

**FEDERAL HIGHWAY ADMINISTRATION**  
**FINDING OF NO SIGNIFICANT IMPACT**  
**FOR**

**PROJECT:** Fairfax County Parkway Interchange  
Improvements

**LOCATION:** Fairfax County, Virginia

**STATE PROJECT NUMBER:** 0095-029-890, P101 (UPC 96259)

The Federal Highway Administration has determined that this project will have no significant impact on the environment. This Finding of No Significant Impact is based on the Environmental Assessment and the Revised Environmental Assessment. The Environmental Assessment and the Revised Environmental Assessment have been independently evaluated by the Federal Highway Administration and determined to adequately and accurately discuss the need, environmental issues, and impacts of the proposed project. They provide sufficient evidence and analysis for determining that an Environmental Impact Statement is not required.

5/30/12

Date

John Dankeino

for: Division Administrator  
FHWA Virginia Division

## **Environmental Impacts**

The following is a summary of the environmental impacts as identified in the Environmental Assessment and Revised Environmental Assessment.<sup>1</sup>

### Land Use

Approximately five acres of new right of way would be required to implement the project. For the I-95 interchange, the right of way acquisition would be primarily from industrial sites along the east side of I-95. Fairfax County's zoning for the area surrounding the I-95 interchange is predominantly for industrial and commercial uses. The County's Comprehensive Plan indicates industrial and commercial uses continuing in the future. The area surrounding the Rolling Road/Franconia-Springfield Parkway interchange is predominantly residential, and the residential uses will continue into the future in accordance with the Comprehensive Plan. The project is consistent with proposed land use goals of Fairfax County and would not have any substantial long-term impacts to surrounding land uses.

FHWA finds that the land use impacts are not significant.

### Relocations

No homes, businesses, farms, or nonprofit organizations would be displaced by the project.

### Community Facilities

No community facilities or services (churches, schools, civic organizations, law enforcement, or emergency services) would be displaced or adversely affected by the project.

### Environmental Justice

The project has been developed in accordance with Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations*. The project would not cause disproportionately high and adverse effects on minority or low-income populations.

### Public Parks and Recreational Resources

There are no publicly owned parks or recreation areas within the project study area. A portion of Fairfax County's Cross County Trail runs along the Fairfax County Parkway trail, which crosses Rolling Road and runs along the north side of Hunter Village Drive, a

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<sup>1</sup> The Environmental Assessment and Revised Environmental Assessment are incorporated by reference into this Finding of No Significant Impact.

local street that parallels the Fairfax County Parkway. The trail would not be impacted by the project.

### Historic Properties

In accordance with Section 106 of the National Historic Preservation Act, the project would have no effect on historic properties.

### Waters of the United States

The I-95 interchange and a portion of the Rolling Road/Franconia-Springfield interchange lie within the Accotink Creek watershed, which encompasses more than 50 square miles and extends from the City of Fairfax to Gunston Cove at the Potomac River. More than half of the watershed is covered by residential, commercial, or industrial development. The watershed also is dissected by many major and minor highways, including I-95, the Capital Beltway, the Fairfax County Parkway, several U.S. and state primary routes, and numerous local streets.

Streams in the watershed can be characterized as degraded, with most having poor habitat and biological conditions. Measures of benthic macroinvertebrate community health are low, with species being those adapted to degraded conditions. Most of the small tributaries are highly incised, and a pattern of stream widening has been observed due to increased flows from surrounding developments. The ongoing erosion and sloughing of banks results in unstable benthic habitat. Imperviousness exceeds 25% throughout much of the watershed. A dam roughly midway within the mainstem of Accotink Creek holds Lake Accotink, which imposes some hydrologic control and somewhat moderates the effects of high flow volumes in the mainstem. The dam also constitutes a barrier to migration of aquatic species. Fairfax County has established stream valley parks along portions of Accotink Creek beyond the limits of the project to preserve riparian habitat, help protect water quality, and, in some instances, provide trails for public recreation.

A portion of the Rolling Road/Franconia-Springfield Parkway interchange lies within the Pohick Creek watershed which encompasses approximately 34 square miles. Although the watershed is still predominantly forested, levels of impervious cover are generally very high throughout. There are several impoundments within the watershed. Measures of benthic macroinvertebrate community integrity are consistently low throughout the watershed, with no sites ranking above the "Fair" category.

The project would cross Field Lark Branch, a small tributary that joins Accotink Creek to the south of the project. Roughly 15 linear feet of stream bottom in Field Lark Branch would be displaced by the extension of a culvert to carry the stream under the widened road. The culvert extension would be countersunk below the stream bottom profile to enable reestablishment of natural stream bottom inside the culvert.

Temporary siltation likely would occur during construction. Long-term water quality effects that might be attributable to operation and maintenance of the roadway could

include incremental increases in pollutant loads in highway runoff, such as particulates, metals, oil and grease, nutrients, and other substances. However, temporary and permanent stormwater management measures, including vegetative controls, detention basins, and filtration systems would be implemented on this project to minimize potential short-term and long-term effects on water quality. These measures would reduce or detain stormwater discharge volumes and remove pollutants. The project design would incorporate erosion and sediment control measures as specified in VDOT's *Road Design Manual*. The requirements and special conditions of any required permits for work in and around surface waters would be incorporated into construction contract documents, and the construction contractor will be required to comply with pollution control measures specified in VDOT's *Road and Bridge Specifications*.

*Wetlands.* One wetland is located in the southern study area just north of the I-95 intersection. It is situated in a low-lying fill area near Field Lark Branch, which is culverted under the existing Fairfax County Parkway. The wetland is connected to Fieldlark Branch through a culvert under Fullerton Road. This wetland is classified as palustrine emergent wetland.

*Permits.* Section 404 of the Clean Water Act provides regulatory authority to the U.S. Army Corps of Engineers to issue permits for the discharge of dredged or fill material into the waters of the U.S., including wetlands. Complete avoidance of impacts to streams and wetlands is not practicable because the alignment cannot be feasibly relocated to a place where there would be no involvements with waters of the U.S. The designs of stream crossing structures and the stormwater management and erosion and sediment control measures that would be employed to minimize potential adverse effects to adjacent wetland systems.

Compensation for unavoidable wetland impacts will be provided as part of the proposed project. Such compensation could be accomplished in a variety of ways including compensation onsite, the purchase of credits at an approved mitigation bank with a service area encompassing the project, and payment to the Virginia Aquatic Resources Trust Fund. Further coordination with the permitting agencies will be undertaken at the permit application stage of the project.

FHWA finds that the impacts to the Waters of the United States are not significant.

### Floodplains

No Federal Emergency Management Agency-designated 100-year floodplains would be crossed by the project.

### Air Quality

This project is located in a nonattainment area for ozone and fine particulate matter (PM<sub>2.5</sub>). An air quality analysis demonstrated that the project would result in no violations of the National Ambient Air Quality Standards (NAAQS) for carbon monoxide. With regard to particulate matter (PM<sub>2.5</sub>), the project is a type that would not

be of air quality concern. In addition, the project is considered a type that is not of concern for mobile source air toxics. On a regional basis, EPA's vehicle and fuel regulations, coupled with fleet turnover, will result in substantial reductions in emissions, and in almost all cases, will cause region-wide mobile source air toxics to be substantially lower than they are today.

The project is included in the National Capital Region Transportation Planning Board's financially constrained long-range transportation plan and FY 2011-2016 Transportation Improvement Program, which were found to conform to the State Implementation Plan. The temporary air quality impacts from construction are not expected to be substantial, and construction activities are to be performed in accordance with VDOT's *Road and Bridge Specifications*. The project is not expected to cause or contribute to any violations of the NAAQS or to interfere with the attainment or maintenance of the applicable NAAQS.

FHWA finds that the air quality impacts are not significant.

#### Noise

The noise analysis was redone using updated traffic volumes during the period between the availability of the Environmental Assessment and the completion of the Revised Environmental Assessment. In addition, based on discussions with representatives of the Daventry Park Home Owners Association, the noise study was expanded to assess and document noise impacts and potential noise abatement measures for the community, which lies just north of the study area used for previous noise analyses.

*Context.* The context of the project is an urbanized area. A fair amount of noise is already present as evidenced by the existing noise levels in the noise analysis. Ambient noise levels in a natural environment with no human development are often measured in decibels in the low 40s. However, background noise levels for most of the residences in the Noise Sensitive Areas are in a decibel range in the 50s and 60s.

*Intensity.* Design year noise levels are not projected to approach or exceed the Noise Abatement Criteria at any receptor sites. In addition, the project would not result in a substantial increase in noise levels at any location. Therefore, the project would have no noise impacts and noise mitigation is not warranted. However, during final design all areas of the project will be reconsidered in light of more detailed designs, refined project alignments, and reanalysis of the roadway/noise receptor relationships.

FHWA finds that the noise impacts are not significant.

#### Agriculture and Prime Farmland

No agricultural activities or prime farmland exist in the project area, and there are no Agricultural or Forestal Districts located in the project vicinity.

### Habitat and Wildlife

Due to the urbanized nature of the project area, aquatic and terrestrial wildlife habitat is minimal and fragmented. No wildlife or waterfowl refuges would be impacted, and the project would not involve any instream work in anadromous fish waters. In addition, the project would not impact any threatened or endangered species.

FHWA finds that the impacts on wildlife populations are not significant.

### Invasive Species

In accordance with Executive Order 13112, *Invasive Species*, the potential for the establishment of invasive terrestrial or aquatic animal or plant species during construction of the proposed project will be minimized by following provisions in VDOT's *Road and Bridge Specifications*. These provisions require prompt seeding of disturbed areas with seeds that are tested in accordance with the Virginia Seed Law and VDOT's standards and specifications to ensure that seed mixes are free of noxious species. While the right of way is vulnerable to the colonization of invasive plant species from adjacent properties, implementation of the stated provisions will reduce the potential for the establishment and proliferation of invasive species.

FHWA finds that the invasive species impacts are not significant.

### Hazardous Materials

A review of applicable databases revealed no National Priority List (Superfund) hazardous waste sites or solid waste disposal sites in the vicinity of the project. There are two potential hazardous materials sites in the project vicinity, which are the petroleum products handling and storage facilities along the east side of I-95. These facilities receive product via pipeline and redistribute it primarily by tanker truck. These facilities maintain groundwater monitoring wells to detect any subsurface leakage.

VDOT has met several times with representatives of the owners of the two sites. Further coordination will occur during the design phase to minimize right-of-way needs from the properties, to avoid or minimize disruption of operations at the facilities, to ensure security of the facilities, and to ensure safety during construction.

FHWA finds that the hazardous materials impacts are not significant.

### Construction Impacts

During construction, temporary environmental impacts usually can be controlled, minimized, or mitigated through careful attention to prudent construction practices and methods. Potential temporary construction impacts and preventive practices are summarized below.

*Water Quality.* During construction, non-point source pollutants could possibly enter groundwater or surface water from stormwater runoff. To minimize these impacts, appropriate erosion and sediment control practices will be implemented in accordance with VDOT's *Road and Bridge Specifications*. These specifications also prohibit contractors from discharging any contaminant that may affect water quality. In the event of accidental spills, the contractor is required to immediately notify all appropriate local, state, and federal agencies and to take immediate action to contain and remove the contaminant.

*Air.* Air quality impacts from construction, consisting of emissions from diesel-powered construction equipment, burning of debris, and fugitive dust, would be temporary. This project will comply with all applicable local, state, and federal regulations, including the Virginia Environmental Regulations 9 VAC 5-130 regarding open burning and 9 VAC 5-50-60 *et seq.* regarding fugitive dust emissions. To control dust, measures will be taken to minimize exposed earth by stabilizing with grass, mulch, pavement, or other cover as early as possible.

*Noise.* Construction activity as part of this project may cause intermittent fluctuations in noise levels. Existing noise levels along I-95 and the Fairfax County Parkway are relatively high with considerable influences from heavy trucks and high traffic volumes; therefore temporary construction noise will be minimal in comparison. Regardless, during the construction phase of the project, all reasonable measures would be taken to minimize noise impacts from these construction-related activities. VDOT's *Road and Bridge Specifications* establish construction noise limits and the contractor will be required to conform to this specification to reduce any impacts of construction noise.

*Solid Waste and Hazardous Materials.* All solid waste material resulting from clearing and grubbing, demolition, or other construction operations will be removed from the project and disposed of in a legal manner. If contaminated soils are encountered during construction, VDOT will develop and implement appropriate procedures for their proper management and coordinate the removal, disposal, and/or treatment of the soil as necessary. If contaminated groundwater is encountered during construction, VDOT will implement appropriate specifications for proper management and treatment of the water as necessary.

FHWA finds that the construction impacts are not significant.

#### Indirect Effects

Indirect effects are those that are caused by the proposed action but occur later in time or farther in distance than the direct impacts. The most common indirect effects associated with highway projects involve induced development, that is, development and the impacts of such development that would not otherwise occur if the project were not constructed. Lands surrounding the proposed project corridor currently can be accessed by the existing road network. As such, they are subject to development even in the absence of implementation of this project. The entire area is zoned for residential, industrial, and commercial development and, indeed, substantial development already has

occurred in nearby areas. This project does not open any new areas for development and no direct access would be provided by any of the project elements to adjoining lands. In summary, the proposed project would serve, but would not directly cause, development on surrounding lands. Moreover, the project is consistent with local comprehensive planning regarding land use goals in the surrounding area and the project would be expected to improve overall mobility and connectivity among surrounding land uses and transportation facilities. Fire, police, and rescue emergency services are all expected to benefit from the improved transportation facilities.

FHWA finds that the indirect effects are not significant.

### Cumulative Effects

Cumulative effects are the incremental effects of the action when added to other past, present, and reasonably foreseeable future actions, regardless of the sponsor of those actions. The assessment of cumulative effects requires an assessment of the impact that past and present actions have had on the environmental resources in the project study area that will also be impacted by the proposed project; the current affected environment is a reflection of the impacts of those past and present actions over time. Additionally, a review of cumulative effects requires an assessment of how reasonably foreseeable future actions may affect the same environmental resources that would be directly affected by the project. Other public and private developments have occurred, or are currently under construction in the geographic area surrounding the project. In addition, several new public and private developments are reasonably expected to occur in the future.

After decades of human disturbances, water quality in the streams crossed by the project has been degraded from pristine conditions. The Virginia Department of Environmental Quality (VDEQ) has designated certain surface waters within and downstream of the project area as “impaired waters.” For example, VDEQ has designated Accotink Creek as impaired due to its stressed benthic invertebrate community. The specific sources of the stress are unknown, but probably can be attributed in part to ongoing urbanization and suburbanization in the watershed. The water quality impairment is being offset to some extent by Fairfax County’s Environmental Quality Corridors program and other initiatives to buffer streams from the effects of future development. The establishment of stream valley parks (such as Accotink Stream Valley Park) is a good example of these initiatives. Much of the area at the mouth of Accotink Creek is protected within the Accotink Bay Wildlife Refuge on Fort Belvoir lands. The Fairfax County Land Use Plan calls for nearly all of the Accotink Creek stream valley within the Fort Belvoir North Area to be designated an environmental quality corridor, thus buffering the stream from the effects of nearby future development.

Although natural resources in the immediate project area have experienced considerable disturbance over time, county officials now recognize the importance of protecting and restoring them to the extent possible. Substantial parcels of land along or near Accotink Creek have been, or will be, protected from intensive development by public ownership (Accotink Stream Valley Park and a number of other parks along or near Accotink Creek)

and some of these lands remain forested, serving as important large blocks of wildlife habitat.

The project is consistent with the Constrained Long Range Plan and, as such, its effects on regional ozone concentrations, when cumulatively considered as part of the regional air quality conformity process along with other proposed highway and mass transit improvements, would not exceed the emissions budget for ozone that has been established by VDEQ.

With regard to social, economic, and community effects, over the past 60 years, the character of land within the watershed has changed from rural and agricultural to an urbanized area. The county now is largely developed, and includes a mixture of low-density to high-density residential, commercial, industrial, and public land uses. With the exception of the Fort Belvoir North Area land, areas surrounding the project reflect this overall character of the county, with development including a diverse mixture of single-family homes, townhouses, strip shopping centers, motels, and stand-alone businesses of all types. Some of these areas will continue to evolve as businesses come and go and infill residential development continues. Development also is now occurring on the Fort Belvoir North Area with the construction of the new National Geospatial Intelligence Agency facilities and supporting infrastructure.

In light of the changes in the landscape that have occurred over time due to development, the intensity of the incremental impacts from the project are considered small when viewed in the context of impacts from other past, present, and reasonably foreseeable future actions.

FHWA finds that the cumulative effects are not significant.

#### Council on Environmental Quality's Regulations

The Council on Environmental Quality's regulations implementing the National Environmental Policy Act identify factors that should be considered in determining whether the intensity of a project's impacts are such that they result in a significant impact on the environment (40 CFR 1508.27(b)(1-10)). FHWA has considered these factors as described below.

*1. Impacts that may be both beneficial and adverse* – The project would have the beneficial impact of addressing the transportation needs identified in Section 1 of the Environmental Assessment.

FHWA finds that the beneficial impacts, when taken in conjunction with the adverse impacts, do not result in a significant impact on the environment.

*2. The degree to which the project affects public health or safety* – It is not anticipated that the project would adversely affect public health and safety. Since the project would help relieve forecasted traffic congestion, traffic safety should improve. In

addition, the project would not cause or contribute to any new violation of any National Ambient Air Quality Standard, increase the frequency or severity of any existing violation, or delay timely attainment of any National Ambient Air Quality Standard.

FHWA finds that the degree to which the project affects public health or safety does not warrant the preparation of an environmental impact statement.

*3. Unique characteristics of the geographical area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers or ecologically critical area* – No historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers or ecologically critical areas will be affected by the project.

*4. The degree to which the effects on the environment are expected to be highly controversial* – The term “controversial” refers to cases where substantial dispute exists as to the size, nature, or effect of the action rather than to the existence of opposition to a use, the effect of which is relatively undisputed. There has been no dispute regarding the size, nature, or effect of the project from any state or federal environmental resource agency. In addition, no state or federal environmental resource agency has expressed opposition to the project. Therefore, the effects on the environment are not highly controversial.

*5. The degree to which the effects on the quality of human environment are highly uncertain or involve unique or unknown risks* – There are no effects on the quality of the human environment that can be considered highly uncertain or involve unique or unknown risks.

*6. The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration* – This action will not set a precedent for future actions with significant effects and does not represent a decision in principle about a future consideration. FHWA’s regulations at 23 CFR 771.115(a) list the types of actions that normally have a significant effect on the environment thereby requiring the preparation of an environmental impact statement. A project consisting of improvements to an existing interchange is not on the list.

*7. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts* - Cumulative impacts are discussed in the Environmental Assessment and this Finding of No Significant Impact. As described above, the cumulative impacts are not significant.

*8. The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss of significant scientific, cultural, or historic resources* – No districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places will be affected by the project, and there will be no loss of significant scientific, cultural, or historic resources.

*9. The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act* – No endangered or threatened species or its critical habitat will be affected by the action.

*10. Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment* – The action does not threaten a violation of any Federal, State, or local law for the protection of the environment. All applicable permits will be acquired prior to construction.

### **Conclusion**

Based on the foregoing information and other supporting information, FHWA finds that the project will not have a significant environmental impact. 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 any major approvals being granted by FHWA, and the reevaluation will take into account the conditions at that time.