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**APPENDIX G**



## **Only Practicable Alternative Finding**

**Glenn Highway, Parks (MP 35) to MP 109  
Project No. F-042-2(11)/53009**

This statement concludes that there is not a practicable alternative to the construction in wetlands adjacent to the proposed Federal-aid highway project designated Glenn Highway, Parks (MP 35) to MP 109, and that the proposed action ~~includes all practicable measures to minimize harm to wetlands and floodplains which may result from such use.~~ This finding is made in accordance with the requirements of Executive Order 11990, Protection of Wetlands, and Executive Order 11988, Floodplain Management.

### **Wetlands Involvement**

Construction of the Preferred Alternative would require placement of approximately 520,700 cubic yards (cy) of fill material on nearly 34.2 acres of palustrine and riverine wetlands. Of this total, about 22.3 acres would be impacted in areas where the roadway would be realigned. The following table shows acreage involvement and fill amounts per realignment.

Long Lake area wetlands are clusters of scrub/shrub broad-leaved deciduous bogs (PSS1), emergent vegetation marshes (PEM1), and unconsolidated bottom open water ponds (PUBH) which appear to be hydrologically connected.

In those portions of the Glenn Highway where widening and reconstruction activities would occur along the existing alignment, approximately 163,700 cy of fill would be placed within 11.9 acres of wetlands: 98,000 cy in 4.2 acres of riverine wetlands (Matanuska River) and 65,700 cy in 7.7 acres of palustrine wetlands.

These wetlands also include the 100-year floodplain for the Matanuska River, which extends through Sutton. The floodplain encroachments of the proposed action would not increase the impacts caused by a 100-year flooding event, and would not impact natural and beneficial floodplain values.

The known 100-year floodplain for the Matanuska River extends through Sutton.

Designated by the Matanuska-Susitna Coastal Management Plan because of flood hazards (Mat-Su, 1987), the Western boundary of the Knik/Matanuska River Floodplain AMSA (Area Meriting Special Attention) is approximated by the Glenn Highway.

#### Realignment Wetlands Involvement

Realignment Area	Acreage approximate	Fill (cy) approximate	Wetlands Type
Moose Creek	0.01	1,200	Palustrine
Ida Lake	1.81	70,000	Palustrine
Chickaloon River	1.61	22,900	Palustrine
Long Lake	17.32	222,100	Palustrine
Hicks Creek	0.72	22,700	Riverine
	0.14	4,700	Palustrine
Pinochle Hill	0.71	15,000	Palustrine
Caribou Creek	0.19	1,300	Palustrine
	0.15	5,300	Riverine
Subtotals according to wetlands type:			
	1.34	39,200	Riverine
	20.98	290,800	Palustrine
<b>Total:</b>	<b>22.32</b>	<b>330,000</b>	

National Flood Insurance Program (NFIP) Flood Insurance Rate Maps (FIRM) are not available for the Matanuska Valley area. Therefore, coordination will not be required with the Federal Emergency Management Agency (FEMA).

Two hydrologic regimes exist in the Glenn Highway project area. In the lower part of the Matanuska Valley from Palmer to the Chickaloon River, streams draining the south slopes of the Talkeetna Mountains have high runoff rates caused from frequent, high intensity storms. Resultant heavy precipitation rapidly enters streams and rivers due to the steep slopes and impervious soils. Stream flooding is frequent, and usually occurs in August and September.

The second hydrologic regime is in the upper Matanuska Valley, east of the Chickaloon River to the Gulkana Basin. This area receives less precipitation. Floods occur in the upper valley during August and September, but are of less magnitude than the lower Matanuska Valley.

### **Alternatives Considered**

~~For the proposed project, build alternatives and the No-Build Alternative were considered prior to the selection of the preferred Alternative. The proposed project corridor was located to avoid and minimize wetlands involvement.~~

All alternatives, including the No-Build, would impact wetlands. Maintenance of the existing highway would require riprap to armor roadway embankments to counter erosion by the Matanuska River. The No-Build Alternative was dismissed due to public safety concerns. The existing facility would remain a two-lane roadway and existing problems would continue. Throughout the project, slower moving vehicles would continue to hinder traffic flow; there are few opportunities for vehicular passing or emergency pulloffs. Safety concerns which include narrow shoulders, limited sight distance, and rockfall would not be improved.

In the Long Lake area, alternatives are restricted by severe terrain. Avoidance of wetlands east of the Long Lake SRS is not possible. The area consists of abrupt mountains with steep sidehills having unstable talus slopes. Improvements along the existing alignment would require additional road cuts into the unstable slopes, thus aggravating an already serious erosion condition. Excessive earthwork would be required to negotiate the high ridges and deep ravines.

### **Measures to Minimize Harm**

This project has been coordinated with all appropriate federal, State, and local agencies, as well as the public through public notices, meetings, hearings and written correspondence.

The existing roadway follows the Matanuska River floodplain. To avoid future potential flood damage, the intent of the proposed action is to relocate the facility out

of the floodplain whenever possible and include measures to minimize unnecessary encroachments. Construction would not promote any incompatible development with floodplains, area facilities would accommodate 100-year flooding events. Elsewhere, bridges and culverts would be designed to withstand a 50-year flood.

Mitigation for project effects on wetlands and wildlife habitat would be chiefly through avoidance and minimization measures. Due to the abundance of similar habitats in the vicinity, compensatory mitigation is not proposed at the current time. The ADF&G and USF&WS could not identify any needed mitigation projects in the project area, but have requested that the project impacts be reassessed prior to final design for each roadway segment to determine the need for any compensatory mitigative measures in the future. The reevaluation would include a field review with State and federal resource agencies.

All practicable and appropriate measures to minimize wetlands impacts would be incorporated into the project design and construction. Best Management Practices for erosion and sediment control and stream crossings would be employed. However, temporary degradation of water may occur during construction activities. No significant impact to wetlands would result from this project.

In addition, ADOT&PF Best Management Practices would be implemented during construction to minimize harm to wetlands. These measures would include, but are not limited to, the following:

- 1) State fill slopes prior to construction;
- 2) Use of clean fill;
- 3) Revegetate all disturbed area, except rock faces; and
- 4) Implement appropriate erosion and sediment control measures during construction.

#### **Coordination**

This project has been coordinated with all appropriate federal, State, and local agencies, as well as the public through public notices, meetings, hearings, and written correspondence. Due to the passage of time between document approval and

actual design of the various project segments, ADOT&PF will have to reevaluate its approved environmental document. Should project scope, affected environment, impacts and mitigation change, additional environmental documentation will be required. The Department will continue to coordinate with the resource agencies during the project design phase to develop detailed design features.

### **Conclusion**

Based upon the above facts and consideration, it is determined that there is no practicable alternative to the proposed construction in wetlands. The wetlands involved are not unique in the area and represent only a small portion of the total wetlands resource in the project area. The proposed action includes all practicable measures to minimize harm to wetlands which may result from such use.