FIELD SUMMARY REPORT

EASTERN CASCADES AND SOUTHEAST OREGON

THE DALLES SW; BEND NW,SW; CRESCENT NW; ADEL SE; JORDAN VALLEY SW

I. INTRODUCTION

The following is a summary of field reconnaissance conducted for the Eastern Cascades and Southeast Oregon projects. The field trip was instrumental in establishing guidelines for consistent wetland mapping throughout the project area.

FIELD DATES

August 14 - 19, 1989

FIELD PERSONNEL

Dennis Peters	U.S. Fish and Wildlife Service
Howard Browers	U.S. Fish and Wildlife Service
Ben Harrison	U.S. Fish and Wildlife Service
Elaine Blok	Geonex Martel, Inc.
Tom Kunneke	Geonex Martel, Inc.

PHOTOGRAPHY

Type: Color Infrared, National High Altitude Program (NHAP)
Scale: 1:58,000

Dates	Eastern Cascades/% Coverage
08/81	25%
07/82	30%
08/82	40%
09/82	5%

Dates	Southeast Oregon/% Coverage
07/83	75%
08/83	25%

COLLATERAL DATA

Bailey, Robert G., 1980. Description of the Ecoregions of the United States. U.S. Department of Agriculture, Washington, D.C.

Hotchkiss, Neil, 1972. Common Marsh, Underwater and Floating Leaved Plants of the U.S. and Canada. Dover Publishing Company.

Kozloff, Eugene N., 1988. Plants and Animals of the Pacific Northwest. University of Washington Press.

Little, Elbert L., 1980. Audubon Field Guide to North American Trees: Western Region. Alfred A. Knopf, Inc., N.Y.

Reed, Porter P. Jr., 1988. National List of Plant Species That Occur In Wetlands: Northwest (Region 9). U.S. Fish and Wildlife Service, Department of Interior, Washington, D.C.

Spellenberg, Richard, 1979. The Audubon Field Guide To North American Wildflowers - Western Region. Alfred A. Knopf, Inc., N.Y.

Weinmann, Fred et al., 1984. Wetland Plants of the Pacific Northwest. U.S. Army Corps of Engineers, Seattle, WA

U.S.G.S. Quadrangles

Soil Surveys for Hood River, Wasco, and Deschutes Counties.

II. OVERVIEW

Geographical Location

The Eastern Cascades project area is located in central western Oregon, and the Southeast Oregon project area is located in the southeasternmost corner of the state. The coordinates for the maps are as follows:

Eastern Cascades

The Dalles SW	N. Latitude 45° 00′ to 45° 30′ W. Longitude 121° 00′ to 122° 00′
Bend NW	N. Latitude 44° 30′ to 45° 00′ W. Longitude 121° 00′ to 122° 00′
Bend SW	N. Latitude 44° 00′ to 44° 30′ W. Longitude 121° 00′ to 122° 00′
Cresent NW	N. Latitude 43° 30′ to 44° 00′ W. Longitude 121° 00′ to 122° 00′

Southeast Oregon

Adel SE	N. Latitude 42° 00′ to 42° 30′ W. Longitude 118° 00′ to 119° 00′
Jordan Valley SW	N. Latitude 42° 00′ to 42° 30′ W. Longitude 117° 00′ to 118° 00′

Ecoregion and Physiography

According to Bailey (1980), the ecoregions within the Eastern Cascades map area extend as follows: The Pacific Forest Province lies throughout the western half of The Dalles SW, Bend NW and SW, and Cresent NW; Silver Fir-Douglas-fir Forest is the represented section. The Intermountain Sagebrush Province lies throughout the eastern half of The Dalles Sw, Bend NW and SW, and Cresent NW; Sagebrush-Wheatgrass and Ponderosa Shrub Forest are the two represented sections. Adel SE and Jordan Valley SW in Southeast Oregon also fall in the Sagebrush-Wheatgrass Section of the Intermountain Sagebrush Province. Geographically, the Eastern Cascades study area is divided in a north-south situation by the Cascade Mountains. Elevations reach 8,000 feet to 9,000 feet and many of the high peaks are volcanic in origin. The highest point in the map area is Mt. Hood (11,235 feet). Along the eastern slopes of the Cascades rainfall is heavy, 30 to 150 inches annually, with temperatures averaging 35° to 50° F throughout the year. East of the Cascades and in the southeast Oregon map area rainfall decreases dramatically, averaging only 5 to 20 inches annually and an average annual temperature of 40° to 55° F.

Forest communities are coniferous and predominantly Douglas Fir, Western Red Cedar, Western Hemlock, Grand Fir, Silver Fir, and Ponderosa Pine. Douglas fir and Ponderosa pine generally occupy the eastern slopes of the Cascades. East of the Cascades vegetation consists primarily of Sagebrush, Greasewood, and Saltbush.

III. BIOLOGICAL CHARACTERISTICS OF WETLAND HABITIATS

A. Palustrine

Palustrine habitats include forested, scrub-shrub, emergent, aquatic bed, unconsolidated bottom, and unconsolidated shore. Common species associated with forested wetland communities include Black cottonwood (*Populus trichocarpa*), Oregon ash (*Fraxinus latifolia*), willow (*Salix* spp.), Red alder (*Alnus rubra*), Bigleaf Maple (*Acer macrophyllum*), Western red cedar (*Thuja*

plicata), hemlock (Tsuga sp.), Englemann spruce (Picea engelmannii), and Lodgepole pine (Pinus contorta). These species occur in temporary (A), saturated (B), and seasonally flooded (C) water regimes. Ash, willow, alder and cottonwood were the common species encountered in riparian habitat, seasonally flooded. Due to the incised nature of the majority of streams and rivers, the riparian-associated wetland forests occur primarily in a narrow zone adjacent to the drainage. Hemlock, red cedar, Engelmann spruce and lodgepole pine commonly occur in the higher elevations in temporary (A), saturated (B), and seasonal (C) conditions.

Commonly occurring scrub-shrub communities contain willow, Red alder, Oregon ash, and Douglas spirea (Spiraea douglassii). Shrub wetlands are also frequently found along drainages, adjacent to riparian habitat or occurring in swales, isolated pockets, or mountain seeps. They may be seasonal, saturated, temporary or occasionally semi-permanently flooded and are commonly associated with wet grasses.

Palustrine emergent habitats are characterized by numerous species of persistent wetland plants. Emergent habitat is extensive along several marshes associated with lakes, in addition to floodplain and reservoir fringes, and mountain seeps. Common emergents, found in temporary (A), saturated (B), seasonal (C), semi-permanently flooded (F), and permanently flooded (H) conditions, are Juncus sp., Carex sp., Scirpus sp., Marsh marigold (Caltha sp.), Indian paintbrush (Castilleja sp.), and Monkey flower (Mimulus spp.).

Palustrine aquatic beds observed in the field were semi-permanently and permanently flooded areas containing Duckweed (Lemna sp.), Pondweed (Potamogeton sp.), Spatterdock (Nuphar luteum), and Buckbean (Menyanthes trifoliata).

Palustrine unconsolidated bottom lakes found in the Cascades are classified as semi-permanent and permanent due to high annual precipitation. East of the Cascades some seasonally or temporarily flooded palustrine unconsolidated shore lakes were found.

Lacustrine

Numerous lacustrine lakes and reservoirs occur in the project area, predominantly in the Cascade Mountains.

[illegible] The reservoirs are used primarily for flood control purposes and also for summer irrigation. Therefore, drawdown zones within these units may be noted on various photo dates. In Southeast Oregon some lakes were found to be only temporarily flooded, such as Alvord Lake, while other spring-fed lakes, such as Borax Lake, are permanent.

Riverine wetlands were encountered throughout the project area, occurring as lower perennial (R2), upper perennial (R3), and intermittent (R4). Due to the variation in stream gradient (topography) and stream conditions along the lower portions of the streams draining the Cascades, the drainages may occur as upper or lower perennial, depending on gradient, stream course and location. Generally speaking, this pertains to the foothills along the eastern and western side of the Cascades. Where drainages have forest canopy extending across the stream bed on the photography, the riverine classification will be used. Riverine flats will be classified as seasonally flooded (USC), or temporarily flooded (USA).

VI. IMAGERY/FIELD VERIFICATION

Consideration of Imagery

The photography used for the project area exhibits a good resolution throughout. The emulsion varies slightly from the lowlands to the highlands, but is also good quality. The Eastern Cascades photography was acquired during a two-month span in the same year (1982), so consistent photo interpretation is anticipated. However, the seasonal rainfall/hydrologic conditions for the photo dates were higher than average, reflecting in many of the wetland areas. The southeastern Oregon photography was acquired during a two-month span in 1983. This photography shows 100-year flood conditions, therefore collateral photography from 1979 is being used. These conditions, though, were taken into consideration during field work and no problems are expected.