

**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

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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.