

Appendix J Wetlands Only Practicable
Alternative Finding

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1.1.1 No Practicable Alternatives to the Proposed Action

Since project planning for a Willits Bypass began in 1962, approximately 30 alternatives have been considered and studied. Alternatives were evaluated and ranked, then either eliminated or retained based on their ability to meet the project purpose and their ability to avoid or minimize impacts to environmental resources, including wetlands.

Because selection of any of the proposed build alternatives as the preferred alternative would require a U.S. Army Corps of Engineers (ACOE) Section 404 Individual Permit, an analysis of impacts to aquatic resources, including wetlands, and associated sensitive species for each alternative is required to comply with the Clean Water Act Section 404(b)(1) Guidelines.

In 1994, Caltrans initiated the NEPA/404 Integration process for the proposed Willits Bypass project, pursuant to the guidelines of the 1994 Memorandum of Understanding (1994 MOU)¹. In 1995, Caltrans, FHWA and the NEPA/404 signatory agencies (USEPA, USACOE, USFWS, and NMFS) concurred with: the project's Purpose and Need Statement, which sets forth the criteria for evaluating project alternatives; the modal choice; and the range of alternatives to be studied. In 1999, the NEPA/404 signatory agencies agreed to a narrowed range of alternatives to bring forward in the environmental review process, including Alternatives E3, C1T, J1T, LT, hybrid L/C, as well as the No-build alternative.

Pursuant to Section 404(b)(1) Clean Water Act Guidelines, Caltrans prepared a Draft Alternatives Analysis (May 2001), which concluded that Alternatives E3, C1T, and a hybrid L/C would have greater overall environmental impacts compared to Alternatives LT and J1T. Wetlands impacts associated with each alternative are shown in the following table:

¹ The 1994 MOU implements a policy to improve coordination between agencies and to integrate National Environmental Policy Act (NEPA) and Clean Water Act Section 404 procedures.

Impacts to Wetlands by Alternative

Build Alternatives	Impacts to Wetlands and Other Waters of the U.S.
E3	6.1 ha (15.1 ac)
C1T	52.7 ha (130.2 ac)
L/C*	48.5 ha (119.9 ac)
LT	29.9 ha (73.8 ac)
J1T	22 ha (54.6 ac)
Modified J1T (Preferred Alternative)	25.9 ha (64.0 ac)

*L/C – a combination of the south segment of Alternative LT and the north segment of Alternative C1T. The hybrid Alternative L/C was studied in the Alternatives Analysis in response to public comments received during the public circulation of the Draft EIS/EIR.

Although **Alternative E3** has the least direct impact to wetlands, it was eliminated in the alternatives analysis process because of its high overall environmental impacts.

Alternative E3 would have the following high environmental effects: 1) the greatest potential to degrade water quality because of highly erosive soils and extensive number of stream crossings and thus, 2) has the greatest potential to jeopardize the continued existence of local populations of three federally listed salmonid species; 3) the largest direct impact to foraging habitat for Northern spotted owl because of this alignment’s massive earthwork requirements; 4) the highest number of home and business relocations (133); 5) the potential to affect the highest number of archaeological sites (18); 6) the largest conversion of Williamson Act Contract farmland (59.3 ha/146.6 ac); and 7) the largest direct impact to upland/foothill habitats, including oak woodland, a habitat type that is very difficult to replace.

Alternatives C1T and L/C were eliminated primarily due to their adverse impacts to wetlands due to: 1) fill of wetlands (130.2 acres and 119.9 acres, respectively); and 2) realignment of 2,000 m (6,560 ft) of other Waters of the U.S. supporting federally-listed salmonids.

Alternatives J1T and LT would have considerably fewer impacts to wetlands than Alternatives C1T and L/C; however, construction of **Alternative J1T** through the local and regional park/recreation complex would result in adverse impacts to “human use characteristics”²/Section 4(f)³ resources and construction of the alternative would result in removal of the Sanhedrin industrial park and the loss of tenant businesses that would not or could not relocate in Willits. **Alternative LT**, on the other hand, would avoid the park/recreation complex and the Sanhedrin industrial park but it would impact about 9 ha (22 ac) more of wetlands and other waters of the U.S. than Alternative J1T, and it would result in fragmentation impacts to the largest stand of Valley oak riparian woodland in the valley.

The NEPA/Section 404 Integration Process Guidance Papers explains that when evaluating harm to non-aquatic resources (i.e., Section 4(f) resources) versus jurisdictional aquatic resources, the alternatives selection process evaluates reasonable and prudent alternatives based on the “net harm” (after mitigation) of the alternative to Section 4(f) properties or other environmental resources. Feasible mitigation is not available to reduce or compensate for impacts to the Section 4(f) resource or the industrial park in the project area by Alternative J1T, so Caltrans and FHWA coordinated extensively with local government and community representatives and NEPA 404(b)(1) agencies to develop the **Modified Alternative J1T** to avoid the potential Section 4(f) resource and the Sanhedrin industrial park, while still minimizing impacts to wetland resources.

Based on the Final Alternatives Analysis (April 2005), Modified Alternative J1T would impact about 3.9 ha (9.4 ac) more wetlands than Alternative J1T; however, it would avoid the Section 4(f) resource and the industrial park; it would minimize project impacts to the oak riparian forest at the Colli Ranch, which would have suffered fragmentation

² Under Section 404 (b) (1) Subpart F (federal Clean Water Act), human use characteristics should be considered when making factual determinations and findings of compliance or non-compliance with the Act. These resources include parks, national and historical monuments, national seashores, wilderness areas, research sites, and similar preserves, that consist of areas designated under Federal and State laws or local ordinances to be managed for their aesthetic, educational, historical, recreational, or scientific value.

³ A Section 4(f) Resource is a publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of a historic site of national, State, or local significance (as determined by the federal, State, or local officials having jurisdiction over the park, area, refuge, or site). 49 USC Sec. 303

effects from Alternative LT; and it would minimize impacts to wetlands relative to Alternative LT.

In accordance with Section 404(b)(1) Guidelines (Clean Water Act), the ACOE and USEPA have concurred that Modified Alternative J1T is the LEDPA and that Alternatives E3, C1T, L/C, LT, and J1T do not meet LEDPA criteria because of their overall environmental impacts. The No Build Alternative, while being the least environmentally damaging alternative, does not meet the purpose and need for the project. The Section 404(b)(1) Final Alternatives Analysis, which explains why Modified Alternative J1T was identified as the LEDPA, is located in Appendix G of the FEIS/EIR, and the LEDPA concurrence letters from ACOE and USEPA are located in Appendix C of the FEIS/EIR.

1.1.2 Practicable Measures to Minimize Harm to Wetlands

1.1.2.1 Floodway Viaduct

Impacts to both groundwater and surface water hydrology are minimized by constructing the planned one-mile floodway viaduct, which spans the entire Little Lake Valley Floodway. The viaduct is designed to ensure flood flows are not redirected, to limit increases of the 100-year floodwater surface elevation to less than 0.15-foot, and to limit any increase to the floodway water surface elevation. Further, Caltrans and FHWA do not expect the construction of freeway fill to have an effect on groundwater recharge in the Little Lake Valley Groundwater Basin. A more detailed discussion of groundwater and surface water hydrology is in the Section 404(b)(1) Final Alternative Analysis (Appendix G, FEIS/EIR).

1.1.2.2 Slope Ratios

The Caltrans Highway Design Manual (Fifth Edition, page 300-49, (a) Safety) suggests a side slope ratio of 1:6 or flatter for high-speed roadways and states that side slope ratios of 1:10 are desirable. A side slope of 1:10 would increase the project's footprint by approximately 24 hectares (60 acres) where the alignment is built on fill. A design exception, which would allow slopes that vary between 1:2 and 1:4, has been approved for the proposed project. These steeper slopes would result in a reduced area of wetland impacts, as well as a reduction in impacts to other environmental and human-use resources.

1.1.2.3 Truncated Alternatives

In Fall 2000, due to budget constraints, Caltrans truncated (shortened) all of the valley alternatives, which reduced impacts to natural resources. Alternative J1T, which eventually became the Modified Alternative J1T, was shortened by approximately 5.1 km (3.2 mi).

1.1.2.4 Redesign of Southern Interchange

The proposed interchange at the south end of the project has been redesigned and will no longer require the realignment of 275 m (902 feet) of Haehl Creek, which represents a significant reduction of impacts to salmonid bearing streams in the project area (see Appendix H, Layouts of Modified Alternative J1T).

1.1.2.5 Width of Private Access Roads

Roadway width for private access roads has been estimated at approximately 6 m (19.6 ft) to allow for a two-lane roadway with no shoulders. It may be possible to reduce this width to about 5 m (16 ft); however, the design will need to conform to Caltrans right-of-way requirements to “replace in kind or better” and to be constructed adequately for the intended purpose. These access roads will need to accommodate hay trucks, fire trucks, and other equipment.

1.1.2.6 Median Width

During the early stages of the development of the alternatives, the standard minimum median width for rural freeways was 46 feet. The current Caltrans design standard for minimum median width for rural freeways is 18.6 m (61.0 ft). As part of its effort to minimize environmental impacts of the project, Caltrans has retained the old standard, which when adapted to metric units is 13.8 m (45.3 ft). A design exception has been approved to retain the old standard median width for the proposed project.

1.1.2.7 Construction Activities

The contractor will be required to prepare and implement a Storm Water Pollution Prevention Plan. Best Management Practices (BMPs) will be required to help stabilize disturbed soil, minimize erosion, and capture and remove sediment suspended in runoff before it leaves the site. Caltrans/FHWA will have a qualified biologist monitor construction activities in sensitive biological resource areas, as necessary to ensure permit conditions and mitigation requirements are implemented and enforced.

Implementation of these measures is expected to minimize potential impacts to wetlands.

1.1.3 Wetlands Only Practicable Alternative Finding

Based upon the above considerations, it is determined that there is no practicable alternative to the proposed construction in wetlands and that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use.