

**Grant Applicant:** *Northern Virginia Transportation Commission, Arlington County Government, and Washington Metropolitan Area Transit Authority*

**Proposed Project:** *Crystal City/Potomac Yard Transit Improvements Project*

**Date:** *January 26, 2007*

**INFORMATION REQUIRED FOR PROBABLE  
CATEGORICAL EXCLUSION  
(SECTION 771.117(d))**

- √ A. DETAILED PROJECT DESCRIPTION: See attachment Part A.
- √ B. LOCATION (INCLUDING ADDRESS): See attachment Part B and Appendix 1, Figure 1: Site Location and Planned Alignment Map.
- √ C. METROPOLITAN PLANNING AND AIR QUALITY CONFORMITY: See attachment Part C and Appendix 2, the National Capital Region Transportation Planning Board TIP Amendment.
- √ D. ZONING: See attachment Part D.
- √ E. TRAFFIC IMPACTS: See attachment Part E and Appendix 3, Traffic and Transportation Technical Memorandum.
- √ F. CO HOT SPOTS: See attachment Part F and Appendix 4, Air Quality Assessment Technical Memorandum.
- √ G. HISTORIC RESOURCES: See attachment Part G and Appendix 5, Cultural Resources Technical Memorandum.
- √ H. NOISE: See attachment Part H and Appendix 6, Noise and Vibration Technical Memorandum.
- √ I. VIBRATION: See attachment Part I and Appendix 6, Noise and Vibration Technical Memorandum.
- √ J. ACQUISITIONS & RELOCATIONS REQUIRED: No acquisition of land is anticipated. See attachment Part J.
- √ K. HAZARDOUS MATERIALS: See attachment Part K and Appendix 7, Phase I ESA Technical Memorandum.
- √ L. COMMUNITY DISRUPTION AND ENVIRONMENTAL JUSTICE: See attachment Part L and Appendix 8.
- √ M. USE OF PUBLIC PARKLAND AND RECREATION AREAS: See attachment Part M.
- √ N. IMPACTS ON WETLANDS: See attachment Part N and Appendix 9, Water Resources Technical Memorandum.

- √ O. FLOODPLAIN IMPACTS: See attachment Part O and Appendix 9, Water Resources Technical Memorandum.
- √ P. IMPACTS ON WATER QUALITY, NAVIGABLE WATERWAYS, & COASTAL ZONES: See attachment Part P and Appendix 9, Water Resources Technical Memorandum.
- √ Q. IMPACTS ON ECOLOGICALLY-SENSITIVE AREAS AND ENDANGERED SPECIES: See attachment Part Q and Appendix 10, Agency Correspondence.
- √ R. IMPACTS ON SAFETY AND SECURITY: See attachment Part R and Appendix 3, Traffic and Transportation Technical Memorandum.
- √ S. IMPACTS CAUSED BY CONSTRUCTION: See attachment Part S.

**APPENDICES**

- Appendix 1: Figure 1: Planned Alignment and CCPY Improvements  
Figure 2: Zoning in Alexandria  
Figure 3: Zoning in Arlington
- Appendix 2: National Capital Region Transportation Planning Board TIP Amendment
- Appendix 3: Technical Memorandum: Traffic and Transportation
- Appendix 4: Technical Memorandum: Air Quality Assessment
- Appendix 5: Technical Memorandum: Cultural Resources, SHPO Project Review Form, and Approval
- Appendix 6: Technical Memorandum: Noise and Vibration Assessment
- Appendix 7: Technical Memorandum: Phase I ESA
- Appendix 8: Technical Memorandum: Socioeconomics and Community Resources
- Appendix 9: Technical Memorandum: Water Resources Technical Memorandum and Coastal Zone Consistency Determination
- Appendix 10: Agency Correspondence
- Appendix 11: Public Outreach

**The action described above meets the criteria for a National Environmental Policy Act (NEPA)**

**Categorical Exclusion in accordance with 23 CFR Part 771.117 (d)  
(9)\_\_\_\_\_.**

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**Applicant's Environmental Reviewer**

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**Date**

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**FTA Grant Representative**

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**Date**

## Crystal City/Potomac Yard Transit Improvement Project Documented Categorical Exclusion Attachment

**A. Detailed Project Description:** Arlington County and the City of Alexandria, in cooperation with the Virginia Department of Rail and Public Transportation and the Washington Metropolitan Area Transit Authority, propose transit improvements in the Crystal City/Potomac Yard (CCPY) Corridor. The project corridor extends from the Braddock Road Metrorail Station in the south to the Pentagon and Pentagon City in the north, a distance of approximately five miles.

Planned improvements in the CCPY Corridor will provide transit access to new development and redevelopment occurring in Potomac Yard, Crystal City, and Pentagon City. The bus transit improvements will primarily utilize existing right-of-way or right-of-way donated as part of approved development plans. As part of the project, station stops and new roadway will be constructed along Route 1. This construction will take place in Alexandria on right-of-way owned by the City and in the Arlington County section of Potomac Yard on right-of-way donated by developers. The planned alignment and level of exclusive right-of-way are presented in Figure 1 (Appendix 1).

This Documented Categorical Exclusion is being submitted for environmental clearance for the area of the planned alignment that begins at a new mixed use development at the Alexandria/Arlington County line in the south and ends at the Crystal City Metrorail Station in the north (referred to as Segments D and E, respectively. See Section B for a detailed description). Because of the independent utility of the segment and the associated logical termini, initial construction of the busway will occur in Segments D and E. As the project progresses in the remaining segments, additional environmental clearance for Segments A through C and Segment F will be necessary.

**B. Location Including Address:** The CCPY Corridor is located in Arlington County and the City of Alexandria, Virginia. The alignment for the CCPY Corridor Transit Improvements Project begins at the Braddock Road Metrorail Station and ends near the Pentagon in Arlington County. For the purpose of technical analysis, the CCPY Alignment has been divided into six segments based on roadway and transit operations features (Note: Only Segments D and E are to be considered for this environmental clearance). The segments are described below:

*Segment A - Alexandria Route 1 South*

Segment A begins at the Braddock Road Metrorail Station and heads east on Madison Street to North Fayette Street. The planned alignment turns north on Fayette Street and then east on 1<sup>st</sup> Street before turning north again on North Henry Street and crossing the realigned Monroe Avenue Bridge. The planned alignment in Segment A runs entirely in mixed traffic on existing roadway.

*Segment B - Alexandria Route 1*

Segment B runs north along Route 1 from the realigned Monroe Avenue Bridge to East Glebe Road. The planned alignment in Segment B runs entirely in exclusive transit lanes either in a median busway or along the east and west curbsides of Route 1 to East Glebe Road, where it transitions to mixed traffic.<sup>1</sup>

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<sup>1</sup> The 2030 analysis is based upon a median alignment in Segment B as the proposed action. The City of Alexandria has not made a definitive decision about the alignment in Segment B; thus, the 2015 analysis examines the effects of both alignments.

*Segment C - Alexandria Potomac Yard*

Segment C travels east on East Glebe Road from Route 1 through the planned Potomac Yard Town Center to Potomac Avenue. Segment C then turns north along Potomac Avenue to the Alexandria/Arlington line. The planned alignment in Segment C runs entirely in mixed traffic.

*Segment D - Arlington Potomac Yard*

Initial construction for the busway is planned in Segment D. It begins at the Alexandria/Arlington border running in mixed traffic north on Potomac Avenue. Segment D transitions to exclusive lanes as it turns west on South Glebe Road, running on the northern side of the roadway in right-of-way donated as part of the planned development of Potomac Yard. The alignment turns north on Jefferson Davis Highway and merges with South Crystal Drive, running on the east side of the roadway to the intersection of South Crystal Drive and 26<sup>th</sup> Street South.

*Segment E- Arlington Crystal City*

Initial construction for the busway is planned in Segment E. It begins at 26<sup>th</sup> Street South and South Crystal Drive running west before turning north on South Clark Street to 20<sup>th</sup> Street South. At 20<sup>th</sup> Street South, the planned alignment turns east and then north on South Bell Street to the Crystal City Metrorail Station at 18<sup>th</sup> Street South. This segment runs entirely in exclusive curbside lanes.

*Segment F - Arlington Pentagon*

Segment F begins at the Crystal City Metrorail Station and travels north on South Bell/South Clark Street before turning west on 12<sup>th</sup> Street. At South Eads Street, the alignment splits into two branches serving the Pentagon and Pentagon City. The first branch turns north on South Eads Street to the Pentagon Transit Center. The second branch continues west on 12<sup>th</sup> Street South to the Pentagon City Metrorail Station. The planned alignment in Segment F runs in exclusive curbside lanes until the intersection of 12<sup>th</sup> Street and South Eads Street, where it transitions to running in mixed traffic.

**C. Metropolitan Planning and Air Quality Conformity:** The project is listed in the Long-Range Transportation Plan for the National Capital Region, adopted in October 2006. On July 10, 2006, the National Capital Region Transportation Planning Board's (TPB) Transportation Improvement Program (TIP) was amended to include Segments D and E of the CCPY project (see Appendix 2). The remaining segments will be added to the TIP at a later date. The project supports improved regional air quality goals by allowing for capacity improvements necessary for increased transit ridership in the future.

**D. Zoning:** The transit improvements would be within the existing transportation right-of-way, and would be consistent with current zoning. Zoning for the districts located within the CCPY Corridor varies from apartment housing units to industrial and professional districts. Zoning in Alexandria, Segments A, B, and C, outside of Potomac Yard is primarily residential, with some mixed use around the Braddock Road Metrorail Station and low-density commercial along the major arterials (Mount Vernon Avenue, Braddock Road, and Route 1). Zoning in Arlington, Segments D, E, and F, consists of medium-density single family districts at the southern and western edge of the study area, higher density commercial, light industrial and residential districts in the strip on the western side of Jefferson Davis Highway, and high density office and apartment districts in Crystal City and Pentagon City. Maps of zoning in the corridor can be seen in Figures 2 and 3 in Appendix 1.

**E. Transportation Impacts:** Based on the Metropolitan Washington Council of Governments (MWCOC) Round 7.0 Cooperative Forecast, growth levels within and around the project corridor between now and the forecast years of 2015 and 2030 will lead to increased vehicular travel and increased use of transit services. The study team developed computer simulations to assess traffic and transit conditions in the corridor for No-Build and Build Alternatives. Under the No-Build Alternative, increasing vehicular traffic would affect the performance of transit service along the entire corridor. An attempt to accommodate total corridor trips without dedicated bus lanes would degrade the capacity of bus service, and in some locations along the corridor it would also lead to increased traffic congestion.

With the dedicated transit lanes introduced with the CCPY Project, transit service will perform better in this corridor. Increased transit vehicle throughput and reduced travel time for passengers will result in greater passenger capacity.

With the implementation of the proposed transit service and transit lanes, there would be minor increases in traffic delay at several intersections. However some intersections would experience improvements of traffic conditions as a result of the project. The Proposed Action would not further degrade the intersections that are already expected to perform at poor level of service (E or F) in the 2015 and 2030 No Build cases. Tables 1 and 2 show the projected intersection level of service at the study intersections based on results of the traffic simulations. Traffic simulations for the entire corridor were optimized separately for the 2015 and 2030 forecast years. See Appendix 3, Transportation Effects Technical Memorandum, for detailed results of the transportation analyses.

**Table 1: 2015 Projected Intersection Level of Service<sup>1</sup>**

Jurisdiction	Segment	Intersection	AM Peak Hour		PM Peak Hour	
			2015 No Build	2015 Build Curbside/Median <sup>2</sup>	2015 No Build	2015 Build Curbside/Median <sup>2</sup>
Arlington County	F	1 Army Drive and S. Eads St.	E	E	E	E
		2 12th St. and S. Eads St.	C	C	B	C
		3 S. Bell St. and 15th St. S	A	A	A	A
	E	4 S. Bell St. and 18th St. S	B	C	B	C
		5 S. Bell St. and S. Clark St. and 20th St. S	B	C	D	B/C
		6 S. Clark St. and 23rd St. S	E	C	E	E
	D	7 33rd St./Crystal Dr. and Jefferson Davis Hwy	B	D	E	E
		8 S. Glebe Rd. and Potomac Ave. (under construction)	A	B/C	A	B/C
City Of Alexandria	C	9 Route 1 and Evans Lane	A	B/A	B	C
		10 Route 1 and E. Glebe Rd.	B	D	C	C
	B	11 Route 1 and Swann Ave.	A	B/A	A	B/A
		12 Route 1 and E. Custis Ave.	A	B/A	A	B/A
	A	13 Route 1 and Potomac Ave. (Future Intersection)	D	D/E	C	B/C
		14 N. Henry St. and 1st St.	A	A	A	A

<sup>1</sup> The values reported in this table are averages of five model runs.

<sup>2</sup> 2015 Build Alternative simulations include the options of curbside bus lanes and median bus lanes on Segment B, located in the City of Alexandria. When the LOS results are the same for curbside and median operations, only one value is shown.

**Table 2: 2030 Projected Intersection Level of Service<sup>1</sup>**

Jurisdiction	Segment	Intersection	AM Peak Hour		PM Peak Hour	
			2030 No Build	2030 Build	2030 No Build	2030 Build
Arlington County	F	1 Army Drive and S. Eads St.	E	E	E	E
		2 12th St. and S. Eads St.	C	C	B	D
		3 S. Bell St. and 15th St. S	A	A	A	A
	E	4 S. Bell St. and 18th St. S	C	C	B	C
		5 S. Bell St. and S. Clark St. and 20th St. S	C	D	E	D
		6 S. Clark St. and 23rd St. S	E	D	F	F
	D	7 33rd St./Crystal Dr. and Jefferson Davis Hwy	C	C	B	B
		8 S. Glebe Rd. and Potomac Ave. (under construction)	B	B	B	B
City Of Alexandria	C	9 Route 1 and Evans Lane	A	B	C	C
		10 Route 1 and E. Glebe Rd.	C	D	C	D
	B	11 Route 1 and Swann Ave.	A	A	C	B
		12 Route 1 and E. Custis Ave.	B	A	B	A
	A	13 Route 1 and Potomac Ave. (Future Intersection)	D	D	D	D
		14 N. Henry St. and 1st St.	A	A	A	A

<sup>1</sup> The values reported in this table are averages of five model runs.

**Parking and Building Access:** The transit improvements will be designed to preserve vehicular access for businesses and residences along the corridor. Loading/unloading zones may be reconfigured to provide adequate clearance for the busway, and on-street parking will be relocated along some portions of the busway. The following provides a description of the parking and access effects of the CCPY project by Segment:

- Segment A –The only measurable effect along this segment would be displacement of up to 10 on-street parking spaces along North Fayette Street with development of improved bus stops at this location.
- Segment B – The median busway would not interfere with vehicular access to businesses along Route 1, and may in fact improve access by transferring all bus traffic away from the curb areas near the existing access points. The curbside bus lanes would allow access for turning movements as necessary, which will affect the efficiency of transit operations.
- Segment C – No effects to parking or building access are expected along this segment.
- Segment D – No effects to parking or building access are expected along this segment.
- Segment E – This portion of the corridor is characterized by several areas of existing on-street parking and several existing loading areas. To provide sufficient width for two bus lanes and one lane for general traffic, on-street parking will be displaced along the east side of South Clark Street between 26<sup>th</sup> and 23<sup>rd</sup> Streets South, as well as along a small portion of the west side of South Clark Street to accommodate a proposed station stop. North of 23<sup>rd</sup> Street South, the existing end-in parking (about 30 spaces) will be converted to parallel parking (about 15 spaces) to provide sufficient width for two bus lanes and one lane of general traffic. Between 20<sup>th</sup> Street and 18<sup>th</sup> Street South, no effects on existing parking are anticipated.

Each of the loading areas along this segment will be maintained as they currently exist.

The busway will be delineated by pavement markings, and clearances along the busway will be enforced to restrict parked delivery vehicles to acceptable loading areas. Deliveries may be restricted to off-peak times.

- Segment F – This portion of the corridor is characterized by areas of existing on-street parking, off-street parking access points, and existing loading areas. To provide sufficient width for two bus lanes and two lanes for general traffic, on-street parking will be displaced along the north and south sides of 12<sup>th</sup> Street South between South Bell Street and South Hayes Street. Existing on-street parking along both sides of South Eads Street will also be displaced for approximately one block to the north and south of 12<sup>th</sup> Street South to accommodate two bus lanes, two lanes for general traffic, and a left turn pocket.

Buses currently use the curb lanes along South Bell Street immediately north of the Crystal City Metrorail station as layover areas. With the planned transit improvements, layover will take place elsewhere, likely to the west along 18<sup>th</sup> Street South or South Hayes Street. Each of the loading areas along this segment will be maintained as they currently exist. The busway will be delineated by pavement markings, and clearances along the busway will be enforced to restrict parked delivery vehicles to acceptable loading areas. Deliveries may be restricted to off-peak times.

**F. CO Hot Spots:** The project is not predicted to cause or exacerbate a violation of the applicable NAAQS, and with respect to regional emissions and conformity, the project has been shown to conform to the State Implementation Plan (SIP). With respect to localized air quality impacts, the modeled one-hour and eight-hour carbon monoxide (CO) concentrations were compared to the National Ambient Air Quality Standards (NAAQS). In order to demonstrate compliance with the ambient CO standards, predicted CO concentrations must not equal or exceed the NAAQS. Based on the air quality analyses conducted as part of this project, there would be no adverse air quality impacts associated with the operation of this project. For details of the analyses, see the Air Quality Technical Memorandum in Appendix 4.

**G. Historic Resources:** No known historical or archaeological resources have been identified in Segments D and E. The Virginia Department of Historical Resources has determined that the project will have no adverse effect on historic properties in Segments D and E (see concurrence e-mail in Appendix 5).

Three historic resources are located within the project's Area of Potential Effect (APE): the Parker-Gray Historic District, the Town of Potomac Historic District, and the Pentagon. However, due to the limited nature of the improvements associated with this proposed project, there is little to no potential for any of the properties to be affected by the project. There will be no direct or indirect impacts to any Register (National Register or Virginia Register) listed or eligible resources in the City of Alexandria or Arlington County as a result of the project. No project activities will have any effect on the elements that make these resources significant, and therefore, no additional work is recommended.

Five potential archaeological resources have been identified, although none is suspected in Segment D or Segment E. The Virginia Department of Historic Resources has requested consultation with the project sponsor on the remaining project segments when appropriate. See Appendix 5 for details of the cultural resources assessment conducted as part of this project.

**H. Noise:** None of the Day-Night (Ldn) noise levels produced as a result of the CCPY transit improvements is predicted to exceed the Federal Transit Administration's (FTA) *impact* or

*severe impact* criteria. Due to the close proximity of the planned station stop south of Airport Road in Segment D, bus idling noise of 62 dBA while at the station is predicted to be equal to the FTA *impact* criterion at the exterior façade for Category 2 receptors. However, at this urban location, there are no exterior land-uses (such as yards), thereby minimizing the potential for impact. Additionally, the outdoor-to-indoor noise reduction of the newly constructed building is expected to provide greater than 20 dBA, thereby further reducing the potential for impact. Details of the noise modeling assessment, including results of the monitoring program, are included in the Technical Memorandum (Appendix 6).

**I. Vibration:** None of the estimated vibration levels are predicted to exceed the FTA's impact criterion of 72 VdB (for "frequent events") at Category 2 receptors, such as residences. Therefore, no vibration impacts as a result of the project are expected to occur. Details of the vibration assessment, including results of the monitoring program, are included in the Technical Memorandum (Appendix 6).

**J. Acquisitions and Relocations Required:** The transit improvements in the CCPY Corridor will be within existing rights-of-way. No acquisitions of land or relocations of residents or businesses are associated with the improvements.

**K. Hazardous Materials:** Four sites located within the corridor may contain contaminated/hazardous materials that may be impacted where avoidance is not possible or other constraints have precedence. Any proposed subsurface disturbance of the alignment (e.g., underground utilities) in these areas should be reviewed during design and construction to assess the potential for impacts from contaminated or hazardous materials. Table 3 lists the sites by segment that will require evaluation and monitoring. Details of the Phase I ESA are included in the Technical Memorandum. See Appendix 7.

**Table 3: Sites/Facilities that May Require a Phase II Analysis**

Facility Name/Segment	Address
<b>Segment A - Alexandria South Route 1</b>	
Tony's Auto Service	1112 First Street
<b>Segment B - Alexandria Route 1</b>	
Current Shell Station	3014 Jefferson Davis Highway
<b>Segment C - Alexandria Potomac Yard</b>	
Consists of these individual sites:	
• Town of Slaters Village (Potomac Yard)	Potomac Yard
• Potomac Yard Motor Shop	3014 Jefferson Davis Highway
• RF&P Potomac Yard	2801 Jefferson Davis Highway
• RF&P (Potomac Yard)	2900 Jefferson Davis Highway
• RF&P Yard	400 Jefferson Davis Highway
• Railroad Yard between Old Town Alexandria and National Airport	Railroad Yard between Old Town Alexandria and National Airport
<b>Segment F - Arlington Pentagon</b>	
The Pentagon site includes:	
• Pentagon Sewage Pump Station, • Pentagon Courtyard, • Pentagon Motor Pool Gas Station • Pentagon Building • Pentagon Heating Coal Yard • Pentagon River Entrance	425 Jefferson Davis Highway

**L. Community Disruption and Environmental Justice:** The transit improvements in the CCPY Corridor would not disrupt any communities or access to community facilities within the study area; all project improvements will occur entirely within existing transportation right-of-way. Residential neighborhoods with high levels of economic and racial diversity include the area around the Braddock Road Metrorail Station in Segment A and the Arlandria, Mt. Jefferson, and Lynhaven neighborhoods to the west of Potomac Yard in Segment C. The new service would provide improved access to neighborhoods and community facilities in the study area. See Appendix 8 for results of the assessment of potential impacts on communities and Environmental Justice populations located within the CCPY Corridor.

**M. Use of Public Parkland and Recreation Areas:** The transit improvements in the CCPY Corridor would not affect public parklands or recreation areas. All improvements would be made within existing right-of-way.

**N. Impacts on Wetlands:** No direct alteration to wetlands is anticipated. The majority of new construction proposed for the project involves permanent roadway modifications. The planned transit improvements would require an increase in impervious surfaces along Route 1 in Segment B, South Glebe Road in Segment D, Crystal Drive in Segment E, and at the intersection of 15th Street and South Clark Street in Segment F, as well as many of the proposed station stops. The increase in impervious surface would be the primary activity with the potential to cause indirect adverse impacts to wetlands due to the transport of pollutants from these impervious areas into the stormwater system, and ultimately discharging into wetlands. See Appendix 9 for results of the assessment of potential impacts on water resources.

**O. Floodplain Impacts:** There is no anticipated increase in the 100-year surface water elevation of the floodplain associated with the Potomac River or Four Mile Run. According to Federal Emergency Management Agency (FEMA) Flood data, a 100-year floodplain is located within the study area to the west of Potomac Yard in Segments B and C in Alexandria. The floodplain extends from the Potomac River to the western edge of the Virginia Railway Express (VRE) Railroad and continues south roughly parallel to the VRE Railroad. In the northern portion of the Alexandria section of Potomac Yard, the floodplain is associated with Four Mile Run and abuts the proposed transit route that crosses this river. Project operation is not anticipated to impact floodplains since no permanent alterations are proposed within any floodplains identified in the study area. See Appendix 9 for results of the assessment of potential impacts on water resources.

**P. Impacts of Water Quality, Navigable Waterways, and Coastal Zones:** A Coastal Zone Consistency Management Certification application submitted to the Virginia Department of Environmental Quality has been approved (see Appendix 9).

Both the City of Alexandria and Arlington County are located within Virginia's Coastal Zone Management Area. The project area also includes Resource Protection Areas (RPAs). An RPA associated with the Potomac River just south of the mouth of Four Mile Run is located approximately 800 feet east of the proposed transit route in Segment C. Existing railroad tracks separate the proposed transit route from this RPA. An additional RPA also exists along the northern and southern banks of Four Mile Run. The planned transit route crosses this RPA and a proposed station stop is potentially located within the Four Mile Run RPA.

Another RPA, associated with an unnamed tributary to Four Mile Run, is located approximately 100 feet east of the proposed transit route in Arlington just north of Four Mile Run in Segment D. Another RPA is shown immediately adjacent to the VRE Railroad east of the planned transit route and north of 15<sup>th</sup> Street South in Segment F. Although not identified as an RPA, a small stream immediately adjacent to the planned transit route and station stop on South Glebe Road in Segment D is noted on the Arlington County GIS Mapping Center Interactive Mapping Program.

Additionally, Arlington County and the City of Alexandria have designated Resource Management Areas (RMAs) in accordance with the Chesapeake Bay Preservation Plan. All areas located outside of RPAs within both Arlington County and the City of Alexandria are designated RMAs; therefore, the entire study area (outside of RPAs) is located within an RMA.

The Project proposes activities within only three jurisdictional water resource areas: RPAs, RMAs, and the Coastal Zone Management Area. See Appendix 9 for results of the assessment of potential impacts on water resources.

The primary source of impact to water resources resulting from the proposed project in these areas includes stormwater runoff during construction and operation. Review of the project's potential impacts to water resources is required by several agencies. Review at the local level is required by the Arlington County Department of Community Planning, Housing and Development and the City of Alexandria Department of Transportation and Environmental Services. The project is anticipated to be exempt from the Plan of Development review requirement by the City of Alexandria under its *Environmental Management Ordinance*.

**Q. Impacts on Ecologically-Sensitive Areas and Endangered Species:** As stated in correspondence from the Virginia Department of Conservation and Recreation (VDNR) (see Appendix 10), no adverse impact to natural heritage resources within the project area is anticipated. The project area is adjacent to the Potomac River and crosses Four Mile Run, both of which have been designated Confirmed Anadromous Fish Use Areas. No adverse impacts are expected as all construction will occur within the existing transportation right-of-way.

**R. Impacts on Safety and Security:** Conditions for pedestrians vary widely along the project corridor. In general, streets where existing bus service operates have sidewalks on both sides, and there are crosswalks at existing intersections. Other pedestrian amenities include countdown timers at signalized intersections and high visibility striping at crosswalks.

Many parts of the corridor are experiencing rapid change, with development being constructed or in design along the planned transit alignment. Typically, the development projects include generous sidewalks and landscaped areas that improve the pedestrian environment. Along the busway, bus lanes, and the transit corridor, particularly near station stops, pedestrian improvements will include restriped crosswalks, adequate sidewalks and ramps, and pedestrian countdown timers at signals. All of these improvements will lead to an enhanced pedestrian environment where transit passengers and local pedestrian traffic will have improved access to buildings and amenities along the planned transit route.

**S. Impacts Caused by Construction:** Potential construction impacts are discussed in the following paragraphs.

Noise and Vibration: No noise or vibration impact is expected as a result of project construction, although some minor nuisance noise might result. Project will comply with local noise ordinances."

Utilities: Construction operations are not anticipated to result in disruption of any energy utility to commercial, industrial, or residential customers in the vicinity.

Disposal of Debris: Project contract specifications will require the contractor to dispose construction generated solid waste. The disposal method will be either transportation of materials to an approved disposal facility or collection by an approved agent. No waste will be disposed or incinerated on site.

Water Quality: No direct alteration to wetlands, surface waters, floodplains, or RPAs is anticipated unless the proposed station stop south of Four Mile Run requires construction within the designated RPA. The project requires a Virginia Pollutant Discharge Elimination System (VPDES) General Permit for Discharges of Stormwater from Construction Activities due to its disturbance of greater than one acre. Due to work within the RMA, an erosion and sediment control plan must be submitted to Arlington County and the City of Alexandria for review and approval prior to the start of work. During construction, maintaining site stability and controlling runoff from the work area are crucial to avoid the migration of pollutants from the various construction sites to nearby sensitive resource areas.

Access and Distribution of Traffic: Implementation would not require the closing of any street or create a major interference in the traffic flow of the surrounding roadways.

Air Quality: Direct emissions from construction equipment are not expected to produce adverse effects on local air quality provided that all equipment is properly operated and maintained. These potential impacts include direct emissions from construction equipment and trucks, increased emissions from motor vehicles on the streets due to disruption of traffic flow, and fugitive dust emissions. Emissions from project-related construction equipment and trucks would be much less than the total emissions from other industrial and transportation sources in the region, and therefore, are expected to be insignificant with respect to compliance with the NAAQS.