

APPENDIX H
WETLANDS EXPERTISE REPORT

**STATE ROUTE 101
O'BRIEN ROAD TO PALO ALTO ROAD
CLALLAM COUNTY, WASHINGTON**

**WETLANDS
EXPERTISE REPORT**

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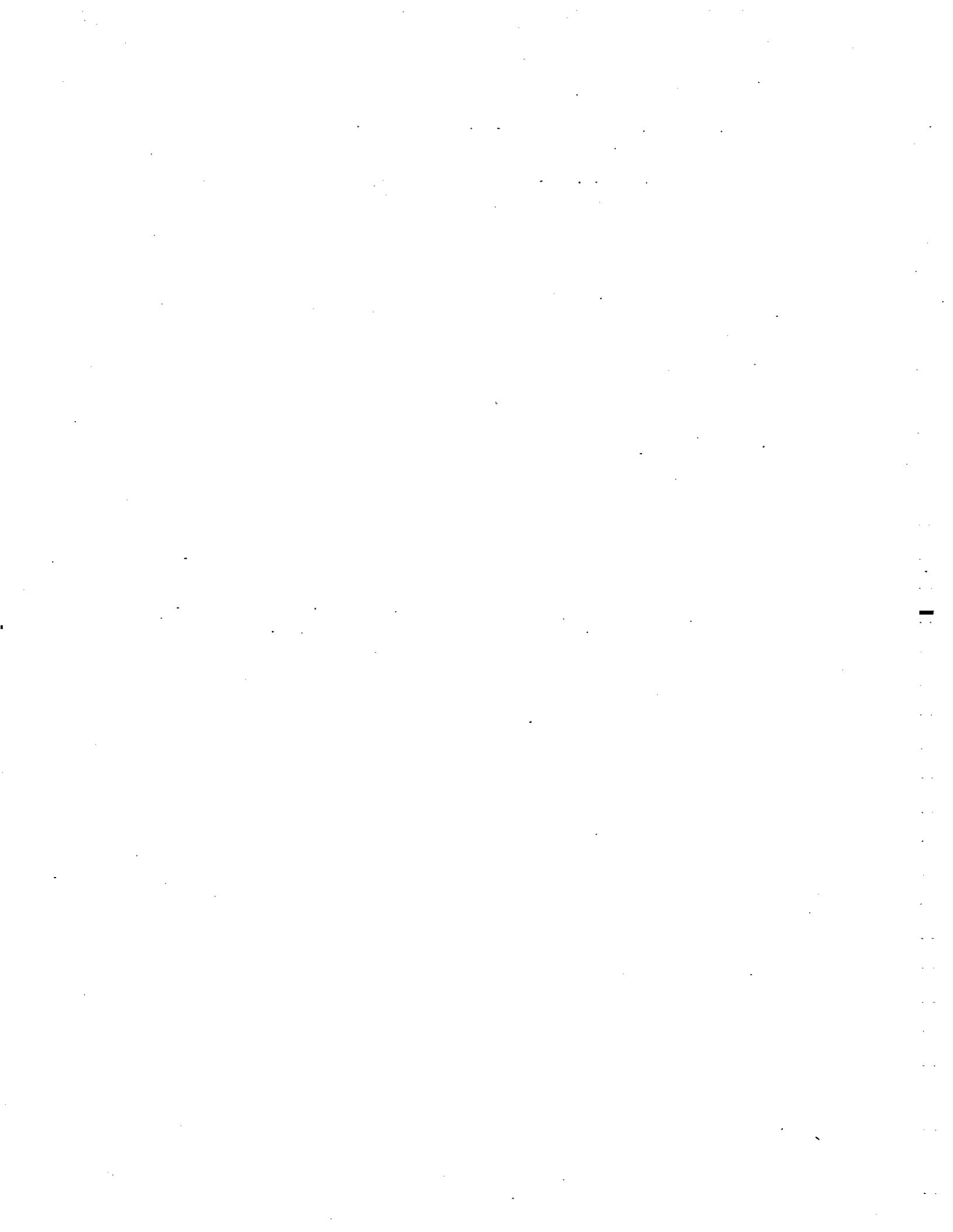


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APPENDIX A SUPPLEMENTAL WETLANDS EXPERTISE REPORT

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EXPERTISE REPORT

WETLANDS

EXECUTIVE SUMMARY

The proposed project crosses a flat, low-lying area near the northern edge of the Olympic Peninsula. Dominant land uses include agriculture (pasture and cropland), residential and commercial developments, and open space. The proposed project would pass through several drainage basins and would cross McDonnell, Siebert's, Bell, and Johnson Creeks. Wetlands are associated with many of these drainages.

Fifty-one wetlands were identified in the vicinity of the proposed project using aerial photographs and wetland inventory information. They range in size from less than one to more than 98 acres in size. Vegetation types in these wetlands include open water, emergent, scrub-shrub, and forested. Many also have been disturbed as surrounding land has been ditched and/or drained for agricultural use. Despite disturbance, these areas still provide important landscape functions such as hydrologic support, storm and floodwater storage, water purification, and wildlife habitat. Ten of these wetlands are Class II, 36 are Class III, and four are Class IV using the Washington State Wetlands Rating System (Department of Ecology, 1991).

Twenty-two of the identified wetlands occur in the western half of the project area. Many are associated with drainages. Two-thirds contain a forested vegetation component. Many of these wetlands extend well beyond the project vicinity. One is Class IV, fifteen are Class III, and six are Class II, using the Washington State Wetlands Rating System. The functions of these wetlands include water storage, wildlife habitat, water purification, and hydrologic support. A total of approximately 25 acres of wetlands could be lost through widening of the existing roadway. The specific wetlands affected would depend on the alignment of the new roadway.

The eastern half of the project may consist of one of the following four alternatives: New Mid Southern, Mid Southern, Modified Mid Southern, and Southern (Figure 1). The following paragraphs summarize wetland impacts that would result from each of these alignments.

Construction of the New Mid Southern Alternative would cause the loss of approximately 5 acres of wetlands, including several acres of high quality wetlands associated with Bell Creek. These are some of the last remaining undisturbed wetland areas in this basin. In addition, wildlife habitat, storm and floodwater storage, hydrologic support, and water purification functions of seven wetlands covering approximately 7 acres would be lost or reduced.

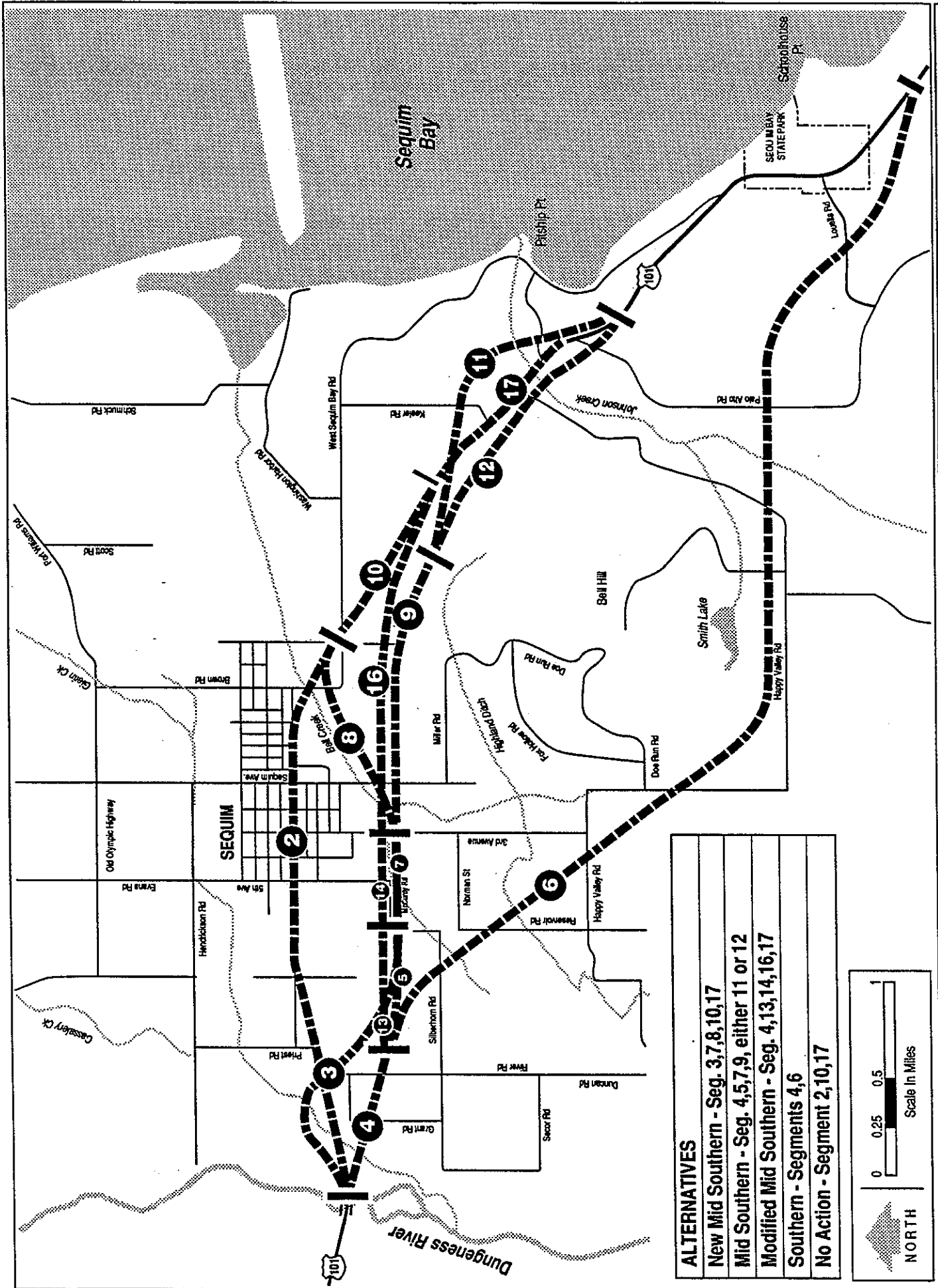


Figure 1
East Half Project Alternatives

State Route 101
 O'Brien Road to Palo Alto Road

Depending on the chosen route, the Mid Southern Alternative would impact approximately 22-25 acres of wetlands. This alternative, similar to the Southern Alternative, would pass through a relatively undeveloped area, and so would have a disproportionately large impact on natural resources.

The Modified Mid Southern Alternative would remove approximately 10 acres of wetlands. This alignment is further to the north than the Mid Southern Alternative and thus is closer to the existing road and further away from undisturbed wetlands and other natural resources.

The Southern Alternative would impact approximately 21 acres of wetlands. This alternative would pass through a rural and relatively undeveloped area. Of all alternatives, this one would have the greatest impact on wetland area, functions, and values.

Of all east-half alternatives examined, the New Mid Southern Alternative would impact the least wetland acreage. The Modified Mid Southern Alternative would be ranked as the next preferred alternative. The Southern Alternative is the least preferred alternative. Although this alternative may impact a slightly smaller wetland area than the Mid Southern Alternative, it passes through a more rural and relatively more undisturbed area than the Mid Southern and would have a greater impact on wildlife habitat and other wetland functions.

Mitigation for wetland impacts could include choosing the alternative with the least wetland impact, installing retaining walls or elevated structures to minimize wetland area impacts, and restoration or enhancement of existing wetlands. Restoration or enhancement of stream corridors and associated wetlands could also possibly be used as mitigation. Creation of wetlands to mitigate for unavoidable wetland loss also is an option.

INTRODUCTION

Wetlands are an integral component in the ecology of natural systems. They perform important hydrologic functions and provide valuable fish and wildlife habitat. Major losses of original wetland acreage and increased knowledge and awareness of wetland values have resulted in federal and local regulations to prevent the alteration and destruction of wetlands. A number of federal and state regulations, including Executive Order 11990 "Protection of Wetlands," Section 404 of the Clean Water Act, Washington State Governor's Executive Orders "Protection of Wetlands" EO 89-10 and EO 90-04, and Washington State's Growth Management Act of 1990 and 1991, have been established to reflect those concerns.

The purpose of this analysis is to provide an overview of wetlands that could be adversely affected in the proposed project area. This expertise report includes a brief discussion of relevant wetland regulations and laws, a description of wetland communities and their primary functions, and classification and rating of wetlands within the project area.

REGULATIONS AND RELATED LAWS

Wetlands are recognized as an important and valuable natural resource, and their protection is a matter of public interest. Under Section 404 of the Clean Water Act of 1977, the U.S. Army Corps of Engineers (Corps) has the responsibility and authority to regulate the discharge of dredged or fill materials into waters of the United States including wetlands (Federal Register, 1986). The President of the United States in Executive Order 11990 "Protection of Wetlands" (1977) directs federal projects to mitigate for wetland losses. The Washington State Governor's Executive Orders EO 89-10 and EO 90-04 "Protection of Wetlands" (1989 and 1990) have declared a no-net loss of wetland acreage and functions. The following definition of wetlands is used in the Federal Manual for Delineating Jurisdictional Wetlands (Federal Interagency Committee for Wetland Delineation, 1989) and also is used by the Corps in administering the 404 permit program (Federal Register, 1980 and 1982).

"Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas."

Other federal and state regulations that relate to wetlands are listed below.

- U.S. Department of Transportation Order (DOT 5660.1A) "Preservation of the Nation's Wetlands, " August 24, 1978.

- Washington State's Shoreline Management Act, RCW 90.58
- State Environmental Policy Act Rules, WAC 197-11-960

METHODS

Material for this expertise report was obtained by review of existing information and field investigations. National Wetland Inventory (NWI) maps, Dungeness River Area Watershed Characterization Report (Puget Sound Cooperative River Basin Team, 1991), Soil Survey of Clallam County Area, Washington (U.S. Department of Agriculture, 1987), topography maps (USGS, 1956 and 1985), and aerial photographs from 1990 and 1991 (scale 1 inch = 1200 feet) were reviewed to identify known wetlands and probable wetland areas. Field reconnaissance included walking much of the proposed alternative routes. The approximate location of each wetland area was recorded on a sketch map, and the wetland community was described. Wetlands were identified as those areas that met the criteria for wetlands described in the Federal Manual for Identifying and Delineating Jurisdictional Wetlands (Federal Interagency Committee for Wetland Delineation, 1989).

Additional field work was conducted by WSDOT in December, 1992. Wetlands identified by WSDOT meet the mandatory technical criteria for wetlands as presented in the 1987 Corps of Engineers Wetlands Delineation Manual. (Department of the Army, Environmental Laboratory, 1987). The supplemental field work was conducted to refine the wetland acreages previously estimated for the Draft Environmental Impact Statement (EIS). Acreages have been changed accordingly in this document as well as the Final EIS. The WSDOT Supplemental Expertise Report appears as Appendix A in this Wetlands Expertise Report.

COORDINATION WITH AGENCIES

The U.S. Fish and Wildlife Service and the Washington State Departments of Wildlife and Natural Resources have been contacted about endangered, threatened, and sensitive plant and animal species and priority habitats. No wetlands within the project area have been recorded as high-quality native wetlands by the Washington Department of Natural Resources (Washington Department of Natural Resources, 1990).

Federally listed threatened and endangered species identified by the U.S. Fish and Wildlife Service include nesting and wintering bald eagles (*Haliaeetus leucocephalus*) and migrating peregrine falcons (*Falco peregrinus*) (U.S. Fish and Wildlife Service, 1990). The sensitive Oregon vesper sparrow (*Pooecetes gramineus var. affinis*) and osprey (*Pandion haliaetus*) and the only extensive Oregon white oak (*Quercus garyana*) community in this locality have been identified within the Sequim Prairie area (Washington Department of Natural Resources, 1990). Neither bald eagle, peregrine

falcon, osprey, vesper sparrow, nor Oregon white oak communities are found exclusively in wetlands. These endangered, threatened, and sensitive species and habitats are addressed in the Biological Resources Expertise Report (Shapiro and Associates, Inc., 1993).

AFFECTED ENVIRONMENT

GENERAL DESCRIPTION OF WETLAND AREAS BY ALTERNATIVE CORRIDOR

A number of wetland areas have been identified on the National Wetland Inventory (NWI) maps (U.S. Fish and Wildlife Service, 1980 and 1981). Wetland Inventories have been completed in the Dungeness River and Sequim Bay watersheds as part of the management planning process for priority watersheds directed by the Puget Sound Water Quality Authority. These watersheds have been identified by the Puget Sound Water Quality Authority as priority watersheds. Many wetlands have been identified in addition to those described on the National Wetland Inventory maps (U.S. Fish and Wildlife Service, 1980 and 1981) during the field reconnaissance.

Three hydric soils, Bellingham silty clay loam, McKenna gravelly silt loam, and Mukilteo Muck, have been identified by the Soil Conservation Service (SCS) within the project area (U.S. Soil Conservation Service, 1987). Areas that were mapped as hydric soils were investigated for the presence of wetlands during the field reconnaissance.

Wetlands identified on NWI maps or from aerial photograph interpretation and field reconnaissance appear in Figures 2 and 3. The wetlands areas shown are approximate. Only wetlands within the project vicinity are shown in this figure. Many of the wetlands shown extend well beyond the project area. The following discussion describes the type of wetlands and their connection to other hydrologic features and vegetation communities by alternative.

West Half Alternative. Many businesses, residences, and small farms are located along the existing highway west of the Dungeness River Bridge between Joslin and O'Brien Roads. Several large creeks, including McDonnell and Siebert's Creeks, flow from south to north under the highway. Similar to other areas near Sequim, most of the natural drainage features have been altered for agricultural and development purposes. Despite these alterations to the landscape, McDonnell and Siebert's Creeks still flow through their natural, steep ravines. Over half of the open water, emergent, scrub-shrub, and forested wetlands in the west half of the project area are connected to other wetland systems or drainages (Wetlands 2, 3, 4, 6, 7, 8, 9, 10, 11, 12, 14, 20, and 21). Most of these drainages eventually flow into perennial creeks such as Matriotti, McDonnell and Siebert's Creeks. Although much of the project area has been altered, nearly two-thirds of the wetlands in the west half of the project area contain a forested component. Many of the wetlands extend well beyond the project right-of-way or are connected to surface water features and/or patches of forested upland habitats.

