GOVERNOR HARRY W. NICE MEMORIAL BRIDGE
IMPROVEMENT PROJECT
Charles County, Maryland and King George County, Virginia

Environmental Assessment (EA)/Draft Section 4(f) Evaluation

Submitted Pursuant to 42 U.S.C. 4332 (2) and
CEQ Regulations (40 CFR 1500 (et. seq.))

by the Maryland Transportation Authority

for the
US Department of Transportation – Federal Highway Administration and
in cooperation with
the US Army Corps of Engineers, the US Environmental Protection Agency, and
Virginia Department of Transportation

Ronald L Freeland — 7/23/09

MARYLAND TRANSPORTATION AUTHORITY — Date
Ronald L. Freeland, Executive Secretary

William A. Woody — 7/30/2009

FEDERAL HIGHWAY ADMINISTRATION — Date
for Nelson J. Castellanos, Division Administrator

The purpose of the Governor Harry W. Nice Memorial Bridge (hereinafter referred to as the Nice Bridge) Improvement Project is to provide a Potomac River crossing that is consistent with the US 301 approaches (a crossing that has two 12-foot lanes in each direction with a median separation and shoulders); to improve traffic operations and safety across the bridge; and to reduce traffic impacts during anticipated significant bridge maintenance and rehabilitation. The study area for the Nice Bridge extends a distance of approximately ten miles along US 301, from just north of the US 301/MD 234 intersection in Charles County, Maryland to just west of Route 206 in King George County, Virginia. Currently, the existing Nice Bridge has one travel lane in each direction with no physical lane separation or shoulders. This study evaluates several alternates (the No-Build Alternate and six build alternates), that address the transportation needs at the Nice Bridge. Build alternate impacts may include: parkland; forests; wetlands, waters of the US, and open water; floodplains; Chesapeake Bay Critical/Preservation Areas; historic properties; right-of-way acquisition; and noise.

SUMMARY

A. ADMINISTRATIVE ACTION

( ) Environmental Impact Statement
(**X**) Environmental Assessment
( ) Finding of No Significant Impact
(**X**) Section 4(f) Evaluation

B. ADDITIONAL INFORMATION

Additional information concerning the project may be obtained by contacting the following individuals:

Mr. Glen Smith
Project Manager
Maryland Transportation Authority
2310 Broening Highway, Suite 125
Baltimore, Maryland 21224
Phone: (410) 537-5665

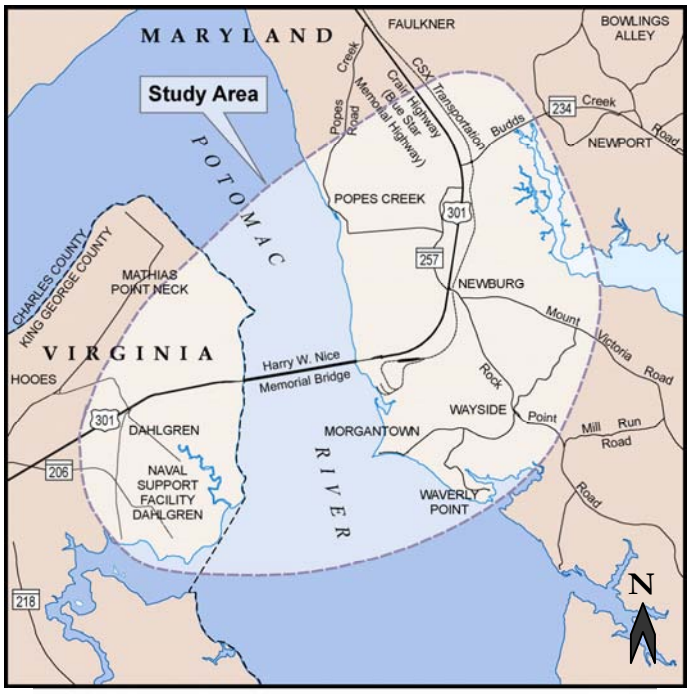
Mr. Ian Cavanaugh
Area Engineer
Federal Highway Administration
DelMar Division
10 South Howard Street,
Suite 2450
Baltimore, Maryland 21202
Phone: (410) 779-7147

C. DESCRIPTION OF PROPOSED ACTION/PURPOSE AND NEED

This Environmental Assessment (EA)/Draft Section 4(f) Evaluation presents the results of engineering and environmental studies conducted to improve the Governor Harry W. Nice Memorial Bridge and US 301 approach roadways in Charles County, Maryland and King George County, Virginia. The Maryland Transportation Authority (Authority) may utilize federal monies from the Federal Highway Administration (FHWA) for the construction of this project. Therefore, the planning study and associated documentation have been performed and prepared in accordance with the National Environmental Policy Act (NEPA), and address additional Federal and State laws including: Section 404 of the Clean Water Act; Section 106 of the National Historic Preservation Act of 1966; Title VI of the 1964 Civil Rights Act; the Clean Air Act as amended in 1990; Executive Order (EO) 12898 *Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations*; Section 6(f) of the Land and Water Conservation Fund Act; Section 4(f) of the US Department of Transportation Act; the Maryland Environmental Policy Act (MEPA); the Uniform Relocation Assistance and Real Property Acquisition Act as amended in 1987; Smart Growth Priority Funding Areas Act of 1997; and the 1992 Maryland Economic Growth, Resource Protection, and Planning Act. Refer to Appendix H for the Environmental Assessment Form prepared in accordance with MEPA.

The study area limits for the Nice Bridge Improvement Project extend a distance of approximately ten miles along US 301, from just north of the US 301/MD 234 intersection in Charles County, Maryland to just west of Route 206 in King George County, Virginia. ***Figure S-1*** illustrates the study area in the context of the surrounding geographic region.

Figure S-1: *Nice Bridge Study Area*



The purpose of the Nice Bridge Improvement Project is to:

- Provide a crossing of the Potomac River that is geometrically compatible with the US 301 approach roadways;
- Provide sufficient capacity to carry vehicular traffic on US 301 across the Potomac River in the design year 2030;
- Improve traffic safety on US 301 at the approaches to the Potomac River crossing and on the bridge itself; and
- Provide the ability to maintain two-way traffic flow along US 301 during wide-load crossings, incidents, poor weather conditions, and when performing bridge maintenance and rehabilitation work.

A new bridge crossing would address the following needs:

- Geometric inconsistencies;
- Capacity limitations of the existing two-lane bridge;
- Traffic operations and resulting safety issues on US 301;
- Adequate emergency evacuation capacity; and
- Other considerations including incident management, maintenance requirements, and transportation significance.

Throughout this document, the Governor Harry W. Nice Memorial Bridge will be referred to hereafter as the "Nice Bridge."

D. ALTERNATES RETAINED FOR DETAILED STUDY

Fifteen preliminary alternates were analyzed to determine overall feasibility. Criteria used to screen the alternates included the ability to meet the purpose and need; impacts to socioeconomic, environmental and cultural resources; structural factors; and cost. The preliminary alternate screening process was documented in the *Combined Purpose and Need/Alternates Retained for Detailed Study* package (dated January 2008 and available on the project website at www.nicebridge.maryland.gov.

As a result of the preliminary screening process, the Alternates Retained for Detailed Study (ARDS) are:

- Alternate 1 (No-Build) - considers conditions in 2030 if a build alternate is not selected and includes extensive rehabilitation of the existing bridge;
- Alternate 2 (New Two-Lane Bridge to the South, Rehabilitate Existing Bridge);
- Alternate 3 (New Two-Lane Bridge to the South, Replace Existing Bridge);
- Alternate 4 (New Two-Lane Bridge to the North, Rehabilitate Existing Bridge);
- Alternate 5 (New Two-Lane Bridge to the North, Replace Existing Bridge);
- Alternate 6 (New Four-Lane Bridge to the South, Take Existing Bridge Out of Service);
- Alternate 7 (New Four-Lane Bridge to the North, Take Existing Bridge Out of Service).

Build Alternates 2 through 7 provide reasonable tie-in points with the existing and planned highway network, capacity for 2030 demand, the ability to maintain two-way traffic flow, improved safety on approach roadways and bridge, and the ability to comply with navigational channel guidelines. Each alternate also includes the replacement of the existing tollbooths with Open Road Tolling (ORT) provisions. (ORT permits the electronic collection of tolls without a reduction of vehicle speed.) The type of new structure, fixed or movable (i.e., draw span, swing span, etc.) is independent of size or location. Alternates that involve installation of a new bridge would require an alignment shift of the US 301 approach roadways to connect to the new structure.

Per Maryland Senate Bill 492, each of the build alternates includes a barrier separated bicycle/pedestrian path (bike/ped path) option. This option was incorporated per Senate Bill 492 and requests from members of the public.

Alternate Comparison

Each alternate (including the No-Build) was analyzed for natural, socioeconomic, noise, air, and cost impacts. A summary of these findings are included on the following pages and summarized in ***Table S-1***.

Table S-1: *Summary of Environmental Impacts Without (and with*) Bike/Ped. Path Option*

Resource	Unit	Alternates Retained For Detailed Study						
		No-Build	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
Historic Properties								
Historic Standing Structures	no.	0	1	1	1	1	1	1
Recorded Archeology Sites[1]	no.	0	0	0	0	0	0	0
Community Resources								
Business Displacements	no.	0	0	0	0	0	0	0
Institutional Displacements[2]	no.	0	1	1	2	2	1	2
Residential Displacements	no.	0	0	0	0	0	0	0
Business Right-of-Way[3]	acres	0	0	0	7.0	7.0	0	7.6(8.5)
Federal Right-of-Way	acres	0	3.1(3.3)	3.1	0	0	3.7	0
Residential Right-of-Way	acres	0	0	0	0	0	0	0
Parkland and Recreational Facilities[4]	acres	0	0	0	3.9	3.9	0	6.5
Low-Income/Minority Populations	no.	0	0	0	1	1	0	1
Natural Environmental Resources								
Prime Farmland Soils and Soils of Statewide Importance	acres	0	4.8	5.1	6.9(7.2)	7.5	4.6	8.2
Streams	l.f.	0	2,480	2,500	3,640	3,670	2,420	3,670
Wetlands	acres	0	0.7	0.7	0.1	0.2	0.7	0.1
Potomac River Open Water Impacts-Piers[5]	acres	0	0.3(0.4)	0.7	0.3(0.4)	0.7	0.5(0.6)	0.5(0.6)
Potomac River Temporary Dredge Impacts	acres	0	61(62)	85 (88)	62(63)	85 (89)	67(68)	65(67)
Chesapeake Bay Critical Areas- MD)	acres	0	14.5	14.5	24.4	24.5	14.2	24.2 (24.3)
Chesapeake Bay Preservation Areas-VA[6]	acres	0	3.3(3.4)	3.4(3.5)	1.9(2.3)	2.2(2.3)	3.6	2.2
100-Year Designated Floodplains	acres	0	5.9(6.3)	7.7(7.8)	8.1(8.4)	8.5(8.7)	6.4(6.5)	8.4(8.6)
Submerged Aquatic Vegetation	acres	0	0	0	0	0	0	0
Rare, Threatened & Endangered Species[7]	no.	0	0	0	0-1	0-1	0-1	0-1
Forests	acres	0	0.5	0.5	1.0	1.0	0.7	1.8(1.9)
Noise	NSAs	0	1	1	1	1	1	1
Air Indicators	---	0	0	0	0	0	0	0
Cost								
Total Estimated Costs in Millions	$	$110-120	$410-525 ($490-540)	$695-770 ($870-960)	$460-510 ($545-600)	$730-805 ($900-990)	$610-670 ($765-840)	$670-740 ($830-910)

Note: Limit-of-disturbance does not include potential stormwater management areas, bridge pilings, and vehicle inspection stations.
**Impact numbers within parentheses ( ) represent the impact number for build alternates with bike/ped options that is different from build alternates without the bike/ped path option. In most cases, impact numbers for alternates with and without the bike/ped path option are the same.*

1 Additional testing will be conducted within the proposed limit-of-disturbance to determine the presence of, if any, unrecorded archeology sites.
2 Institutional displacements include the Naval Support Facility Dahlgren, Nice Bridge Campus Facilities and Potomac Gateway Welcome Center.
3 Business right-of-way (ROW) impacts consist of impacts to the Aqua-Land Marina and Campground.
4 Parkland/Recreational facility impacts are to Barnesfield and Dahlgren Wayside Parks and Potomac Gateway Welcome Center.
5 Potomac River open water impacts are limited to permanent impacts for bridge piers based on conceptual engineering.
6 Impacts are based on a 100-foot buffer of tidal area within the limit-of-disturbance of the Virginia portion of the study area.
7 Impacts are based on an encroachment onto the 50-foot buffer of Bald Eagle Concentration Zone area(s). No direct impacts to bald eagle nesting areas or any other rare, threatened, or endangered species (state or federal) habitat is anticipated.

E. SOCIOECONOMIC RESOURCES AND LAND USE

Communities/Right-of-Way (ROW) Impacts

Table S-1 summarizes the permanent ROW and community impacts associated with each alternate. Most of the ROW impacts for the build alternates include linear strips of land along US 301. Additional ROW may be required for stormwater management areas, staging areas, or other construction related uses. No residential displacements are anticipated with any of the alternates. Institutional displacements may include Nice Bridge Campus Facilities, Potomac Gateway Welcome Center, and portions of the Naval Support Facility (NSF) Dahlgren. Alternates 2, 3, and 6 would impact NSF Dahlgren property. Alternates 4, 5, and 7 would impact the Authority-owned Nice Bridge Campus Facilities and the Potomac Gateway Welcome Center in Virginia. More detail on these impacts is provided below and in ***Chapter III***.

Parks and Recreational Facilities

The land located north of US 301 adjacent to the Potomac River in Virginia provides public park and recreational opportunities at three facilities: Dahlgren Wayside Park, Barnesfield Park and the Potomac Gateway Center. Use of these properties will only occur in compliance with Section 4(f) of the US Department of Transportation Act of 1966.

The Dahlgren Wayside Park is a 14.7-acre public park adjacent to the Potomac River and Barnesfield Park. Alternates 1, 2, 3, and 6 would not result in impacts to Dahlgren Wayside Park. The impacts to Dahlgren Wayside Park for Alternates 4 and 5 are 1.4 acres, and 2.2 acres for Alternate 7.

Barnesfield Park is a 146.5-acre public park located along the north side of US 301, just west of Roseland Road in King George County, Virginia. Alternates 1, 2, 3, and 6 would not result in impacts to Barnesfield Park. The impacts to Barnesfield Park for Alternates 4 and 5 are 0.4 acres and 2.2 acres for Alternate 7.

In 1985, the King George County Department of Parks and Recreation (DPR) received $240,000 from the Federal Land and Water Conservation Fund (LWCF) to improve ballfields, utilities, concessions, restrooms, playgrounds, parking, landscaping, and other support facilities at Barnesfield Park. As a result, Barnesfield Park is protected under Section 6(f) of the LWCF Act (16 USC 460). The Authority will continue to coordinate with Virginia DPR, Virginia Department of Conservation and Recreation (VDCR) and National Park Service (NPS) regarding the potential conversion of part of Barnesfield Park. If appropriate, the Authority and DPR would submit a request for land conversion document to the NPS through VA DCR. Any mitigation must be found to be satisfactory to VA DCR and NPS before the land conversion will be approved.

The Potomac Gateway Welcome Center (Welcome Center) is located on a 2.1-acre parcel between Roseland Road and Barnesfield Park north of US 301. Alternates 4, 5, and 7 would each require taking the 2.1 acres of the property. Alternates 1, 2, 3, and 6 would not impact the Welcome Center property.

Refer to ***Chapters III and V*** for additional information on potential impacts to parks and recreational facilities. Coordination with King George County and the US Department of Interior, NPS will continue throughout the planning phase of the project in order to comply with Section 4(f) and Section 6(f) requirements for mitigation from potential impacts.

Environmental Justice

In accordance with Executive Order (EO) 12898, *Federal Actions to Address the Environmental Justice in Minority and Low-Income Populations*, disproportionately high and adverse effects to environmental justice populations are not anticipated with any of the ARDS. One environmental justice community, the Aqua-Land Campground, was identified adjacent to the Nice Bridge. Alternates 4, 5, and 7 would result in the southbound lanes of US 301 being closer to the campground. These alternates would not result in any displacements or noise impacts. Therefore, none of the alternates are expected to result in disproportionately high and adverse effects to environmental justice populations.

Military Facilities

The Naval Support Facility (NSF) Dahlgren is located within the study area in King George County, south of US 301. Alternates 2, 3 and 6, which propose a new bridge south of the existing bridge, would impact NSF Dahlgren. The proposed ROW requirements would directly impact the fenced security clear zone established around NSF Dahlgren Building 1480. According to NSF Dahlgren, this would "significantly reduce the safe standoff distance for nine major operational, test and administrative facilities and approximately 1,300 employees who work in this area of the installation. Special facilities and equipment critical to the Navy's mission may not be encroached upon and are not able to be replicated or relocated at NSF Dahlgren." Refer to ***Chapter III*** and ***Appendix B*** for additional information and correspondence with the US Navy- NSF Dahlgren.

Visual Quality

The addition of a new bridge with any of the build alternates would change the visual characteristics of the surrounding area. The new bridge could alter or partially obstruct views of the existing Nice Bridge from upstream or downstream portions of the Potomac River depending on the build alternate. The aesthetic characteristics of a new bridge and grade of a new bridge including the roadway grade, would likely differ from the existing Nice Bridge.

Economic Environment

Two major employers in the area are NSF Dahlgren (over 1,300 employees) and the Morgantown Generating Plan (199 employees). The No-Build Alternate would affect local and regional business activities because of increased congestion and longer travel times for individuals that use the Nice Bridge, as well as, decreased mobility on the regional roadway network that would not support planned economic growth in the region. The proposed build alternates would benefit local and regional business activity by reducing traffic delays and improving mobility. There are no business displacements anticipated with any of the alternates. Institutional displacements could occur under the build alternates. Alternates 2, 3, and 6 could adversely affect operations at NSF Dahlgren. Alternates 4, 5, and 7 could adversely affect the Potomac Gateway Welcome Center.

F. HISTORIC PROPERTIES

Historic Structures

The proposed No-Build and build alternates would each constitute an undertaking under the National Historic Preservation Act (NHPA). In accordance with Section 106 of the NHPA, the effects of the project on historic and archeological resources must be considered. It is anticipated that the only the historic property potentially effected by the proposed build alternates would be the Nice Bridge and its associated Administration Building. The existing Nice Bridge would be rehabilitated under Alternates 2 and 4, taken out of service under Alternates 6 and 7, and removed and replaced with a new structure under Alternates 3 and 5. Although a formal effects determination has not been made, it is likely that all the alternates, including the No-Build, would result in an adverse effect to the Nice Bridge and/or the Administration Building. A formal Section 106 effects determination and potential mitigation measures will be developed in consultation with the State Historic Preservation Officers (MD Historical Trust and VA Department of Historic Resources) following the identification of a preferred alternative.

Archeology

A total of 68 previously recorded archeological sites were identified within a 2 to 2.5-mile radius of the proposed limits of disturbance. Two sites warrant further investigation due to the high probability of resources. Site 44KG171 is the former location of the Barnesfield Plantation mansion and was originally within the area that is currently Dahlgren Wayside Park. Phase I archeological investigations in 1998 of this site resulted in the recovery of over 700 artifacts, with the assemblage including both domestic and architectural materials. Although not a previously recorded site, the location of the former Hooe family cemetery is also within the study area (it was relocated in the 1940s). The location of the cemetery is thought to be east of the Roseland Road/US 301 intersection. It cannot be determined with full certainty that all of the individuals were disinterred; as such it is possible that there are extant human remains still located at the site. Additional Phase I investigations, are being completed to further identify potential archeological sites.

Coordination with NSF Dahlgren indicates there is the potential for unexploded ordnances (UXOs) in portions of the study area. Land based UXO investigations are underway; however, investigations in the open water of the Potomac River will be initiated prior to construction, should a build alternate be selected.

For more information on historic properties, please refer to ***Chapter III*** and the technical reports on the CD attached to this document.

G. NATURAL ENVIRONMENT

Soils

Prime Farmland Soils and Soils of Statewide Importance were identified within the study area. Impacts to these soils are anticipated to range from 4.6 to 8.2 acres and are limited to Virginia. Coordination with the US Department of Agriculture has been initiated consistent with the requirements of the Farmland Protection Policy Act (FPPA).

Waters of the US including wetlands

Stream impacts within the study area range from approximately 2,420 linear feet to 3,670 linear feet, mostly consisting of small streams and drainage swales. Minimization efforts to reduce impacts to these resources will be investigated, and a more refined calculation of impacts will be performed as the project continues in planning and design phases.

Palustrine and riverine wetlands were identified and delineated within 250 feet of the centerline for each build alternate. Seven wetlands or waterways are located within the Maryland portion of the study area. Seventeen wetlands or waterways are located within the Virginia portion of the study area. Construction of any of the build alternates is anticipated to require less than one acre of wetlands (0.1 and 0.7 acre) between Maryland and Virginia.

The anticipated permanent tidal open water impacts to the Potomac River bed from installation of bridge piers range from 0.3 acre to 0.7 acre. Tidal open water impacts anticipated from dredging the Potomac River range from 61 acres to 89 acres.

In accordance with the Final Rule on Compensatory Mitigation for Losses of Aquatic Resources (33 U.S.C 332), the Authority prepared a Compensatory Mitigation Plan (CMP) (***Appendix D***). The CMP identifies appropriate sites for mitigation in Maryland, and proposes use of a bank site in Virginia. The CMP includes a monitoring plan and management plan for the Maryland site to ensure regulatory requirements are met for mitigation site success.

Floodplains

Federal Emergency Management Agency (FEMA)-designated 100-year floodplains in the study area are primarily located along the Potomac River and several tributaries. Approximately 5.9 to 8.6 acres of 100-year floodplains would be impacted. Any construction within the 100-year floodplain would require a Waterway Construction Permit from the Maryland Department of the Environment (MDE). In Virginia, the Department of Conservation and Recreation (VA DCR) is responsible for coordination of all state floodplain programs. The VA DCR Floodplain Management Program staff works with localities (in this case King George County) to establish and enforce floodplain management zoning. The Authority will continue to coordinate with the MDE and VA DCR/King George County regarding potential impacts to floodplains.

Shorelines

Maryland and Virginia shorelines experience erosion at some locations up to two feet per year. Dredging and/or vegetation removal necessary for the construction of a new bridge may increase the potential for shoreline erosion. The potential effects can be minimized through best management practices, an erosion and sediment control plan and by restoring the shore areas to existing condition following construction. In the CMP for the project, the Authority is proposing to provide out-of-kind mitigation through shoreline stabilization and/or tidal marsh creation. Please refer to ***Appendix D*** for additional information on the shoreline stabilization that is being proposed as mitigation for the project impacts.

Forest Communities

Forested areas were identified within the study area. The majority of forested lands are located within the inland portion of the study area and would not be significantly impacted by any of the

build alternates. Impacts to forests, depending on alternate, are anticipated to range from 0.5 to 1.9 acres. Forest impacts are limited to fragmented stands or small isolated groups of trees along US 301. Larger, more contiguous forest stands suitable for forest interior dwelling species (FIDS) are located outside the immediate study area. Therefore, there are no impacts to FIDS habitat anticipated from any of the Nice Bridge alternates.

Rare, Threatened and Endangered Species

Coordination with the US Fish and Wildlife Service (US FWS), Maryland Department of Natural Resources (MD DNR), VA DCR, Virginia Department of Game and Inland Fisheries (VA DGIF), and other interested parties indicated the presence of federal and state-listed rare, threatened and endangered (RTE) animal and plant species within the study area. The VA DCR, on behalf of the Virginia Department of Agriculture and Consumer Services, indicated no documented state-listed RTE plants or animals, and no State Natural Area Preserves under their jurisdiction will be impacted by the any of the build alternates.

Bald eagle (*Haliaeetus leucocephalus*) nests (Maryland and Virginia) and bald eagle concentration zones (Virginia only) were identified in the study area. Impacts to the bald eagle concentration zone, located along the shoreline north of the existing bridge, are anticipated to be less than one acre. No direct impacts to bald eagle nests are anticipated with any of the Nice Bridge alternates.

The US FWS has noted that peregrine falcons (*Falco peregrinus*) may have nested on the existing Nice Bridge. Peregrine falcons are protected under the Migratory Bird Act, which prohibits the taking of any migratory bird, or any part, nest, or egg, except as permitted by regulation. Any action that may result in disturbing this species will be coordinated with the US FWS.

There are three fish species protected under the Endangered Species Act or the Magnuson-Stevens Fishery Conservation and Management Act likely occur within the study area. These federally managed species of importance include the shortnose sturgeon (*Acipenser brevirostrum*), summer flounder (*Paralichthyus dentatus*), and bluefish *(Pomatomus saltatrix).*

The shortnose sturgeon (*Acipenser brevirostrum*), a federally protected species, has been documented as a transient species in the Potomac River. However, records do not indicate sturgeon spawning in study area waters; for more information, please refer to ***Chapter III*** and the *Biological Assessment for the Shortnose Sturgeon* located on the attached CD.

An Essential Fish Habitat (EFH) Evaluation was completed for juvenile and adult summer flounder and juvenile bluefish. The project is not likely to adversely affect EFH for these species. For more information, please refer to the ***Chapter III*** and *Nice Bridge Improvement Project EFH Evaluation* located on the attached CD.

Critical Area

Chesapeake Bay Critical Area (Maryland) and Chesapeake Bay Preservation Areas (Virginia) are located along the shorelines of the Potomac River. Impacts to Maryland Critical Areas are anticipated to range from approximately 14.5 to 24.5 acres, and impacts to Virginia Chesapeake

Bay Preservation Areas are expected to range from 1.9 to 3.6 acres under the build alternates. However, linear roadway projects are exempt from complying with Virginia's Chesapeake Bay Preservation Areas legislation. In Maryland, these impacts will be evaluated and addressed in accordance with the Critical Area regulations, including the completion and submission of Maryland's Critical Area Commission Project Application Checklist, as appropriate.

H. NOISE

Three noise sensitive areas (NSAs) were identified in the study area. These include Dahlgren Wayside Park and the Aqua-Land Marina and Campground. NSA 3 at Dahlgren Wayside Park would experience design year noise levels equal to or exceeding the impact criteria for each of the proposed alternates. Feasibility and reasonableness of noise abatement was investigated for NSA 3. However, it is the Authority's policy to make final decisions on the construction of Type I (new highways or improvement of existing highways) noise abatement during the final design phase of project development, after final horizontal and vertical engineering alignments are determined and detailed engineering evaluations can be made. It should be noted the Authority would also consider non-sound barrier options for noise abatement, such as landscaping.

I. AIR QUALITY

The air quality analysis was conducted for carbon monoxide (CO), Fine Particulate Matter ($PM_{2.5}$) and Mobile Source Air Toxics (MSAT). The analysis indicates that CO impacts would result in no violations of the State/National Ambient Air Quality Standards (S/NAAQS) 8-hour concentration (9.0 parts per million (ppm) or the S/NAAQS 1-hour concentration (35 ppm) for the proposed alternates. For $PM_{2.5}$, it is anticipated that the Nice Bridge Improvement Project meets the Clean Air Act and 40 CFR 93.109 requirements. These requirements are met for particulate matter without a project-level $PM_{2.5}$ hot-spot analysis, since the project has <u>not</u> been found to be a project of air quality concern as defined under 40 CFR 93.123(b)(1). Per FHWA MSAT guidance, this project would be a *"minor widening project[s]"* … *"that serves to improve operations of highway ... without adding substantial new capacity or creating a facility that is likely to meaningfully increase emissions."* Therefore, the Nice Bridge Improvement Project would be considered a Project with Low Potential MSAT Effects.

J. HAZARDOUS MATERIALS

The Authority prepared an Initial Site Assessment (ISA) of the project area. Twenty-nine properties with the potential for environmental concern were identified. One site, NSF Dahlgren has a high potential contaminant value and is anticipated to be impacted by one or more of the proposed alternates. Therefore, a Preliminary Site Assessment (PSA) will be conducted prior to any ground disturbing activities in the vicinity of this site to determine the extent of hazardous materials concerns (currently underway).

K. SECTION 4(F)

A Draft Section 4(f) Evaluation was completed in accordance with the US Department of Transportation Act of 1966 to assess the likely effects of the proposed action upon Section 4(f) resources, and evaluate alternates that avoid or minimize impacts caused by the project to those resources. The project would involve the use of land from up to three publicly-owned public parks, and likely involve the use of the historic Nice Bridge and associated Administration Building. ***Table S-2*** below summarizes the results of the Section 4(f) Evaluation. Refer to ***Chapter V*** for more information on the Draft Section 4(f) Evaluation.

Table S-2: *Summary of the Section 4(f) Evaluation by Alternates Retained for Detailed Study**

	Alternate 1	Alternate 1-Modified	Alternate 2	Alternate 3	Alternate 4	Alternate 5	Alternate 6	Alternate 7
Section 4(f) Resource Avoidance?	No	Yes	No	No	No	No	No	No
Impact to historic Nice Bridge?	Initially, No; Long-term, Yes (Modification)	No	Initially, No; Long-term, Yes (Modification)	Yes: Replacement	Initially, No; Long-term, Yes (Modification)	Yes: Replacement	Yes[1]	Yes[1]
Impact to Potomac River Bridge Administration Building?	No	No	Yes: 0.1 acre	Yes: 0.1 acre	Yes: 0.5 acre, demolition	Yes: 0.5 acre, demolition	Yes: 0.1 acre	Yes: 0.5 acre, demolition
Impact to Barnesfield Park	No	No	No	No	Yes: 0.4 acres	Yes: 0.4 acres	No	Yes: 2.2 acres
Impact to Dahlgren Wayside Park	No	No	No	No	Yes: 1.4 acres	Yes: 1.4 acres	No	Yes: 2.2 acres
Impact to Potomac Gateway Welcome Center	No	No	No	No	Yes: 2.1 acres	Yes: 2.1 acres	No	Yes: 2.1 acres
Likely pursue Section 4(f) *de minimis* finding?	No	N/A	No	No	Yes: Barnesfield Park	Yes: Barnesfield Park	No	Yes: Barnesfield Park

* Note: The limits of disturbance used to calculate the park impacts include the bicycle/pedestrian path option, thereby providing the maximum impact value for each alternate.

L. SUPPORTING TECHNICAL REPORTS

The technical analysis supporting the Nice Bridge Improvement Project Environmental Assessment/Draft Section 4(f) Evaluation is documented in the following 13 technical reports. Copies of the technical reports are available on the CD attached with this document.

- Air Quality Technical Report
- Biological Assessment for the Shortnose Sturgeon
- Combined Purpose and Need and Alternates Retained for Detailed Study Package
- Essential Fish Habitat Assessment
- Hazardous Waste Report: Initial Site Assessment
- Historic Resources Survey and Determination of Eligibility Report, Volumes I & II (Maryland)
- Indirect and Cumulative Effects Analysis
- Maryland Archeological Phase IA Memorandum
- Natural Resources Technical Report

- Noise Quality Technical Report and Addendum
- Socioeconomic and Land Use Technical Report
- Virginia Archeological Phase IA Memorandum
- Virginia Historic Resources: Survey and Identification Report
- Wetland Delineation Report

M. PERMITS AND APPROVAL REQUIRED

The following permits and approvals will be required for the project prior to the commencement of the construction of a build alternate:

- National Environmental Policy Act including the final environmental document;
- Section 106 of the National Historic Preservation Act, including archeological investigations, a final Determination of Effects, and potentially a Memorandum of Agreement among the Authority, FHWA, and consulting parties;
- Section 4(f) of the US Department of Transportation Act of 1966 including approval of the Section 4(f) Evaluation
- Section 6(f) of the Land and Water Conservation Fund Act, including approval of mitigation measures;
- Maryland Critical Area Commission Approval;
- National Pollution Discharge Elimination System (NPDES) permit;
- Floodplain determination and assessment under Federal Executive Order 11988, US Department of Transportation Order 5650.2, National Flood Insurance Act of 1968;
- Section 10 Rivers and Harbors Act/Section 404 of the Clean Water Act;
- Section 401 of the Clean Water Act – Water Quality Certification;
- Section 9 Bridge Permit from the US Coast Guard;
- Maryland Reforestation Law;
- MDE Waterway Construction Permit;
- MDE Tidal and Non-tidal Wetlands and Waterways permits;
- Virginia Water Protection Permit, and
- Virginia Marine Resources Permit.

N. PUBLIC HEARING

Public hearings are scheduled to be held 30 days after the availability of this Environmental Assessment/ Draft Section 4(f) Evaluation (EA). The purpose of these hearings is to allow the public an opportunity to review and provide comments on the EA. Comments received during the public hearings will become part of the project record.