Appendix L

Floodplain Finding

FLOODPLAIN FINDING: ONLY PRACTICABLE ALTERNATIVE FINDING

INTRODUCTION

Executive Order 11988 (Floodplain Management) directs all federal agencies to refrain from conducting, supporting, or allowing actions in floodplains unless it is the only practicable alternative. The Federal Highway Administration requirements for compliance are outlined in 23 CFR 650 Subpart A.

The 100-year Floodplain is defined as “the area subject to flooding by the flood or tide having a 1% change of being exceeded in any given year." An encroachment is defined as “an action within the limits of the 100-year Floodplain.”

FLOODPLAIN INVOLVEMENT

All of the build alternatives would encroach upon a 100-year floodplain that was developed by the California Department of Transportation (Department) using the United States Army Corps of Engineers' (ACOE) water surface program and previous floodplain studies for the area. This floodplain was titled the Otay Mesa floodplain. Each of the alignment alternatives would longitudinally encroach upon the Otay Mesa floodplain between Otay Mesa Road and Airway Road, which is within the East Segment of all of the build alternatives. This floodplain impact area is 24.5 hectares (60 acres) and it is the same for all of the build alternatives. The floodplain impact analysis appears in Section 4.13 of the FEIS/FEIR, and provides details of the floodplain hydraulics and analysis methodology.

ALTERNATIVES CONSIDERED: IMPACTS AND PRACTICALITY

The purpose of the proposed project is to improve traffic capacity for growth beyond the year 2005, serve the Otay Mesa Port of Entry (POE) with Mexico, serve the extensive development on the Mesa, complete the regional highway system to cope with the increasing regional and international trips, and provide traffic congestion relief for Otay Mesa Road and an alternative commercial traffic access route to the POE. To fulfill the purpose and need, an east-west highway through the Otay Mesa between I-805 and the existing POE is proposed.

The proposed Route 905 project is subject to several constraints which dictate the general placement of viable alignment alternatives(those which would meet the project's purpose and need). These constraints are: the project's beginning and end points, State Route 125 (under construction), the international border with Mexico, Brown Field Airport, and the Otay River. These features constitute the geographical limits within which the proposed project could have been constructed and still function as desired. Early alignment alternative analysis conducted by the Department and in coordination with the ACOE, United States Fish and Wildlife Service, and California Department of Fish and Game

identified and ultimately excluded alignments that would have had severe impacts to the other sensitive environmental resources that exist within the area described above. In addition, the analysis identified those alternatives that should be carried through the project development phase, these are: Freeway-North Alignment Alternative, Freeway-Central Alignment Alternative, Freeway South Alignment Alternative, Tollway-North Alignment Alternative, Tollway-Central Alignment Alternative, and Tollway South Alignment Alternative. All of these build alternatives meet the purpose and need for the project and, therefore must traverse Otay Mesa and the Otay Mesa Floodplain. Any road through the Otay Mesa connecting to the POE, no matter how it could be aligned, would pass through the Otay Mesa floodplain, so there is no practicable avoidance alternative.

The Preferred Alternative (Freeway-Central Alignment Alternative) was identified because it will result in reduced impacts to biological resources and natural and beneficial uses compared to the other alternatives considered.

When compared to the three Route 905 Freeway alternatives, the Tollway alternatives impose greater environmental impacts as the toll facilities would have required more right-of-way, required the acquisition of more residences, had greater biological resource impacts, had an increased visual impact due to the presence of the toll facilities, and impacted two business parks. For these reasons, none of the Tollway Alignment Alternatives were identified as preferred alternatives in the FEIS/FEIR.

The Route 905 Project is faced with the fact that aquatic resource avoidance alternatives are not practicable. The Freeway-South Alignment Alternative has the least damage to aquatic resources, 3.08 hectares (7.60 acres) of impact as compared to 3.08 hectares (7.62 acres) for the Freeway-Central Alignment Alternative and 3.41 hectares (8.43 acres) for the Freeway-North Alignment Alternative. This would mean that devoid of any over-riding circumstances, the Freeway-South Alignment Alternative would have to be identified as the Least Environmentally Damaging Alternative because it impacts the least amount of aquatic resources. However, the Freeway-South Alignment Alternative impacts: (1) a unique vernal pool complex that supports Otay tarplant and Otay Mesa Mint (the Freeway-South Alignment Alternative does not impact these highly sensitive resources), (2) a larger amount of coastal sage scrub and MHPA land as compared to the Preferred Alternative, and (3) gnatcathers (the Freeway-South Alignment Alternative does not directly impact this sensitive animal species). The Freeway-North Alignment Alternative's higher levels of disturbance to aquatic resources, ACOE/CDFG jurisdictional areas, vernal/road pools, and the OCCS preserve (with its associated listed species) than either the Central or South Alignment alternatives preclude it's identification as a preferred alternative. Therefore, the conclusion reached is that the greater impacts the Freeway-South Alignment Alternative has on these resources qualify as "other significant adverse environmental consequences" and thus make the Freeway-Central Alignment Alternative the NEPA Preferred Alternative and the 404 LEDPA alternative.

The Route 905 Project would not support incompatible development within any floodplain. Each of the build alternatives equally increase mesa accessibility and each

support planned development. Although some of this development would likely occur within the Otay Mesa floodplain, the City and County of San Diego regulate floodplain development and this prevents incompatible development. The Route 905 Project, by itself, would not provide new or direct access to the Otay Mesa floodplain. While the No Build Alternative would eliminate impacts to the Otay Mesa floodplain directly caused by the Route 905 Project, it was determined not to be practicable since it would not meet the project's purpose and need.

PROJECT CONFORMATION TO APPLICABLE STATE OR LOCAL FLOODPLAIN PROTECTION STANDARDS

There is no California floodplain protection standard. Rather, the Department uses Title 23, CFR, Part 650, Subpart A, which prescribes FHWA's policies and procedures for the location and hydraulic design of highway encroachments on floodplains. In addition, the Department follows guidance procedures which ensure compliance with all applicable Federal regulations that apply to any Federally approved highway construction, reconstruction, rehabilitation, repair, or improvement project which affects the 100-year base floodplain. The Department's premise is as follows:

- Avoid significant floodplain encroachment where practicable.
- Minimize the impact of highway actions that adversely affect the base floodplain.
- Be compatible with the National Flood Insurance Program of the Federal Emergency Management Agency.

There is no local floodplain protection standard to which the project is subject. However, although a standard does not exist, the project was designed so that it would not support incompatible 100-year Floodplain development. As stated above, none of the project alternatives would provide new access or direct access to the Otay Mesa Floodplain. Access to the highway would be controlled and the highway would be placed within the floodplain on fill elevated above the floodplain elevation. The only points of authorized egress from the highway would be at the proposed interchanges which connect to existing public surface streets.

Pursuant to the requirements of 23 CFR 650, Subpart A, the floodplain assessment demonstrates that the Preferred Alternative is the only practicable alternative.

Based on studies carried out by the Department on behalf of the Federal Highway Administration, no practicable alternative to the proposed alternative exists (23 CFR 650, Subpart A). All other potential alternatives are not possible within natural, social, and economic constraints. In addition, all measures to minimize potential harm within the floodplain, consistent with the regulations issued in accord with Section 2(d) of Executive Order 11988 have been taken. Further, a public notice, as required by EO 11988, has been circulated containing an explanation of why the action is proposed to be located in the floodplain.