

Alternatives Comparison Matrix - Environmental Considerations

EVALUATION CRITERIA		Units	Alternative 1B	Alternative 4B	Alternative 4C	Alternative 4D	Alternative 4E	Alternative 8A	Alternative 8B	Alternative 9A	Alternative 9B	VE
HUMAN ENVIRONMENTAL CONSIDERATIONS												
Permanent Impacts to Land Use and Community Facilities (Where structure demolition is required, a full parcel acquisition is assumed) *The Lafayette Senior Living Center accounts for 15 residential displacements.	Total Number of Parcels	#	3	8	5	8	5	3	3	6	4	5
	Total Acreage	Acres	0.35	4.69	0.98	4.72	0.98	0.10	0.10	2.71	0.32	0.36
	Potential Number of Residential and/or Commercial Relocations	#	0	16	15	16	15	0	0	1	0	0
Permanent Impacts to Parks and Recreational Resources (Parks avoided include Lower Ferry Park & Pier, Trego Field/Mini-Park, Perryville Community Park, and Existing bike/ped trails)	Total Number of Parks Affected	#	0	2	1	2	1	0	0	2	1	1
	Total Acreage	Acres	0	2.52	0.14	2.56	0.14	0	0	2.29	0.79	0.79
Potential Impacts to Cultural Resources	Number of Impacted Historic Properties	#	2-3	2-3	2-3	2-3	2-3	2-3	2-3	3	3	2-3
	Total Acreage of Potentially Sensitive Archaeological Areas	Acres	0.20	0.20	0.20	0.11	0.11	0.20	0.11	0.31	0.31	0.31
Potential Impacts to Section 4(f) Resources	Total Number of Section 4(f) Resources with Potential Impacts	#	3	5	4	5	4	3	3	5	4	4
NATURAL ENVIRONMENTAL CONSIDERATIONS												
Number of Stream Crossings		#	3	3	3	3	3	3	3	3	3	3
Impacts to Streams***	Total Stream Impacts	Linear Feet	330	450	292	430	271	290	269	376	308	333
Impacts to Wetlands****			0.65	0.66	0.68	0.60	0.59	0.65	0.59	0.18	0.18	0.65
Impacts to Natural Wetland Buffers			1.41	1.47	1.71	0.78	0.72	1.41	0.72	1.15	1.15	1.42
Impacts to Floodplains	100 year floodplain	Acres	2.40	3.29	2.23	2.94	1.87	2.23	1.91	2.70	2.15	2.48
	500 year floodplain		52.66	58.99	51.27	56.44	48.43	50.21	47.63	55.45	51.67	56.07
Impacts to Chesapeake Bay Critical Area			6.90	7.27	7.13	7.25	6.98	6.79	6.46	6.23	6.09	8.01
Impacts to Submerged Aquatic Vegetation			0.63	0.57	0.57	0.57	0.57	0.63	0.64	0.60	0.59	0.74
Number of known / suspected contaminated properties directly impacted		#	2	3	2	3	2	2	2	2	2	2
Impacts to Rare, Threatened or Endangered Species Habitat		Y/N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Impacts to Forest****			1.74	2.75	0.59	2.34	0.17	0.63	0.23	2.92	2.08	2.08
Bridge Deck Acreage over Susquehanna River*****		Acres	6.30	6.30	6.30	4.30	4.30	6.30	4.30	6.30	6.30	6.30
	Existing Pier Removal Acreage		0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
Retained for further evaluation			No	No	No	No	No	No	No	Yes	Yes	No
Elimination Rationale			Lower maximum allowable speed than 9B with comparable environmental impacts	Impact to Lafayette Senior Housing Facility	Impact to Lafayette Senior Housing Facility and low maximum authorized speed	Impact to Lafayette Senior Housing Facility; provides three tracks only	Impact to Lafayette Senior Housing Facility; offers low maximum authorized speed and three tracks only	Undesirable maximum authorized speed	Undesirable maximum authorized speed	N/A	N/A	Higher property and natural environmental impacts, but lower speed than 9B

*** Does not include the Susquehanna River. All alternatives cross the Susquehanna River.

**** Based on preliminary field survey

***** Actual impacts to be determined by bridge type.

First Tier of Impacts
 Second Tier of Impacts
 Third Tier of Impacts