

FEDERAL HIGHWAY ADMINISTRATION
FINDING OF NO SIGNIFICANT IMPACT

FOR

PROJECT: I-495 Express Lanes Northern Extension
LOCATION: Fairfax County, Virginia
STATE PROJECT: 0495-029-419, P101 (UPC 113414)

The Federal Highway Administration (FHWA) has determined that this project, as described in the attached Revised Environmental Assessment, will have no significant impact on the human environment. This Finding of No Significant Impact is based on the Environmental Assessment, Revised Environmental Assessment, and the Virginia Department of Transportation's letter requesting a Finding of No Significant Impact. These documents have been independently evaluated by FHWA and determined to adequately and accurately discuss the purpose and need, alternatives, and environmental impacts of the proposed project and appropriate mitigation measures. They provide sufficient evidence and analysis for determining that an Environmental Impact Statement is not required. FHWA takes full responsibility for the accuracy, content, and scope of the Revised Environmental Assessment.

A Federal agency may publish a notice in the Federal Register, pursuant to 23 USC 139(1), indicating that one or more Federal agencies have taken final action on permits, licenses, or approvals for a transportation project. If such notice is published, claims seeking judicial review of those Federal agency actions will be barred unless such claims are filed within 150 days after the date of publication of the notice, or within such shorter time period as is specified in the Federal laws pursuant to which judicial review of the Federal agency action is allowed. If no notice is published, then the periods of time that otherwise are provided by the Federal laws governing such claims will apply.

June 29, 2021
Date

Division Administrator
Federal Highway Administration

The Federal Highway Administration (FHWA) has reviewed the Virginia Department of Transportation's May 19, 2021 letter requesting a Finding of No Significant Impact, comments received on the Environmental Assessment, the Revised Environmental Assessment, and other supporting documentation.¹ In accordance with 40 CFR 1508.1(l), this Finding of No Significant Impact briefly presents the reasons why the project will not have a significant effect on the human environment.

Background

FHWA approved the Environmental Assessment for public availability on February 24, 2020. The comment period was open until December 4, 2020. During the comment period, the Virginia Department of Transportation held two virtual public question and answer sessions, a virtual public hearing, and an in-person public hearing that was by appointment only due to COVID-19 protocols. The Virginia Department of Transportation prepared a Revised Environmental Assessment that addressed substantive comments received and submitted the document, along with a request for a Finding of No Significant, to FHWA.

Environmental Impacts and Evaluation of Significance

The Virginia Department of Transportation analyzed the project's environmental impacts and concluded that the project would not have a significant impact on the environment.² FHWA has independently evaluated the environmental impacts and the following sections summarize the analysis of impact significance.

Communities and Community Facilities

Most neighborhoods in the study area were built after the construction of I-495, and those immediately along the highway were designed to be immediately adjacent to the I-495 right-of-way. Although 28 residential properties would be impacted by right-of-way acquisition or maintenance easements, no relocations are anticipated, and the impacts would be on the outside edges of the communities rather than through the communities. The partial property acquisitions are not anticipated to jeopardize the primary use of or access to any property, and the project would not result in fragmentation or isolation of communities. Stormwater and utility alterations would also be taking place primarily within existing right of way. In accordance with the Uniform Relocation Assistance and Real Property Policies Act of 1970, as amended, affected property owners would be fairly compensated for acquisition of their property.

The project would result in greater transportation mobility and decreased congestion along the I-495 corridor, including local arterials, as discussed in the Revised Traffic and Transportation Technical Report. The project would also provide additional connections between residential communities on either side of the roadway via an approximately 3.1-mile, 10-foot-wide shared use path that is consistent with local and regional transportation plans.

¹ The letter and the Revised Environmental Assessment are hereby incorporated by reference into this Finding of No Significant Impact.

² The project is described in detail in section 2.2 of the Revised Environmental Assessment.

Following the public hearing, comments from the McLean Hamlet neighborhood were received regarding the potential for viewshed impacts. Visualizations from two locations within McLean Hamlet were then prepared and shared with the neighborhood as part of the public involvement process to help the community visualize the project in relation to their neighborhood. The Revised Environmental Assessment contains graphics that depict the viewshed with and without the project in place. Comments were also received regarding the potential for viewshed impacts on the neighborhoods around the George Washington Memorial Parkway interchange. Visualizations from two locations on Live Oak Drive west of I-495 and from two locations each on Butternut Court and Lawton Street east of I-495 were prepared and included in the Revised Environmental Assessment.

Access to community facilities would be maintained during the construction and operation of the project. The project requires property from McLean Presbyterian Church, Holy Trinity Church, Scott's Run Nature Preserve, and George Washington Memorial Parkway. This property acquisition would not require relocation of buildings or jeopardize the primary use of, or long-term access to, these facilities.

Safe access for non-motorized users as a result of detours, closures, and other inconveniences during the construction phases would be included in construction phasing plans.

FHWA finds that the impact on communities and community facilities is not significant.

Economic Resources

The reduced congestion and improved travel reliability would make employment opportunities near the study area more attractive to qualified workers in a larger geographic area who previously might have been deterred by long travel times and unreliability. This could boost employment growth and productivity within the study area and the region as a whole.

FHWA finds that the economic impact is not significant.

Land Use

The majority of construction would be limited to the existing right-of-way. As indicated in Table 3-2 of the Revised Environmental Assessment, the land use conversion would be relatively minor for this type of project – 4.1 acres converted to public roadway right-of-way, and 7.6 acres converted to permanent maintenance easement. The project would provide express lanes on I-495 and improved interchanges at George Washington Memorial Parkway, Georgetown Pike, and Route 267. The project would also provide non-motorized transportation connections between adjacent neighborhoods via a shared use path that is consistent with the Fairfax County Transportation Plan and the Fairfax County Comprehensive Plan. The project is not anticipated to require relocations or change the overall land use of other parcels.

FHWA finds that the impact on land use is not significant.

Environmental Justice

The project would occur primarily within the existing right-of-way, would not cause any residential or commercial relocations, and would not result in new fragmentation or isolation of any communities. There are no concentrated low-income populations within the study area. One census block group with a minority population was identified. This block group is located in the southeast quadrant of the intersection of Route 267 and Route 123 as shown in Figure 5-3 in the Socioeconomic and Land Use Technical Report. The block group is located outside the area of direct impacts.

The project would create new opportunities for buses, carpools, and vanpools to provide more reliable travel, including for citizens from environmental justice populations. Buses, as well as carpools and vanpools with three or more people, could use the new lanes without paying a toll. In addition, the Virginia Secretary of Transportation has committed to provide \$2.2 million per year for transit operations, and \$5.2 million for the procurement of the initial fleet of vehicles to implement Tyson's/Montgomery County routes. Since the tolled lanes are being added and not converted from existing general purpose lanes, all drivers will continue to be able to use the interstate facility – with the same number of general purpose lanes – without paying a toll.

Based on the above, as well as the information in the Revised Environmental Assessment and the Socioeconomic and Land Use Technical Report, FHWA finds that the project would not have a disproportionately high and adverse effect on environmental justice populations. FHWA also finds that the impact on environmental justice populations is not significant.

Historic Properties

In accordance with Section 106 of the National Historic Preservation Act and 36 CFR 800, the project's effects on historic properties have been considered. The Virginia Department of Transportation, in accordance with the *Programmatic Agreement Among the Federal Highway Administration, the U.S. Army Corps of Engineers, Norfolk District, the Tennessee Valley Authority, the Advisory Council on Historic Preservation, the Virginia State Historic Preservation Officer, and the Virginia Department of Transportation Regarding Transportation Undertakings Subject to Section 106 of the National Historic Preservation Act of 1966*, conducted the Section 106 consultation on behalf of FHWA. Through extensive consultation with the Virginia State Historic Preservation Officer and the National Park Service, VDOT has committed to implement the following measures to minimize harm and mitigate impacts:

- VDOT shall include design constraints in the Request for Proposals requiring the Design-Build contractor to remain within the current LOD [limits of disturbance] where possible in designing and constructing project improvements in the vicinity of archaeological sites 44FX0374, 44FX0379, 44FX0389, and 44FX2430. VDOT shall ensure that the Concessionaire (Design-Build contractor) includes a Special Provision in the contract requiring that safety fencing is erected along the LOD to ensure avoidance of any ground disturbance to Sites 44FX0374, 44FX0379, 44FX0389, or 44FX2430 during construction of the project, or by construction vehicles entering and leaving the project corridor.

- VDOT shall implement Option 1 as presented in the *February 2020 Visualization Booklet* and selected by the SHPO [Virginia State Historic Preservation Officer] and the NPS [National Park Service] as the preferred option.
- VDOT shall construct any infrastructure, such as retaining walls on NPS lands (if required and approved by NPS), associated with the NPS-selected gateway Option 1 in accordance with NPS specifications.
- VDOT shall install any necessary plantings on NPS lands associated with the NPS-selected gateway option in accordance with NPS specifications.
- VDOT shall minimize the amount of forest removal and mitigate for forest removal deemed necessary to implement Option 1.
- VDOT shall coordinate with NPS regarding the design and location of the signage to be installed within the GWMP [George Washington Memorial Parkway].
- VDOT shall consult with the NPS and the SHPO at major milestones in project design to ensure the design remains consistent with these conditions to avoid adverse effects on the GWMP.
- On-going design minimization efforts to reduce the project’s physical project footprint and impervious surface area within the GWMP boundary.
- Continued collaboration with the NPS on potential enhancements to the visitor’s “sense of arrival” including potentially relocating the GWMP entrance sign to a more prominently visible location within the park.
- Completion of a tree survey in the vicinity of the eastbound GWMP lanes, with a commitment to minimize impacts to mature and healthy trees, and to restore vegetation disturbed by construction (including the use of native seed mix and re-planting of trees per NPS’ tree replacement ratio of 1:1).
- On-going efforts to consolidate/reduce existing I-495 guide signage within the westbound lanes of the GWMP.
- Replacement of guide signing for the GWMP on I-495 to include new sign elements with brown backgrounds.
- Location of the Virginia toll signing outside of the park boundary.³

Based on the above measures, the Virginia Department of Transportation determined that the project would not adversely affect historic properties. The Virginia State Historic Preservation Officer concurred with that determination. In addition, on June 7, 2021, the National Park Service issued a Finding of No Significant Impact that determined that the Build Alternative would not have significant adverse effects on the George Washington Memorial Parkway.

FHWA finds that the impact on historic properties is not significant.

Section 4(f)

The project would use land from two Section 4(f) properties: George Washington Memorial Parkway and Scott’s Run Nature Preserve. The project would permanently impact 0.9 acres of, and require 1.3 acres of temporary easement from, the George Washington Memorial Parkway.

³ FHWA hereby adopts the above measures and, pursuant to 23 CFR 771.109(b), will ensure that they are implemented.

The project also would permanently impact 1.1 acres of, and require 3.01 acres of temporary easement from, the Scott's Run Nature Preserve.

The public and the officials with jurisdiction over the Section 4(f) properties (National Park Service and Virginia State Historic Preservation Officer for the George Washington Memorial Parkway, and Fairfax County Park Authority for Scott's Run Nature Preserve) were notified of FHWA's intention to make a de minimis impact finding. On May 6, 2021, the National Park Service concurred that 1) the 1.3 acres of temporary occupancy will not cause permanently adverse physical impacts to, nor interfere with the protected activities, features, or attributes of the George Washington Memorial Parkway that qualify it for protection under Section 4(f), either on a temporary or permanent basis; and 2) impacts to the George Washington Memorial Parkway property that could be expected to result from the project will not adversely affect activities, features, or attributes of the George Washington Memorial Parkway property. In a letter dated May 12, 2021, the Fairfax County Park Authority concurred that 1) the 3.01 acres of temporary occupancy will not cause permanently adverse physical impacts to, nor interfere with the protected activities, features, or attributes of the Scotts Run Nature Preserve that qualify it for protection under Section 4(f), either on a temporary or permanent basis; and 2) impacts to the Scotts Run Nature Preserve property that could be expected to result from the project will not adversely affect activities, features, or attributes of the Preserve.

FHWA hereby makes a Section 4(f) finding of de minimis impact for George Washington Memorial Parkway and Scott's Run Nature Preserve. FHWA also finds the impact on Section 4(f) properties is not significant.

Section 6(f)

Scott's Run Nature Preserve was improved with funds from the Land and Water Conservation Act and therefore is subject to the provisions of Section 6(f) of that act. Approximately 1.1 acres of the preserve would be permanently converted to a transportation use. This property abuts existing I-495 right-of-way and is currently wooded with no pedestrian or recreational use. Therefore, no changes to the current trail network configuration within the preserve are anticipated. Minor changes in noise levels and visual quality could occur, but access to the preserve would not be impacted by the project.

Potential replacement land has been identified at the corner of Balls Hill Road and Georgetown Pike and is approximately 1.48 acres in size. Currently, the parcel is owned by the Virginia Department of Transportation and is used as an unpaved maintenance staging area with access provided from Balls Hill Road. The Virginia Department of Transportation proposes to transfer ownership of the parcel to the Fairfax County Park Authority for future use as additional parking for individuals visiting the preserve. The Revised Section 4(f) and 6(f) Technical Memorandum contains detailed information on Section 6(f) and the on-going coordination between the Virginia Department of Transportation, Fairfax County Park Authority, Virginia Department of Conservation and Recreation, and National Park Service.

FHWA finds that the impact on Section 6(f) properties is not significant.

Air Quality

The project is included in an air quality-conforming long range transportation plan and transportation improvement program. The conformity analysis demonstrated that the incremental impact of the project on mobile source emissions, when added to the emissions from other past, present, and reasonably foreseeable future actions, is in conformance with the State Implementation Plan and would not cause or contribute to a new violation, increase the frequency or severity of any violation, or delay timely attainment of the National Ambient Air Quality Standards established by the U.S. Environmental Protection Agency.

Carbon Monoxide. A worst-case modeling approach was applied. All modeling conducted for this project was consistent with applicable federal requirements and guidance as well as the Virginia Department of Transportation's Project-Level Air Quality Resource Document. U.S. Environmental Protection Agency guidance, which is more detailed and only required for conformity applications, was also applied for this project for purposes of increased transparency. The air quality modeling (dispersion modeling) of carbon monoxide concentrations was performed using the U.S. Environmental Protection Agency's CAL3QHC model. In all scenarios, forecast peak concentrations for carbon monoxide are well below the one- and eight-hour National Ambient Air Quality Standard of 35 and 9 parts per million, respectively.

Mobile Source Air Toxics (MSAT). This project is best characterized as one with "higher potential MSAT effects" as defined in FHWA guidance since projected design year traffic is expected to exceed the 140,000 to 150,000 Average Annual Daily Traffic criterion. Specifically, the 2025 Build scenario is expected to have combined traffic volumes on the I-495 general purpose and express lanes reaching 189,600 Annual Daily Traffic at the southern project boundary to as high as 261,400 Annual Daily Traffic just south of the American Legion Memorial Bridge. As a result, a quantitative assessment of MSAT emissions was conducted consistent with FHWA guidance. Technical shortcomings of emissions and dispersion models and uncertain science with respect to health effects prevent meaningful or reliable estimates of MSAT emissions and effects of this project at this time. While it is possible that localized increases in MSAT emissions may occur as a result of this project, emissions would likely be lower than present levels in the design year of this project as a result of the U.S. Environmental Protection Agency's national control programs that are projected to reduce annual MSAT emissions by over 80 percent between 2010 and 2050. Although local conditions may differ from these national projections in terms of fleet mix and turnover, vehicle miles of travel growth rates, and local control measures, the magnitude of the U.S. Environmental Protection Agency-projected reductions is so great (even after accounting for vehicle miles of travel growth) that MSAT emissions in the study area are likely to be lower in the future in nearly all cases.

Greenhouse Gas Emissions. Although regional vehicle miles traveled is anticipated to increase between 2018 and 2045 (consistent with national and local trends over the past several decades), vehicle miles traveled is projected to be lower in the 2045 Build scenario compared to the 2045 No Build scenario (22.4% increase vs. 28.9% increase). The new express lanes would encourage carpooling and improve bus operations on I-495. In addition, the project would result in some localized re-routing of traffic from arterial facilities to the I-495 due to the new express lanes, which would result in more direct (shorter distance) trips. A major factor in mitigating GHG

emissions from the increases in vehicle miles traveled between 2018 and 2045 is the U.S. Environmental Protection Agency's greenhouse gas emission standards, implemented in concert with national fuel economy standards. The Energy Information Administration estimated that fuel economy will improve by 65% between 2018 and 2050 for all light duty vehicles. This improvement in vehicle emission rates is more than sufficient to offset the increase in vehicle miles traveled over this period. Thus, it is projected that the project area would see a net reduction in operational greenhouse gas emissions under the project in 2045 as compared to the 2045 No Build Alternative or the 2018 existing conditions.⁴ Additional details on the greenhouse gas assessment can be found in the Revised Environmental Assessment. Some additional greenhouse gas emissions can be expected due to construction of the project. Construction emissions are typically estimated to be a relatively minor portion of the total 20-year lifetime emissions from the roadway.

Air Quality Mitigation. The Virginia Department of Environmental Quality (VDEQ) provides general comments for projects by jurisdiction. Their comments in part address mitigation. For Fairfax county, VDEQ comments relating to mitigation are "...all reasonable precautions should be taken to limit the emissions of VOC and NOx. In addition, the following VDEQ air pollution regulations must be adhered to during the construction of this project: 9 VAC 5-130, Open Burning restrictions; 9 VAC 5-45, Article 7, Cutback Asphalt restrictions; and 9 VAC 5-50, Article 1, Fugitive Dust precautions."

The project would follow all state and federal regulations, including on-site regulations for workers related to fugitive dust. All construction activities will be required to adhere to VDEQ's fugitive dust regulation (9 VAC 5-50, Article 1, et seq.), which would have the effect of minimizing all fugitive construction dust. Mitigation measures to be used during construction could include:

- use water trucks to minimize dust;
- cover trucks when hauling soil, stone, and debris;
- minimize land disturbance;
- use dust suppressants if environmentally acceptable;
- stabilize or cover stockpiles;
- construct stabilized construction entrances per construction standard specifications;
- regularly sweep all paved areas including public roads;
- Stabilize onsite haul roads using stone; and
- Temporarily stabilize disturbed areas per Virginia Department of Transportation erosion and sediment standards.

With these measures in place, it is not expected that fugitive dust would migrate to areas where the public frequents, including adjacent residential areas.

Silica dust is a type of fugitive dust. The Occupational Safety and Health Administration (OSHA) has published a silica fact sheet consistent with standard 29 CFR 1926.1153. Table 1 in 29 CFR 1926.1153 provides effective dust control methods for a list of 18 common construction tasks. The

⁴ The recent rollback of some light-duty vehicle fuel economy standards may reduce the Energy Information Administration's projections of future fuel economy benefits, but improvements in greenhouse gas emission rates are still planned for light, medium, and heavy-duty vehicles in the coming years. Therefore, the recent rollback is not reasonably expected to change the conclusions of the greenhouse gas analysis as documented in the Revised Air Quality Technical Report.

OSHA fact sheet lists alternative exposure control methods for employers who do not fully implement the control methods on Table 1 in 29 CFR 1926.1153.

The air quality assessment indicates that the project would meet all applicable National Environmental Policy Act air quality requirements and federal and state transportation conformity regulations. As such, the project would not cause or contribute to a new violation, increase the frequency or severity of any violation, or delay timely attainment of the National Ambient Air Quality Standards established by the U.S. Environmental Protection Agency.

FHWA finds that the impact on air quality is not significant.

Noise

The loudest hour of the day for the project was determined to be 12:00 p.m. to 1:00 p.m. Noise levels are predicted to range from 43 to 74 dB(A), with a total of 148 noise sensitive receptors including 123 residences and 25 recreational sites predicted to be impacted with the project in place. On average for all receptors, sound levels are predicted to increase from the existing conditions by approximately one dB(A). This increase is due primarily to the roadway improvements allowing slightly higher traffic volumes in the loudest hour periods.

Five new noise barriers were evaluated for areas predicted to be impacted by traffic noise. One of the evaluated noise barriers preliminarily met the feasible and reasonable criteria. Of the 13 existing noise barriers identified within the noise study area, nine would be physically impacted and would be required to be replaced in-kind. As such, in-kind barrier replacement analyses will be evaluated during final design for all affected existing noise barriers. Noise barrier extensions were determined to be feasible and reasonable for three of the four in-kind replacement barriers.

Construction activity may cause intermittent fluctuations in noise levels. During construction of the project, reasonable measures would be taken to minimize noise impact from these activities. Additional details regarding the noise analysis can be found in the Revised Environmental Assessment and Noise Technical Report.

FHWA finds that the noise impacts are not significant.

Waters of the United States

Impacts to streams and wetlands are unavoidable due to the necessity of the improvements to be adjacent and parallel to the existing I-495 roadway. Impacts would occur primarily due to fill resulting from roadway widening and appurtenant features, interchange reconfiguration, culvert extensions, drainage improvements, bridge and roadway expansions, stormwater management facilities, noise barriers, and construction access. The majority of potential impacts are associated with mainline roadway improvements.

Twenty-six streams totaling 12,821 linear feet and 19.8 acres of wetlands would be directly impacted by the project. This total includes permanent impacts and temporary impacts, which takes into consideration impacts from potential stream relocations, though decisions regarding

relocations of streams would not be considered until more detailed design and permitting. A worst-case scenario was assumed by not including any bridging or minimization of impacts.

During final design and permitting, impacts would be avoided and minimized to the greatest extent practicable through bridging, adjustments in construction means and methods, and other avoidance and minimization efforts. Minor alignment shifts in localized areas could be employed to avoid lateral encroachments on particular streams or wetlands; however, because the project primarily involves expanding an existing roadway, opportunities are dependent upon the current positioning of the waters of the United States relative to the roadway crossing.

Unavoidable impacts to waters of the United States would require the submittal of a Joint Permit Application to request permits from the U.S. Army Corps of Engineers, Virginia Department of Environmental Quality, Virginia Marine Resources Commission, and, as applicable, local wetlands board. It is anticipated that Individual Permits would be required from the U.S. Army Corps of Engineers, Virginia Department of Environmental Quality, and Virginia Marine Resources Commission.⁵ In accordance with federal and state permitting requirements, compensatory mitigation at levels deemed appropriate by the permitting agencies is required for all permanent impacts to waters of the United States.

FHWA finds that the impact on waters of the United States is not significant.

Water Quality

No direct project impacts would occur to the Potomac River or to Dead Run. There are several tributaries of the Potomac River that are within the study area, but besides Dead Run, none of these are designated as impaired waters under Section 303(d) of the Clean Water Act.

The project is required to comply with the administration, implementation, and enforcement of the Virginia Stormwater Management Act through permits issued by a Virginia Stormwater Management Program authority. In accordance with the Virginia Administrative Code (9VAC25-870), stormwater management infrastructure would be provided to address runoff from new impervious surfaces. Water quality best management practices would mitigate the nutrient impact from the new impervious surfaces. Water quantity would be addressed through the implementation of stormwater management facilities, adequate outfall, and channel and flood protection requirements. Stormwater management facilities would be designed to address runoff capacity and velocity, and receiving waters would be analyzed for outfall adequacy.

The Virginia Department of Transportation presented stormwater management options to the Virginia Department of Environmental Quality to provide a holistic view of impacts to the surrounding properties should the project meet Fairfax County requirements. The Virginia

⁵ Coordination with the permitting agencies has occurred throughout the study, including partnering meetings to discuss the purpose and need and the Build Alternative; a Stakeholder Technical Advisory Group that met four times prior to the completion of the Environmental Assessment; a presentation and discussion about the impacts to waters of the United States and potential mitigation strategies; and circulation of the Environmental Assessment for review and comment. None of the permitting agencies have objected to the project.

Department of Environmental Quality agreed with the Virginia Department of Transportation's assessment that the impact to residences and loss of natural habitat were too great to follow more stringent regulations. That documentation has been shared with Fairfax County. The current stormwater management approach for the project satisfies the requirements to the maximum extent practicable with the application of both onsite stormwater management facilities and nutrient credits. This approach was confirmed after extensive coordination among the Virginia Department of Transportation, the Virginia Department of Environmental Quality, and Fairfax County to identify a balanced solution. Additional information on water quality can be found in the Revised Natural Resources Technical Report.

FHWA finds that the impact on water quality is not significant.

Floodplains

All floodplains within the project's limits of disturbance are associated with Scott Run, which runs through the center of the study area between Old Dominion Drive and through the Route 267 interchange, and Dead Run, which is located within National Park Service property in the northeast corner of the study area. Approximately 60 acres of floodplains are located within the limits of disturbance. This figure represents a worst-case scenario and was assumed by not including any bridging or minimization of impacts as well as including impacts due to stream relocations. During final design and permitting, the impacts within these floodplains would be reduced to the greatest extent practicable.

The project would not increase flood levels and would not increase the probability of flooding or the potential for property loss and hazard to life. Further, the project would not be expected to have substantial effects on natural and beneficial floodplain values. The project would be designed so as not to encourage, induce, allow, serve, support, or otherwise facilitate incompatible base floodplain development. It is anticipated that the potential encroachment into the floodplain would not be a "significant encroachment" (as defined in 23 CFR 650.105(q)) because it:

- would pose no significant potential for interruption or termination of a transportation facility that is needed for emergency vehicles or that provides a community's only evacuation route;
- would not pose significant flooding risks; and
- would not have significant adverse impacts on natural and beneficial floodplain values.

FHWA finds that the impact on floodplains is not significant.

Wildlife Habitat

Approximately 233 acres of potential wildlife habitat would be impacted. Of that amount, approximately 80% consists of maintained or previously disturbed vegetation within the existing I-495 right-of-way. There would be approximately 118 acres of tree clearing associated with the construction of the project. Increasing the width of the roadway corridor would result in reduced habitat, although is not likely to increase habitat fragmentation as forested land would not be newly separated from contiguous forest. The existing interstate highway and other barriers currently prevent terrestrial wildlife from crossing the travel lanes, and existing corridors would be

maintained by extending culverts and bridges; therefore, no elimination of existing wildlife passages is anticipated.

FHWA finds that the impact on wildlife habitat is not significant.

Federally Threatened and Endangered Species

Northern Long-Eared Bat (NLEB). The majority of the tree clearing would occur within 300 feet of existing roadways, with the exception of the proposed relocation of Scott Run south of Old Dominion Drive. Forest clearing along the edge of the existing right-of-way would result in a minor reduction in forested cover and quality of forested habitat. Clearing of forested habitat within interchanges and smaller fragmented forest areas would result in the removal of sub-optimal habitat that has a low potential for roosting and generally does not provide suitable commuting and foraging corridors for the NLEB. No confirmed maternity roosts or hibernacula are located within a two-mile radius of the study area, further limiting the potential effects on this species. Conservation and protection measures for the NLEB would be in accordance with the Final 4(d) Rule and the Programmatic Biological Assessment for Transportation Projects in the Range of the NLEB. The Final 4(d) Rule modifies protections to the NLEB in areas affected by white-nose syndrome and is designed to protect the species while minimizing regulatory requirements for landowners, land managers, government agencies, and others within its range. The project may affect the NLEB, but any take that may occur as a result of the project is not prohibited under the Final 4(d) Rule.

FHWA finds that the impact on federally threatened and endangered species is not significant.

Hazardous Materials

Nine low priority sites, four moderate priority sites, and two high priority sites were identified within the limits of disturbance. Further assessment of the moderate and high priority sites would be conducted. The high priority sites are not within the census block that contained the minority population. The future assessment would include a review of reasonably ascertainable documentation pertaining to the sites. The purpose of this further assessment is to characterize in greater detail the nature of the potential concerns and to determine if further investigation is warranted, namely Phase II Environmental Assessment activities including soil and groundwater sampling. The future assessment of moderate and high priority sites and any necessary remediation would be conducted in compliance with federal and state environmental laws and would be coordinated with the U.S. Environmental Protection Agency, the Virginia Department of Environmental Quality, and other regulatory agencies as necessary. Undocumented hazardous materials that are encountered during construction efforts would be managed, handled, and disposed of in accordance with federal, state, and local regulations.

FHWA finds that the hazardous materials impacts would not be significant.

Indirect Effects⁶

Land Use. The temporary and permanent right-of-way requirements would be limited primarily to narrow strips adjacent to existing I-495 in the study area. Proposed right-of-way acquisition would not change overall land use in the area, and the project would have minimal indirect effects on land use. The project is not anticipated to encourage or accelerate land use changes that are not already expected by the localities within the study area. The construction of the project is unlikely to create pressure on public officials to make changes to land use plans or allow types of development in areas not currently approved for it or to allow greater development densities. Per the Fairfax County Comprehensive Plan, Tysons may experience an increase in density, but these increases are anticipated regardless of improvements on I-495.

Communities and Community Cohesion. The project would not result in new fragmentation or isolation of any communities, including environmental justice populations. Local roadways that parallel I-495 could see traffic volume reductions as drivers divert from existing streets onto the improved interstate highway where they could find better travel conditions. This change could result in an indirect benefit to communities from the project.

Economic Resources. Users on I-495 would experience improved travel time and travel reliability. This would benefit people and businesses by reducing lost productivity from sitting in congested traffic. In addition, increases in job opportunities – including opportunities for citizens from the environmental justice population – could be expected due to short-term construction hiring and long-term operation and maintenance of the project. Employment opportunities near the study area would become more attractive to qualified workers in a greater geographic area who previously might have been deterred by long travel times. The project would extend express lanes, requiring single-occupancy vehicles and other vehicles not meeting High Occupancy Vehicle-3 occupancy requirements to pay a variable toll to use the express lanes. The existing general purpose lanes would remain free for travelers using I-495. In addition, the extension of the managed lanes system could encourage carpooling in the area, allowing High Occupancy Vehicle users to take advantage of the express lanes for free.

Water Resources. The increase in impervious surface area has the potential to adversely affect water quality, streams, wetlands, floodplains, aquatic habitats, and anadromous fish use waters. Increased impervious surface from the project can increase runoff volume and velocity. Runoff from roadways could contain heavy metals, salt, organic compounds, and nutrients, which could facilitate the degradation of nearby terrestrial and aquatic habitat through deposition of sediments or contamination from chemical pollutants. Potential indirect impacts to natural resources during construction include erosion and sedimentation or accidental spills of hazardous materials from construction equipment. Modern temporary and permanent stormwater management measures, including ponds, sediment basins, vegetative controls, and other measures would be implemented, in accordance with the Virginia Stormwater Management Program and applicable guidance, to

⁶ The Council on Environmental Quality issued updated regulations implementing the National Environmental Policy Act with an effective date of September 14, 2020. The new regulations no longer require an analysis of “indirect effects.” Notwithstanding, the Virginia Department of Transportation’s Revised Environmental Assessment includes an indirect effects analysis.

minimize potential degradation of water quality due to increased impervious surface and drainage alteration. These measures would reduce or detain discharge volumes and remove many pollutants before discharging into the receiving water.

Floodplains. Construction of the project could potentially cause long-term minor adverse indirect impacts to floodplains by altering existing drainage patterns and flood flows. However, with adequately sized culverts and bridges, no significant indirect effects to floodplains are anticipated.

Wildlife Habitat. The right-of-way is located within an already developed area which has led to less natural forest cover and an increase in impervious surfaces and turfgrass. The existing roadway forms major habitat fragmentation of forested areas, posing a barrier to crossings by terrestrial species due to vehicle strikes and the presence of fence lines that bound the highway. Culverts connecting streams under roadways offer limited passage, and the habitat fragments result in low-quality edge habitat. As vegetation is cleared along the outside edges of the current I-495 travel lanes, the roadway would extend into already fragmented forested areas. Therefore, the project would not create any additional fragmented forested areas but would reduce the amount of available forested land within the study area. Increases in impervious surface area has the potential to adversely affect both aquatic and terrestrial wildlife habitat by increasing runoff volume and velocity. However, construction of stormwater facilities would serve to minimize any pollution impacts.

Federally Threatened and Endangered Species. Given that minimal direct impacts to the northern long-eared bat population are anticipated, indirect effects would also be minor. Known occurrences of the northern long-eared bat are far enough away from the limits of disturbance that any indirect effects would be negligible.

Historic Properties. The effects analysis under Section 106 of the National Historic Preservation Act includes the consideration of indirect effects. That analysis concluded that the project would not have an adverse effect on historic properties.

Induced Growth. No induced growth would be expected because the project does not propose new access points to undeveloped land and is located within a largely built-out environment. Therefore, no substantial indirect impacts to water resources, floodplains, federally threatened and endangered species, and wildlife habitat attributed to induced growth are anticipated. Should future growth and development in the vicinity of the interchanges and feeder roads impact any of the above, the individual development would be subject to review, approval, and permits from local, state, or federal agencies before any impacts would occur.

FHWA finds that the indirect effects are not significant.

Cumulative Effects⁷

Past growth and development have diminished natural resources, and intensification of land use in the region has resulted in adverse impacts to water quality; loss of wetlands, streams, and floodplains; loss of wildlife populations from overexploitation and loss of habitat; fragmented habitat; and degraded habitat quality. This has led to some species becoming threatened and endangered. Federal, state, and local regulations enacted over the last 50 years have done much to slow the loss of remaining wildlife habitat, improve wildlife habitat and water quality, and recover protected species. These regulations require consideration of avoidance, minimization, and mitigation of adverse impacts to natural resources. Conservation efforts have also positively contributed to natural resources in the region, such as the Scott's Run Nature Preserve, the George Washington Memorial Parkway, local parks, resource protection areas, and other conservation easements and holdings.

The project is anticipated to support continued growth and development in and around the study area. The project's contribution to cumulative effects on community facilities and recreational resources would not be significant considering that the direct and indirect effects are not significant. The project could result in short-term reduced water quality, floodplain impacts, and forest and wetland impacts, but these impacts would be minimized by the implementation of state-mandated best management practices and conformance with current stormwater regulations. Therefore, the project is unlikely to substantially contribute to the further diminishment of any impaired waterbody.

The project's effects to historic properties were considered as part of the Section 106 process. Projects to improve or maintain historic resources have taken place over the years, such as the National Park Service adding natural stone retaining walls along the George Washington Memorial Parkway. Adjacent development may detract from the viewshed of the George Washington Memorial Parkway, though it would be done in coordination with the National Park Service when it is federally funded. Transportation improvements may also increase visitation to the George Washington Memorial Parkway, contributing to tourism and providing incentives for preservation and conservation lands. Overall cumulative effects of the project are not expected to be significant. In addition, current regulatory requirements and planning practices help to avoid or minimize the contribution of present and future actions to adverse cumulative effects for socioeconomic, natural, and historic resources.

FHWA finds that the cumulative effects are not significant.

⁷ The Council on Environmental Quality issued updated regulations implementing the National Environmental Policy Act with an effective date of September 14, 2020. The new regulations no longer require an analysis of "cumulative effects." Notwithstanding, the Virginia Department of Transportation's Revised Environmental Assessment includes a cumulative effects analysis.

Comments

The Revised Environmental Assessment addresses all substantive environmental comments that were received during the comment period. FHWA received comments from three citizens after the close of the comment period and after the Fairfax County Board of Supervisors endorsed the project on April 13, 2021. FHWA has reviewed and considered the comments, many of which were made during the comment period and addressed in the Revised Environmental Assessment. In addition, FHWA was made aware of an April 8, 2021 paper issued by the Coalition for Smarter Growth and a few other organizations entitled, “Best Smart Growth Plan for American Legion Bridge and Capital Beltway.”

With this Finding of No Significant Impact, FHWA is further addressing comments in two areas – alternatives and independent utility – as follows.

Alternatives

Background. With the previous National Environmental Policy Act studies as background (see section 1.3 of the Revised Environmental Assessment), and based on the established purpose and need as well as coordination with local governments, stakeholders, and the public, the Virginia Department of Transportation evaluated one build alternative in detail in the Environmental Assessment.⁸ The alternative’s typical section is consistent with the typical section on the adjacent section of I-495 located immediately to the south of the project. In developing the alternative, the Virginia Department of Transportation considered a range of design options at several interchanges to meet the needs at those locations. The Virginia Department of Transportation then made the Environmental Assessment and associated technical memoranda available for review and comment. Based on comments received, the Virginia Department of Transportation modified the Build Alternative at the I-495/Georgetown Pike interchange as described in section 2.2 of the Revised Environmental Assessment. The Build Alternative selected in this Finding of No Significant Impact provides flexibility for different designs to be considered when the project advances to more detailed phases of design and permitting.^{9,10}

I-495/George Washington Memorial Parkway Interchange. Several options were developed to modify the I-495/George Washington Memorial Parkway interchange. These options related to the project alignment, signage, grading, and aesthetics. The National Park Service agreed that the selected option would not adversely affect the George Washington Memorial Parkway.

Comments. A few comments requested that a “public alternative,” “publicly built alternative,” or a “publicly funded, designed, and publicly reviewed build alternative” be developed. No additional

⁸ Evaluating one build alternative in detail is allowable per FHWA’s Technical Advisory T 6640.8A *Guidance for Preparing and Processing Environmental and Section 4(f) Documents*.

⁹ The project is planned to be delivered as part of a design-build contract.

¹⁰ During the permitting process, the U.S. Army Corps of Engineers and/or the U.S. Environmental Protection Agency may request an alternatives analysis pursuant to their authority under Section 404 of the Clean Water Act. If the Build Alternative is modified during the design or permitting process, then the Virginia Department of Transportation would need to address the change(s) via a reevaluation and submit it to FHWA for consideration.

details were provided on the scope of such an alternative. The lack of specificity does not allow this alternative to be measured against the purpose and need or assessed for environmental impacts.

The Coalition for Smarter Growth et al. paper requested an “evaluation and adoption of a land use, transit, and demand management alternative to include:

- a. Buildout of transit-oriented development at Metro stations, Purple Line stations, and BRT corridors. The WMATA Connect Greater Washington Study shows that TOD buildout – particularly in Prince George’s – would help correct the east-west jobs/housing imbalance, increasing transit trips, reducing vehicle miles traveled, and reducing demand on the Beltway in both Maryland and Virginia.
- b. Prioritization of a dedicated “Purple Line” transit connection across the river including Metrorail or light rail connecting between the Silver Line and Red Line and Maryland Purple Line, along with dedicated bus-only or bus-HOV3 lanes.
- c. Demand management tools: parking pricing, employer transit benefits and parking cashout, telecommuting, and (potentially) pricing existing lanes rather than expansion with priced lanes.
- d. Inclusion of well-designed bicycle and pedestrian connections to and across a rehabilitated or new American Legion Bridge.
- e. We seek clear environmental justice considerations to be brought into the highway expansion planning.”

Response. While the suggestions in items a, b, and c may have merit, most of them are outside of the study area, would not meet the identified purpose and need, and are not reasonable alternatives in this National Environmental Policy Act study.¹¹ Regarding item d, the American Legion Memorial Bridge is outside of the limits of the project. However, a 10-foot wide shared use path is part of the project to address public requests for pedestrian and bicycle mobility. The shared use path would be consistent with the Fairfax County Countywide Trail Plan Map and would continue to the existing sidewalk on Live Oak Drive. The shared use path could connect to the multi-use trail that is part of the recommended preferred alternative for Maryland’s I-495 & I-270 Managed Lanes Study. With regard to item e, environmental justice considerations were indeed part of the project planning, and the project would not have adverse effects on environmental justice populations.

Comments. The Coalition for Smarter Growth et al. paper also states, “Should officials proceed with the HOT proposal for the American Legion Bridge and connections at each end, AFTER full and objective consideration of our comprehensive alternative, then the project must:

- a. Include bike/pedestrian connections.
- b. Provide significant funding for transit operating and capital needs to ensure frequent, high-capacity transit.
- c. Incorporate a bridge design that supports Metrorail.
- d. Incorporate a bridge design that minimizes impacts to the sensitive natural and historic assets in the Potomac Gorge including water quality, forests, native species, National Park

¹¹ A reasonable alternative is one that is “...technically and economically feasible, meet[s] the purpose and need for the proposed action, and, where applicable, meet[s] the goals of the applicant.” (40 CFR 1508.1(z))

sites like Plummer’s Island, and historic assets. In contrast to the significant widening required by four HOT lanes (as much as 80 feet or more), other alternatives such as pricing existing lanes, converting existing lanes to bus-only or bus/HOV3-lanes, and vertically separated rail could result in less impact.

- e. Furthermore, while we do not recommend private tolled HOT lanes, if new lanes are added, they should be added to the upriver side of the bridge so as not to require use of Plummer’s Island for the construction, and additional mitigation measures should also be taken to protect this historically important site of ongoing, long-term research.”

Response. The project includes several bicycle and pedestrian connections. Regarding transit funding, the Virginia Secretary of Transportation has committed to provide \$2.2 million per year for transit operations, and \$5.2 million for the procurement of the initial fleet of vehicles to implement Tyson’s/Montgomery County routes. Items c, d, and e relate the American Legion Memorial Bridge and are, therefore, outside of the limits of the project.

FHWA finds that the analysis of alternatives and options for this study was reasonable.

Independent Utility

Background. FHWA’s regulations implementing the National Environmental Policy Act state that “Any action evaluated under NEPA as a categorical exclusion (CE), environmental assessment (EA), or environmental impact statement must...Have independent utility or independent significance, i.e., be usable and be a reasonable expenditure even if no additional transportation improvements are made.” This project would begin at the existing express lanes and terminate at the George Washington Memorial Parkway, which are logical termini.¹²

Comments. Some comments indicated that the project should not be constructed unless the State of Maryland improves the American Legion Memorial Bridge and implements express lanes in that state. Other comments questioned whether the project would function on its own if the State of Maryland did not make any roadway improvements.

Response. As illustrated in Figure 7 in the I-495 Revised Traffic and Transportation Technical Report, even without roadway improvements in Maryland, the project would result in an overall increase in person throughput resulting from additional capacity. In addition, by increasing the person-carrying capacity of I-495 and by providing a reliable travel option using express lanes, drivers would have less incentive to use local cut-through routes. Traffic models with the project in place forecast a reduction in traffic volume and travel delay on the local street network, most notably along Georgetown Pike. Traffic volume demands and corresponding delays on Georgetown Pike are projected to decrease at five intersections along the corridor, including at: (1) Swinks Mill Road, (2) southbound I-495 ramps, (3) northbound I-495 ramps, (4) Balls Hill Road, and (5) Dead Run Drive.

¹² Additional improvements would extend approximately 0.3 miles north of the George Washington Memorial Parkway to transition to the existing roadway.

The project has independent utility because it would provide a usable facility and is a reasonable expenditure of funds even if no additional improvements in the area are made, including from the I-495 & I-270 Managed Lanes Study in Maryland.

FHWA Finding

Based on the foregoing information as well as the Environmental Assessment, Revised Environmental Assessment, and the Virginia Department of Transportation's letter requesting a Finding of No Significant Impact, FHWA finds that the project will not have a significant effect on the human environment. Therefore, an Environmental Impact Statement is not warranted, and this Finding of No Significant Impact is being issued accordingly. The Finding of No Significant Impact will be reevaluated pursuant to 23 CFR 771.129(c) prior to FHWA granting any major approvals, and the reevaluation will take into account the conditions at that time.

Appendix A