



## EXECUTIVE SUMMARY

### S.1 PURPOSE AND NEED FOR THE PROJECT

The proposed action involves the construction of a new north-south transportation link to connect the City of Manassas with I-66 and the Dulles corridor. The study area extends from the interchange of VA 28 and VA 234 in Prince William County, north through Fairfax County to US 50 (John Mosby Highway) in Loudoun County. The purpose of the proposed Tri-County Parkway involves the following four key elements:

1. Improve transportation mobility and capacity and by doing so, improve access and reduce congestion.
2. Enhance the linkage of communities and the transportation system that serves those communities.
3. Accommodate social demands, environmental goals and economic development needs.
4. Improve safety and by doing so, reduce the average crash, injury and accident rates on the roadway network.

The study area lacks adequate north-south transportation facilities linking the I-66 corridor with the Dulles area and VA 267. East of US 15 and west of the I-495 (Capital Beltway) only three principal urban arterials connect these roads - VA 28 (Sully Road), Route 7100 (Fairfax County Parkway), and VA 123 (Chain Bridge Road). These north-south facilities are heavily congested and will deteriorate further by the year 2025. Level of Service (LOS) on VA 28 is currently deficient in the a.m. and p.m. peak periods. By 2025, most segments of VA Route 28 northbound in the a.m. and southbound in the p.m. are expected to operate at LOS F or G.

### S.2 ALTERNATIVES CONSIDERED

In accordance with 23 CFR 771.123 and FHWA Technical Advisory T 6640.8A, a broad range of preliminary alternatives was identified for consideration and development in the Tri-County Parkway Location Study.

#### ALTERNATIVES ELIMINATED FROM DETAILED STUDY

Transportation System Management (TSM) Alternative: The public and agency scoping process initially identified Transportation System Management (TSM) improvements as a possible alternative to construction of the Tri-County Parkway. The intent of the TSM alternative is to maximize the efficiency of the existing transportation system; therefore, it should only consist of minor improvements with little work outside the right-of-way. Major improvements such as the addition of lanes, the wholesale correction of geometric deficiencies, or the reconstruction of an entire route would be considered a separate build alternative and not a TSM alternative. In this instance, however, the 2003 CLRP for the Washington, DC metropolitan region and its companion FY 2004-2009 Transportation Improvement Plan (TIP) as well as the Virginia Department of Transportation's (VDOT) 2005-2010 Six Year Improvement Program already include a wide array of TSM improvements that address the Tri-County Parkway study area. There are no practicable TSM measures beyond those already proposed in the CLRP and VDOT Six Year Plan which could reasonably be implemented to sufficiently satisfy the purpose and need for the Tri-County Parkway. TSM-type improvements programmed into the aforementioned plans do not sufficiently satisfy the project's purpose and need when considered as a stand-alone alternative; therefore, the TSM Alternative was eliminated from further consideration.

Mass Transit Alternative: Improving mass transit in the study area through the expansion of existing transit facilities and services and/or the provision of light rail or other transit systems was initially identified in the scoping process as an alternative to the Tri-County Parkway. After further consideration, it was determined that the nature of the study area makes the identification of a mass transit alternative that can address the corridor's purpose and need problematic. The service areas of the transit authorities operating in the northern Virginia area (WMATA, Potomac and Rappahannock Transportation Commission (PRTC), and Loudoun and Fairfax County Transit systems) serve only portions of the study area. No transit authority exists nor are there plans to establish such an authority whose service area covers or would cover the entire study area. WMATA provides service in Fairfax County (although not within the study area), PRTC in Prince William County and Manassas, and Loudoun and Fairfax County transit authorities serve the respective counties. While WMATA Metrobus and Metrorail service, PRTC bus service and Loudoun County Transit bus service do span jurisdictional lines, the cross-jurisdiction service is commuter service focused on east-west trips destined for



the District of Columbia and inner northern Virginia suburbs, rather than local service. In addition, transportation plans developed for the northern Virginia region do not identify programmed projects to provide transit service in the study area. The CLRP identifies the implementation of east-west rail service along the Dulles Access Road/Toll Road Corridor (as an expansion of express bus service). The CLRP identifies "studies" to provide HOV and transit (feeder and express bus and rail transit) service improvements in the I-66 Corridor between Fauquier County and Arlington County, transit service (priority bus) improvements in the US 50 Corridor between Loudoun County and Arlington County, and light rail (on VA 28) from Manassas to Dulles Airport. These studies have neither financial plans, detailed project scopes, alignments, or costs associated with them, nor are they slated for construction in the CLRP. Finally, the development patterns and traffic patterns and volumes within the study corridor do not favor north-south through movement along the corridor. The majority of trips and greatest volumes are to points outside of the study area or along only a portion of the corridor (i.e., from the Manassas and Centerville areas to I-66 and points east, from the South Riding area to the Dulles corridor). The through volumes are by far the weakest in the study area and would not attract sufficient transit riders to make such service viable; therefore, the Mass Transit Alternative has been eliminated from consideration.

Other Candidate Build Alternatives: Several preliminarily identified candidate build alternatives (CBAs East One, East Two, West One, and West Four) were eliminated from further consideration due to their impacts upon study area resources and their inability to address the objectives of purpose and need. These preliminary CBAs and reasons for their dismissal are discussed in detail in Chapter 2 of this EIS and in the Alternatives Identification and Screening Technical Report (VDOT, 2004).

## **ALTERNATIVES CARRIED FORWARD FOR DETAILED STUDY**

### **No-Build Alternative**

Consistent with the requirements of NEPA and FHWA guidelines, full consideration is given to the environmental consequences of taking no action to meet future travel demand in this DEIS (hereinafter referred to as the "No-Build Alternative"). The No-Build Alternative includes routine maintenance improvements that maintain the continuing operation of the existing roadway network in the study area and currently programmed, committed, and funded roadway and transit projects as included in the 2003 CLRP and the VDOT Six Year Program. Projects already included within the CLRP and VDOT Six Year Program and considered as part of the No-Build include roadway widening and interchange improvements in the VA 28 corridor between the City of Manassas and VA 7, along with an array of TSM improvements to improve the efficiency of vehicles traveling along the roadways in the study area. The No-Build Alternative, while having minor direct construction impacts, would result in other economic, environmental, and quality of life impacts that can be expected from the continuation of roadway system deficiencies. While the No-Build Alternative does not meet the project needs for traffic, safety, and roadway infrastructure improvements, it provides a baseline condition with which to compare the improvements and consequences associated with the CBAs.

### **Candidate Build Alternatives (CBAs)**

Three north-south alignments or CBAs have been carried forward for detailed study in the EIS (the West Two CBA, the West Four CBA, and the Comprehensive Plan CBA). Each CBA consists of two or more general design cross-section segments. The regional travel demand model analysis suggests that, overall, the West Two, West Four, and Comprehensive Plan CBAs provide material and relatively equal travel time savings, reductions in delay, and capacity improvement during peak hour travel. There are unique and distinct transportation advantages and disadvantages to individual sub-areas within the study area that are impacted differently depending on the CBA; however, on an overall study area basis, the aforementioned alternatives perform comparatively well, based upon the quantitative measures of capacity, travel time, and delay.

The West Two CBA: The West Two CBA impacts the least amount of floodplain and historic sites and does not impact any public facilities. It is second lowest of the build alternatives in impacts to neighborhoods, parks, stream crossings, and wetlands. Qualitatively, this alternative does not serve the system and community linkage needs as well as the West Four CBA or the Comprehensive Plan CBA. It addresses social and economic demands as well as the West Four CBA but not as well as the Comprehensive Plan CBA (which performs the best of all CBAs). The West Two CBA addresses safety needs in a manner comparable to the



West Four CBA and the Comprehensive Plan CBA. From a traffic modeling standpoint, the West Two and West Four CBAs result in similar increases in study area VMT as compared to No-Build and rank second to the Comprehensive Plan CBA (which results in the smallest increase in VMT). This CBA is anticipated to have service levels ranging between C and D over its entire length. These are indicative of moderate, but not severe congestion during the peak hour. The West Two CBA affects the largest decrease in the hours of peak delay over the No-Build Alternative, although it results in a slight increase in the amount of peak deficient VMT when compared to the No-Build Alternative.

The West Four CBA: The West Four CBA ranks the lowest of the build alternatives in impacts to neighborhoods, second lowest in impacts to historic resources, and in the middle range of alternatives for impacts to other resource areas. As with the Comprehensive Plan CBA, it does not impact public facilities. This alternative is second only to the Comprehensive Plan CBA in meeting system and community linkage needs and performs the same as the West Two CBA relative to social and economic demands and safety. The West Four CBA performs very similar to the West Two CBA in the traffic and highway quantitative screening process. VMT increases and LOS are similar to the West Two CBA. West Four CBA increases the amount of peak deficient VMT slightly over the No-Build Alternative; however, it betters the No-Build Alternative in decreasing the hours of peak delay (although not as well as the West Two CBA).

The Comprehensive Plan CBA: The Comprehensive Plan CBA (along with the West Two CBA) impacts the fewest number of historic sites. Despite the environmental impacts associated with it, the Comprehensive Plan CBA is being carried forward because of it has been supported by the jurisdictions in the study area through their comprehensive planning process; presently, four of the five jurisdictions in the study area have included the alignment of the Comprehensive Plan CBA in their planning documents. However, FHWA may not be able to support this alternative because of its impacts to public parks and historic sites given the legal standard established by Section 4(f) of the Department of Transportation Act of 1966. Further, in their review of the preliminary Draft Environmental Impact Statement, the U.S. Environmental Protection Agency and the U.S. Army Corps of Engineers have expressed concerns about the permitability of the Comprehensive Plan CBA under Section 404 given the LEDPA standard that the Corps is bound by (the least environmentally damaging project alternative). Notwithstanding, the Comprehensive Plan CBA also avoids public facility takings. It does, however, have the greatest impact of the CBAs on floodplains, parks, and wetlands, and ranks second among CBAs in impacts to neighborhoods and stream crossings. The Comprehensive Plan CBA is the best of the CBAs in meeting system and community linkage needs and satisfying social and economic demands as well as reducing peak deficient VMT and minimizing increases in overall VMT. It is also among the top ranked alternatives in addressing safety needs. While the Comprehensive Plan CBA will result in decreased levels of peak delay compared to the No-Build Alternative, it ranks second to the West Two CBA in its effectiveness. LOS conditions exhibit greater variation in this alternative compared to the West Two CBA and the West Four CBA - ranging between LOS B and F.

### **S.3 SUMMARY OF IMPACTS**

Potential impacts are described in the EIS using a 600-foot-wide assessment corridor. The probable footprint of construction will vary throughout the selected corridor; however, it is known that the average width of construction and right-of-way will be significantly narrower than the 600-foot-wide assessment corridor. Although this use of a 600-foot-wide assessment corridor results in an over-statement of reasonably expected impacts, subjecting all alternatives to a standardized assessment area of uniform width allows the alternatives to be assessed on the basis of their comparative merits. If a CBA is selected for construction, future design efforts would provide opportunities to further avoid and minimize impacts within the 600-foot-wide corridor. The exception to this standard is waters of the U.S. which, because site-specific delineations were conducted, allowed in the body of the EIS a discussion of effects within a 200-foot-wide average limits of construction. Table S-1 presents the primary consequences associated with the various alternatives within the Tri-County Parkway study area.

**TABLE S-1: ENVIRONMENTAL IMPACT ASSESSMENT MATRIX**

Assessment Factor	Issue / Resource	No-Build <sup>1</sup>	West Two	West Four	Comp Plan
Relative Effectiveness of Satisfying Purpose and Need	Improve Mobility and Capacity	not effective	effective	effective	effective
	Enhance the Linkage of Communities and the Transportation System	not effective	effective	effective	effective
	Accommodate Social Demands and Economic Development Needs	not effective	effective	effective	effective
	Improve Safety	not effective	effective	effective	effective
Land Use Impacts	Agriculturally Zoned (acres)	2.8	353	281	0
	Residentially Zoned (acres)	0.3	3	95	463
	Commercially / Industrially Zoned (acres)	4.2	42	91	150
	Public Facilities (acres)	0.1	1	1	60
	Public Parks (acres)	4.2	42.1	42.1	212.2
Farmlands	Prime Farmlands (acres)	10.1	132.1	101.1	79.0
	Agricultural and Forestal Districts (acres)	0	0	21.9	65.7
Public Parklands	Section 4(f) & Section 106 Parkland Encroachments (acres)	0	42.1	42.1	212.2
	Effect on Park Visual Experience	no effect	effect, not adverse	effect, not adverse	adverse effect
	Effect on Internal Park Mobility and Access	adverse effect	effect, not adverse	effect, not adverse	adverse effect
	Consistent with Resource Management Plan	not consistent	consistent	consistent	not consistent
Recreational Resources and Open Space	Private Parks or Recreational Resources Affected (acres)	0	6.1	6.1	0
	Designated Open Space Affected (acres)	0	0	0	0
Visual Impacts	Number of Adversely Affected Visually Sensitive Areas	1	1	1	2
Socioeconomics / Relocations	Capital Costs	N/A	\$201,174,000	\$176,674,000	\$547,826,000
	Number of Residences Relocated	0	21	13	22
	Number Non-Profit/Community Facilities Relocated	0	0	0	1
	Number of Commercial Businesses Relocated	0	0	0	3
	Lost Tax Revenue (dollars)	0	210,206	194,641	399,509
	Number of Communities or Neighborhoods Affected	0	4	1	12
Environmental Justice	Minority Population Affected (number of individuals)	10	96	273	1,581
	Low-Income Population Affected (number of individuals)	9	93	197	1,611
Hazardous Materials	Number of Sites Encroached Upon	0	1	1	5
	Number of Nearby Sites With Potential Pathways	0	19	29	91
Cultural Resources <sup>2</sup>	Number of Prehistoric and Historic Archaeological Resources Affected	0	11	7	23
	Number of Historic Architectural Resources Adversely Affected	0	2	1	1
Air Quality	Relative Conformity With State or Regional Plans	does not conform	fully conforms	fully conforms	fully conforms
Noise	Number of Noise Sensitive Receptors Affected (loudest hour)	0	66	115	852
	Costs of Noise Abatement (millions of dollars)	0	9.481	7.694	13.193
Surface Water Resources	Stormwater Pollutant Loading Expressed as a Function of Water Quality Volume (cubic feet)	31,265	312,650	388,700	515,450
	Number of Sites of Potential Contamination Located Upstream of a Public Water Supply	0	6	2	6
	Perennial Streams Affected (linear feet)	750	7,503	8,431	27,070
	Intermittent Streams Affected (linear feet)	1,377	16,574	13,765	16,297
	Ephemeral Streams Affected (linear feet)	21	214	214	3,508
	Open Water Bodies Affected (acres)	0.8	9.11	13.33	8.10



Assessment Factor	Issue / Resource	No-Build <sup>1</sup>	West Two	West Four	Comp Plan
Groundwater Resources	Number of Sole Source Aquifers Affected	0	0	0	0
	Number of Wellhead Protection Areas Affected	1	3	3	7
Floodplains / Floodways	100-Year Floodplain Encroachment (acres)	2.69	26.9	39.4	287.8
	Number of Regulated Floodways Crossed	0	4	6	7
Terrestrial Ecology	Forest Land Habitat Affected (acres)	27.8	338.2	277.5	440.3
	Agricultural Land Habitat Affected (acres)	14	202.4	223.8	140.2
	Transitional Land Habitat Affected (acres)	3.2	31.5	81.1	120.6
Aquatic Ecology	Benthic Habitat Affected (linear feet of stream)	2,220	24,077	22,196	43,367
	Seasonally Flooded Aquatic Habitat Affected (expressed in acres as a function of floodplain effects)	2.69	26.9	39.4	287.8
Waters of the U.S. <sup>3</sup> , Including Wetlands	Acreage of Wetlands Affected	2.27	22.72	36.35	49.29
	Acreage of Mitigation Required	3.37	33.71	55.28	82.05
Wild & Scenic Rivers	Number of National Wild & Scenic Rivers Affected	0	0	0	0
	Number of State Wild & Scenic Rivers Affected	0	0	0	0
Threatened & Endangered Species	Documented Presence of Federally Listed T&E Species	0	0	0	0
	Documented Presence of State Listed T&E Species	0	0	0	0
	Potential Habitat for Federal-Listed T&E Species (No. Sites)	0	1	1	0
	Potential Habitat for State-Listed T&E Species (No. Sites)	0	0	0	0
Biodiversity	Number of Wildlife Corridors Bisected or Disrupted	0	2	2	1
	Inner-Core Forest Habitat Affected (acres) <sup>4</sup>	13.9	169.1	138.8	220.2
	Number of B4 or B5 BRANK Sites Affected	0	0	1	1

<sup>1</sup> Assumes that effects associated with the TSM components of the No-Build alternative (the base case) are equivalent to roughly 10 percent of lowest CBA effect.

<sup>2</sup> All cultural resources identified in this table are NRHP-listed or NRHP-eligible.

<sup>3</sup> Non-Wetland Waters of the U.S. are addressed under Surface Water Resources as Perennial and Intermittent Streams and Water Bodies.

<sup>4</sup> Assumes that 50% of total forest acreage is inner-core.

#### S.4 COMMENTS AND COORDINATION

On 1 March 2002, VDOT distributed a letter inviting federal, state, and local agencies along with political representatives to attend a 20 March 2002 Agency Scoping Meeting. The 1 March 2002 letter was accompanied by a March 2002 color brochure titled "Tri-County Parkway Location Study Scoping Information Document". The letter and brochure was distributed to the three representatives from the U.S. Congress, the two representatives of the U.S. Senate, 12 federal agencies (including their various divisions and field offices), 21 state agencies (including their various divisions and field offices), nine regional agencies, 66 agencies of the four local jurisdictions affected by the project, and two other uncategorized parties. Parties to who the invitation letter and information brochure were sent are listed in the "Distribution List" section of the March 2002 information brochure (see Section 6.0 of this EIS). A week prior to the Agency Scoping Meeting, similar material was sent to each of the County Board of Supervisor Chairpersons and Supervisors representing districts impacted by the project in Prince William, Fairfax, and Loudoun counties.

Additional project scoping was accommodated primarily through Inter-Agency Coordination Meetings (IACMs). Agencies participating in the IACMs included VDOT, FHWA, U.S. Environmental Protection Agency (EPA), U.S. Army Corps of Engineers (COE), U.S. Fish and Wildlife Service (FWS), National Marine Fisheries, Virginia Department of Environmental Quality (DEQ), Virginia Department of Game and Inland Fisheries (DGIF), Virginia Institute of Marine Sciences (VIMS), Virginia Marine Resources Commission (VMRC), Virginia Department of Historic Resources (DHR), and the Virginia Department of Conservation and Recreation (DCR). Additional agency coordination included meetings, phone conferences, and data exchanges with the National Park Service (NPS) and the Northern Virginia Regional Parks Authority (NVRPA). Coordination with the Natural Resources Conservation Service (NRCS) was provided to secure identification and rating of prime farmlands in the study area.



## **S.5 APPROVALS REQUIRED**

Construction of the Tri-County Parkway would result in several actions requiring environmental regulatory permits. These include:

- Corps of Engineers authorization for work in waters of the U.S. (including wetlands) under Section 404 of the Clean Water Act
- Authorization from the Virginia Marine Resources Commission for construction in state subaqueous lands under Title 62.1 of the Code of Virginia
- Virginia Department of Environmental Quality authorization for work in waters of the state under the Virginia Water Protection Permit program.

(This area left blank intentionally)