

2.3 Reference Sheets

Summary of Effects

Evaluation Measure	Units	Alternatives							
		4	4.2	4.3	4.2 & 3	5	5.1	5.2	5.1 & 2
Overall Segment Length									
Length	miles	61.7	61.3	62.6	62.2	62.8	61.4	62.4	61.0
Human Environment Considerations									
Displaced Residential Structures	count	17	17	7	7	5	5	5	5
Displaced Commercial Structures	count	0	0	0	0	0	0	0	0
Displaced Institutional Structures	count	0	0	0	0	0	0	0	0
Pine Plantation Land within ROW	acres	1,422.3	1,472.3	1,369.8	1,419.8	1,474.3	1,469.4	1,524.2	1,519.4
Naturally Wooded Land within ROW	acres	1,142.6	1,084.0	1,248.4	1,189.8	1,120.9	1,064.8	1,062.4	1,006.2
Agricultural / Farmland within ROW	acres	150.3	150.3	81.3	81.3	82.6	72.0	82.6	72.0
Cleared Land within ROW	acres	211.9	225.0	275.8	288.9	243.4	277.7	256.5	290.8
Developed / Urban Land within ROW	acres	45.6	45.6	35.4	35.4	29.1	29.1	29.1	29.1
Federal and State Lands and Recreational Areas Traversed	acres	0	0	0	0	0	0	0	0
Displaced Residences in High Minority Areas	count	6	6	3	3	0	0	0	0
Displaced Residences in High Low-Income Areas	count	7	7	2	2	2	2	2	2
Powerline Crossings within ROW	count	2	2	2	2	3	3	3	3
Communication Towers within ROW	count	0	0	0	0	0	0	0	0
Petroleum Pipeline Crossings within ROW	count	31	32	30	31	35	43	36	44
Chemical Pipeline Crossings within ROW	count	3	2	3	2	3	3	2	2
Water Wells Located within ROW	count	0	0	0	0	1	1	1	1
Railroad Crossings within ROW	count	3	3	3	3	3	3	3	3
Recorded Archeological Sites Directly Impacted	count	0	0	0	0	0	1	0	1
Grade Separations	count	16	16	16	16	17	18	17	18
Crossroad Termination	count	55	56	49	50	56	60	57	61
Physical Environment Considerations									
Scenic Streams Traversed by the Alternatives	acres	5.8	5.8	5.8	5.8	5.6	7.1	5.6	7.1
100-Year Floodplain Area Traversed	acres	361.8	325.7	365.4	329.3	284.6	325.4	248.6	289.4

Summary of Effects

Evaluation Measure	Units	Alternatives							
		4	4.2	4.3	4.2 & 3	5	5.1	5.2	5.1 & 2
Sparta Aquifer Recharge Area Traversed	acres	10.3	10.3	34.3	34.3	0	0	0	0
Chicot Terrace Area Traversed	acres	274.4	274.4	272.5	272.5	516.8	556.2	516.8	556.2
Sand and Gravel Mining Operations Directly Impacted	count	0	0	0	0	0	0	0	0
Known Lignite Deposits Directly Impacted	count	0	0	0	0	0	0	0	0
Oil / Gas Well Sites within ROW (Active)	count	4	4	4	4	5	5	5	5
Oil / Gas Well Sites within ROW (Inactive)	count	1	2	1	2	2	2	3	3
Prime and Unique Farmland Soil Area Traversed	acres	870	920	764	814	1,037	1,026	1,087	1,076
Moderate / High Hazardous Sites Directly Impacted	count	11	11	11	11	11	9	11	9
Residences Impacted by Unabated Adverse Noise Levels	count	74	80	80	86	31	40	37	48
Natural Environment Considerations									
Wetlands Directly Impacted	acres	88.9	97.4	106.5	114.6	59.5	72.4	67.6	80.5
Ponds Directly Impacted	count	8	7	8	7	3	6	2	5
Streams Traversed	count	88	72	91	65	61	69	65	73
Streams Traversed	linear feet	56,764	64,083	51,829	53,712	34,006	39,530	39,315	44,839
Threatened and Endangered Species Records - 0.5 mile buffer in ROW	acres	0.3	0.3	0.3	0.3	0.3	7.8	0.3	7.8
Encroachment of Alternatives on Potential RCW Habitat	acres	1,043	936	1,119	1,012	1,052	1,030	946	1,158
Preliminary Project Cost Estimate (in 1,000s of Dollars)									
Subtotal - Construction Items	\$	\$389,518	\$389,516	\$381,382	\$381,875	\$368,940	\$371,674	\$369,433	\$372,166
Subtotal - Project Costs	\$	\$410,498	\$410,585	\$400,822	\$401,405	\$390,468	\$395,249	\$391,311	\$396,081
Contingencies	\$	\$102,624	\$102,646	\$100,206	\$100,351	\$97,617	\$98,812	\$97,828	\$99,020
Total Project Costs	\$	\$513,122	\$513,232	\$501,028	\$501,756	\$488,085	\$494,061	\$489,138	\$495,102

Important Comparative Issues

Issue	Comparative Advantages of Alternatives
Human Environment	
1. Communities and Residential Dwellings	Alternative 5 combinations have the least adverse effects but similar to Alternative 4.3
2. Public Lands and Recreation	Only scenic use of Bayou Dorcheat will be adversely affected. Alternative 4 minimizes these effects.
3. Visual Environment	Views from the road will be pleasant. Views at the road will be limited because of dense vegetation of the region. Alternative 4 minimizes adverse visual impacts to scenic use of Bayou Dorcheat.
Physical Environment	
4. Surface Water Resources	Alternative 5 combinations reduce the number of waterbody crossings.
5. Noise	Alternative 4 affects the greatest number of residences with adverse noise levels, and Alternative 5 minimizes adverse effects.
Natural Environment	
6. Upland Communities	Alternative 4 minimizes effects to native uplands. Wildlife movement may be adversely affected by all build alternatives. Also, only Alternatives 4 and 4.3 affect the unusual Study Area spring-fed streams identified in the vicinity of Glass Creek.
7. Wetland Communities	All alternative avoid wetlands to extent practicable, and Alternative 5 minimizes adverse effects to unavoidable wetland areas.
8. Aquatic Communities	

Issues with Minimal Comparative Value

Issue	Comparative Advantages of Alternatives
Human Environment	
1. Community Facilities and Services	Benefits for medical trips to Shreveport for all Alternatives; minor adverse but temporary access effects to police and fire response.
2. Local Travel Patterns and Safety	Benefits realized for long-distance travel; some moderately adverse local travel pattern changes. Haynesville community benefits most.
3. Industry, Employment and Commercial Structures	Limited induced land development at interchanges. Development along US 371 and US 79 likely greatest. Retail and personal services will likely dominate induced employment in short term; however new interstate access is attractive to industry.
4. Land Use, Development and Property Values	
5. Environmental Justice	No disproportionate adverse effects anticipated to any minority or low-income group anticipated.
6. Utilities	No relative advantage among alternatives.
7. Cultural Resources	Alternative 5.1 is the only alternative expected to affect a recorded archaeological site.
Physical Environment	
8. Floodplains	No relative advantage among alternatives.
9. Potable Ground Water	
10. Geology and Mineral Resources	
11. Prime Farmland and other Soils	
12. Hazardous Materials and Sites	
13. Air Quality	
Natural Environment	
14. Protected Flora and Fauna Species	No federally protected species sightings during field deployments. Similar acreage of RCW habitat among all alternatives (i.e., between 940 and 1160 acres). No other protected species or waterbird nesting colonies likely to be adversely affected.
Construction Effects and Best Management Practices	
15. Economic Effects	Benefits of spending in the region in the short term.
16. Physical and Social Effects	Short term moderate adverse effects expected but minimizes with the implementation of BMPs.
Other Considerations	
19. Energy	Net benefit of project from saved vehicle miles traveled in region.
20. Secondary and Cumulative Effects	Induced development expected but moderate and concentrated along upland interchange locations near population centers. Alternative 5 expected to have greatest potential for induced development. If funded, North Hills Lakes Project could result in substantial effects.
21. Irreversible and Irrecoverable Commitments of Resources	Timber harvesting and oil and gas exploration has altered landscape considerably. Labor, raw materials, Federal funding, and any native, old-growth wooded parcels, native wetlands and similar.
22. Relationship Between Short-Term Impacts And Long-Term Productivity	Short-term impacts eclipsed by longer-term increases in transportation efficiency and productivity.