



## SOCIO-ECONOMIC

**Minority/Low Income Populations:** Present with no impact    **Disproportionate Impacts to Minority/Low Income Populations:** No

**Source:** US Census Bureau - American Fact Finder

**Existing or Planned Public Recreational Facilities:** Present with impacts

**Community Services:** Present with impacts

**Consistent with Local Land Use:** Yes

**Source:** Northern Virginia Regional Park Authority, Loudoun County Department of Fire, Rescue and Emergency Management, Loudoun County Public Schools, Loudoun County Department of Planning

**Existing or Planned Bicycle/Pedestrian Facilities** Present with impacts

**Source:** Northern Virginia Regional Park Authority

**Socio-Economic Comments:** Minority/low income populations are present within the general project vicinity but not disproportionately impacted. The Washington & Old Dominion Trail (W&OD) crosses the project area on its western end. Coordination with Northern Virginia Regional Park Authority by the Project Manager is ongoing to relocate the W&OD within the project area. Coordination with Loudoun County Public Schools by the Project Manager is ongoing in order to identify methods to reduce impacts to the school bus routes due to the proposed improvements and construction. Access for Loudoun County Fire, Rescue and Emergency Management may be impacted by the project. Changes to ingress and egress for the adjacent communities at each crossover are planned that would facilitate emergency access. Signage would be used to prevent unauthorized use. The truck climbing lane would help relieve traffic congestion thus improving access.

## SECTION 4(f) and SECTION 6(f)

**Use of 4(f) Property:** No

**Source:** Northern Virginia Regional Park Authority, VDOT, Federal Highway Administration

**6(f) Conversion:** No      **Acres of Conversion:** 0

**4(f) and 6(f) Comments:** The Washington and Old Dominion Trail is a nearby 4(f) and 6(f) resource. The Trail will be realigned through the Rt 9/Rt 7 interchange on the project's western end. The segment of the Trail which will be realigned is currently on VDOT Right of Way (RW) and will remain on VDOT RW. Pursuant to 23 CFR 774.13(f)(3), the impact to the Washington and Old Dominion Trail within VDOT's right-of-way at the project location is an exception to the requirement for Section 4(f) approval. No Section 4(f) use would occur. Also, no Section 6(f) conversion would occur. Coordination with the Northern Virginia Regional Park Authority is ongoing to design the Trail's realignment.

## CULTURAL RESOURCES

**Section 106 Effect Determination:** NO EFFECT

**Name of Historic Property:** Washington & Old Dominion Trail

**DHR Concurrence date:** None

**A Section 106 effect determination of No Effect has been concluded pursuant to Stip. 2 of the 1999 Programmatic Agreement between VDOT and DHR:**

**Stip. 2 Determination Date:** 10/17/2008

**MOA/PA Execution Date:** None

**Cultural Resource Comments:** Washington & Old Dominion Trail is located at the western terminus of the project; however, this location is the Rt 7/Rt 9 Interchange. All areas adjacent to the existing roadways have been disturbed by previous construction. DHR concurred on 07/27/11 that the addition of left turn lanes at eastern end of the project will not affect historic properties should they be present. On 12/05/11, DHR retains No Effect for proposed extension.

## NATURAL RESOURCES

**Waters of the U.S.:** Present with impacts

**Linear Feet of Impact:** 1000

**Federal Threatened or Endangered Species:**  
None

**100 Year Floodplain:** Present with no impact

**Regulatory Floodway Zone:** Not Present

**Public Water Supplies:** Present with impacts

**Tidal Waters/Wetlands:** Not Present

**Wetlands:** Not Present

**Wetlands: Acres of Impact:** 0

**Wetland Type:** None

**Permits Required:** Yes

**Natural Resource Comments:** Town Branch, a perennial stream, will be impacted at the eastern project terminus by road widening and construction of a new culvert with outfall protection. In addition, there are a number of cross pipes under Rt 7 to be upgraded with outfall protection easements. These pipes may carry jurisdictional intermittent streams. Mitigation will be required for stream impacts. Zone x flood areas are identified on the FEMA Maps at the western and eastern project termini. The western area is probably outside the project limits while the eastern area is associated with Town Branch. A surface water intake on the Potomac River is within 5 miles downstream of the project. Strict Erosion and sediment controls will be utilized to mitigate any intake impacts. The Loudoun County Health Department issued a 2008 permit for the abandonment of the well on the west side of Rt 9 across from Beacon Hill Drive. Design-Builder will confirm whether this well was properly abandoned before construction.

## AGRICULTURAL/OPEN SPACE

**Open Space Easements:** Present with no impact

**Agricultural/Forestal Districts:** Present with no impact

**Source:** CEDAR GIS database, Virginia Outdoors Foundation

**Agricultural/Open Space Comments:** Open space easements and Agricultural/Forestal Districts are present in the project area based on a VDOT CEDAR GIS database search. Virginia Outdoors Foundation has an easement adjacent to Rt. 7 in the southeast quadrant of the project area on the entire Rust Sanctuary of the Audobon Naturalist Society. No Right of Way will be taken from this property.

## FARMLAND

**NRCS Form CPA-106 Attached?** No

**NRCS Form CPA-106 not attached because:**

**NRCS determined no prime or unique farmland in the project area.**

**Alternatives Analysis Required?** No

**Source:** Natural Resources Conservation Service

**Farmland Comments:** Per NRCS, this project will not affect any prime or unique farmland. The project area has a steep gradient. No unusual erosion problems are expected.

## INVASIVE SPECIES

**Invasive Species in the project area?** Unknown

**VDCR indicated that the potential exists for some VDOT projects to further the establishment of invasive species. All seeds used will be tested in accordance with the Virginia Seed Law to ensure there are not prohibited Noxious Weed-Seeds in the seed mixes.**

**Invasive Species Comments:** Based on site visits by VDOT, invasive species are likely present in the project area. DCR has only general information about the distribution of invasives. Many invasive plant species are adapted to take advantage of soil disturbances and poor soil conditions. Non-native invasive plants are found throughout Virginia. Therefore, the potential exists for some VDOT projects to further the establishment of invasive species. Minimizing soil disturbance will help to inhibit the establishment of invasive species.

## AIR QUALITY

### Carbon Monoxide

This project is located in: A Carbon Monoxide Maintenance Area (Arlington and Alexandria Cos.)

CO Microscale Analysis Required for NEPA? No

- ✓ This project qualifies for a Programmatic Categorical Exclusion or has been identified as being exempt from a CO air quality analysis per the Transportation Conformity Rule (40 CFR Part 93), and therefore does not require a project-level CO air quality analysis per VDOT's Project-Level Carbon Monoxide Air Quality Studies Agreement with FHWA dated February 27, 2009.

Exempt under 40 CFR 93.126, Table 2, Safety - "Truck climbing lanes outside the urbanized area" and also "Projects that correct, improve, or eliminate a hazardous location or feature". The Purpose and Need statement for the project as included in the Scoping Package dated October 8, 2010 posted on IPM states: "The purpose of this project is to improve the traffic operations and safety issues along westbound Route 7 associated with the slow moving truck traffic within the project limits. ..." Safety issues are documented in a technical memorandum ("Crash Analysis", dated June 28, 2010), which is also posted on IPM. The project purpose listed on IPM (accessed July 27, 2011) addresses both truck movements and safety as follows: "Accommodate heavily loaded vehicles, facilitate the passage of following vehicles, and reduce the risk of rear end collisions along a long upgrade on westbound Route 7 between the Town of Leesburg and Route 9."

### Ozone

This project is located in: An 8-hour Ozone Nonattainment Area

- ✓ This project is one of a class of projects that is exempt from regional emission requirements under conformity. This exempt category includes certain safety and neutral 'de minimis' projects whose air quality effects would not be detected by the regional emissions analysis for the transportation plans and programs (40CFR 93.126 & 127).

Exempt as noted above.

### Particulate Matter

This project is located in: A PM2.5 Nonattainment Area

- ✓ This project is one of a class of projects that is exempt from regional emission requirements under conformity. This exempt category includes certain safety and neutral 'de minimis' projects whose air quality effects would not be detected by the regional emissions analysis for the transportation plans and programs (40CFR 93.126 & 127).

PM Hotspot Analysis Required for NEPA? No

A PM2.5 hot-spot analysis is not required for this project since it is not an air quality concern. The Clean Air Act and 40 CFR 93.116 requirements were met without a hot-spot analysis, since this project has been found not to be of air quality concern under 40 CFR 93.123(b)(1).

### Mobile Source Air Toxics

This project requires: No further discussion of MSAT

- ✓ The project qualifies for a categorical exclusion under 23 CFR 771.117 (c) or is exempt under 40 CFR 93.126.

Exempt as noted above.

DEQ SERP Comments (June 2010): This project is located within a Moderate Ozone Nonattainment area, a Fine Particulate Matter (PM2.5) Nonattainment area, and a volatile organic compounds (VOC) and oxides of nitrogen (NOx) Emissions Control Area. As such, all reasonable precautions should be taken to limit the emissions of VOC, NOx, and particulate matter. In addition, the following DEQ air pollution regulations must be adhered to during the construction of this project: 9 VAC 5-130, Open Burning restrictions; 9 VAC 5-40-5490 et seq., Cutback Asphalt restrictions; and 9 VAC 5-50-60 et seq., Fugitive Dust precautions.

## NOISE

**Noise Scoping Decision:** Type I - Noise study required

**Barriers Under Consideration?** Yes

**Noise Comments:** Noise impacts were identified along the project corridor for the existing, design year no-build and design year build cases. Nine sites are predicted to be impacted as a result of approaching or exceeding the Noise Abatement Criteria (NAC) in the design year (2036) build condition. No sites are predicted to be impacted due to substantial noise increase. Noise barriers were evaluated in all areas predicted to experience noise impact in the build condition. Seven noise barriers were evaluated at seven different locations. The evaluated barriers were feasible but not reasonable because they exceeded the VDOT cost criteria and/or they did not meet the VDOT 7 dBA design goal. A preliminary noise evaluation was performed and a more detailed review will be completed during final design. Noise study is attached.

**RIGHT OF WAY AND RELOCATIONS**

**Residential Relocations:** No

**Commercial Relocations** No

**Non-Profit Relocations:** No

**Right of Way required?** Yes      **Amount of Right of Way Acreage:** 4

**Septic Systems or Wells:** Present with impacts      **Hazardous Materials:** Not Present

**Source:** Right of Way - Relocation Assistance Report, Loudoun County Health Department

**ROW and Relocations Comments:** The Loudoun County Health Department issued 2008 permits for the abandonment of the septic systems on the west side of Rt 9 across from Beacon Hill Dr. Design-Builder will confirm whether these systems were properly abandoned before construction. Conceptual plans were reviewed for Hazardous Materials. The project has been cleared for advertisement and construction by the Regional Hazmat Manager.

**CUMULATIVE AND INDIRECT IMPACTS**

**Present or reasonably foreseeable future projects (highway and non-highway) in the area:** No

**Impact same resources as the proposed highway project (i.e. cumulative impacts):** No

**Indirect (Secondary) impacts:** No

**Source:** VDOT Project Manager

**Cumulative and Indirect Impacts Comments:** The project will mitigate traffic congestion caused by slow moving heavy vehicles on the steep grade on Rt 7 westbound. This reduction in traffic congestion will improve air quality.

**PUBLIC INVOLVEMENT**

**Substantial Controversy on Environmental Grounds:** No

**Source:** Loudoun County Department of Planning

**Public Hearing:** Yes    **Type of Hearing:** Design Public Hearing

**Other Public Involvement Activities:** Yes

**Type of Public Involvement:** Ongoing public involvement including: Briefing of Beacon Hill HOA, Board of Directors, April, 2010; Community meeting of Beacon Hill, Leeland Orchard and Fort Johnston residents, August, 2010; Briefing of Shenston HOA Board of Directors, September, 2010; Briefing of Loudoun County Board of Supervisors and Leesburg Town Council, October, 2010; Community meeting of the Roxbury Hall residents and members of the Leesburg Church of the Nazarene, February, 2011; Community meeting of the Shenstone residents, March, 2011. Briefing of Beacon Hill, Shenstone and Roxbury Hall HOA Directors, September, 2011; Community meeting of all residents along project corridor, September, 2011.

**Public Involvement Comments:**

**COORDINATION**

**State Agencies:**

Virginia Outdoors Foundation  
VA Marine Resources Commission  
Department of Historic Resources  
Department of Health  
Department of Game and Inland Fisheries  
Department of Forestry  
DEQ - Water Division  
DEQ - Waste Division  
DEQ - Air Division  
Department of Conservation and Recreation

**Federal Agencies:**

NRCS

**Local Entity:**

Loudoun Fire and Rescue  
Loudoun Parks and Recreation  
Loudoun County Health Department  
Loudoun Office of Transportation  
Loudoun Superintendent of Schools  
Loudoun County Board Of Supervisors  
Loudoun Economic Development Office  
Loudoun County/City Planner

**Other Coordination Entities:**

Loudoun County Department of Family Services  
Northern Virginia Regional Park Authority  
Town of Leesburg Capital Projects  
Leesburg Church of the Nazarene  
Kingdom Hall of Jehovah's Witnesses

**This project meets the criteria for a Categorical Exclusion pursuant to 40 CFR 1508.4 and 23 CFR 771.117 and will not result in significant impacts to the human or natural environment.**