DEPARTMENT OF DEFENSE
DEPARTMENT OF THE NAVY

FINDING OF NO SIGNIFICANT IMPACT FOR GAMBO CREEK BRIDGE REPLACEMENT AT NAVAL SUPPORT FACILITY DAHLGREN, DAHLGREN, VIRGINIA

Introduction

Pursuant to the National Environmental Policy Act (NEPA) of 1969 (42 United States Code 4321 et seq.), the Council on Environmental Quality (CEQ) regulations implementing NEPA (40 Code of Federal Regulations [CFR] Parts 1500–1508), and Department of the Navy procedures for implementing NEPA (32 CFR Part 775), the United States (U.S.) Department of the Navy (Navy) gives notice that an Environmental Assessment (EA) has been prepared and that an Environmental Impact Statement is not required for the replacement of a 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) in Virginia.

Description of the Proposed Action

Naval Support Activity South Potomac (NSASP), a command of the U.S. Navy (hereinafter, jointly referred to as the Navy), proposes to provide a bridge that carries Tisdale Road traffic over Gambo Creek at NSF Dahlgren. The replacement bridge would meet current Federal Highway Administration (FHWA) engineering standards to safely and adequately support mission activities and safety requirements. 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 50,500-pound (25.25-ton) truck, which is the heaviest vehicle in the fire department's fleet. Site preparation would include the excavation and the temporary shoring for abutments and piers. Proposed site improvements would include a bridge structure, steel piles, guardrails, concrete abutments, concrete wingwalls, and traffic-control fencing and gates. The Proposed Action includes the demolition and disposal of the existing utility lines that are attached to the bridge structure. Construction of the new utility lines is not being considered as part of the Proposed Action since new utility lines will be constructed underground before the new bridge would be replaced as a separate action. Construction activities for the Proposed Action are anticipated to begin in fiscal year 2021.

Purpose and Need

The purpose of the Proposed Action is to provide a bridge meeting FHWA engineering standards to carry Tisdale Road traffic over Gambo Creek. Gambo Creek Bridge is not able to meet current FHWA engineering standards for widths and load ratings to support fire trucks, delivery trucks, and other utility trucks and equipment that provide critical services 24 hours per day, seven days a week for the installation community and mission.

The Proposed Action is needed because the existing physical bridge structure is deteriorating. The last inspection concluded that the bridge was structurally deficient, functionally obsolete by current FHWA standards, and in poor condition overall. The report affirmed that the structure had deteriorated to a point that makes it unsafe for its originally designed load capacity. The inspection report recommended that the speed limit be reduced to 20 miles per hour across the bridge and the load rating reduced from 20 tons to 9 tons. As a result, the weight restrictions have prohibited fire trucks from crossing the bridge. In addition to the weight restrictions, Gambo Creek Bridge does not meet current FHWA

engineering standards for widths to adequately support fire trucks. The bridge is considered functionally obsolete as a two-lane vehicular facility according to current FHWA standards because it is too narrow.

Alternatives

Alternatives were developed for analysis based upon the following screening factors:

- The bridge must be aligned to connect Tisdale Road on both sides of Gambo Creek.
- The bridge should not be on a curved horizontal alignment.
- The bridge should not be located in a sump (low point) in the roadway profile as bridge deck sumps result in an area where water collects and can lead to safety and maintenance issues.
- The location should have a low potential for unexploded ordnance (UXO).
- The excavation of undisturbed, natural habitat should be limited to the extent possible.

The Navy considered a No Action Alternative and three action alternatives that meet the purpose of and need for the Proposed Action.

No Action Alternative: Under the No Action Alternative, 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, fire department vehicle use is prohibited, which negatively affects emergency response times. The deterioration of the bridge deck and support components would continue under the No Action Alternative, ultimately resulting in bridge failure and eventual closure.

Alternative 1 (Existing Bridge Alignment; Preferred Alternative): Under Alternative 1, the existing bridge would be completely demolished and then rebuilt on the existing footprint. The bridge decking, decking beams, and columns would be demolished down to the wetland surface either at the pile caps or slightly below grade leaving the pile caps in place, depending on the elevation. The timber piles would be cut at the mudline to keep Gambo Creek flowing as normally as possible due to tidal surges. Building the new bridge on the same footprint would minimize the amount of roadwork needed on either side of the bridge since it is the straightest line connecting Tisdale Road. The bridge would be built to carry two-way traffic and capable of supporting a 50,500-pound truck, at a minimum. Approximately 10,600 cubic feet of soil would be excavated, and 141,300 cubic feet of fill material would be brought to the site. This area of the installation has the potential for some UXO below the surface; however, using the same bridge footprint would minimize the need for UXO clearance.

Alternative 2 (Southern Bridge Alignment): Under Alternative 2, the bridge would be built to the south of the existing footprint. The demolition of the bridge would be completed as discussed under Alternative 1. Once the new bridge is completed, the existing bridge would be demolished, leaving the existing bridge operational during the majority of construction. The new southern alignment would require additional roadwork on both sides of the approach to the bridge. Since this footprint has not been previously disturbed, Alternative 2 would require more scanning and clearance of UXO as compared to Alternative 1. In addition, there would be impacts on wetlands and cultural resources.

Alternative 3 (Parallel Bridge Alignment): Under Alternative 3, the existing bridge would be repaired, and a parallel bridge would be built to the south of the existing footprint. The width of the existing bridge would not be expanded, and the new bridge to the south would have the width of a single lane. The current weight restrictions that prohibit fire trucks from crossing the existing bridge would not be lifted. However, fire trucks would be able to use the new bridge to the south in one direction with

contraflow lane reversal when traveling between the northern and southern parts of Mainside. It is anticipated that extensive repairs would provide an estimated five- to ten-year lifespan to the existing bridge, and that further repairs would be needed every ten years to keep the current bridge usable. The new southern bridge would require additional roadwork on both sides of the approach, the area would need to be scanned for UXO, and there would be impacts on wetlands and cultural resources.

Environmental Effects of the Preferred Alternative

The EA examined the potential effects of the No Action Alternative, Alternative 1 (the Preferred Alternative), Alternative 2, and Alternative 3 on the following resource categories: air quality, water resources, geological resources, cultural resources, biological resources, infrastructure, and hazardous materials and wastes. The following is a summary of the environmental consequences of Alternative 1, the Preferred Alternative.

Air Quality: There would be no significant impacts on air quality. Short-term, minor air emissions would occur during construction from operating heavy equipment during site preparation, construction, and demolition activities. However, emissions would be below *de minimis* and major source thresholds. There would be no long-term increases in air emissions.

Water Resources: There would be no significant impacts on water resources. Short-term, minor impacts on jurisdictional wetlands and water bodies would occur from construction disturbance. The implementation of Alternative 1 would unavoidably result in the discharge of fill within jurisdictional, tidal wetlands in order to construct new abutments and aprons for the proposed bridge. Permitting for work within jurisdictional wetlands would be done in accordance with Section 404 of the Clean Water Act, and the Navy would mitigate impacts on jurisdictional wetlands. Short-term, minor impacts on floodplains from construction activities adjacent to and within the creek would be expected. These impacts would be minimized by restoring and preserving the existing floodplain to the extent practicable to reduce flood risk. Alternative 1 was found to be consistent to the maximum extent practicable with the enforceable policies of the Virginia Coastal Zone Management Program, provided that the Navy obtains and complies with all applicable permits, approvals, and regulatory requirements.

Geological Resources: There would be no significant impacts on geological resources. Short-term, minor impacts during construction would directly affect the soils as a result of excavation and fill to prepare the site for development. There would be minor increases in impervious surfaces associated with the new abutments and approaches. An erosion- and sediment-control plan would be implemented both during and after construction. This plan would include site-specific standards for controlling runoff, erosion, and sedimentation during construction and demolition activities, which would minimize the potential for adverse effects resulting from erosion and transport of sediments in stormwater runoff.

Cultural Resources: There would be no significant impacts on cultural resources. A long-term, adverse effect from the bridge demolition would occur because it is a contributing resource to the Dahlgren Mainside Historic District. Possible long-term adverse effect on Site 44KG0157 would occur from the wider bridge construction. Consequently, the Navy consulted with the State Historic Preservation Office (SHPO) and interested tribes to prepare a Phase III Data Recovery Work Plan, as a mitigation measure in the Programmatic Agreement (PA) between the Navy and the SHPO. With execution of the PA, no significant impacts on cultural resources would occur.

Biological Resources: There would be no significant impacts on biological resources. Short-term, negligible impacts could occur on terrestrial wildlife, Atlantic and shortnose sturgeon, bald eagle,

northern long-eared bat, tri-colored bat, little brown bat, peregrine falcon, and eastern black rail; these resources would be only temporarily or indirectly affected, if at all, during construction activities. Short-term, minor impacts could occur on vegetation, aquatic habitats, submerged aquatic vegetation, alewife, blueback herring, red hake, monarch butterfly, northern red-bellied cooter, and spotted turtle; these resources could occur within the project area and be affected by construction, but affected habitat and duration would be minimal.

The Navy would follow time-of-year restrictions to minimize potential impacts on the northern long-eared bat, federally listed as threatened, by conducting tree removal activities outside the pup season (June 1–July 31). The Navy would also implement appropriate best management practices in accordance with regulations and ongoing consultation to reduce sound generated by construction activity, reducing the impact on fish in the vicinity; final best management practices to minimize impacts on Essential Fish Habitat would be determined based on further consultation with National Oceanic and Atmospheric Administration (NOAA) Fisheries once bridge design and demolition plans are further developed.

Infrastructure: There would be no significant impacts on infrastructure. Long-term, beneficial effects would be expected given that the bridge would be designed to meet FHWA standards, providing a safer, more reliable structure that would require less structural maintenance.

Hazardous Materials and Wastes: There would be no significant impacts on hazardous materials and wastes. 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. Bridge demolition and construction would occur to the immediate south of Installation Restoration (IR) Site 001, the Old Bombing Range. There would be short-term potential impacts of encountering hazards associated with the active range and contamination from IR Site 001. Soil and groundwater sampling along the project boundaries within and near IR Site 001 would identify whether off-site remediation and cleanup would be needed prior to bridge construction. There would also be short-term potential impacts of encountering subsurface radionuclides of concern within IR Site 061B, which is just south of the bridge and within the project area. With proper monitoring and health and safety protection measures, no impacts from or on IR Site 061B are expected.

Cumulative Impacts

Potential cumulative impacts of Alternative 1 in combination with other past, present, or reasonably foreseeable future actions were analyzed and found to be not significant.

Public Involvement

The Navy prepared and circulated a Draft EA to inform the public of the Proposed Action and to allow the opportunity for public review and comment. The review period began with a Notice of Availability published in the *Free Lance-Star* on February 14, 2020. The Draft EA was available for review on a Navy website.

The Navy coordinated or consulted with agencies including the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, NOAA Fisheries, U.S. Coast Guard, Virginia Department of Environmental Quality, Virginia Department of Historic Resources, Virginia Department of Conservation and Recreation, Virginia Marine Resources Commission, Virginia Department of Transportation, the King George County Wetlands Board, and King George Engineering and Public Works regarding the Proposed Action. The

Navy also consulted with nine federally recognized Native American Tribes who may have an interest in this location.

Finding

Based on the analysis presented in the EA, which is herewith incorporated by reference into this Finding of No Significant Impact, the Navy finds that implementation of Alternative 1, with the execution of the PA, would not significantly affect the quality of the human or natural environment or generate significant controversy. Therefore, preparation of an Environmental Impact Statement is not required.

The EA prepared by the Navy addressing this action is on file. Interested parties may obtain a copy from:

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30 OCT 2020
Date

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