisheries Greater Atlantic Regional Fisheries Office
Essential Fish Habitat (EFH) Assessment & Fish and Wildlife Coordination Act (FWCA) Worksheet

This worksheet is your essential fish habitat (EFH) assessment. It provides us with the information necessary to assess the effects of your action on EFH under the Magnuson Stevens Fishery Conservation and Management Act and on NOAA trust resources under the Fish and Wildlife Coordination Act (FWCA). Consultation is not required if:

1. there is no adverse effect on EFH or NOAA trust resources (see page 10 for more info).
2. no EFH is designated and no trust resources may be present at the project site.

Instructions
Federal agencies or their non-federal designated lead agency should email the completed worksheet and necessary attachments to nmfs.gar.efh.consultation@noaa.gov. Include the public notice (if applicable) or project application and project plans showing:

- location map of the project site with area of impact.
- existing and proposed conditions.
- all waters of the U.S. on the project site with mean low water (MLW), mean high water (MHW), high tide line (HTL), and water depths clearly marked.
- sensitive habitats mapped, including special aquatic sites (submerged aquatic vegetation, saltmarsh, mudflats, riffles and pools, coral reefs, and sanctuaries and refuges), hard bottom or natural rocky habitat areas, and shellfish beds.
- site photographs, if available.

We will provide our EFH conservation recommendations and recommendations under the FWCA, as appropriate, within 30 days of receipt of a complete EFH assessment (60 days if an expanded consultation is necessary). Please submit complete information to minimize delays in completing the consultation.

This worksheet provides us with the information required[1] in an EFH assessment:

1. A description of the proposed action.
2. An analysis of the potential adverse effects on EFH and the federally managed species.
3. The federal agency's conclusions regarding the effects of the action on EFH.
4. Proposed mitigation, if applicable.

Your analysis **should focus on impacts that reduce the quality and/or quantity of the habitat or result in conversion to a different habitat type** for all life stages of species with designated EFH within the action area.

Use the information on the HCD website and NOAA's EFH Mapper to complete this worksheet. If you have questions, please contact the appropriate HCD staff member to assist you.

[1] The EFH consultation process is guided by the requirements of our EFH regulation at 50 CFR 600.905.

1

EFH ASSESSMENT WORKSHEET

General Project Information

Date Submitted: 2/7/2019

Project/Application Number: N/A

Project Name: Gambo Creek Bridge Replacement at Naval Support Facility Dahlgren

Project Sponsor/Applicant: Travis Wray

Federal Action Agency (if state agency acting as delegated): DOD/Navy

Fast-41 or One Federal Decision Project: ☐ Yes ☑ No

Action Agency Contact Name: Travis Wray

Contact Phone: 540-653-4186 Contact Email: travis.wray@navy.mil

Latitude: 38.332471 Longitude: -77.023693

Address, City/Town, State:

18329 Thompson Road, Suite 226, Dahlgren, Virginia 22448-5110

Body of Water: Gambo Creek which empties into the Potomac River

Project Purpose:

Replace 1940s era Gambo Creek Bridge at Naval Support Facility Dahlgren

Project Description:

The Preferred Alternative would demolish the existing bridge and build and new one in the same footprint. The proposed bridge would be constructed of steel pile foundations and a prestressed concrete spread box beam structure. It would be sized for two-way traffic. Although the height of the proposed bridge is unknown at this time, it would likely be similar to the height of the existing bridge, which is 13 feet 3 inches from the bottom of concrete piers (pile caps) to the top of concrete decking (approximately 15 feet above mean sea level). The bridge would meet American Association of State Highway and Transportation Officials standards. Each pier of the existing bridge contains approximately 10 piles each, and there are 23 piers; the east and west abutments contain approximately 14 piles each. Proposed site improvements would include a bridge structure, steel piles, guardrails, concrete abutments, concrete wingwalls, and traffic control fencing and gates.

Anticipated Duration of In-Water Work or Start/End Dates:

Approximately one year of demolition and construction beginning in FY21.

2

Habitat Description

EFH includes the biological, chemical, and physical components of the habitat. This includes the substrate and associated biological resources (e.g., benthic organisms, submerged aquatic vegetation, shellfish beds, salt marsh wetlands), the water column, and prey species.

Is the project in designated EFH[2]? ☑ Yes ☐ No

Is the project in designated HAPC[2]? ☐ Yes ☑ No

Is this coordination under FWCA only? ☐ Yes ☑ No

Total area of impact to EFH (indicate sq ft or acres): Approximately 7,500'

Total area of impact to HAPC (indicate sq ft or acres): N/A

Current water depths: 10-15' Salinity: 4 - 8 ppt Water temperature range: 43-79 F

Sediment characteristics[3]: Fine sediment typical in mud flats

What habitat types are in or adjacent to the project area and will they be permanently impacted? Select all that apply. Indicate if impacts will be temporary, if site will be restored, or if permanent conversion of habitat will occur. A project may occur in overlapping habitat types.

	Habitat Type	Total impact (sq ft/acres)	Impacts are temporary	Restored to pre-existing conditions	Permanent conversion of all or part of habitat
☐	Marine				
☑	Estuarine	7,500	Yes	Yes	No
☐	Riverine (tidal)				
☐	Riverine (non-tidal)				
☐	Intertidal				
☐	Subtidal				
☐	Water column				
☐	Salt marsh/ Wetland (tidal)				
☐	Wetland (non-tidal)				

[2] Use the tables on pages 7-9 to list species with designated EFH or the type of designated HAPC present.
[3] The level of detail is dependent on your project – e.g., a grain size analysis may be necessary for dredging.

3

	Habitat Type	Total impact (sq ft/acres)	Impacts are temporary	Restored to pre-existing conditions	Permanent conversion of all or part of habitat
☐	Rocky/hard bottom[4]:				
☐	Sand				
☐	Shellfish beds or oyster reefs				
☑	Mudflats	7,500	Yes	Yes	No
☐	Submerged aquatic vegetation (SAV)[5], macroalgae, epifauna				
☐	Diadromous fish (migratory or spawning habitat)				

Indicate type(s) of rocky/hard bottom habitat (pebble, cobble, boulder, bedrock outcrop/ledge) and species of SAV:

Muddy bottom and no SAV in the project area

Project Effects

Select all that apply	Project Type/Category
☐	Hatchery or Aquaculture
☐	Agriculture
☐	Forestry
☐	Military (e.g., acoustic testing, training exercises)
☐	Mining (e.g., sand, gravel)
☐	Restoration or fish/wildlife enhancement (e.g., fish passage, wetlands, beach renourishment, mitigation bank/ILF creation)

[4] Indicate type(s). The type(s) of rocky habitat will help you determine if the area is cod HAPC.
[5] Indicate species. Provide a copy of the SAV report and survey conducted at the site, if applicable.

4

Select all that apply	Project Type/Category
☑	Infrastructure/transportation (e.g., culvert construction, bridge repair, highway, port)
☐	Energy development/use
☐	Water quality (e.g., TMDL, wastewater, sediment remediation)
☐	Dredging/excavation and disposal
☐	Piers, ramps, floats, and other structures
☐	Bank/shoreline stabilization (e.g., living shoreline, groin, breakwater, bulkhead)
☐	Survey (e.g., geotechnical, geophysical, habitat, fisheries)
☐	Other

Select all that apply	Potential Stressors Caused by the Activity	Select all that apply and if temporary or permanent		Habitat alterations caused by the activity
☑	Underwater noise	Temp	Perm	
☑	Water quality/turbidity/ contaminant release	☐	☐	Water depth change
☐	Vessel traffic/barge grounding	☐	☐	Tidal flow change
☐	Impingement/entrainment[6]	☐	☐	Fill
☐	Prevent fish passage/spawning	☐	☐	Habitat type conversion
☐	Benthic community disturbance	☐	☐	Other:
☐	Impacts to prey species	☐	☐	Other:

[6] Entrainment is the voluntary or involuntary movement of aquatic organisms from a water body into a surface diversion or through, under, or around screens and results in the loss of the organisms from the population. Impingement is the involuntary contact and entrapment of aquatic organisms on the surface of intake screens caused when the approach velocity exceeds the swimming capability of the organism.

5

Details: project impacts and mitigation

The level of detail that you provide should be commensurate with the magnitude of impacts associated with the proposed project. Attach supplemental information if necessary.

Describe how the project would impact each of the habitat types selected above. Include temporary and permanent impact descriptions and direct and indirect impacts.

See Enclosure 1

What specific measures will be used to avoid impacts, including project design, turbidity controls, acoustic controls, and time of year restrictions? If impacts cannot be avoided, why not?

See Enclosure 1

What specific measures will be used to minimize impacts?

See Enclosure 1

Is compensatory mitigation proposed? ☐ Yes ☑ No

If no, why not? If yes, describe plans for mitigation and how this will offset impacts to EFH. Include a conceptual compensatory mitigation and monitoring plan, if applicable.

Proposed project is currently in the EA phase and negligible impacts to EFH expected.

6

Federal Action Agency's EFH determination (select one)	
☐	There is no adverse effect[7] on EFH or EFH is not designated at the project site. EFH Consultation is not required. This is a FWCA-only request.
☑	The adverse effect[7] on EFH is not substantial. This means that the adverse effects are no more than minimal, temporary, or can be alleviated with minor project modifications or conservation recommendations. This is a request for an abbreviated EFH consultation.
☐	The adverse effect[7] on EFH is substantial. This is a request for an expanded EFH consultation. We will provide more detailed information, including an alternatives analysis and NEPA document, if applicable.

EFH and HAPC designations[8]

Use the EFH mapper to determine if EFH may be present in the project area and enter all species and lifestages that have designated EFH. Optionally, you may review the EFH text descriptions linked to each species in the EFH mapper and use them to determine if the described habitat is present. We recommend this for larger projects to help you determine what your impacts are.

Species	EFH is designated/mapped for:				Habitat present based on text description (optional)
	EFH: eggs	EFH: larvae	EFH: juvenile	EFH: adults/ spawning adults	
Little Skate	☐	☐	☐	☑	☐
Atlantic Herring	☐	☐	☑	☑	☐
Red Hake	☑	☑	☑	☑	☐
Winter Skate	☐	☐	☐	☑	☐

[7] An **adverse effect** is any impact that reduces the quality and/or quantity of EFH. Adverse effects may include direct or indirect physical, chemical, or biological alterations of the waters or substrate and loss of, or injury to, benthic organisms, prey species and their habitat, and other ecosystem components. Adverse effects to EFH may result from actions occurring within EFH or outside of EFH and may include site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions.

[8] Within the Greater Atlantic Region, EFH has been designated by the New England, Mid-Atlantic, and South Atlantic Fisheries Management Councils and NOAA Fisheries.

7

Species	EFH is designated/mapped for:				Habitat present based on text description (optional)
	EFH: eggs	EFH: larvae	EFH: juvenile	EFH: adults/ spawning adults	
Clearnose Skate	☐	☐	☑	☑	☐
Window Pane Flounder	☐	☐	☑	☐	☐
Bluefish	☐	☐	☑	☑	☐
Summer Flounder	☐	☐	☑	☑	☐
	☐	☐	☐	☐	☐
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	☐	☐	☐	☐	☐

8

HAPCs

Select all that are in your action area.

☐	Summer flounder: SAV[9]	☐	Alvin & Atlantis Canyons
☐	Sandbar shark	☐	Baltimore Canyon
☐	Sand Tiger Shark (Delaware Bay)	☐	Bear Seamount
☐	Sand Tiger Shark (Plymouth-Duxbury-Kingston Bay)	☐	Heezen Canyon
☐	Inshore 20m Juvenile Cod	☐	Hudson Canyon
☐	Great South Channel Juvenile Cod	☐	Hydrographer Canyon
☐	Northern Edge Juvenile Cod	☐	Jeffreys & Stellwagen
☐	Lydonia Canyon	☐	Lydonia, Gilbert & Oceanographer Canyons
☐	Norfolk Canyon (Mid-Atlantic)	☐	Norfolk Canyon (New England)
☐	Oceanographer Canyon	☐	Retriever Seamount
☐	Veatch Canyon (Mid-Atlantic)	☐	Toms, Middle Toms & Hendrickson Canyons
☐	Veatch Canyon (New England)	☐	Washington Canyon
☐	Cashes Ledge	☐	Wilmington Canyon

[9] Summer flounder HAPC is defined as all native species of macroalgae, seagrasses, and freshwater and tidal macrophytes in any size bed, as well as loose aggregations, within adult and juvenile summer flounder EFH. In locations where native species have been eliminated from an area, then exotic species are included. Use local information to determine the locations of HAPC.

9

More information

The Magnuson-Stevens Fishery Conservation and Management Act (MSA) mandates that federal agencies conduct an essential fish habitat (EFH) consultation with NOAA Fisheries on any actions they authorize, fund, or undertake that may adversely affect EFH. An **adverse effect** is any impact that reduces the quality and/or quantity of EFH. Adverse effects may include direct or indirect physical, chemical, or biological alterations of the waters or substrate and loss of, or injury to, benthic organisms, prey species and their habitat, and other ecosystem components. Adverse effects to EFH may result from actions occurring within EFH or outside of EFH and may include site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions.

We designed this worksheet to help you to prepare EFH assessments. It is important to remember that an adverse effect determination is a trigger to consult with us. It does not mean that a project cannot proceed as proposed, or that project modifications are necessary. It means that the effects of the proposed action on EFH must be evaluated to determine if there are ways to avoid, minimize, or offset adverse effects.

This worksheet should be used as your EFH assessment or as a guide to develop your EFH assessment. At a minimum, you should include all the information required to complete this worksheet in your EFH assessment. The level of detail that you provide should be commensurate with the magnitude of impacts associated with the proposed project. If your answers in the worksheet and supplemental information you attach do not fully evaluate the adverse effects to EFH, we may request additional information to complete the consultation.

You may need to prepare an expanded EFH assessment for more complex projects to fully characterize the effects of the project and the avoidance and minimization of impacts to EFH. While the EFH assessment worksheet may be used for larger projects, the format may not be sufficient to incorporate the extent of detail required, and a separate EFH assessment may be developed. However, regardless of format, you should include an analysis as outlined in this worksheet for an expanded EFH assessment, along with any additional necessary information. This additional information includes:

- the results of on-site inspections to evaluate the habitat and site-specific effects.
- the views of recognized experts on the habitat or the species that may be affected.
- a review of pertinent literature and related information.
- an analysis of alternatives that could avoid or minimize the adverse effects on EFH.

Please contact our Greater Atlantic Regional Fisheries Office, Protected Resources Division regarding potential impacts to marine mammals or threatened and endangered species.

10

Useful Links

National Wetland Inventory Maps
https://www.fws.gov/wetlands/
EPA's National Estuary Program (NEP)
https://www.epa.gov/nep/local-estuary-programs
Northeast Regional Ocean Council (NROC) Data Portal
https://www.northeastoceandata.org/
Mid-Atlantic Regional Council on the Ocean (MARCO) Data Portal
http://portal.midatlanticocean.org/

Resources by State

Maine
Maine Office of GIS Data Catalog
https://geolibrary-maine.opendata.arcgis.com/datasets#data
Town shellfish information including shellfish conservation area maps
https://www.maine.gov/dmr/shellfish-sanitation-management/programs/municipal/ordinances/towninfo.html
State of Maine Shellfish Sanitation and Management
https://www.maine.gov/dmr/shellfish-sanitation-management/index.html
Eelgrass maps
https://www.maine.gov/dmr/science-research/species/eelgrass/index.html
Casco Bay Estuary Partnership
https://www.cascobayestuary.org/
Maine GIS Stream Habitat Viewer
https://www.arcgis.com/home/item.html?id=5869c2d20f0b4c3a9742bdd8abef42cb

New Hampshire
NH's Statewide GIS Clearinghouse, NH GRANIT
http://www.granit.unh.edu/
NH Coastal Viewer
http://www.granit.unh.edu/nhcoastalviewer/
State of NH Shellfish Program
https://www.des.nh.gov/organization/divisions/water/wmb/shellfish/

Massachusetts
MA Shellfish Sanitation and Management Program
https://www.mass.gov/shellfish-sanitation-and-management
MassGIS Data, Including Eelgrass Maps
http://maps.massgis.state.ma.us/map_ol/oliver.php
MA DMF Recommended TOY Restrictions Document
https://www.mass.gov/files/documents/2016/08/ry/tr-47.pdf
Massachusetts Bays National Estuary Program
https://www.mass.gov/orgs/massachusetts-bays-national-estuary-program
Buzzards Bay National Estuary Program
http://buzzardsbay.org/
Massachusetts Division of Marine Fisheries

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https://www.mass.gov/orgs/division-of-marine-fisheries
Massachusetts Office of Coastal Zone Management
https://www.mass.gov/orgs/massachusetts-office-of-coastal-zone-management

Rhode Island
RI Shellfish and Aquaculture
http://www.dem.ri.gov/programs/fish-wildlife/marine-fisheries/shellfish-aquaculture.php
RI Shellfish Management Plan
http://www.shellfishri.com/
Eelgrass Maps
http://edc.maps.arcgis.com/apps/View/index.html?appid=db52bb689c1e44259c06e11fd24895f8
RI GIS Data
http://ridemgis.maps.arcgis.com/apps/webappviewer/index.html?id=87e104c8adb449eb9f905e5f18020de5
Narragansett Bay Estuary Program
http://nbep.org/
Rhode Island Division of Marine Fisheries
http://www.dem.ri.gov/programs/fish-wildlife/marine-fisheries/index.php
Rhode Island Coastal Resources Management Council
http://www.crmc.ri.gov/

Connecticut
CT Bureau of Aquaculture
https://www.ct.gov/doag/cwp/view.asp?a=3768&q=451508&doagNav=
CT GIS Resources
https://www.ct.gov/deep/cwp/view.asp?a=2698&q=323342&deepNav_GID=1707
Natural Shellfish Beds in CT
https://cteco.uconn.edu/viewer/index.html?viewer=aquaculture
Eelgrass Maps
https://www.fws.gov/northeast/ecologicalservices/pdf/wetlands/2012_CT_Eelgrass_Final_Report_11_26_2013.pdf
Long Island Sound Study
http://longislandsoundstudy.net/
CT GIS Resources
http://cteco.maps.arcgis.com/home/index.html
CT DEEP Office of Long Island Sound Programs and Fisheries
https://www.ct.gov/deep/site/default.asp
CT River Watershed Council
https://www.ctriver.org/

New York
Eelgrass Report
http://www.dec.ny.gov/docs/fish_marine_pdf/finalseagrassreport.pdf
Peconic Estuary Program
https://www.peconicestuary.org/
NY/NJ Harbor Estuary
https://www.hudsonriver.org/estuary-program

12

New York GIS Clearinghouse
https://gis.ny.gov/

New Jersey
Submerged Aquatic Vegetation Mapping
http://www.crssa.rutgers.edu/projects/sav/
Barnegat Bay Partnership
https://www.barnegatbaypartnership.org/
NJ GeoWeb
https://www.nj.gov/dep/gis/geowebsplash.htm
NJ DEP Shellfish Maps
https://www.nj.gov/dep/landuse/shellfish.html

Pennsylvania
Delaware River Management Plan
https://www.fishandboat.com/Fish/Fisheries/DelawareRiver/Documents/delaware_river_plan_exec_draft.pdf
PA DEP Coastal Resources Management Program
https://www.dep.pa.gov/Business/Water/Compacts%20and%20Commissions/Coastal%20Resources%20Management%20Program/Pages/default.aspx
PA DEP GIS Mapping Tools
https://www.dep.pa.gov/DataandTools/Pages/GIS.aspx

Delaware
Partnership for the Delaware Estuary
http://www.delawareestuary.org/
Center for Delaware Inland Bays
http://www.inlandbays.org/
Delaware FirstMap
http://delaware.maps.arcgis.com/home/index.html

Maryland
Submerged Aquatic Vegetation Mapping
http://web.vims.edu/bio/sav/
MERLIN
http://dnrweb.dnr.state.md.us/MERLIN/
Maryland Coastal Bays Program
https://mdcoastalbays.org/

Virginia
Submerged Aquatic Vegetation mapping
http://www.mrc.virginia.gov/regulations/Guidance_for_SAV_beds_and_restoration_final_approved_by_Commission_7-22-17.pdf
VDGIF Time of Year Restrictions (TOYR) and Other Guidance
https://www.dgif.virginia.gov/wp-content/uploads/VDGIF-Time-of-Year-Restrictions-Table.pdf

13

ENCLOSURE 1: SUPPORTING DOCUMENTATION FOR EFH ASSESSMENT

Details: project impacts and mitigation

According to NOAA's Habitat Protection Mapper, Essential Fish Habitat (EFH) has been designated for eight fish species in the vicinity of Gambo Creek at the confluence with the Potomac River: bluefish (*Pomatomus saltatrix*), summer flounder (*Paralichthys dentatus*), little skate (*Leucoraja erinacea*), Atlantic herring (*Clupea harengus*), red hake (*Urophycis chuss)*, windowpane flounder (*Scophthalmus aquosus*), winter skate (*Leucoraja ocellata*), and clearnose skate (*Raja eglanteria*). The salinity of the Potomac River in the vicinity of NSF Dahlgren ranges from approximately 4 to 8 parts per thousand (ppt). Ocean water is typically 35 ppt, and the Chesapeake Bay ranges from 25 to 30 ppt at its confluence with the Atlantic Ocean to 0.5 ppt at the head of the Bay where it meets with freshwater rivers. Of these species, the little skate, Atlantic herring, winter skate, and clearnose skate are not expected to occur in the mixing salinity zone of Gambo Creek and the Potomac River, as these species are found in high salinity zones.

As a result of construction activity associated with the Proposed Action under Alternatives 1-3, potential negligible and minor short-term impacts to marine resources could result from bridge demolition, cofferdam installation, and pile driving for the new bridge. These construction activities would likely result in short term underwater acoustic noise, increased sedimentation and turbidity, temporary alteration of the flow of Gambo Creek, and direct impacts on aquatic habitats.

The Proposed Action would temporarily affect the water quality of Gambo Creek and the downstream Potomac River. Ground-disturbing activities lead to increased sedimentation and turbidity. Increased sediments and water turbidity adversely affect aquatic life by reducing light, which is necessary for aquatic plants. Localized loss of Submerged Aquatic Vegetation (SAV) coverage reduces habitat and sometimes prey availability for the invertebrate and fish species using that area. Sediments in the water column can also smother SAV or clog fish gills. SAV has not been identified in Gambo Creek within the proposed boundaries of the project area. Construction would directly affect Gambo Creek as construction occurs, and indirectly affect downstream water bodies. These impacts would be minimized through BMPs to protect against mobilization of upland soils and creek sediment. Sediments in this area of Gambo Creek may also be contaminated; disturbance of contaminants could be adverse on aquatic life when these contaminants are ingested, resulting in toxicity or possibly bioaccumulation in the food chain. As a precaution, soil and sediment samples would be taken prior to construction to determine if contaminants are present, and the Navy would remove and dispose of contaminated soil wastes appropriately. The use of cofferdams during bridge construction would adversely affect Gambo Creek by altering the flow of the creek during construction. Cofferdams would be used as necessary for the installation of new bridge piers and would not completely block flow during construction activities. Cofferdams and construction equipment within Gambo Creek would likely loosen and introduce sandy sediments into the creek, resulting in increases in turbidity and reducing water quality. Although increases in turbidity may occur, impacts would be localized and temporary, lasting only as long as equipment and materials are used within the creek bed. After construction activity is complete, sedimentation and turbidity levels would return to pre-construction levels. Any potential impacts on SAV (e.g., reduced light for photosynthesis, direct loss during construction) would be short term and minor as SAV would be expected to recover following construction.

Pile driving would disturb sediment and cause an increase in suspended sediment in the immediate area of the project. Pile driving activities typically produce total suspended sediment (TSS) concentrations of 5 to 10 milligrams per liter (mg/L) within approximately 300 feet of the pile being driven (FHWA 2012). This sediment plume is small and is expected to settle out of the water column within a few hours.

Studies of the effects of turbid water on fish suggest that concentrations of sediment can reach thousands of mg/L before an acute toxic reaction is expected (Burton 1993). The TSS levels expected for pile driving (5 to 10 mg/L) are below those shown to have adverse effect on fish (580 mg/L for the most sensitive species, with 1,000 mg/L more typical; see summary of scientific literature in Burton 1993) and benthic communities (390 mg/L (EPA 1986)).

In terms of underwater acoustic impacts, 150 dB re 1µPa RMS (150 decibels relative to 1 micro-Pascal Root Mean Square) is the lowest level that may cause potential impacts to sturgeon species. At this level, impacts are behavioral only. According to Illingworth and Rodkin, sound attenuates approximately 3 to 5 dB per 20 meters from the source. Based on attenuation rates and the information presented above, underwater noise levels are expected to be below 150 dB RMS at distances beyond 102 meters from the pile being installed (Oestman et al. 2009)..

No long-term impacts to EFH are expected, and short-term impacts to individuals and EFH for bluefish, summer flounder, red hake, and windowpane flounder are anticipated to be negligible or minor due to the small foot print of the temporary impacts and distance from Gambo Creek Bridge to the confluence of the Potomac River. Construction impacts would be minimized through BMPs to protect against mobilization of upland soils and creek sediment.

Literature Cited

Burton, W.H. 1993. Effects of bucket dredging on water quality in the Delaware River and the potential for effects on fisheries resources. Versar, Inc., 9200 Rumsey Road, Columbia, Maryland 21045.

EPA (Environmental Protection Agency). 1986. Quality Criteria for Water. EPA 440/5-86-001.

FHWA (Federal Highway Administration). 2012. Tappan Zee Hudson River Crossing Project. Final Environmental Impact Statement. August 2012.

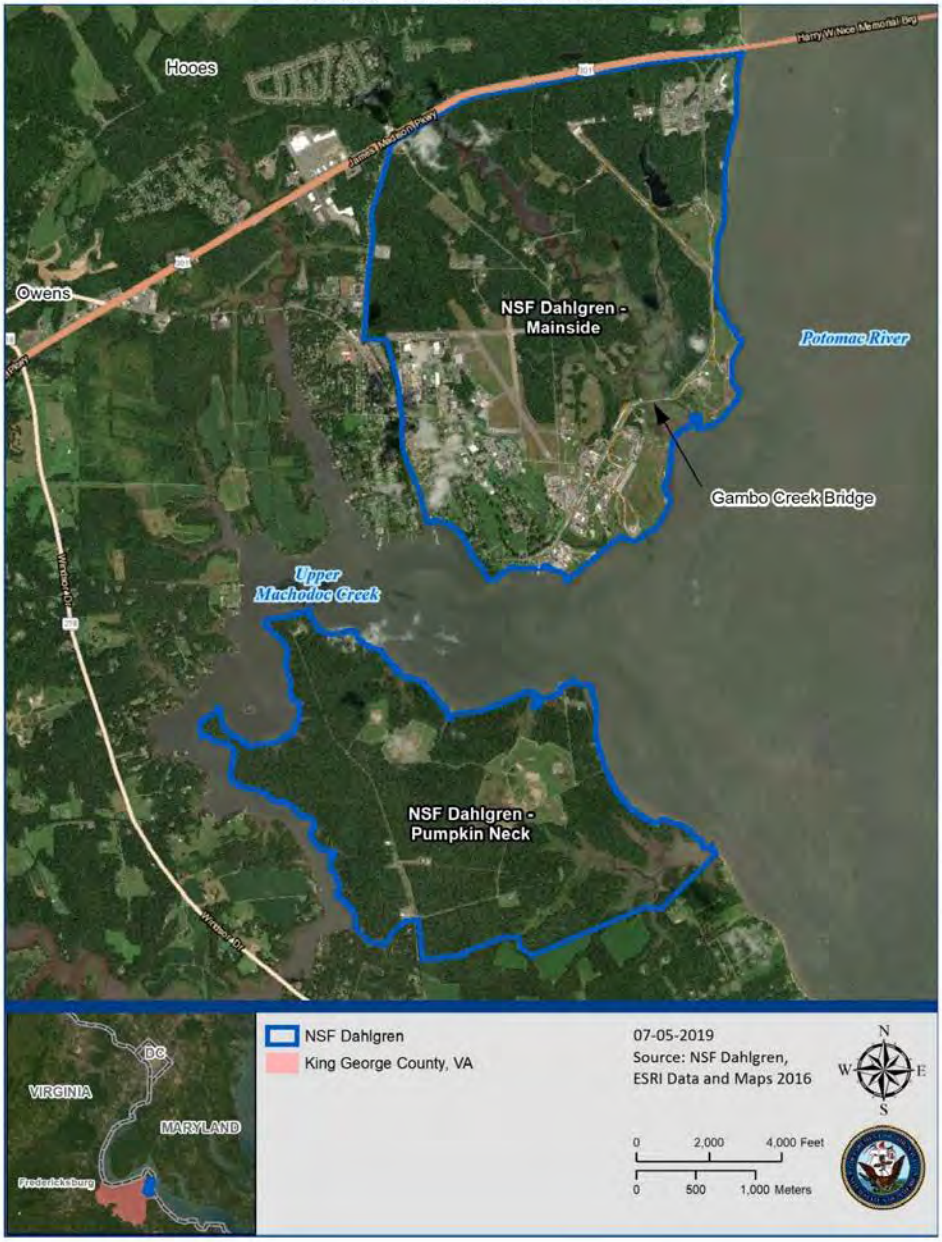
Oestman R, Buehler R, Reyff J, Rodkin R. 2009. Technical guidance for assessment and mitigation of the hydroacousitc effects of pile driving on fish. Prepared by ICF Jones & Stokes and Illingworth and Rodkin, Inc., for the California Department of Transportation.

TABLE 1 SUMMARY OF PROJECT AREA CALCUATIONS FOR ACTION ALTERNATIVES

Alternative	*Increase in Impervious Surface (SF)*	*Bridge Demolition Area (SF)*	*New Bridge Area (SF)*	*Tree Loss (SF)*	*Area of Disturbance (SF)*
Alternative 1	2,918	8,731	20,163	3,340	80,076
Alternative 2	30,037	8,731	20,095	10,787	131,335
Alternative 3	22,207	—	9,976	8,290	117,520

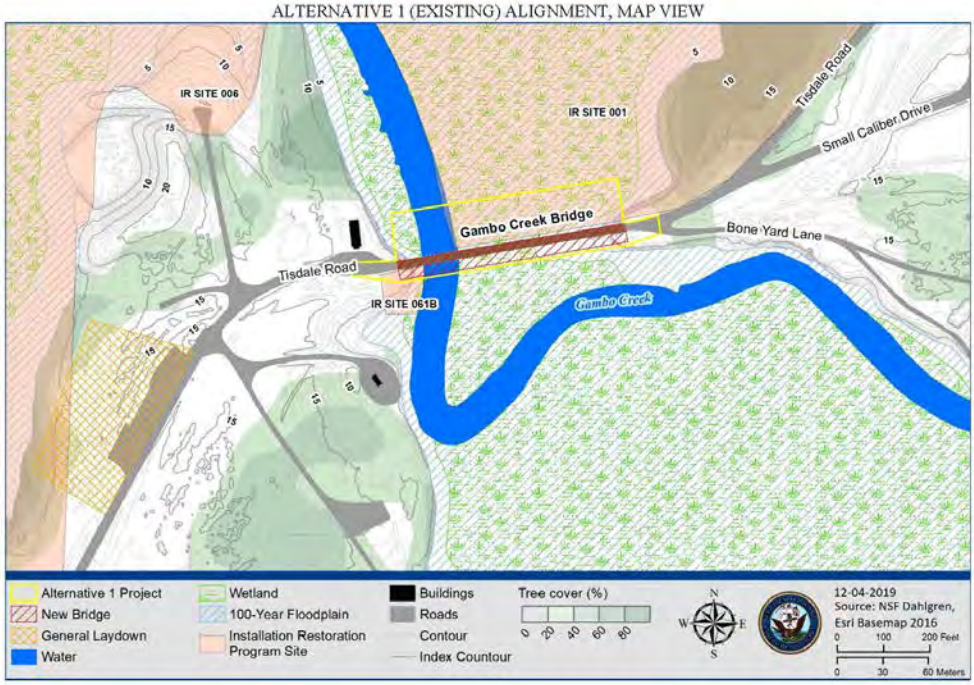
Notes: Project sizes were primarily estimated using GIS data. No design plans are available, so these numbers are approximations only.
Key: SF=square feet

EA FIGURES – NSF DAHLGREN LOCATION



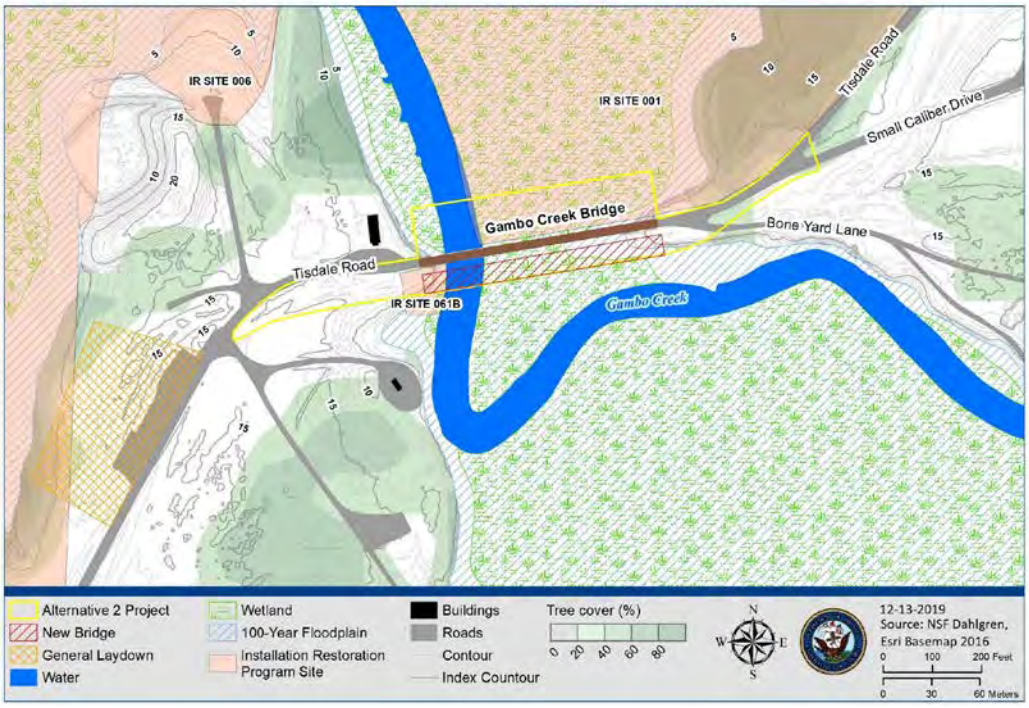
ALTERNATIVE 1 (EXISTING) ALIGNMENT, AERIAL VIEW

ALTERNATIVE 1 (EXISTING) ALIGNMENT, MAP VIEW



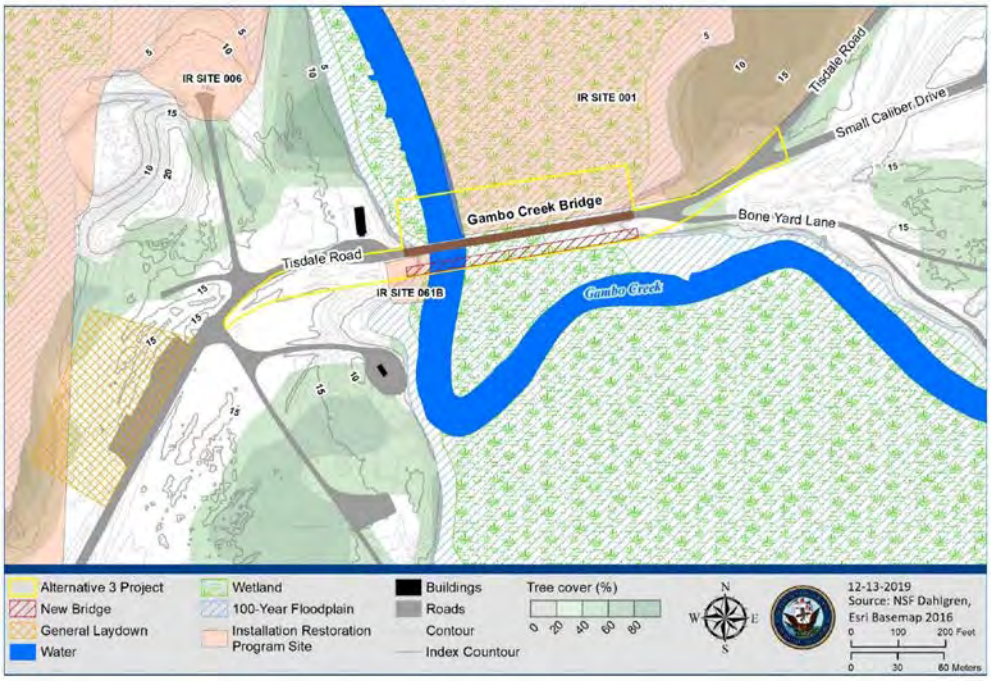
ALTERNATIVE 2 (SOUTHERN) ALIGNMENT, AERIAL VIEW

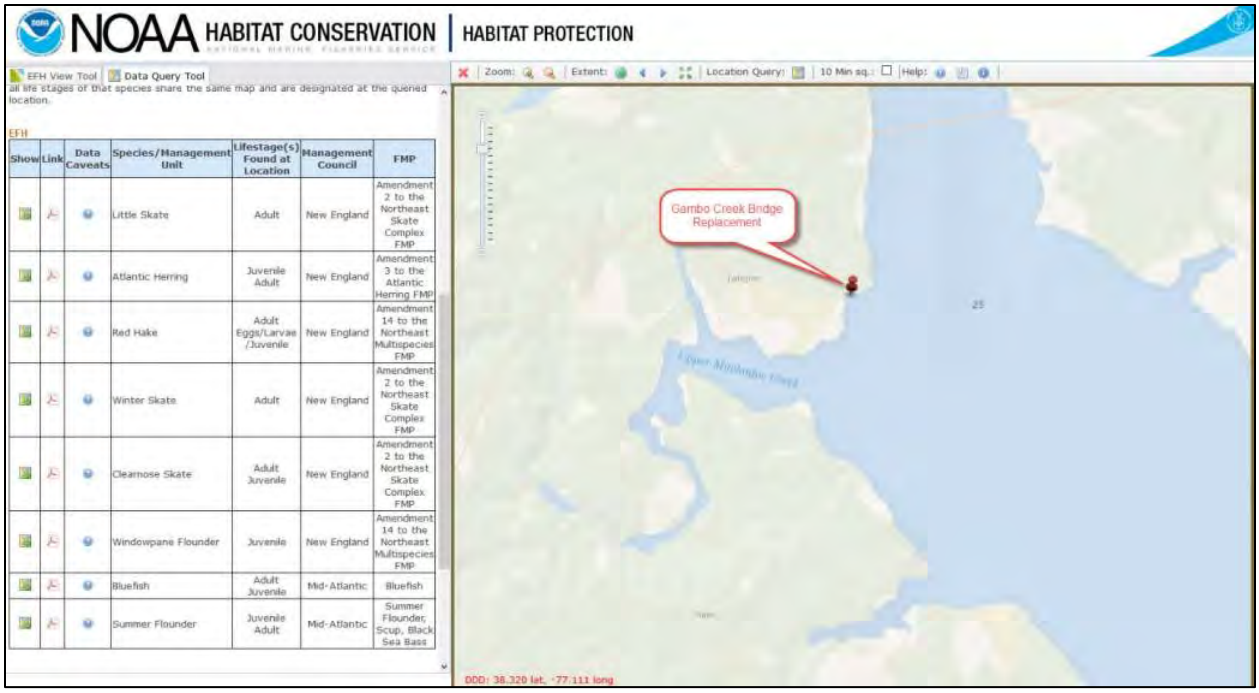
ALTERNATIVE 2 (SOUTHERN) ALIGNMENT, MAP VIEW



ALTERNATIVE 3 (PARALLEL) ALIGNMENT, AERIAL VIEW

ALTERNATIVE 3 (PARALLEL) ALIGNMENT, MAP VIEW





Show	Link	Data Caveats	Species/Management Unit	Lifestage(s) Found at Location	Management Council	FMP
			Little Skate	Adult	New England	Amendment 2 to the Northeast Skate Complex FMP
			Atlantic Herring	Juvenile Adult	New England	Amendment 3 to the Atlantic Herring FMP
			Red Hake	Adult Eggs/Larvae /Juvenile	New England	Amendment 14 to the Northeast Multispecies FMP
			Winter Skate	Adult	New England	Amendment 2 to the Northeast Skate Complex FMP
			Clearnose Skate	Adult Juvenile	New England	Amendment 2 to the Northeast Skate Complex FMP
			Windowpane Flounder	Juvenile	New England	Amendment 14 to the Northeast Multispecies FMP
			Bluefish	Adult Juvenile	Mid-Atlantic	Bluefish
			Summer Flounder	Juvenile Adult	Mid-Atlantic	Summer Flounder, Scup, Black Sea Bass

Email Correspondences from NOAA Fisheries regarding Essential Fish Habitat (March 13 and March 20, 2020)

From: David OBrien - NOAA Federal <david.l.obrien@noaa.gov>
Sent: Friday, March 13, 2020 3:41 PM
To: NAVFAC Wash NEPA <NAVFACWashNEPA@navy.mil>
Cc: Brian D Hopper - NOAA Federal <brian.d.hopper@noaa.gov>; Karen Greene <karen.greene@noaa.gov>
Subject: [Non-DoD Source] Draft EA, Gambo Creek Bridge Replacement, Dahlgren, Virginia

Hello Ms. Steele;

I have reviewed the alternatives described in your letter dated 13 February 13, 2020 regarding the proposed replacement of the Gambo Creek bridge located on Naval Support Facility Dahlgren, Virginia. Gambo Creek, a tributary to the Potomac River, is designated as essential fish habitat (EFH) for 8 federally managed species and is also designated an anadromous fish use area by the Virginia Department of Game and Inland Fisheries (DGIF).

The preferred Alternative 1 would demolish the existing bridge and then construct a wider bridge in the same alignment. The Magnuson-Stevens Fishery Conservation and Management Act (MSA), as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-267), requires all Federal agencies to consult with the National Marine Fisheries Service on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect EFH. We have additional purview regarding aquatic resources such as wetlands and anadromous fish under the Fish and Wildlife Coordination Act (FWCA), as amended in 1964. As the lead federal action agency for this project, the Navy must consult with us on the project's potential to impact EFH and/or anadromous fish. Additional information regarding the EFH consultation process can be found here:

https://www.fisheries.noaa.gov/new-england-mid-atlantic/habitat-conservation/essential-fish-habitat-assessment-consultations

Based on the means, methods and materials selected for the demolition of the existing bridge and construction of the new bridge, we may provide you with conservation recommendations during the EFH consultation process to help protect our trust resources. These recommendations may include best management practises to be employed during demolition/construction such as the use of cofferdams, turbidity curtains, vibratory vs. impact hammers, etc. as well as a potential time of year restriction on in-water construction activities between February 15 through June 30 to help protect the migration and spawning of anadromous fish in Gambo Creek and the Potomac River. Our formal review of the project, initiated through your request for EFH consultation, can be performed once you move beyond the conceptual phase of the project and can provide the information necessary for our review.

Please note these comments regarding EFH and anadromous fish do not address threatened and endangered species under the purview of NOAA Fisheries Service. Therefore, please contact Mr. Brian Hopper, NOAA Protected Resources Division (brian.d.hopper@noaa.gov, 410-267-5649) to discuss your project regarding potential impacts to federally listed shortnose and Atlantic sturgeon.

Thank you for the opportunity to review the draft EA for the Naval Support Facility Dahlgren's Gambo Creek bridge replacement project. I look forward to your request for EFH consultation in the future. Please feel free to contact me if you have any questions.

Regards,
Dave

David L. O'Brien
Fisheries Biologist
NOAA Fisheries Service
P.O. Box 1346
1370 Greate Rd.
Gloucester Point, VA 23062
804-684-7828
david.l.obrien@noaa.gov

From: David OBrien - NOAA Federal <david.l.obrien@noaa.gov>
Sent: Friday, March 20, 2020 3:46 PM
To: Wray, Travis W CIV USN (USA) travis.wray@navy.mil
Cc: Brian D Hopper - NOAA Federal <brian.d.hopper@noaa.gov>; Karen Greene <karen.greene@noaa.gov>

Subject: Re: [Non-DoD Source] Fwd: Draft EA, Gambo Creek Bridge Replacement, Dahlgren, Virginia

Hi Travis,

Yes, the location of Naval Support Facility, Dahlgren on the Potomac River is designated as EFH for 8 federally managed species. In fact, the EFH designation on the Potomac River extends up to the Woodrow Wilson Bridge, Capital Beltway in the District of Columbia. The anadromous fish use area designation for the Potomac River by the Virginia Dept.of Game and Inland Fisheries for the Potomac River extends well above DC. In addition to our Regional EFH website, our EFH mapper website can provide information useful in an EFH assessment and consultation.

https://www.habitat.noaa.gov/protection/efh/efhmapper/

Our determination on whether or not a time of year restriction protective of anadromous fish is warranted for in-water construction will depend on the means and methods of bridge demolition and construction. This includes the number, size, composition and installation method of any piles or piers to be constructed across the creek as well as the means by which the existing structure will be demolished, i.e. cut-off at mudline, vibratory extraction, jetting, explosives, etc. There are several mitigative measures that can be used during bridge construction such as the use of dewatered cofferdams, turbidity curtains, vibratory vs impact hammer, cushion blocks, ramp-up at reduced energy, etc. that can help mitigate some of the turbidity and acoustic impacts of construction.

I am happy to review the attachments you've provided early next week to determine their completeness for use in EFH consultation, but typically design/build projects require plans at least 65% complete before we have the construction details necessary to consult.

If you have any further questions we can discuss by phone next week. I am happy to call a day/time that are convenient for you.

Thanks
Dave

David L. O'Brien
Fisheries Biologist
NOAA Fisheries Service
P.O. Box 1346
1370 Greate Rd.
Gloucester Point, VA 23062
804-684-7828
david.l.obrien@noaa.gov

Letter to NOAA Fisheries regarding Listed Species (March 18, 2020)

DEPARTMENT OF THE NAVY
NAVAL SUPPORT ACTIVITY SOUTH POTOMAC
6509 SAMPSON ROAD, BLDG 101
DAHLGREN, VIRGINIA 22448

5090
Ser PRSD41TW/006
March 18, 2020

NOAA Fisheries
Greater Atlantic Regional Fisheries Office
Protected Resources Division
55 Great Republic Drive
Gloucester, MA 01930

Attn: Ms. Jennifer Anderson

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT FOR GAMBO CREEK BRIDGE REPLACEMENT AT NAVAL SUPPORT FACILITY DAHLGREN, DAHLGREN, VIRGINIA

Dear Ms. Anderson:

The Department of the Navy is preparing an Environmental Assessment (EA) in compliance with the National Environmental Policy Act (NEPA) of 1969 to evaluate the potential effects associated with the replacement and construction of the Gambo Creek bridge at Naval Support Facility Dahlgren (NSFDL). This letter is intended to initiate informal coordination with your agency for the consultation on potential impacts on federally listed threatened or endangered species. The Proposed Action would include replacing utilities (i.e., electric, water, sewer, and communications), constructing new foundation pilings, and realigning the roadway. The new utility lines may be attached to the new bridge structure or directionally bored underneath Gambo Creek.

Proposed Project

The existing bridge is a reinforced concrete structure built in 1940 as a railroad trestle for the movement of 16-inch guns mounted on flatcars. The bridge spans 493 feet and has 120 wooden piles. The proposed replacement bridge would be constructed of steel pile foundations and a prestressed concrete spread box beam structure. It will accommodate two-way traffic. Although the height of the proposed bridge is unknown at this time, it would likely be similar to the height of the existing bridge, which is 13 feet 3 inches from the bottom of concrete piers (pile caps) to the top of concrete decking (approximately 15 feet above mean sea level). The bridge would be constructed to meet American Association of State Highway and Transportation official standards. Each of the 23 piers of the existing bridge contains approximately 10 piles each. Proposed site improvements would include a bridge structure, steel piles, guardrails, concrete abutments, concrete wingwalls, and traffic control fencing and gates. Site preparation would include the excavation and the temporary shoring for abutments and piers. During construction, cofferdams would be used when work below the waterline is required. The design of and materials for the cofferdam would be chosen during the bridge design. It is likely that steel beams would be driven into the substrate; then corrugated steel or fiberglass panels would be used with a sealant to prevent water leaking through the corrugations at the fastener locations. It is assumed that cofferdams would be used to the extent necessary along portions of Gambo Creek and would not completely block or divert flow during construction activities.

The Navy is considering three action alternatives and a No Action Alternative. The total area of disturbance varies from 80,076 – 131,335 square feet depending on the alternative, with the Preferred

Action (Alternative 1) resulting in the least amount of disturbance. The existing bridge is roughly 9,500 square feet of impervious surface and is anticipated to range from 2,918 – 30,037 square feet depending on wheter the existing bridge is demolished and if a second bridge is built (Enclosure 1). Construction activities are anticipated to begin in fiscal year 2021 and commence in 2022.

The Preferred Alternative, Alternative 1, is shown in Enclosure 2 and would include the following: the existing bridge would be demolished and then rebuilt on the existing footprint. The existing pilings would be cut at the mud line and left in place rather than removing them due to the suction forces holding these pilings in place and to minimize impacts to wetlands.

Alternative 2 would include the following: the new bridge would be built to the south of the existing footprint. Once the new bridge is completed, the existing bridge would be demolished, which would leave the existing bridge operational during the majority of construction. The existing pilings would be cut at the mud line and left in place rather than removing them due to the suction forces holding these pilings in place and impacts to wetlands (Enclosure 2).

Alternative 3 would include the following: the existing bridge would not be demolished. The existing bridge would be repaired, and a parallel one-way bridge would be built to the south of the existing footprint, similar to the alignment of the bridge proposed under Alternative 2 (Enclosure 2).

The No Action Alternative would include the following: the Proposed Action would not occur. This alternative consists of continued use of the current bridge with minimal maintenance. Due to continued deterioration and resulting weight limit restrictions, emergency vehicle use would be further reduced, increasing emergency response times.

Description of the Action Area

The current bridge is over Gambo Creek near its confluence with the Potomac River (38.332471, -77.023693). The Potomac River is tidal at this location and is classified as an estuary zone. Gambo Creek, which is also tidally influenced, is bordered by extensive tidal wetlands dominated by saltmarsh cordgrass (*Spartina alterniflora*) and big cordgrass (*Spartina cynosuroides*). A site-specific wetland delineation survey has been completed. Gambo Creek runs approximately 2,020 feet from the location of the bridge to the confluence of the Potomac River. The Potomac River in the vicinity of NSFDL is brackish with salinity levels ranging between 4 and 8 parts per thousand (ppt).

NMFS Listed Species, Critical Habitat and EFH near the Action Area

Two species of fish listed under the Endangered Species Act (ESA) are believed to occur near the action area. Critical Habitat (CH) has been designated for one fish species near the action area. ESA listed species and CH designations are shown in the ESA Section 7 Mapper in Enclosure 3 and include:

Fish
Atlantic Sturgeon (*Acipenser oxyrinchus oxyrinchus*) (77 FR 5880 and 77 FR 5914)
Shortnose Sturgeon (*Acipenser brevirostrum*) (32 FR 4001; Recovery Plan: NMFS 1998)

Critical Habitat
Atlantic Sturgeon Critical Habitat (82 FR 39160)

Effects Determination

As a result of construction activity associated with the Proposed Action under Alternatives 1-3, potential negligible and minor short-term impacts to marine resources are anticipated during bridge demolition, cofferdam installation, and pile driving for the new bridge. These construction activities would likely result in increased sedimentation and turbidity thereby temporarily impacting aquatic habitats, minor alteration of the flow of Gambo Creek through the use of cofferdams, and short term underwater acoustic noise during pile driving.

Based on personal communication with Dr. Matthew Balazik, it is considered highly unlikely that Atlantic or shortnose sturgeon would enter Gambo Creek and travel the 2,020 feet to the project area due to the creek profile (approximately 70' wide and 10' deep) and lack of suitable habitat (Balazik 2020). Enclsoure 4 contains photographs of Gambo Creek, the profile from the bridge inspection report and the NOAA water depths map in the area near the mouth of Gambo Creek. Any potential impacts to this species would stem from downstream effects where Gambo Creek empties into the Potomac River.

The Proposed Action would temporarily affect the water quality of Gambo Creek though best management practices (BMP) such as turbidity curtains would be employed. Ground-disturbing activities remove the stabilizing vegetative or hardpacked top layer and lead to increased sedimentation and turbidity. Increased sediments and water turbidity adversely affect aquatic life by reducing light, necessary for aquatic plants. Localized loss of Submerged Aquatic Vegetation (SAV) coverage reduces habitat and sometimes prey availability for the invertebrate and fish species using that area. However, it is important to note that SAV has not been identified in Gambo Creek within the boundary of the project area most likely due to the muddy substrate.

Construction would directly affect Gambo Creek and downstream water bodies. These impacts would be minimized through BMP to protect against mobilization of upland soils and creek sediment. Cofferdams would be used as necessary for the installation of new bridge piers and would not completely block flow during construction activities. Cofferdams and construction equipment within Gambo Creek would likely loosen and introduce sandy sediments into the creek, resulting in increases in turbidity and reducing water quality. Although increases in turbidity may occur, impacts would be localized and temporary, lasting only as long as equipment and materials are used within the creek bed. As previously noted, BMPs such as turbidity curtains would help prevent mobilization of the sediments. Once construction is complete, sedimentation and turbidity levels would return to pre-construction levels.

Pile driving would also disturb sediment and cause an increase in suspended sediment in the immediate area of the project. Pile driving activities typically produce total suspended sediment (TSS) concentrations of 5 to 10 milligrams per liter (mg/L) within approximately 300 feet of the pile being driven (Federal Highway Administration 2012). This sediment plume is small and is expected to settle out of the water column within a few hours. The use of sediment curtains would also aid in preventing the mobilization of sediments from the location of construction.

Studies of the effects of turbid water on fish suggest that concentrations of sediment can reach thousands of mg/L before an acute toxic reaction is expected (Burton 1993). The TSS levels expected for pile driving (5 to 10 mg/L) are below those shown to have adverse effect on fish (580 mg/L for the most sensitive species, with 1,000 mg/L more typical; see summary of scientific literature in Burton 1993) and benthic communities (390 mg/L (EPA 1986)). Additionally, the life stages of sturgeon most vulnerable to increased sediment are eggs and non-mobile larvae that are subject to burial and suffocation. Sturgeon favor hard bottom substrate (e.g. rock, cobble, gravel limestone, boulder, etc) in low salinity waters (i.e. 0.0 to 0.5 ppt range) for settlement of fertilized eggs, refuge, growth and development of early life stages (NMFS 2012). However, it is not anticipated that sturgeon eggs and/or larvae would be present in the

project area since these species are unlikely to spawn in Gambo Creek due to the unfavorable substrate and salinity.

In terms of underwater acoustic impacts, 150 dB re 1µPa RMS (150 decibels relative to 1 micro-Pascal Root Mean Square) is the lowest level that may cause potential impacts to sturgeon species. At this level, impacts are behavioral only. According to Illingworth and Rodkin, sound attenuates approximately 3 to 5 dB per 20 meters from the source. Based on attenuation rates and the information presented above, underwater noise levels are expected to be below 150 dB RMS at distances beyond 102 meters from the pile being installed (Oestman et al. 2009). Additionally, the creek is surrounded by substantial wetlands, which would further attenuate sound resulting from pile driving. Since there is a low probability that sturgeon would spawn and forage in Gambo Creek and the distance to pile driving activities from the Potomac River is 2,020 feet (615 meters), no impacts are expected on either sturgeon species.

Conclusions

Based on this analysis, the impacts from the Proposed Action are expected to be insiginificant and any potential impacts would be mitigated through approved construction techniques. The Navy has determined that the Proposed Action would not adversely affect threatened and endangered species under NMFS' jurisdiction. We certify that we have used the best scientific and commercial data available to complete this analysis, therefore we request your concurrence with this determination.

Please direct all written correspondence to:

ATTN: Director, Envrionmental Program
Department of the Navy
PWD South Potomac
18329 Thompson Road, Suite 226
Dahlgren, Virginia 22448-5110

For more information please contact Mr. Travis Wray at travis.wray@navy.mil and copy Ms. Jennifer Steele at jennifer.l.steele1@navy.mil, or by telephone at (540) 653-4186 and (202) 685-8008, respectively.

Sincerely,

JEFFREY C. BOSSART
By direction

Enclosures:
1. Summary of Project Area Calculations for Action Alternatives
2. Environmental Assessment Figures
3. NOAA ESA Consultation Figure
4. Gambo Creek profile and photos

Copy to:
Ms. Jennifer Steele, NAVFAC Washington

Literature Cited

Balazik, M. 2020. Personal communication via email between M. Balazik and T. Wray on 13 January 2020 regarding the likelihood of sturgeon sepcies entering Gambo Creek at NSFDL.

Burton, W.H. 1993. Effects of bucket dredging on water quality in the Delaware River and the potential for effects on fisheries resources. Versar, Inc., 9200 Rumsey Road, Columbia, Maryland 21045.

EPA (Environmental Protection Agency). 1986. Quality Criteria for Water. EPA 440/5-86-001.

FHWA (Federal Highway Administration). 2012. Tappan Zee Hudson River Crossing Project. Final Environmental Impact Statement. August 2012.

National Marine Fisheries Service. 2012. Atlantic Sturgeon Fact Sheet. https://www.fisheries.noaa.gov/species/atlantic-sturgeon. Accessed March 2020.

Oestman R, Buehler R, Reyff J, Rodkin R. 2009. Technical guidance for assessment and mitigation of the hydroacousitc effects of pile driving on fish. Prepared by ICF Jones & Stokes and Illingworth and Rodkin, Inc., for the California Department of Transportation.

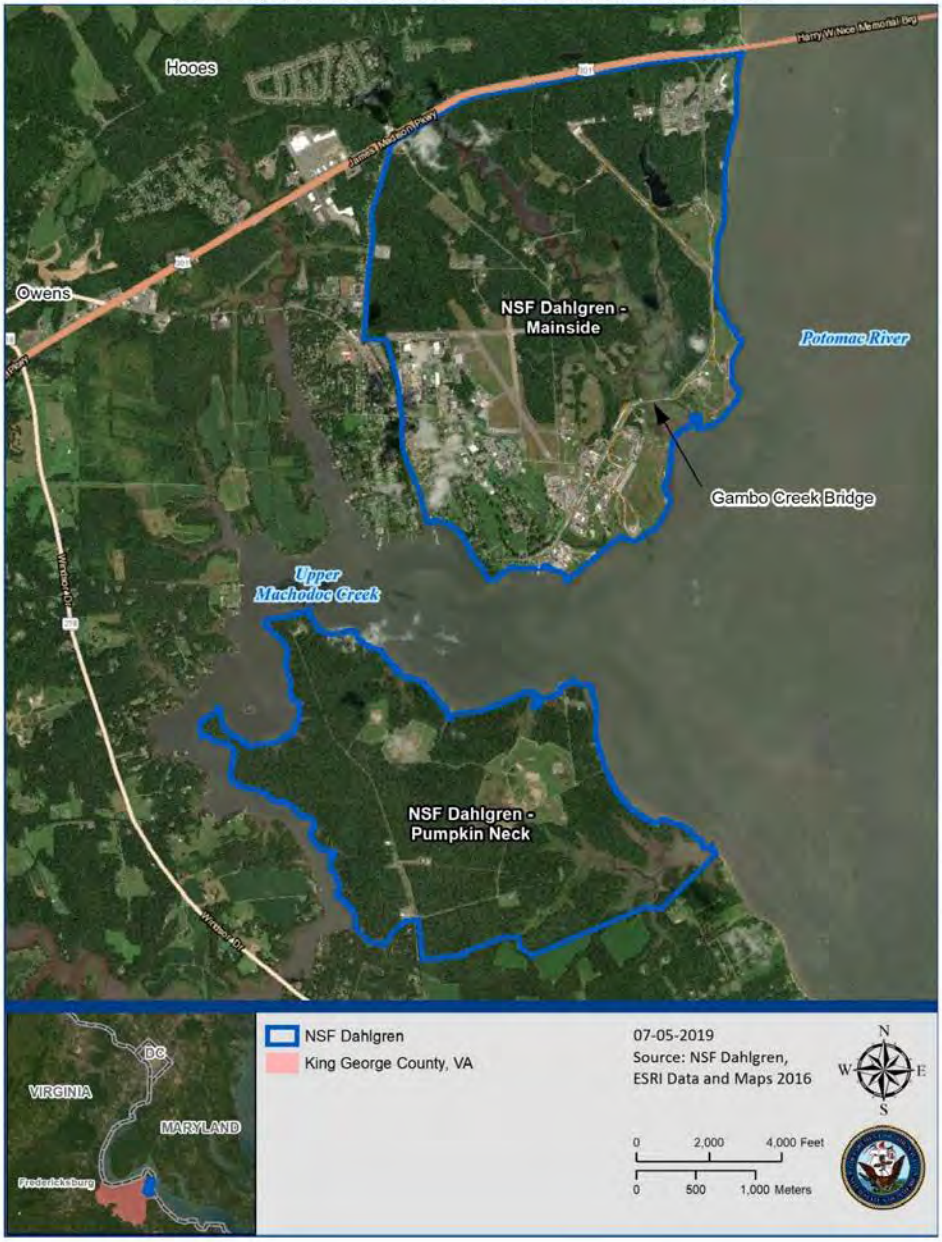
ENCLOSURE 1: TABLE 1 SUMMARY OF PROJECT AREA CALCUATIONS FOR ACTION ALTERNATIVES

Alternative	Increase in Impervious Surface (SF)	Bridge Demolition Area (SF)	New Bridge Area (SF)	Tree Loss (SF)	Area of Disturbance (SF)
Alternative 1	2,918	8,731	20,163	3,340	80,076
Alternative 2	30,037	8,731	20,095	10,787	131,335
Alternative 3	22,207	—	9,976	8,290	117,520

Notes: Project sizes were primarily estimated using GIS data. No design plans are available, so these numbers are approximations only.
Key: SF=square feet

Enclosure 1

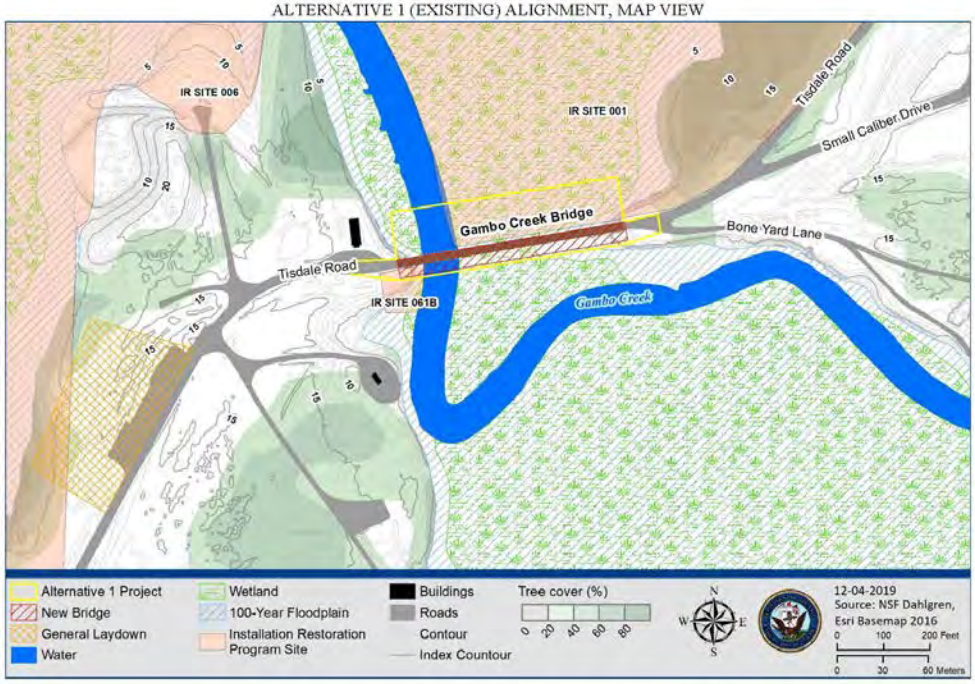
ENCLOSURE 2: EA FIGURES – NSF DAHLGREN LOCATION



Enclosure 2

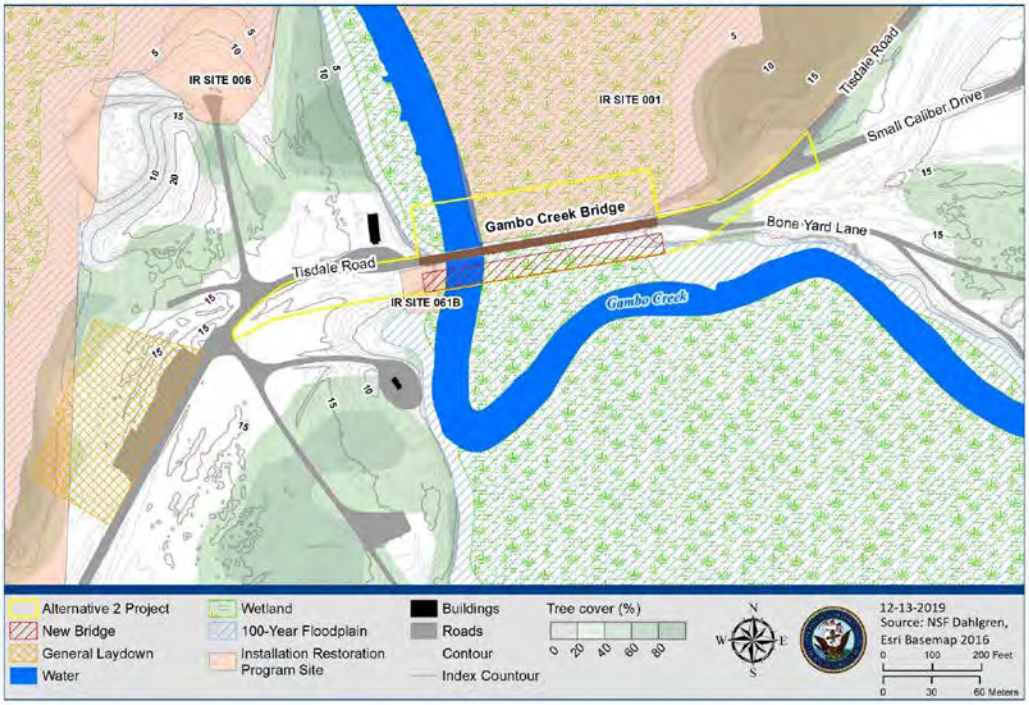
ALTERNATIVE 1 (EXISTING) ALIGNMENT, AERIAL VIEW

ALTERNATIVE 1 (EXISTING) ALIGNMENT, MAP VIEW



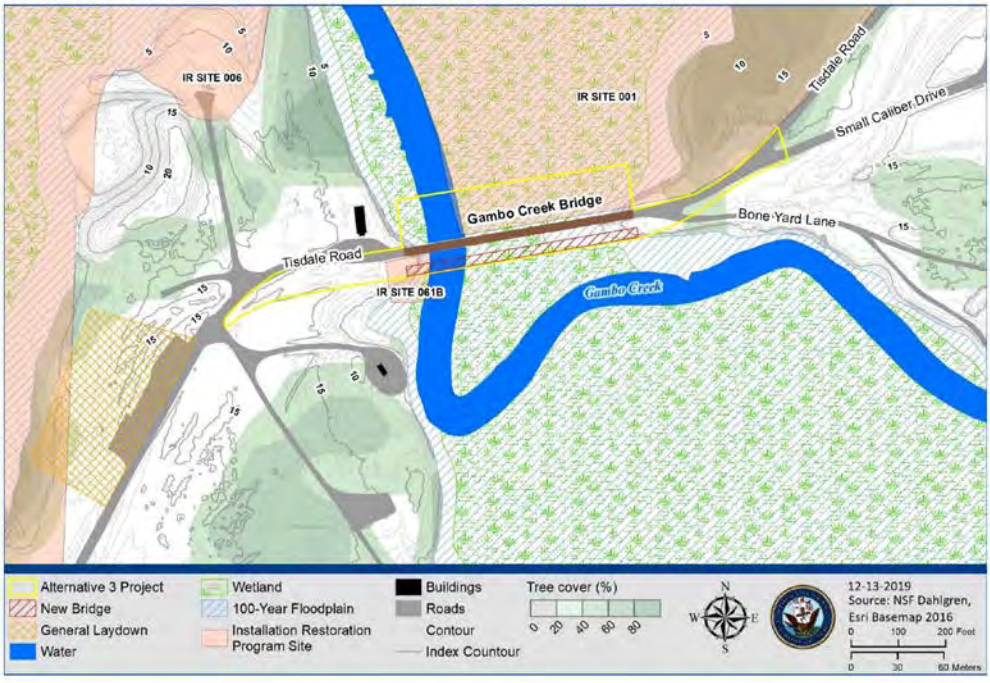
ALTERNATIVE 2 (SOUTHERN) ALIGNMENT, AERIAL VIEW

ALTERNATIVE 2 (SOUTHERN) ALIGNMENT, MAP VIEW



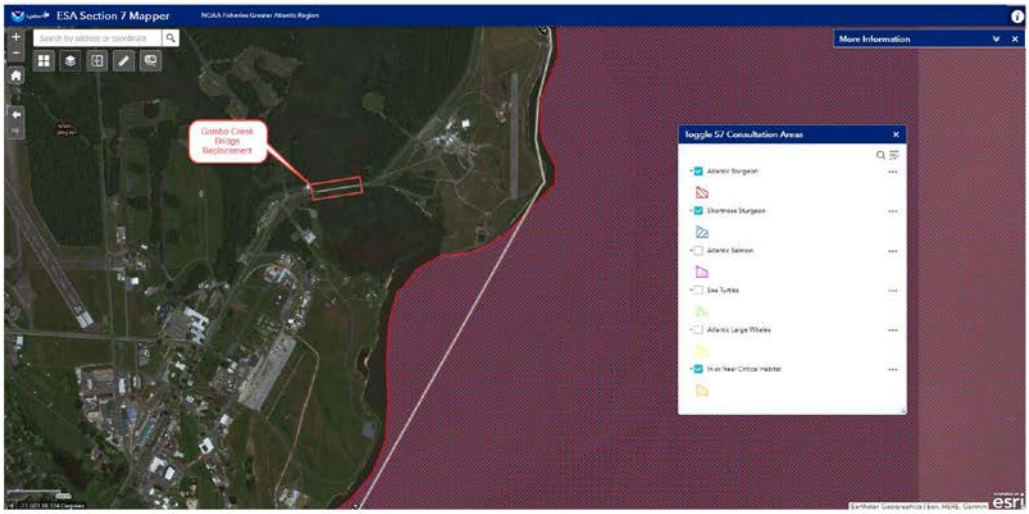
ALTERNATIVE 3 (PARALLEL) ALIGNMENT, AERIAL VIEW

ALTERNATIVE 3 (PARALLEL) ALIGNMENT, MAP VIEW



ENCLOSURE 3: NOAA ESA CONSULTATION FIGURE

ATLANTIC AND SHORTNOSE STURGEON AND CRITICAL HABITAT CONSULTATION AREAS

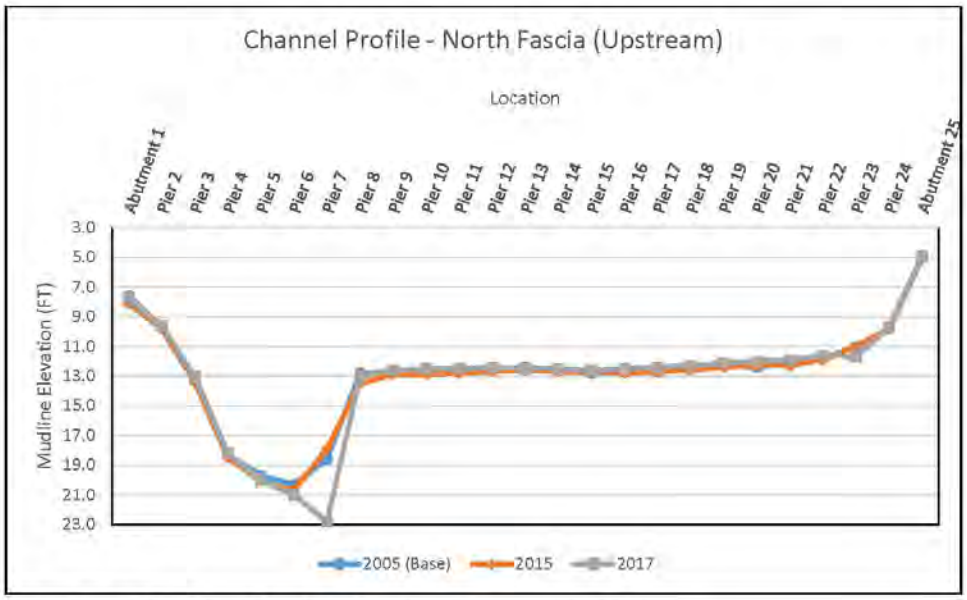


Enclosure 3

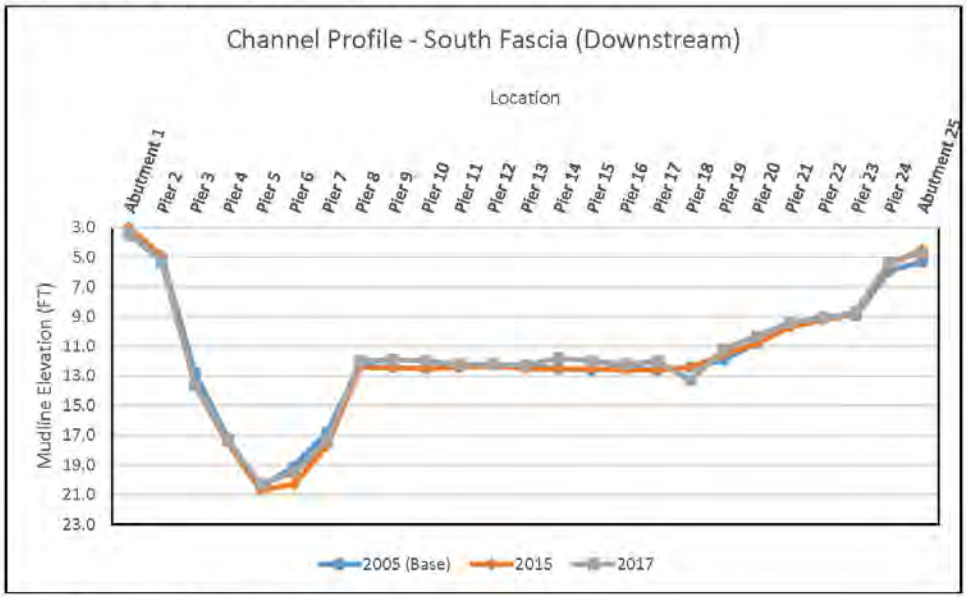
Figure 1. View of Gambo Creek Bridge and creek at low tide facing southwest

Figure 2. View of Gambo Creek Bridge and creek at low tide facing northwest

Enclosure 4



Note: Zero (0 ft) datum is located at the top of the concrete curbs.



Note: Zero (0 ft) datum is located at the top of the concrete curbs.

1-50


SOUNDINGS IN FEET
12287
UNITED STATES EAST COAST
MARYLAND - VIRGINIA
POTOMAC RIVER
DAHLGREN AND VICINITY
Location of the Gambo Creek Bridge Replacement
DAHLGREN
GAMBO CREEK
UPPER MACHODOC CREEK
POTOMAC RIVER
ROSIER CREEK
SOUNDINGS IN FEET
12287
Dahlgren and Vicinity
12287
19th Ed., Sep. 2014. Last Correction: 3/5/2016. Cleared through:
LNM: 0219 (1/8/2019), NM: 0319 (1/19/2019)

Response from NOAA Fisheries regarding Listed Species (March 20, 2020)

From: Brian D Hopper - NOAA Federal <brian.d.hopper@noaa.gov>
Sent: Friday, March 20, 2020 8:31 AM
To: Wray, Travis W CIV USN (USA) travis.wray@navy.mil
Cc: David O'Brien - NOAA Federal david.l.obrien@noaa.gov
Subject: [Non-DoD Source] Re: NOAA ESA consultation for NSF Dahlgren Gambo Creek Bridge Replacement EA

Hi Travis,

Your email and attached plans dated March 18, 2020, regarding the Navy's plan to replace the Gambo Creek Bridge at NSF Dahlgren, requested concurrence with an effects determination regarding ESA-listed species under our jurisdiction.

Although shortnose sturgeon and Atlantic sturgeon originating from five listed Distinct Population Segments (DPS) are known to occur in the Chesapeake Bay and its adjacent tributaries and rivers, based on the activities associated with the project, the location of the project, and the information you provided in your email and plans, we believe that these species will not be exposed to any direct or indirect effects of the action. Therefore, we do not believe a consultation in accordance with section 7 of the Endangered Species Act (ESA) is necessary. As such, no further coordination on this activity with the NMFS Protected Resources Division is necessary at this time. Should there be additional changes to the project plans or new information becomes available that changes the basis for this determination, further coordination should be pursued. Please contact me (410-267-5649 or brian.d.hopper@noaa.gov), should you have any questions regarding these comments.

Regards,

-Brian

--

Brian D. Hopper
Protected Resources Division
NOAA Fisheries
Greater Atlantic Regional Fisheries Office
200 Harry S Truman Parkway
Suite 460
Annapolis, MD 21401
410 267 5649
Brian.D.Hopper@noaa.gov
http://www.greateratlantic.fisheries.noaa.gov/

U.S. Army Corps of Engineers Coordination under Clean Water Act

Signed Preliminary Jurisdictional Determination (March 30, 2020)

Appendix 2 - PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PJD: 02/26/2020

B. NAME AND ADDRESS OF PERSON REQUESTING PJD:
Department of the Navy OWD South Potomac 18329 Thompson Road, Suite 226 Dahlgren, VA

C. DISTRICT OFFICE, FILE NAME, AND NUMBER:
NAO 2020-00172 Gambo Creek Bridge

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:
(USE THE TABLE BELOW TO DOCUMENT MULTIPLE AQUATIC RESOURCES AND/OR AQUATIC RESOURCES AT DIFFERENT SITES)

State: Virginia County/parish/borough: King Georç City:

Center coordinates of site (lat/long in degree decimal format): 38.332421, -77.02355

Lat.: xx.xxx° Long.: yy.yyy°

Universal Transverse Mercator:

Name of nearest waterbody: Gambo Creek

E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☑ Office (Desk) Determination. Date: 02/26/2020

☐ Field Determination. Date(s):

TABLE OF AQUATIC RESOURCES IN REVIEW AREA WHICH "MAY BE" SUBJECT TO REGULATORY JURISDICTION.

Site number	Latitude (decimal degrees)	Longitude (decimal degrees)	Estimated amount of aquatic resource in review area (acreage and linear feet, if applicable)	Type of aquatic resource (i.e., wetland vs. non-wetland waters)	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)
1	38.332421	-77.02355	2.68 acre	tidal wetlands	Section 10/404

1) The Corps of Engineers believes that there may be jurisdictional aquatic resources in the review area, and the requestor of this PJD is hereby advised of his or her option to request and obtain an approved JD (AJD) for that review area based on an informed decision after having discussed the various types of JDs and their characteristics and circumstances when they may be appropriate.
2) In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an AJD for the activity, the permit applicant is hereby made aware that: (1) the permit applicant has elected to seek a permit authorization based on a PJD, which does not make an official determination of jurisdictional aquatic resources; (2) the applicant has the option to request an AJD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an AJD could possibly result in less compensatory mitigation being required or different special conditions; (3) the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) undertaking any activity in reliance upon the subject permit authorization without requesting an AJD constitutes the applicant's acceptance of the use of the PJD; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a PJD constitutes agreement that all aquatic resources in the review area affected in any way by that activity will be treated as jurisdictional, and waives any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an AJD or a PJD, the JD will be processed as soon as practicable. Further, an AJD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331. If, during an administrative appeal, it becomes appropriate to make an official determination whether geographic jurisdiction exists over aquatic resources in the review area, or to provide an official delineation of jurisdictional aquatic resources in the review area, the Corps will provide an AJD to accomplish that result, as soon as is practicable. This PJD finds that there *"may be"* waters of the U.S. and/or that there *"may be"* navigable waters of the U.S. on the subject review area, and identifies all aquatic features in the review area that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA. Data reviewed for PJD (check all that apply)

Checked items should be included in subject file. Appropriately reference sources below where indicated for all checked items:

- [x] Maps, plans, plots or plat submitted by or on behalf of the PJD requestor: Map: Report dated Dec 2019.
- [ ] Data sheets prepared/submitted by or on behalf of the PJD requestor.
  - [ ] Office concurs with data sheets/delineation report.
  - [ ] Office does not concur with data sheets/delineation report. Rationale: _____.
- [ ] Data sheets prepared by the Corps: _____.
- [ ] Corps navigable waters' study: _____.
- [x] U.S. Geological Survey Hydrologic Atlas: 02070011
  - [ ] USGS NHD data.
  - [x] USGS 8 and 12 digit HUC maps.
- [x] U.S. Geological Survey map(s). Cite scale & quad name: Dahlgren.
- [x] Natural Resources Conservation Service Soil Survey. Citation: Fig 2-1 in report
- [x] National wetlands inventory map(s). Cite name: Fig 2-2 in report
- [ ] State/local wetland inventory map(s): _____.
- [x] FEMA/FIRM maps: Rate Map Panel 51099C0084D, effective February 10, 2015
- [ ] 100-year Floodplain Elevation is: ____. (National Geodetic Vertical Datum of 1929)
- [ ] Photographs: [ ] Aerial (Name & Date): _____. or [ ] Other (Name & Date): _____.
- [ ] Previous determination(s). File no. and date of response letter: _____.
- [x] Other information (please specify): 2020-00172

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

Regena Bronson — Digitally signed by Regena Bronson Date: 2020.02.27 07:27:58 -05'00'

Signature and date of Regulatory staff member completing PJD

BOSSART.JEFFREY.CURTIS.1229728764 — Digitally signed by BOSSART.JEFFREY.CURTIS.1229728764 DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USN, cn=BOSSART.JEFFREY.CURTIS.1229728764 Date: 2020.02.28 10:11:42 -04'00'

Signature and date of person requesting PJD (REQUIRED, unless obtaining the signature is impracticable)[1]

[1] Districts may establish timeframes for requestor to return signed PJD forms. If the requestor does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.

Tribal Coordination under Section 106 of the National Historic Preservation Act

Tribal Letter for Draft EA and Section 106 (February 13, 2020)

The following letter was distributed to all the Tribes listed beginning on page B-9.

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND WASHINGTON
1314 HARWOOD STREET SE
WASHINGTON NAVY YARD DC 20374-5018

IN REPLY REFER TO:
5090
Ser 00/030
13 February 2020

Honorable Robert Gray
Chief
Pamunkey Indian Tribe
1054 Pocahontas Trail
King William, VA 23086

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT REVIEW AND NATIONAL HISTORIC PRESERVATION ACT SECTION 106 CONSULTATION FOR GAMBO CREEK BRIDGE REPLACEMENT AT NAVAL SUPPORT ACTIVITY DAHLGREN, DAHLGREN, VIRGINIA

Dear Chief Gray:

The Department of the Navy has prepared a Draft Environmental Assessment (EA) in compliance with the National Environmental Policy Act of 1969 (NEPA) to assess the potential impacts associated with providing a replacement bridge that carries Tisdale Road traffic over Gambo Creek at Naval Support Facility (NSF) Dahlgren in the vicinity of the current Gambo Creek Bridge (#158). The existing bridge is deteriorating and does not meet current engineering standards for width and load ratings to support fire trucks and other equipment that provide critical installation services. NSF Dahlgren is in Dahlgren, Virginia, which is in King George County (see Figure 1).

The EA evaluates three action alternatives and the No Action Alternative:

- Alternative 1/Preferred Alternative—demolishing the current bridge and then constructing a wider bridge in its place (see Figure 2);
- Alternative 2—constructing a wider bridge to the south of the existing bridge and then demolishing the current bridge (see Figure 3);
- Alternative 3—constructing a bridge of similar width to the south of the existing bridge and repairing the existing bridge so each bridge provides one-way traffic (see Figure 4);
- No Action Alternative—continuing to use the existing Gambo Creek Bridge with only minimal maintenance, which would ultimately result in the bridge failing and its eventual closure.

5090
Ser 00/030
13 February 2020

The Proposed Action would also include replacing utilities, constructing new foundation pilings, and realigning the roadway, if required. The current Gambo Creek Bridge has utility lines attached to the structure that include water, sanitary sewer, power lines, and telecommunication. Under the Proposed Action, the utility lines would either be reattached to the new or repaired bridge, or the utility lines would installed underground across Gambo Creek.

All action alternatives would result in impacts on wetlands, an increase in impervious surface, unavoidable construction within the Gambo Creek floodplain, and potential impacts on cultural resources. In addition, the Gambo Creek Bridge is adjacent to several installation restoration sites.

Under Section 106 of the National Historic Preservation Act, the Department of the Navy would like to invite your organization to participate as a consulting party for this project. If you wish to participate in the Section 106 consultation process or would like to visit the project area, please notify Brian Cleven, Archaeologist, at 202-685-3174 or brian.cleven@navy.mil.

The Draft EA can be found online at: https://www.cnic.navy.mil/regions/ndw/installations/nsa_south_potomac/installations/nsf_dahlgren/om/environmental-assessment.html, and is available for a 30-day public comment period beginning February 14, 2020. Comments on the Draft EA may be submitted via email to NAVFACWashNEPA@navy.mil, or via U.S. mail, no later than 30 days from receipt of this letter, to Naval Facilities Engineering Command Washington, ATTN: Jennifer Steele, NAVFAC Washington, 1314 Harwood Street SE, Building 212, Washington Navy Yard, DC 20374.

The Department of the Navy thanks you for your interest and participation in the Draft EA review and Section 106 consultation process.

Sincerely,

THOMAS P. LEWIS
Environmental Business Line Coordinator
By direction

Enclosures: 1. Figure 1 Naval Support Facility Dahlgren Location Map
2. Figure 2 Alternative 1 (Existing) Alignment, Aerial & Map Views—Preferred Alternative
3. Figure 3 Alternative 2 (Southern) Alignment, Aerial & Map Views
4. Figure 4 Alternative 3 (Parallel) Alignment, Aerial & Map Views

Copy to: Ms. Jennifer Steele, NAVFAC Washington NEPA Project Manager

2

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Ser 00/041
13 February 2020

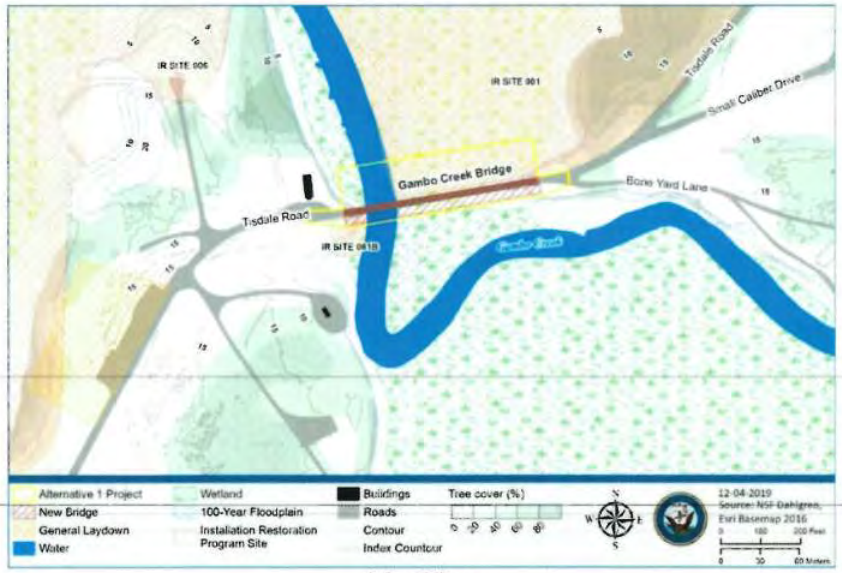
ENCLOSURE 1: FIGURE 1 NAVAL SUPPORT FACILITY DAHLGREN LOCATION MAP

3

5090
Ser 00/041
13 February 2020

ENCLOSURE 2: FIGURE 2 ALTERNATIVE 1 (EXISTING) ALIGNMENT—
PREFERRED ALTERNATIVE

Aerial View



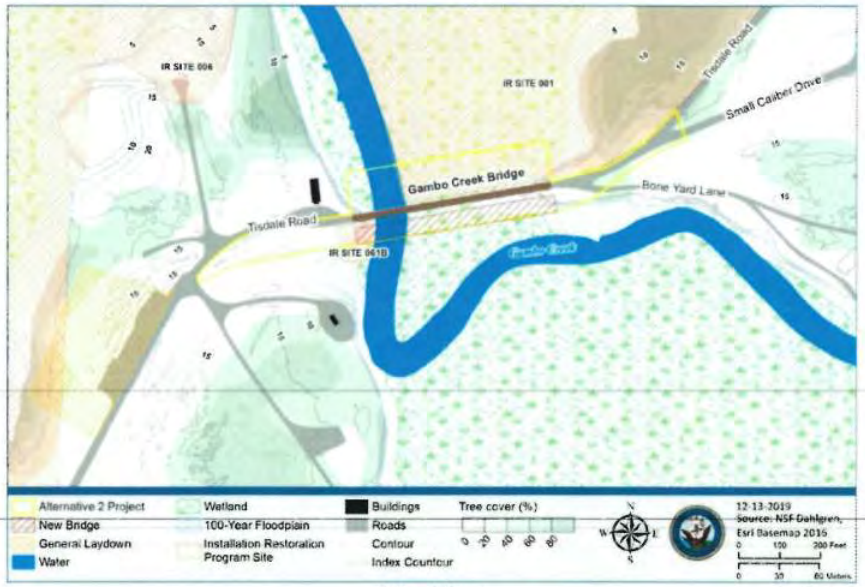
Map View

4

5090
Ser 00/041
13 February 2020

ENCLOSURE 3: FIGURE 3 ALTERNATIVE 2 (SOUTHERN) ALIGNMENT

Aerial View



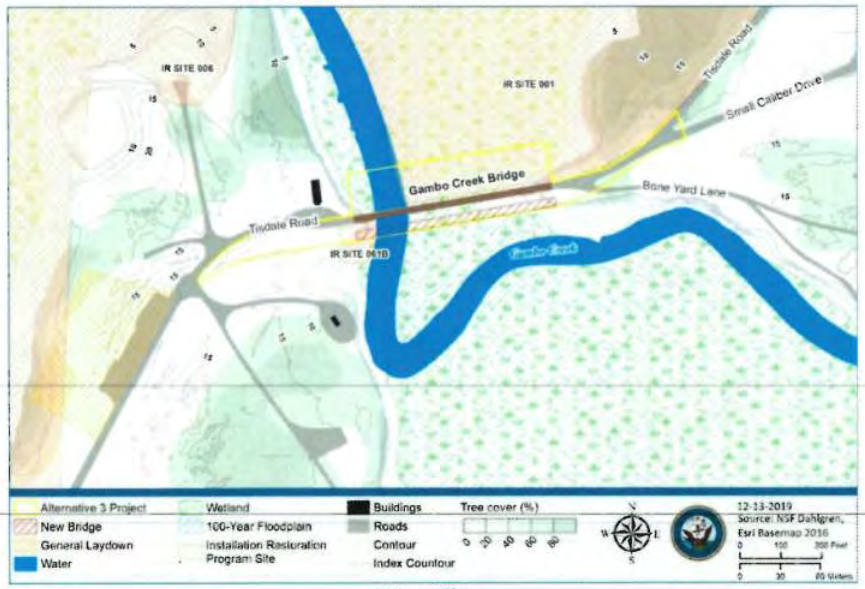
Map View

5

5090
Ser 00/041
13 February 2020

ENCLOSURE 4: FIGURE 4 ALTERNATIVE 3 (PARALLEL) ALIGNMENT

Aerial View



Map View

6

Letter from Pamunkey Indian Tribe (February 24, 2020)

PAMUNKEY INDIAN TRIBE

Terry Clouthier
Cultural Resource
Director

TRIBAL GOVERNMENT
Tribal Office

1054 Pocahontas Trail
King William, VA 23086

(804) 339-1629
FAX (866) 422-3387

THPO File Number: 2020-04

Date: 02/24/2020

Thomas P. Lewis
Environmental Business Line Coordinator
Department of the Navy
Naval Facilities Engineering Command Washington
1314 Harwood Street
Washington Navy Yard, DC 20374

RE: Draft Environmental Assessment (EA) Review and National Historic Preservation Act Section 106 Consultation for Gambo Creek Bridge Replacement at Naval Support Activity Dahlgren, Dahlgren Virginia

Dear Mr. Lewis,

Thank you for contacting the Pamunkey Indian Tribe regarding the proposed undertaking to repair or replace the bridge over Gambo Creek at Naval Support Activity Command in Dahlgren, Virginia. My office offers the following comments regarding the Section 106 portion of the undertaking.

Page 1-4: Lists that the Army Corps of Engineers (USACE), National Oceanic and Atmospheric Administration (NOAA), Virginia Department of Environmental Quality (DEQ) and Virginia Department of Historic Resources (VDHR) will be coordinated or consulted. However, only USFWS and DEQ have any correspondence within the draft EA.

Page 3-34: The last sentence lists Appendix C as the appendix for viewing correspondence and consultation. This is a typo as the draft EA correspondence and consultation is within Appendix B. Once again, the correspondence with Tribes is not within Appendix B.

It is not possible to determine if your statement that Alternative 1 would only result in "possible" impacts to cultural and historic sites. The draft EA does not contain a map depicting the location of site 44KG0157 in relation to the proposed undertaking. All of the other proposed alternatives

except the No action Alternative would definitely result in impacts yet the preferred alternative does not without any documentation to back that statement up.

Loss of a contributing resource to the Dahlgren Mainside Historic District is not "minor". This is an adverse effect which can be avoided by selecting option 3 to repair the bridge.

Should any human remains or cultural properties be inadvertently discovered, please cease all operations and contact our office immediately to reinitiate consultation for this undertaking.

Thank you for considering our cultural heritage in your decision-making process.

If you have any questions feel free to email me at terry.clouthier@pamunkey.org.

Sincerely,

Terry Clouthier

Digitally signed by Terry Clouthier
Date: 2020.02.24 14:52:10-05'00'

2

Email Correspondence with Pamunkey Indian Tribe Regarding Consulting Party Status for Gambo Creek Bridge Replacement Memorandum of Agreement (March 6 and March 9, 2020)

From: Terry Clouthier <terry.clouthier@pamunkey.org>
Sent: Monday, March 09, 2020 8:22 AM
To: Darsie, Julie C CIV USN NAVFAC WASHINGTON DC (USA) julie.darsie@navy.mil
Cc: Steele, Jennifer L CIV USN NAVFAC WASHINGTON DC (USA) <jennifer.l.steele1@navy.mil>; Cleven, Brian E CIV USN NAVFAC WASHINGTON DC (USA) brian.cleven@navy.mil
Subject: [Non-DoD Source] RE: Consulting Party Status for Dahlgren Gambo Creek Bridge Replacement

Good Morning,

Yes, my office would like to be a consulting party for this undertaking.

Sincerely,

Terry Clouthier
Pamunkey Indian Tribe
Cultural Resource Director
1054 Pocahontas Trail
King William, VA 23086

_____

From: Darsie, Julie C CIV USN NAVFAC WASHINGTON DC (USA) <julie.darsie@navy.mil>
Sent: Friday, March 6, 2020 4:54 PM
To: Terry Clouthier terry.clouthier@pamunkey.org
Cc: Steele, Jennifer L CIV USN NAVFAC WASHINGTON DC (USA) <jennifer.l.steele1@navy.mil>; Cleven, Brian E CIV USN NAVFAC WASHINGTON DC (USA) brian.cleven@navy.mil
Subject: Consulting Party Status for Dahlgren Gambo Creek Bridge Replacement

Mr. Clouthier, thank you for responding to the Environmental Assessment for the Gambo Creek Bridge Replacement at Naval Support Activity Dahlgren. At this point, we are assuming that Section 106 consultations will result in a Memorandum of Agreement that will include additional review, site protection and monitoring of Site 44KG0157 during the design and construction phases of the project. Does the Pamunkey Tribe wish to be a Consulting Party to the MOA? Thank you,

Julie Darsie
Cultural Resources Program Manager
NAVFAC Washington
202.685.1754

State Historic Preservation Office Coordination under Section 106 of the National Historic Preservation Act

Letter from Advisory Council on Historic Preservation (June 5, 2020)

June 5, 2020

Rear Admiral Carl A. Lahti
Commandant
Naval District Washington
1411 Parsons Ave SE
Suite 200
Washington Navy Yard, DC 20374-5001

Ref: *Gambo Creek Bridge Replacement Naval Support Facility Dahlgren, King George County, Virginia ACHP Project Number: 015324*

Dear Rear Admiral Lahti:

The Advisory Council on Historic Preservation (ACHP) has received your notification and supporting documentation regarding the adverse effects of the referenced undertaking on a property or properties listed or eligible for listing in the National Register of Historic Places. Based upon the information provided, we have concluded that Appendix A, *Criteria for Council Involvement in Reviewing Individual Section 106 Cases*, of our regulations, "Protection of Historic Properties" (36 CFR Part 800), does not apply to this undertaking. Accordingly, we do not believe that our participation in the consultation to resolve adverse effects is needed. However, if we receive a request for participation from the State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officer (THPO), affected Indian tribe, a consulting party, or other party, we may reconsider this decision. Additionally, should circumstances change, and it is determined that our participation is needed to conclude the consultation process, please notify us.

Pursuant to 36 CFR §800.6(b)(1)(iv), you will need to file the final Memorandum of Agreement (MOA), developed in consultation with the Virginia State Historic Preservation Office (SHPO), and any other consulting parties, and related documentation with the ACHP at the conclusion of the consultation process. The filing of the MOA, and supporting documentation with the ACHP is required in order to complete the requirements of Section 106 of the National Historic Preservation Act.

Thank you for providing us with the notification of adverse effect. If you have any questions or require further assistance, please contact Ms. Alexis Clark at 202-517-0208 or via e-mail at aclark@achp.gov.

Sincerely,

Artisha Thompson
Historic Preservation Technician
Office of Federal Agency Programs

ADVISORY COUNCIL ON HISTORIC PRESERVATION
401 F Street NW, Suite 308 • Washington, DC 20001-2637
Phone: 202-517-0200 • Fax: 202-517-6381 • achp@achp.gov • www.achp.gov

Letter from Virginia Department of Historic Resources (June 9, 2020)

COMMONWEALTH of VIRGINIA

Department of Historic Resources

Matt Strickler
Secretary of Natural Resources

2801 Kensington Avenue, Richmond, Virginia 23221

Julie V. Langan
Director

Tel: (804) 367-2323
Fax: (804) 367-2391
www.dhr.virginia.gov

9 June 2020

Mr. Jeffrey C. Bossart
Department of the Navy
PWD South Potomac
18329 Thompson Road, Suite 226
Dahlgren, Virginia 22448-5110

RE: EA and Phase I archaeological survey report for Gambo Creek Bridge Replacement
Naval Support Activity Dahlgren, Virginia
DHR File No. 2020-0087

Dear Mr. Bossart:

The Department of Historic Resources (DHR) has received for our review and comment the Environmental Assessment (EA) for the proposed replacement of the Gambo Creek Bridge at Naval Support Activity Dahlgren (NFS Dahlgren) in Virginia. The EA evaluates three action alternatives. These alternatives consist of demolition of the existing bridge and construction of a wider new one in its place (Alternative 1/Preferred Alternative), demolition of the existing bridge and construction of a wider new one south of the existing structure (Alternative 2), and repair of the existing bridge and construction of a new one of similar width south of the existing structure (Alternative 3).

The Navy previously determined the Gambo Creek Bridge (DHR Inventory No. 048-5192) and Building 469 (DHR Inventory No. 048-5162) eligible for listing in the National Register of Historic Places (NRHP) as contributing resources to the Dahlgren Mainside Historic District (DHR Inventory No. 048-0104). The DHR concurred with these determinations. Both Alternatives 1 and 2 include the demolition and replacement of the Gambo Creek Bridge, which, by definition, would have an adverse effect to the identified historic district. Alternative 3, the repair of the existing structure with construction of a new bridge adjacent, will have an effect on the Gambo Creek Bridge; however, the nature of the effect cannot be determined until more details are known as to the scope of work for the repair. If this alternative is selected the Navy will need to continue consulting with DHR on the impacts to the Gambo Creek Bridge.

Administrative Services
10 Courthouse Ave.
Petersburg, VA 23803
Tel: (804) 862-6408
Fax: (804) 862-6196

Eastern Region Office
2801 Kensington Avenue
Richmond, VA 23221
Tel: (804) 367-2323
Fax: (804) 367-2391

Western Region Office
962 Kime Lane
Salem, VA 24153
Tel: (540) 387-5443
Fax: (540) 387-5446

Northern Region Office
5357 Main Street
PO Box 519
Stephens City, VA 22655
Tel: (540) 868-7029
Fax: (540) 868-7033

We have also received for our consideration the archaeological report "A Phase I Archaeological Survey pf 1.5 Acres at Gambo Creek, Naval Support Facility Dahlgren, King George County, Virginia" (March 2020) prepared by Marstell-Day, LLC on behalf of The Department of the Navy (Navy). The DHR provides our on comments on the report to assist the Navy in meeting its responsibility under Section 106 of the National Historic Preservation Act.

The report documents an archaeological survey of 1.5 acres at NSF Dahlgren in an area west of Gambo Creek. During the course of the survey, the consultant identified one (1) new archaeological site, 44KG0243. Site 44KG0243 consists of a shell midden concentration, historic and modern artifacts, and prehistoric artifacts. Marstell-Day recommends Site 44KG0243 as not eligible for listing in the NRHP and no further work. The DHR concurs with these recommendations.

One previously identified archaeological site, 44KG0157, is located just west of the bridge, within the project area of potential effects (APE). The DHR previously found Site 44KG0157 eligible for listing in the NRHP. The Navy has applied the criteria of adverse effects and has determined that the undertaking has the potential to have an adverse effect on Site 44KG0157. The Navy proposes to develop a Memorandum of Agreement (MOA) detailing the mitigation of these effects if avoidance is not possible. However, since the Navy cannot fully determine the nature and scope of effects to Site 44KG0157 at this time since it has not selected an alternative, we believe it more appropriate to conclude a Programmatic Agreement for this undertaking rather than an MOA.

Please continue to consult with DHR on this undertaking as project development progresses. Also, at your earliest convenience please provide DHR with an archival hard copy of the archaeology report.

If you have any questions about our comments, please call me at (804) 482-6090.

Sincerely,

Marc Holma, Architectural Historian
Division of Review and Compliance

C: Ms. Mary Geil, Dahlgren
Mr. Thomas P. Lewis, NAVY

Appendix C
Air Quality Emissions Calculations

List of Air Quality Tables

Air Quality Emissions Calculations

Project Introduction

The Navy proposed to provide a bridge to carry Tisdale Road traffic over Gambo Creek at Naval Support Facility (NSF) Dahlgren. Refer to Chapters 1 and 2 of the Environmental Assessment for more detailed information pertaining to this project's purpose, need, and detailed Proposed Action, including specifics regarding the three action alternatives being considered.

For the purposes of this air quality assessment, only Alternative 2, the Southern Bridge Alignment, is quantitatively estimated as Alternative 2 is believed to be representative of the maximum project emissions based on general construction and demolition activity. While Alternative 2 and Alternative 3 include comparable project areas, Alternative 3 does not include the bridge demolition activities that are part of Alternative 2. If either Alternative 1 or Alternative 3 were selected, estimated air emissions would be expected to be comparable to but slightly less than Alternative 2. The construction activities in Table 2-1 of the EA form the basis for estimating construction equipment operations and fugitive dust. Construction activities could begin in fiscal year 2021 and are anticipated to last approximately two years.

Once construction is complete, long-term operations from the new bridge would be comparable to existing conditions. The proposed bridge would have no new or modified operational air sources. No long-term changes in air emissions would occur.

King George County, Virginia, within which NSF Dahlgren is located, is in attainment for all criteria pollutants (USEPA, 2019). Therefore, an applicability analysis for a General Conformity Determination pursuant to the Clean Air Act is not required for this project.

Construction Emissions

Emissions resulting from the Proposed Action were estimated based on the expected number, type, and duration of construction operations to complete the Proposed Action. Construction emissions would result from the operation of heavy equipment, delivery trucks, and construction workers. The project would require a mix of construction equipment that would vary as the construction activity progresses. To estimate emissions, methodologies were used based on the kind of equipment (which all have varying rates of criteria pollutant emissions, referred to as emissions factors), and either the average time to complete the work or the average distance traveled. Nonroad emissions are those from the construction equipment operating immediately at the project site (including tractors, loaders, backhoes, graders, dozers, forklifts, cranes, rollers, trenchers, and portable generators). Onroad emissions are those that come to and leave the site via the road network on a more frequent basis (including heavy delivery trucks, concrete trucks, dump trucks, and passenger trucks from construction workers).

Nonroad Emissions from Construction Equipment

Conservative construction equipment assumptions were developed based on review of other projects. Emissions factors for nonroad equipment (fleet year 2021) were estimated using composite emissions factors. Table C-1 and Table C-2 contain the emissions factors and operating hours assumptions and the total estimated emissions for nonroad construction equipment, respectively.

Table C-1 Nonroad Construction Equipment Emissions Factors and Operating Hours Assumptions (Fleet Year 2021)

Equipment Description	*Total Operating Hours*	*NO_X (lb/hr)*	*ROG (lb/hr)*	*CO (lb/hr)*	*SO_x (lb/hr)*	*PM (lb/hr)*
Site Preparation						
Tractors/Loaders/Backhoes Composite	672	0.251	0.041	0.361	0.001	0.011
Graders Composite	672	0.521	0.086	0.575	0.001	0.025
Rubber Tired Dozers Composite	672	1.466	0.202	0.766	0.002	0.058
Demolition						
Rubber Tired Dozers Composite	672	1.466	0.202	0.766	0.002	0.058
Excavators Composite	672	0.358	0.069	0.511	0.001	0.016
Tractors/Loaders/Backhoes Composite	672	0.251	0.041	0.361	0.001	0.011
Forklifts Composite	672	0.146	0.029	0.215	0.001	0.006
Construction						
Tractors/Loaders/Backhoes Composite	2,520	0.251	0.041	0.361	0.001	0.011
Forklifts Composite	2,520	0.146	0.029	0.215	0.001	0.006
Cranes Composite	5,040	0.603	0.085	0.387	0.001	0.023
Generator Sets Composite	2,520	0.298	0.036	0.271	0.001	0.013
Miscellaneous						
Rollers Composite	336	0.348	0.054	0.382	0.001	0.021
Paving Equipment Composite	336	0.446	0.071	0.406	0.001	0.029
Trencher Composite	168	0.433	0.087	0.423	0.001	0.031
Other Construction Equipment Composite	168	0.312	0.053	0.350	0.001	0.012

Source: SCAQMD, 2018.

Key: NO_x = nitrogen oxides; ROG = reactive organic gases (= volatile organic compounds); CO = carbon monoxide; SO_x = sulfur oxides; PM = particulate matter; lb = pounds; hr = hour.

Note: Particulate matter is estimated to be 10 micrometers with 92 percent of that fraction being less than 2.5 micrometers in diameter.

Table C-2 Construction: Total Estimated Emissions from Nonroad Equipment

Activity	*NO_X*	*VOC*	*CO*	*SO_2*	*PM_{10}*	*$PM_{2.5}$*
Total Nonroad Construction Emissions (tons)	4.1	0.6	3.5	0.01	0.2	0.2

Source: SCAQMD, 2018.

Key: NO_x = nitrogen oxides; VOC = volatile organic compounds; CO = carbon monoxide; SO_2 = sulfur dioxide; PM_{10} = suspended particulate matter less than or equal to 10 micrometers in diameter; $PM_{2.5}$ = fine particulate matter less than or equal to 2.5 micrometers in diameter.

Notes:

[1] Emissions (tons) = emissions factor (pounds/hour) × total hours operated × 1 ton/2,000 pounds, *for each kind of equipment*.

Example: Nonroad NO_x emissions = [(672 hr × 0.251 lb/hr) + (672 hr × 0.521 lb/hr) + (672 hr × 1.466 lb/hr) + (672 hr × 1.466 lb/hr) + (672 hr × 0.358 lb/hr) + (672 hr × 0.251 lb/hr) + (672 hr × 0.146 lb/hr) + (2,520 hr × 0.251 lb/hr) + (2,520 hr × 0.146 lb/hr) + (5,040 hr × 0.603 lb/hr) + (2,520 hr × 0.298 lb/hr) + (336 hr × 0.348 lb/hr) + (336 hr × 0.446 lb/hr) + (168 hr × 0.433 lb/hr) + (168 hr × 0.312 lb/hr)] × 1 ton/2,000 lb = 4.1 tons NO_x.

[2] For $PM_{2.5}$, the emissions factor was multiplied by 0.92 to obtain the $PM_{2.5}$ fraction of total particulate matter.

Onroad Emissions from Construction Equipment

Conservative construction equipment assumptions were developed based on a review of other projects. Emissions factors for onroad equipment (2021 fleet year) were estimated using composite emissions factors. Table C-3 and Table C-4 show the emissions factors and vehicle miles traveled assumptions and the total estimated emissions for onroad construction equipment, respectively.

Fugitive Dust Emissions

Fugitive dust occurs directly from vehicles disturbing and suspending particulate matter while operating on unpaved surfaces, or from soil stockpiles on an active construction site; it also occurs indirectly from dust and dirt being brought onto paved surfaces from nonroad construction operations, and then disturbed and suspended as onroad vehicles drive over it. A conservative empirical estimate for fugitive dust was used for this analysis; actual fugitive dust emissions would likely be lower as they are directly proportional to the amount of activity that is being worked. Higher activity days have greater potential for generating fugitive dust than lower activity days that do not involve equipment actively disturbing the site; this analysis assumes that 50 percent of the site would be uncovered and worked at any given time during construction. Fugitive dust controls would be implemented; this analysis assumes an 80 percent fugitive dust control efficiency. See estimates and notes in Table C-5.

Results and Conclusion

Total estimated construction emissions from Alternative B are shown in Table C-6, compared with King George County's emissions. The total short-term construction emissions represent minor increases (less than one percent for each criteria pollutant) in regional air emissions, which is overly conservative as the construction emissions would occur over two years. No significant impacts on air quality would occur.

Table C-3 Onroad Construction Equipment Emissions Factors and Vehicle Miles Traveled Assumptions (Fleet Year 2021)

Equipment Description	*VMT*	*NO_X (lb/mi)*	*ROG (lb/mi)*	*CO (lb/mi)*	*SO_x (lb/mi)*	*PM_{10} (lb/mi)*	*$PM_{2.5}$ (lb/mi)*
Site Preparation, Construction Materials Delivery, Construction & Demolition Waste Removal: Heavy-Duty Diesel Truck (33,001+ lb) [1]	554,400	0.0118	0.001	0.005	0.00004	0.0006	0.0005
Passenger Vehicles, Gasoline [2]	64,890	0.0004	0.0005	0.0040	0.00001	0.0001	0.0001

Sources: SCAQMD, 2008a, 2008b.

Key: NO_x = nitrogen oxides; ROG = reactive organic gases (=volatile organic compounds); CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = particulate matter less than 10 micrometers in diameter; $PM_{2.5}$ = particulate matter less than 2.5 micrometers in diameter; VMT = vehicle miles traveled; lb = pounds; mi = mile.

Notes:

[1] VMT = 20 trucks per day × 50 miles per day × 504 days of construction (this is a conservative approximation).

[2] VMT = 4 workers per day × 30 miles per day × 504 days of construction.

Table C-4 Construction: Total Estimated Emissions from Onroad Equipment

Activity	*NO_X*	*VOC*	*CO*	*SO_2*	*PM_{10}*	*$PM_{2.5}$*
Total Onroad Construction Emissions (tons)	3.3	0.29	1.5	0.011	0.17	0.14

Sources: SCAQMD, 2008a, 2008b.

Key: NO_x = nitrogen oxides; VOC = volatile organic compounds; CO = carbon monoxide; SO_2 = sulfur dioxide; PM_{10} = suspended particulate matter less than or equal to 10 micrometers in diameter.$PM_{2.5}$ = fine particulate matter less than or equal to 2.5 micrometers in diameter.

Notes: Emissions (tons) = emissions factor (pounds/hour) × total vehicle miles traveled × 1 ton/2,000 pounds, *for each kind of equipment*.

Example: Onroad NO_x emissions = [(554,400 mi × 0.0118 lb/mi) + (64,890 mi × 0.0004 lb/mi)] × 1 ton/2,000 lb = 3.28 tons NO_x.

Table C-5 Construction: Emissions from Fugitive Dust Emissions

Activity	*PM_{10}*	*$PM_{2.5}$*
Emissions factor (tons particulate matter/acre/month)	1.2	1.2
Fractional contents of particulate matter by size [1]	59.4%	21.2%
Total Emissions (tons) [2]	**5.95**	**1.26**

Sources: USEPA, 1996; SCAQMD, 2006.

Key: PM_{10} = suspended particulate matter less than or equal to 10 micrometers in diameter; $PM_{2.5}$ = fine particulate matter less than or equal to 2.5 micrometers in diameter.

Notes:

[1] PM_{10} is assumed to be 59.4 percent of total particulate emissions, and $PM_{2.5}$ is assumed to be 21.2 percent of PM_{10}.

[2] Construction Emissions PM_{10} (tons) = 1.2 tons/acre/month × 0.594 × 2.03 acres × 25 months × (1 - 0.8); Construction Emissions $PM_{2.5}$ (tons) = PM_{10} emissions in tons × 0.212.

Table C-6 Summary of Maximum Criteria Pollutant Emissions

Activity	*NO_x*	*VOC*	*CO*	*SO_2*	*PM_{10}*	*$PM_{2.5}$*
Maximum Estimated Emissions, Alternative 2 (total)	**7.4**	**0.9**	**5.0**	**0.02**	**6.3**	**1.6**
Construction Phase: Nonroad (tons)	*4.1*	*0.6*	*3.5*	*0.010*	*0.2*	*0.2*
Construction Phase: Onroad (tons)	*3.3*	*0.3*	*1.5*	*0.011*	*0.2*	*0.1*
Construction Phase: Fugitive Dust (tons)	—	—	—	—	*5.9*	*1.3*
Regional Emissions Inventory (Fiscal Year 2017, tons)	**1,273**	**5,455**	**4,830**	**158**	**1,512**	**305**
Maximum Emissions as a Percentage of Regional Air Emissions	**0.6%**	**0.02%**	**0.1%**	**0.01%**	**0.4%**	**0.5%**

Key: VOC = volatile organic compound; CO = carbon monoxide; NO_x = nitrogen oxides; SO_2 = sulfur dioxide; PM_{10} = suspended particulate matter less than or equal to 10 micrometers in diameter; $PM_{2.5}$ = fine particulate matter less than or equal to 2.5 micrometers in diameter; tpy = tons per year.
Note: Emissions may not total precisely due to rounding.

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Appendix D
Programmatic Agreement

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Naval District Washington Agreement No. N00171-20201021-4311

**PROGRAMMATIC AGREEMENT
BETWEEN NAVAL DISTRICT WASHINGTON
AND THE
VIRGINIA STATE HISTORIC PRESERVATION OFFICER REGARDING THE
REPLACEMENT OF GAMBO CREEK BRIDGE
ALONG TISDALE ROAD AT NAVAL SUPPORT FACILITY DAHLGREN,
DAHLGREN, VIRGINIA**

WHEREAS, the Commandant, Naval District Washington (hereinafter the "Navy") plans to carry out improvements to the Gambo Creek Bridge along Tisdale Road at Naval Support Facility (NSF) Dahlgren in Dahlgren, Virginia, to address structural deficiencies of the bridge causing it to no longer meet engineering standards for width and load ratings to support fire trucks and other equipment that provide critical installation services (hereinafter the "Undertaking"; Department of Historic Resources [hereinafter the "DHR"] Project Review No. 2020-0087); and

WHEREAS, the Navy is considering three (3) alternatives to address the purpose and need of the Undertaking, which may include: demolition and replacement of the Gambo Creek Bridge (Alternative 1 [Preferred] and Alternative 2) and rehabilitation of the bridge with construction of a new structure with similar width south of the existing bridge with each providing one-way traffic (Alternative 3); and

WHEREAS, the three (3) proposed alternatives are described in the "Draft Environmental Assessment for the Gambo Creek Bridge Replacement at Naval Support Facility Dahlgren, Dahlgren, Virginia" (February 2020; hereinafter the "Draft EA"); and

WHEREAS, since the Navy has not selected a final alternative for the Undertaking and, therefore, effects to historic properties listed in or eligible for listing in the National Register of Historic Places (hereinafter the "NRHP") cannot be fully known at this time, the Navy has decided to enter into a Programmatic Agreement (hereinafter the "PA") with the Virginia State Historic Preservation Officer (hereinafter the "SHPO"), which in Virginia is DHR, in order to meet its responsibilities under Section 106 of the National Historic Preservation Act, 54 United States Code (USC) § 306108, and its implementing regulations at 36 Code of Federal Regulations (CFR) § 800; and

WHEREAS, the Navy has defined the Undertaking's Area of Potential Effects (hereinafter the "APE") for archaeological resources as the area of ground disturbance, and for built resources as four hundred (400) feet to the north and south of the Gambo Creek Bridge, as shown in Attachment A; and

WHEREAS, the Navy has determined, in consultation with the SHPO, that the Gambo Creek Bridge (DHR Identification No. 048-5192) is a contributing resource to the Mainside Historic District at NSF Dahlgren, a property eligible for listing in the NRHP, and that Site 44KG0157, a Late Archaic to Early Woodland period shell midden site, is eligible for listing in the NRHP; and

WHEREAS, the Navy has determined, in consultation with the SHPO and other Consulting Party, that the alternatives for the Undertaking under consideration in the Draft EA have the potential to have adverse effects on Gambo Creek Bridge and Site 44KG0157; and

WHEREAS, the Navy has notified the Delaware Nation, the Delaware Tribe of Indians, the Chickahominy Indian Tribe, the Chickahominy Indians Eastern Division, the Upper Mattaponi Indian Tribe, the Rappahannock Tribe Cultural Center, the Monacan Indian Nation, the Nansemond Indian Tribal Association, and the Pamunkey Indian Tribe of the effect of the Undertaking on cultural resources, and has invited them to participate in the development of this PA as Consulting Parties, and has received a reply only from the Pamunkey Indian Tribe, which has chosen to be a Consulting Party but not to sign the PA; and

WHEREAS, the Navy has notified the Advisory Council on Historic Preservation (hereinafter the "ACHP") of the potential for the Undertaking to have adverse effects to historic properties and has provided the ACHP an opportunity to participate in consultation on the PA with specified documentation, and the ACHP has chosen not to participate in the consultation pursuant to 36 CFR § 800.6(a)(1)(iii); and

WHEREAS, the Navy has notified King George County (hereinafter the "County") of the Undertaking and its effect on cultural resources, and has invited the County to participate in the consultation, and the County has not responded; and

WHEREAS, the Navy, in accordance with 36 CFR 800.2(d), informed the public of the Undertaking by soliciting the public's views on the Undertaking's effects on historic properties through a thirty (30)-day public comment period as part of the National Environmental Policy Act (hereinafter the "NEPA") process from 14 February 2020 to 15 March 2020, and no comments regarding the effects on historic resources were received; and

WHEREAS, the Navy and SHPO agree to execute this PA in counterparts with a separate signature page for each Signatory, and the exchange of copies of this PA and of signature pages by facsimile or by electronic transmission shall constitute effective execution and delivery of this PA to the parties and may be used in lieu of the original PA for all purposes. Signatures of the parties transmitted by facsimile or electronic transmission shall be deemed to be their original signatures for all purposes; and

WHEREAS, implementation and fulfillment of the actions described in the Stipulations in this PA are wholly and entirely contingent upon the approval and execution of the Undertaking and upon the Navy's receipt of project funding.

NOW, THEREFORE, the Navy and the SHPO agree that the Undertaking shall be implemented in accordance with the following stipulations in order to take into account the effect of the undertaking on historic properties.

STIPULATIONS

The Navy shall ensure that the following measures are carried out:

I. AVOIDANCE

The Navy will first seek to avoid adverse effects to any previously identified archaeological sites and will seek to minimize adverse effects if avoidance is not possible.

A. The Navy shall ensure that an archaeologist who meets the *Secretary of the Interior's Professional Qualifications Standards for Archaeology* (48 FR 44738–44739, 28 September 1983) conducts a supplemental archaeological survey to delineate the boundaries of the site and assess the current integrity of 44KG0157 within the APE. Prior to beginning the survey, the Navy will file a research plan with the SHPO and Consulting Party. The SHPO and Consulting Party will provide written comments to the Navy about the research plan within thirty (30) calendar days of receipt. The supplemental survey will be consistent with the SHPO's *Guidelines for Conducting Historic Resources Survey in Virginia* (2017), and a report will be submitted to the SHPO and Consulting Party for review and comment. The SHPO and Consulting Party will provide written comments to the Navy within thirty (30) calendar days of receipt of the report.

B. After delineating the boundaries of Site 44KG0157, the Navy shall submit to the SHPO and Consulting Party electronic copies of the 35%, 65%, and 95% designs for the Undertaking, including all grading, cut and fill, the updated boundaries of 44KG0157, and any areas of 44KG0157 marked for avoidance. The SHPO and Consulting Party shall provide written comments to the Navy within thirty (30) calendar days of receipt of submission. The Navy shall take into account and incorporate the comments into the Undertaking to the maximum extent possible. The Navy shall provide a comments response matrix to the SHPO and Consulting Party within fourteen (14) calendar days of receipt of the last comments for each submission. Comments on the 95% designs will be minor corrections only.

C. Should substantial changes to the design occur after the SHPO and Consulting Party provide comments on the 95% submissions, including changes during construction due to unanticipated conditions, Navy shall notify the SHPO and Consulting Party as expeditiously as possible, provide documentation to illustrate the proposed changes and provide an additional opportunity to review and comment prior to implementation of any such changes.

D. The Navy shall ensure that prior to the start of ground-disturbing activities, a qualified archaeologist installs temporary fencing or other protective barriers around the perimeter of any intact portions of 44KG0157 within the APE that have been marked for avoidance. The portions of 44KG0157 that have not been subjected to supplemental investigations and may extend outside of the APE shall also be protected with temporary fencing or other protective barriers. The area(s) shall be marked *Restricted Area Do Not Enter*. The fencing shall remain in place through commissioning of the new Gambo Creek Bridge. The Navy shall visit the site monthly to verify that the fencing remains in place and shall include the

status of the fencing in the annual summary report described in Stipulation VII. Monitoring and Reporting.

E. During construction, an archaeologist meeting the Secretary of the Interior's *Professional Qualifications Standards* shall remain on-site to monitor all ground-disturbing activities. The archaeologist will have the authority to halt construction if archaeological resources are identified during ground-disturbing activities as described in Stipulation IV [Unanticipated Discoveries].

II. ARCHAEOLOGICAL DATA RECOVERY OF SITE 44KG0157

If adverse effects to 44KG0157 cannot be avoided through planning after delineation and assessment, the Navy shall ensure that the following measures are carried out:

A. The Navy, in consultation with the SHPO and Consulting Party, shall prepare a data recovery plan for archaeological site 44KG0157 consistent with the Secretary of the Interior's *Standards and Guidelines for Archaeological Documentation* (48 FR 44734–44737) and the SHPO's *Guidelines for Conducting Historic Resources Survey in Virginia* (2017) and shall take into account the ACHP's publication *Recommended Approach for Consultation on Recovery for Significant Information from Archaeological Sites* (1999, rev. 2002). The Navy shall submit to the SHPO and other Consulting Party electronic copies of the draft data recovery plan. The SHPO and other Consulting Party shall provide written comments to the Navy within thirty (30) calendar days of receipt of submission. The Navy shall take into account and incorporate the comments into the data recovery plan to the maximum extent possible. The Navy shall provide a comments response matrix to the SHPO and other Consulting Party within fourteen (14) calendar days of receipt of the last comments. The plan shall specify at a minimum the following:

1. All archaeological work carried out pursuant to this PA shall be conducted by or under the direct supervision of an individual (or individuals) who meets, at minimum, the *Secretary of the Interior Professional Qualifications Standards* (48 FR 44738–44739, 28 September 1983) for archaeology;

2. The sites or portions of sites for which specific data recovery plans will be carried out;

3. Those portions of the sites that will be preserved in place (if any), as well as detailed descriptions of what measures will take place to ensure continued preservation;

4. The research questions to be addressed through data recovery, with an explanation of relevance and importance;

5. The methods to be used with an explanation of their relevance to the research questions;

6. The methods to be used in analysis, data management, and dissemination of data, including a schedule;

7. The proposed final disposition of all recovered materials and records;

8. Proposed methods of disseminating the results of the work to the interested public and/or organizations who have expressed an interest in the data recovery;

9. A schedule for submission of progress reports to the SHPO and other Consulting Party.

B. The Navy shall ensure that the approved data recovery plan is implemented prior to those project activities that could affect archaeological resources.

C. The Navy shall notify the SHPO and Consulting Party in writing once the fieldwork portion of the data recovery plan is complete, provide a brief management summary, and offer to schedule a site visit, if desired. The SHPO and Consulting Party shall provide comments on the management summary within thirty (30) calendar days of receipt. Project activities may proceed upon receipt of comments from the SHPO and/or Consulting Party by the Navy or, if the SHPO and/or Consulting Party do not respond, at the conclusion of the thirty (30)-calendar-day review period for the management plan.

D. The Navy shall prepare a technical report following the requirements for the preparation and review of draft and final reports within one (1) year of completion of the archeological field work. The requirements include the following:

1. The Navy shall provide one (1) bound copy of that draft document and one (1) electronic copy in PDF format each to the SHPO and Consulting Party for a thirty (30)-calendar day review.

2. If no comments are received from the SHPO or Consulting Party within the thirty (30)-calendar day review period, the Navy may assume the non-responding party has no comments.

3. The Navy shall address all comments received within thirty (30) calendar days of confirmed receipt of the draft in the final report. The Navy shall provide one (1) copy of all final reports, bound and on acid-free paper, and one electronic copy in PDF to the SHPO and one (1) copy (PDF or hardcopy) to the Consulting Party.

4. All technical reports prepared pursuant to this PA will be consistent with the federal standards entitled *Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines* (48 FR 44716–44742, 29 September 1983), *Guidelines for Preparing Identification and Evaluation Reports for Submission Pursuant to Sections 106 and 110, National Historic Preservation Act,* and the SHPO's *Guidelines for Conducting Historic Resources Survey in*

Virginia (2017), or any subsequent revisions or replacements of these documents.

E. Within sixty (60) days of SHPO approval of the final technical report, the Navy shall deposit all archaeological materials and appropriate field and research notes, maps, and drawing and photographic records collected as a result of archaeological investigations arising from this PA (with the exception of human skeletal remains and associated funerary objects) for permanent curation with the Regional Archaeological Curation Facility (hereinafter "RACF") at Fort Lee, Virginia, a repository which meets the requirements in 36 CFR § 79, *Curation of Federally Owned and Administered Archeological Collections.* The Navy shall provide the SHPO with a copy of the curation agreement as evidence of their compliance with this stipulation. All such items shall be made available to education institutions and individual scholars for appropriate exhibit and/or research under the operating policies of the RACF.

III. TREATMENT OF HUMAN REMAINS

The Navy shall make all reasonable efforts to avoid disturbing gravesites, including those containing Native American human remains and associated funerary artifacts. The Navy shall treat all such gravesites in a manner consistent with the ACHP "Policy Statement Regarding Treatment of Burial Sites, Human Remains and Funerary Objects" (23 February 2007; http://www.achp.gov/docs/hrpolicy0207.pdf).

A. Human remains and associated funerary objects encountered during the course of actions, taken as a result of this PA, shall be treated in a manner consistent with the provisions of the Virginia Antiquities Act, Section 10.1-2305 of the *Code of Virginia* and its implementing regulations, 17 VAC5029, adopted by the Virginia Board of Historic Resources and published in the Virginia Register on 15 July 1991, and the Native American Graves Protection and Repatriation Act (25 USC 3001) and its implementing regulations, 36 CFR §10. In accordance with the regulations stated above, the Navy may obtain a permit from the SHPO for the archaeological removal of human remains should removal be necessary.

B. The Navy shall treat all burial sites, human remains, and funerary objects with dignity and respect. The Navy shall follow the applicable federal laws related to the treatment of buried human remains including the National Historic Preservation Act (54 U.S.C. § 300101 *et seq.*), Native American Graves Protection and Repatriation Act (25 U.S.C. 3001 *et seq.*), and the Archaeological Resources Protection Act (16 U.S.C. §470aa *et seq.*). The Navy will also follow other guidance including OPNAV Instruction 11170.2B *Navy Responsibilities Regarding Undocumented Human Remains* of November 2015 and the Advisory Council on Historic Preservation's *Policy Statement Regarding Treatment of Burial Sites, Human Remains and Funerary Objects* of February 2007.

IV. UNANTICIPATED DISCOVERIES (NON-HUMAN REMAINS)

A. In the event that a previously unidentified archaeological resource is discovered during ground-disturbing activities associated with the Undertaking, the Navy shall require the construction contractor to immediately halt all construction work involving subsurface disturbance in the area of the resource and in surrounding areas where additional subsurface features can reasonably be expected to occur. The Navy shall have the on-site archaeologist inspect the work site and determine the general boundary and nature of the archaeological property. The archaeologist shall investigate the resource and provide an assessment of integrity and NRHP eligibility to the Navy. Construction may proceed outside of the site boundary once it has been determined.

B. The Navy shall then notify the SHPO of the discovery. If the archaeological resource is, or has the potential to be, of Native American origin, the Navy shall also notify any federally or state recognized Indian tribe(s) that might attach religious and cultural significance to the affected property and the SHPO within forty-eight (48) hours of the discovery in accordance with 36 C.F.R. § 800.13(b)(3). The notifications shall describe the Navy's assessment of the NRHP eligibility of the property and the proposed actions to resolve the adverse effects. In accordance with 36 C.F.R. § 800.13 (b)(3), the SHPO, federally and state recognized tribes, as appropriate shall respond within forty-eight (48) hours of the notification.

C. If the Navy, in consultation with the SHPO and Consulting Party, determines the resource to be eligible for listing in the NRHP Criteria (36 C.F.R. § 60.4), the Navy shall ensure development of a proposed treatment plan to resolve any adverse effects on historic properties. The Navy shall provide the treatment plan to the SHPO, Consulting Party, and federal and state recognized Indian Tribes, for review and comment for a period of five (5) working days. The Navy shall take into account the recommendations received from the SHPO, Consulting Party, and Indian Tribes within the five (5)-day review period regarding the NRHP eligibility of the resource and the proposed treatment plan, and then carry out appropriate actions. Work in the affected area may not proceed until the development and implementation of appropriate data recovery or other recommended mitigation procedures. The Navy shall provide the SHPO and Consulting Party, and make available to any federally or state recognized Indian Tribe(s) that might attach religious and cultural significance to the affected property, and the interested public, a report on the mitigation actions when they are completed.

D. If the Navy, in consultation with the SHPO and Consulting Party, determines the resource to be ineligible for listing the NRHP, work may resume in the affected area.

V. INTERPRETATION OF THE GAMBO CREEK BRIDGE (DHR IDENTIFICATION NO. 048-5192)

If the Navy selects an alternative resulting in the demolition of the Gambo Creek Bridge, then the Navy shall ensure the following measures are carried out:

A. The Navy shall install permanent interpretive materials, such as a wayside panel, within the Dahlgren Mainside Historic District to explain the historic role NSF Dahlgren played within the Navy's testing program, and the role of the rail line within NSF Dahlgren. In addition to narrative information, the interpretive materials will contain historical photographs, drawings, or other graphics associated with the Mainside Historic District, the rail line, and the batteries.

B. The Navy shall submit the proposed text, images, materials, and placement of the interpretive measures described in Stipulation V.A, above, to the SHPO and Consulting Party within nine (9) months of the submission of the 50% bridge design. The SHPO and Consulting Party will review the materials and provide comment within thirty (30) calendar days after receipt. If the SHPO and Consulting Party do not provide comments within the thirty (30)-day review period, then the Navy may proceed with the display as proposed. The Navy shall revise the interpretive materials in accordance with those comments received from the SHPO and Consulting Party within the thirty (30)-day review period, and resubmit them to the SHPO and Consulting Party for final comment within sixty (60) calendar days of receipt of the original comments.

C. The Navy shall finalize, produce, and install the interpretive materials at an agreed location within the Dahlgren Mainside Historic District within twenty (20) months of the submission of the 50% bridge design.

D. The Navy shall provide the SHPO and Consulting Party with digital photographs and electronic copies of the completed interpretation within forty-five (45) calendar days of its installation.

E. The Navy shall provide written notification to the SHPO and Consulting Party upon completion of the interpretive materials along with photographs of the finished product.

VI. DOCUMENT PREPARATION AND PROFESSIONAL QUALIFICATIONS

A. All technical materials prepared pursuant to the PA shall be consistent with the federal standards titled *Archaeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines* (48 FR 44716-44742, September 29, 1983), and the SHPO's *Guidelines for Conducting Historic Resources Survey in Virginia* (September 2017), or subsequent revisions or replacements to these documents.

B. All archaeological and architectural documentation carried out pursuant to this PA shall be conducted by or under the direct supervision of an individual or individuals who meet, at a minimum, the Secretary of the Interior's *Professional Qualifications Standards* (48 FR 44738-9, September 29, 1983) in the appropriate discipline.

VII. MONITORING AND REPORTING

A. Following the execution of this PA until it expires or is terminated, the Navy shall provide the SHPO and Consulting Party with an annual summary report detailing work undertaken

pursuant to its terms. Such report shall include any scheduling changes proposed, any problems encountered, and any disputes and objections received in the Navy's efforts to carry out the terms of this PA.

B. Upon completion of all stipulations to this PA the Navy shall provide the SHPO and Consulting Party a signed memorandum documenting that the Navy has fulfilled all its responsibilities under this PA.

VIII. DISPUTE RESOLUTION

A. Should any party to this PA object at any time to any actions proposed or the manner in which the terms of this PA are implemented, the Navy shall consult with the objecting party to resolve the objection. If the Navy determines that such objection cannot be resolved, the Navy will:

1. Forward all documentation relevant to the dispute, including the Navy's proposed resolution, to the ACHP. The ACHP shall provide the Navy with its advice on the resolution of the objection within thirty (30) calendar days of receiving adequate documentation. Prior to reaching a final decision on the dispute, the Navy shall prepare a written response that takes into account any timely advice or comments regarding the dispute from the ACHP, SHPO, and Consulting Party and provide them with a copy of this written response. The Navy will then proceed according to its final decision.

2. If the ACHP does not provide its advice regarding the dispute within the thirty- (30)-calendar day time period, the Navy may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, the Navy shall prepare a written response that takes into account any timely comments regarding the dispute from the SHPO and Consulting Party, and provide them and the ACHP with a copy of such written response.

B. The Navy's responsibility to carry out all other actions subject to the terms of this PA that are not the subject of the dispute remains unchanged.

C. If the Navy receives a written objection from the public, the Navy shall forward the objection and the Navy's proposed resolution to the SHPO and Consulting Party. The SHPO and Consulting Party may provide written comments about the objection and proposed resolution within fourteen (14) calendar days of receipt. After the close of the comment period, and within thirty (30) calendar days of receipt of the objection, the Navy shall prepare a written response to the objector that takes into account the objection and any comments received from the SHPO and Consulting Party. The Navy may then proceed according to its final decision.

IX. AMENDMENTS

This PA may be amended when such an amendment is agreed to in writing by all signatories. The amendment will be effective on the date a copy signed by all signatories is filed with the ACHP.

X. TERMINATION

A. If either signatory to this PA determines that its terms are not or cannot be carried out, that party shall immediately consult with the other signatory to attempt to develop an amendment per Stipulation IX, above. If within thirty (30) calendar days (or another time period agreed to by both signatories) an amendment cannot be reached, either signatory may terminate the PA upon written notification to the other signatory.

B. Once the PA is terminated, and prior to work continuing on the Undertaking, the Navy must either (a) execute a PA pursuant to 36 CFR § 800.6; or (b) request, take into account, and respond to, the comments of the ACHP under 36 CFR § 800.7. The Navy shall notify the SHPO and Consulting Party as to the course of action it will pursue.

XI. ANTI-DEFICIENCY ACT

The Anti-Deficiency Act, 31 USC § 1341, prohibits federal agencies from incurring an obligation of funds in advance of or in excess of available appropriations. The Navy will make reasonable and good faith efforts to secure the necessary funds to implement this PA in its entirety. If compliance with the Anti-Deficiency Act alters or impairs the Navy's ability to implement the stipulations of this PA, the Navy shall consult in accordance with the amendment and terminations procedures found at Stipulations IX and X of this PA.

XII. DURATION

This PA will become effective upon the last date of signature and will remain in force for five (5) years unless extended by the signatories in accordance with Stipulation IX. If the terms of this PA are not implemented prior to its expiration, and if the Navy chooses to continue with the Undertaking, the Navy will re-initiate consultation in accordance with the requirements of 36 CFR § 800.

Execution of this PA by the Navy and SHPO and implementation of its terms evidence that the Navy has taken into account the effects of this Undertaking on historic properties and afforded the ACHP an opportunity to comment.

PROGRAMMATIC AGREEMENT

**BETWEEN THE DEPARTMENT OF NAVY,
AND THE
VIRGINIA STATE HISTORIC PRESERVATION OFFICER REGARDING THE
REPLACEMENT OF GAMBO CREEK BRIDGE
ALONG TISDALE ROAD AT NAVAL SUPPORT FACILITY DAHLGREN,
DAHLGREN, VIRGINIA**

The undersigned Signatory Parties verify that they have full authority to represent and bind their respective agency for the purposes of entering into this PA.

DEPARTMENT OF NAVY

By: _____ Date: 30 OCT 2020

C. A. Lahti
Rear Admiral, U.S. Navy
Commandant
Naval District Washington

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VIRGINIA STATE HISTORIC PRESERVATION OFFICER

By: Julie V. Langan Date: 11-10-2020

Julie Langan
State Historic Preservation Officer
Director
Virginia Department of Historic Resources

Attachment A: Area of Potential Effect
Gambo Creek Bridge Replacement, Dahlgren, Virginia

taken from Gambo Creek Bridge Replacement Environmental Assessment

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