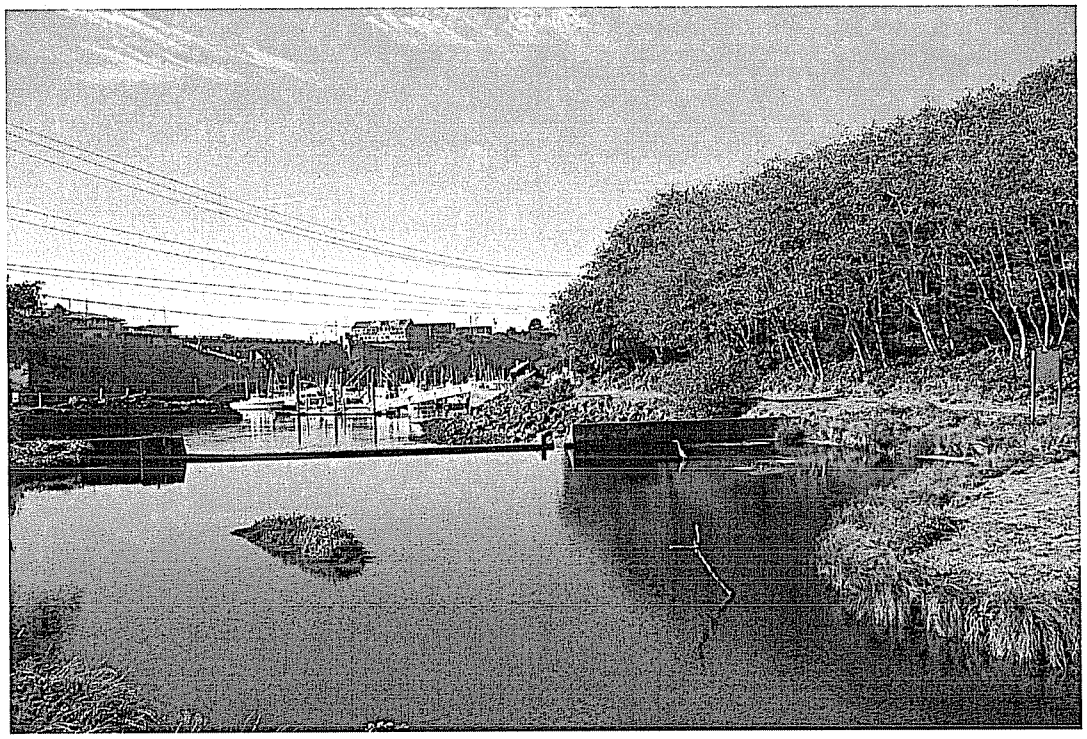
City of Depoe Bay
Inventory and Assessment of Natural Resources

(Streams, Wetlands, Riparian Areas, Forest Lands, Wildlife Habitat, Shoreline, and Open Space Areas)



Prepared for

City of Depoe Bay, Oregon

Prepared by

Pacific Habitat Services, Inc.
Wilsonville, Oregon

December 2003

APPROVED WETLANDS INVENTORY
Oregon Department of State Lands

Meets Local Wetland Inventory standards
Date July-2009 Approved by Janet Malan

PHS

City of Depoe Bay
Inventory and Assessment of Natural Resources

(Streams, Wetlands, Riparian Areas, Forest Lands, Wildlife Habitat, Shoreline, and Open Space Areas)

Prepared for

City of Depoe Bay
PO Box 8
570 SE Shell Street
Depoe Bay, Oregon 97341

Prepared by

John van Staveren
Fred Small
Caroline Rim
Shawn Eisner
Michele Eccleston
Heather Arndt
Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, Oregon 97070
(503) 570-0800
(503) 570-0855 FAX
PHS Project Number: 2853

December 2003

Summary of Depoe Bay Tax Lots with Wetlands

Wetland Code(s)	Location	Tax Lot(s)
NDB-1	09-11-05-B	1109
NDB-2	09-11-05	200
	09-11-05-DC	6900
	09-11-05-DD	105, 300, 301
	09-11-08-AA	403
	09-11-08-AB	100, 400
NDB-3	9-11-05-DC	900, 1000, 1102, 1400, 1500, 1600, 1700, 1800, 4000
	09-11-08-AB	4800, 5600, 5800, 5900, 6000, 6100, 6200
SDB-1	09-11-08	101
	09-11-08-AA	2000, 3000
	09-11-08-AC	942
SDB-2	09-11-08	101
	09-11-08-AC	200, 942
WC-1a	09-11-08-CA	4201, 4500, 4600, 4700, 4800
	09-11-08-CC	128
	09-11-08-CD	300
WC-1b	09-11-08-CC	128
	09-11-08-CD	300
WC-2	09-11-08-CC	90000
WC-3	09-11-07-DD	401, 402, 2800, 3800, 3900, 4000
	09-11-08-CC	102, 118, 119, 121, 122, 9000
WC-4	09-11-17-BB	2400, 2500, 2600, 4100
	09-11-17-BC	700, 800, 3000, 3100, 3200, 3201, 3400, 3500, 3600, 3700, 7600
WC-5	09-11-17-BC	230, 4600, 4700, 4800, 7500, 7600
	09-11-18-AD	800
WC-6a	09-11-17-CB	400
WC-6b	09-11-17-CB	400
WC-7	09-11-18-AA	1900, 2900, 3000, 3100
Other Wetlands (<0.5 acres)	09-11-05-B	1109
	09-11-08-CC	113, 114, 116, 130, 608
	09-11-17-BB	107, 1305
	09-11-17-BC	600, 700
	09-11-17-CB	400

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1.0 INTRODUCTION

The City of Depoe Bay (City), through a grant from the Department of Land Conservation and Development, hired Pacific Habitat Services, Inc. (PHS) to conduct a Local Wetlands Inventory (LWI), a Riparian Inventory and a review of wildlife habitat, shoreline, forest lands, and open space areas within the City's approximately 1,140-acre Urban Growth Boundary (UGB). The UGB extends from just south of Boiler Bay State Wayside in the north to Whale Cove in the south. Highway 101 is the main road through the City.

The goal of the study is to address the requirements of Statewide Planning Goal 5 (*Natural Resources, Scenic and Historic Areas, and Open Spaces)* and Goal 17 *(Coastal Shorelands)* Oregon Administrative Rule (OAR) Section 660, Division 23.

The objective of Goal 5 is to "protect natural resources and conserve scenic, historic and open space resources for present and future generations." Goal 17 specifically addresses coastal shorelands. It is intended "to conserve, protect, where appropriate, develop and where appropriate restore the resources and benefits of all coastal shorelands, recognizing their value for protection and maintenance of water quality, fish and wildlife habitat, water-dependent uses, economic resources and recreation and aesthetics." Goal 17 applies to an area called the coastal shorelands planning area, which is generally all lands bordering the ocean, estuaries, and coastal lakes, and lands west of Highway 101.

Specifically, the City hired PHS to determine the location and extent of wetlands; assess the quality of the wetlands; determine which of the Goal 5 wetlands are Locally Significant Wetlands according to state administrative rules (OAR 141-86-300-350); determine which of the Goal 17 wetlands are Major Marshes and inventory and assess the quality of riparian areas. This report presents the results of both the wetlands and the riparian inventories and assessments. It also discusses wildlife habitat, open space, forested lands, and the shoreline.

The study area is defined by the Urban Growth Boundary (UGB) and the City limits of the City of Depoe Bay. Depoe Bay is located in the coastal area of Lincoln County (Township 9 South, Range 11 West, Sections 5, 8, 17 and Township 8 South, Range 11 West, Section 32, Willamette Meridian).

The two major streams within the study area are North and South Depoe Bay Creeks. The approximate study area is shown on Figure 1. All figures are in Appendix A.

1.1 Report Format

This report begins by discussing the definitions used in the report and inventory (Section 2), followed by the methodology used to conduct the field work for the LWI and the riparian inventory, the wetland and riparian assessment methodology, and the methodology used to produce the maps for the inventory (Section 3). Section 4 discusses the project cartography. Section 5 is the study area characteristics, such as the climate, topography, soils and vegetation; Section 6 discusses the Local Wetlands Inventory results, including wetland

distribution, acreage, Cowardin classification and the results of the *Oregon Freshwater Wetland Assessment Methodology*; Section 7 presents the significant wetlands in the project area; Section 8 provides the results of the riparian inventory and assessment results; Sections 9, 10, 11, and 12 discuss the results of wildlife habitat, shorelands, forested lands, and open space, respectively. Section 13 presents the staff qualifications, while Section 14 summarizes the project; and Section 15 provides a list of the references used in the report.

There are eight appendices to the report. Appendix A contains figures illustrating general location, soils and the National Wetlands Inventory maps of the study area. It also contains maps showing the wetland, riparian, wildlife habitat, shorelands, forested lands, and open space inventory results.

Appendix B contains the wetland characterization forms for each wetland, organized by wetland code. The characterization sheets note wetland location, tax lots, acreage, Cowardin classification, Hydrogeomorphic classification, soil series, wetland vegetation, adjacent upland vegetation, and other notes related to adjacent wetlands or hydrology. This form was completed for each wetland unit, regardless of whether it was an on-site or off-site determination. If it was an on-site determination, sample point numbers are noted. Locally significant wetlands and major marshes are also noted on the characterization form. A summary sheet showing which tax lots contain wetland is also included.

Appendix C contains the wetland determination data forms. These forms document the sample points taken for the on-site wetlands and adjacent uplands. Hydrology, soils, and dominant vegetation are recorded for each sample point in order to determine whether it is wetland or upland.

Appendix D is the *Oregon Freshwater Wetland Assessment Methodology* data and summary for each wetland unit. Each wetland's functions and conditions are assessed according to an established state methodology. The results and rationale are also summarized for each wetland unit. Appendix E contains the determination of significance for each wetland unit.

Appendix F contains the riparian characterization, riparian width forms, and the riparian assessment, and a summary sheet show the tax lots with riparian areas. Appendix G contains the Wildlife Habitat Assessment Forms, and Appendix H contains a listing of plant species encountered or expected within the project area. Appendix I includes OFWAM Field Forms and Watershed Summary Tables, that helped answer the OFWAM Assessment.

2.0 DEFINITIONS

These terms helped define the methodology used for the City of Depoe Bay Local Wetlands Inventory and may be referred to in this report.

1987 Manual

The Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1. (Environmental Laboratory 1987)

This manual is used by the Army Corps of Engineers ("Corps") and the Oregon Division of State Lands ("DSL") to document the location of wetlands within the State of Oregon. The 1987 manual provides technical criteria, field indicators, and recommended procedures to be used in determining whether an area is a jurisdictional wetland. Undisturbed areas require three criteria for them to be classified as wetland. These criteria are hydric soils, a dominance of hydrophytic vegetation, and wetland hydrology.

Cowardin Wetland Classification

The classification of wetlands as defined by plants, soils and the frequency of flooding is described in "Classification of wetlands and deepwater habitats of the United States." (Cowardin, et. al. 1979) See Palustrine System and Estuarine System.

Estuarine System

"All tidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens and all such wetlands that occur in tidal areas where salinity is greater than 0.5%. This includes areas traditionally called swamps, marshes, fens, as well as shallow, permanent or intermittent water bodies called ponds." (Cowardin et. al. 1979)

Goal 5

Goal 5 (OAR 660, Division 23) is intended "to protect natural resources, and conserve scenic and historic areas and open spaces." (DLCD, 1995)

Goal 17

Goal 17 specifically addresses coastal shorelands. It is intended "to conserve, protect, where appropriate, develop and where appropriate restore the resources and benefits of all coastal shorelands, recognizing their value for protection and maintenance of water quality, fish and wildlife habitat, water-dependent uses, economic resources and recreation and aesthetics." (DLCD, 1995)

Goal 17 applies to an area called the coastal shorelands planning area defined in the goal, which is generally all lands bordering the ocean, estuaries, and coastal lakes. Coastal shorelands include "natural or man-made riparian resources, especially vegetation necessary to stabilize the shoreline and to maintain water quality and temperature necessary for the maintenance of fish habitat and spawning areas." Coastal jurisdictions must inventory or identify coastal shorelands, including riparian resources.

Growing Season

"The portion of the year when soil temperatures at 19.7 inches below the soil surface are higher than biological zero (41° Fahrenheit, 5° Celsius)." (COE, 1987)

The growing season for any given site or location is determined from Natural Resource Conservation Service (NRCS, formerly the U.S. Soil Conservation Service SCS) data and information. The length of the season can be approximated from frost-free days, based on air temperature.

Hydric Soils

"Soils which are ponded, flooded, or saturated for long enough during the growing season to develop anaerobic conditions." (USDA, SCS, 1985)

Periodic saturation of soils causes alternation of reduced and oxidized conditions which leads to the formation of redoximorphic features (gleying and mottling). Mineral hydric soils will be either gleyed or will have bright mottles and/or low matrix chroma. The redoximorphic feature known as gley is a result of greatly reduced soil conditions, which result in a characteristic grayish, bluish or greenish soil color. The term mottling is used to describe areas of contrasting color within a soil matrix. The soil matrix is the portion of the soil layer that has the predominant color. Soils that have brightly colored mottles and a low matrix chroma are indicative of a fluctuating water table.

Hydric soil indicators include: organic content of greater than 50% by volume, sulfidic material or "rotten egg" smell, and/or presence of redoximorphic features and dark soil matrix, as determined by the use of a Munsell Soil Color Chart. This chart establishes the chroma, value and hue of soils based on comparison with color chips. Mineral hydric soils usually have a matrix chroma of 2 or less in mottled soils, or a matrix chroma of 1 or less in unmottled soils.

Hydrogeomorphic (HGM) Wetland Classification

A method of assessing wetlands using the physical, chemical, and biological functions of wetlands. It is based on the relationship of geomorphic setting, water source, and hydrodynamics. (Brinson, 1993)

Hydrophytic Vegetation

"Plant life growing in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content." (National Resource Council, 1995)

The U.S. Fish and Wildlife Service, in the *National List of Plant Species that Occur in Wetlands*, has established five basic groups of vegetation based on their frequency of occurrence in wetlands. These categories, referred to as the "wetland indicator status," are as follows: obligate wetland plants (OBL), facultative wetland (FACW), facultative (FAC), facultative upland (FACU), and obligate upland (UPL).

Local Wetlands Inventory (LWI)

An inventory of all wetlands greater than 0.5 acres in size within a local jurisdiction using the standards and procedures of OAR 141-86-110 through 141-86-240.

In 1989, the Oregon State legislature authorized DSL to develop a statewide wetlands inventory for planning and regulatory purposes. Accordingly, DSL established Local Wetlands Inventory (LWI) standards and guidelines under ORS 196.674. An approved LWI replaces the National Wetlands Inventory maps and is incorporated into the statewide wetlands inventory.

An LWI is conducted using color or color infrared aerial photographs taken within 5 years of the inventory initiation and at a minimum scale of 1 inch = 400 feet (1" = 400'). Wetlands are located using the on-site option where access to property is allowed, or off-site where access is denied. Wetlands can be mapped off-site by using information such as topographic and National Wetlands Inventory maps, aerial photographs, and soils surveys.

The approximate location of wetlands is placed on a parcel-based map. The parcel-based map allows the property owner, the local jurisdiction, and DSL, to know which tax lots may contain wetlands.

The maps and documents produced for the LWI are intended for planning purposes only. Mapped wetland boundaries are accurate to within 25 feet; however, there may be unmapped wetlands that are subject to regulation. In all cases, actual field conditions determine wetland boundaries.

Palustrine System (e.g. PEM)

"All nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens and all such wetlands that occur in tidal areas where salinity is less than 0.5%. This includes areas traditionally called swamps, marshes, fens, as well as shallow, permanent or intermittent water bodies called ponds." (Cowardin et. al. 1979)

- **Unconsolidated bottom (PUB)**

A wetland and deepwater habitats with at least 25% cover of particles smaller than stones and a vegetative cover less than 30%.

- **Emergent Wetland (PEM)**

These wetlands have rooted herbaceous vegetation which stand erect above the water or ground surface.

- **Scrub-shrub Wetland (PSS)**

Wetlands dominated by shrubs and tree saplings that are less than 20 feet high.

- **Forested Wetland (PFO)**

Wetlands dominated by trees that are greater than 20 feet high.

Riparian Area

"The area immediately adjacent to a water resource, which affects or is affected by the water resource. Riparian areas do not include the water resource itself." (PHS, 1998)

Riparian Assessment

"Determining the relative quality of a riparian area by assessing its functions." (PHS, 1998)

An evaluation of the ability of the riparian area to provide water quality, flood management, thermal regulation, and wildlife habitat functions. The methodology generally used to determine the relative quality of riparian areas for purposes of an inventory is *The Urban Riparian Inventory and Assessment Guide.*

Riparian Function

A characteristic action or role provided by riparian areas, such as water quality; flood management; thermal regulation; and wildlife habitat. (PHS, 1998)

Riparian Inventory

An inventory of location and extent of riparian areas within the boundaries of the Local Wetlands Inventory using *"The Urban Riparian Inventory and Assessment Guide."*

Riverine System

"The riverine system includes all wetlands and deepwater habitats contained within a channel." (Cowardin, et. al. 1979)

Waters of the State

Natural waterways including all tidal and nontidal bays, intermittent streams, constantly flowing streams, lakes, wetlands and other bodies of water in this state, navigable and nonnavigable. Natural waterways are defined as: waterways created naturally by geological and hydrological processes, and waterways that would be natural but for human-caused disturbances (e.g. channelized or culverted streams, impounded waters, partially drained wetlands or ponds created in wetlands). (ORS 196.800-196.990, 1995)

Water Resource

"An intermittent or perennial stream, pond, river, lake and including their adjacent wetlands." (PHS, 1998)

Wetland

"Those areas that are inundated or saturated by surface or ground water 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." (Federal Register 1982).

Wetland Assessment

Determining the relative quality of a wetland by assessing its functions and conditions. The methodology generally used to determine the relative quality of wetlands for purposes of an LWI is the Oregon Freshwater Wetland Assessment Methodology. (Roth, et. al. 1996)

Wetland Condition

"The integrity of a wetland's physical and biological structure. This determines the ability of the wetland to perform specific functions, as well as its resilience and enhancement opportunities." (Roth et al., 1996)

Wetland Function

"A characteristic action or behavior associated with a wetland that contributes to a larger ecological condition such as wildlife habitat, water quality and/or flood control." (Roth, et. al. 1996)

Wetland Hydrology

"Permanent or periodic inundation or prolonged soil saturation sufficient to create anaerobic conditions in the upper soil profile." (COE, 1987)

Wetland hydrology is related to duration of saturation, frequency of saturation, and critical depth of saturation. The 1987 manual defines wetland hydrology as inundation or saturation within a major portion of the root zone (usually above 12 inches), typically for at least 12.5% of the growing season. The wetland hydrology criterion can be met, however, if saturation within the major portion of the root zone is present for only 5% of the growing season, depending on other evidence.

Wetlands Regulation

Wetlands in Oregon are regulated by the Division of State Lands (DSL) under the Removal-Fill Law (ORS 196.800-196.990) and by the U.S. Army Corps of Engineers (Corps) through Section 404 of the Clean Water Act.

3.0 PROJECT METHODOLOGY

3.1 Public Involvement

Prior to beginning the inventory, the City of Depoe Bay mailed notices to selected landowners who may have wetlands or riparian areas on their property. Landowners who had areas of mapped hydric soils, soils with hydric inclusions, National Wetlands Inventory mapped wetlands, or suspected wetland or streams received a notice of permission for site access.

Individual landowners were contacted directly by either the City or PHS. Access information was then transferred to the base map for use in the field.

Two public meetings were held during the course of the inventory. The first meeting was held on August 13, 2003, to introduce the project to the residents of Depoe Bay. This meeting was held prior to the date required for return of the access request letters to answer any questions affected landowners may have for representatives of the City and PHS.

The second public meeting was held on December 4, 2003, to present the draft results of the inventory to members of the City Planning Commission, City Council and residents of Depoe Bay.

3.2 Local Wetlands Inventory Methodology

3.2.1 Routine Off-site Determination

Prior to beginning field work, off-site mapping was conducted to determine the approximate location of wetland boundaries based on available information. This information included the USGS topographic quadrangles, the draft soil survey maps for Lincoln County Area (NRCS, 2001), the *National Wetlands Inventory* maps (USFWS, July 1982), and true color aerial photographs (July 9, 2002; 1"=400'). If access was allowed, the wetland boundaries were verified in the field (see Section 3.2.2). If access was not granted, the boundaries were based on the mapping conducted in the office, and on observation of wetland boundaries from adjacent roads, or properties, if possible.

3.2.2 Routine On-site Determination

Where property access permission had been granted, on-site observation and inspection of soils, vegetation, and hydrology were made using the Routine On-site Method of the 1987 manual. Soil pits were excavated up to a depth of approximately 18-inches in selected locations. The soil profiles were examined for hydric soils and wetland hydrology field indicators. A visual percent-cover estimate of the dominant species of the plant community for a maximum 30-foot radius was conducted at each sampling location. Sampling locations were chosen to document a change in the wetland boundary and a particular plant community. Data was recorded in the field and transferred to computer-generated wetland delineation data sheets (Appendix C).

Field work for the inventory was conducted between May and October, 2003. No wetland boundaries were staked or flagged in the field.

3.3 Wetland Quality Assessment

3.3.1 The Oregon *Freshwater Wetland Assessment Methodology*

The quality of wetlands in the study area was assessed using the *Oregon Freshwater Wetland Assessment Methodology* (OFWAM) (Roth et al. 1996). OFWAM was developed by an interagency committee to assess the relative quality of wetlands primarily for planning and

educational purposes. Copies of the methodology are available from DSL for a fee. OFWAM does not assign a numeric ranking to the wetlands, but does determine the relative quality of six functions and three conditions for each of the wetlands. A description of each of the functions and conditions is included below.

Wetland Functions

Wildlife habitat: Evaluates the habitat diversity for species usually associated with wetlands, without emphasizing one particular species. Wetlands assessed by OFWAM can provide diverse habitat for wildlife, habitat for some wildlife species, or does not provide habitat.

Fish habitat: Evaluates how a wetland contributes to fish habitat in streams, ponds or lakes associated with a wetland. The questions are suitable for both warmwater and coldwater fish and no particular species is emphasized. Wetlands assessed by OFWAM can have fish habitat function intact, impacted or degraded, or lost or not present.

Water Quality: Evaluates the potential of a wetland to reduce the impacts of excess nutrients in storm water runoff on downstream waters. A wetland's water quality function can be assessed by OFWAM as intact, impacted or degraded, or lost or not present.

Hydrologic control: Evaluates the effectiveness of a wetland to reduce downstream flood peaks and store floodwaters. A wetland's hydrologic control functions can be assessed by OFWAM as intact, impacted or degraded, or lost or not present.

Education: Evaluates the suitability of a wetland to provide educational opportunity and act as an "outdoor classroom." A wetland assessed by OFWAM can have educational uses, have the potential to provide, or not be appropriate for educational uses.

Recreation: Evaluates the suitability of a wetland and associated watercourses for non-powered boating, fishing, and similar recreational activities. A wetland assessed by OFWAM can provide, have the potential to provide, or not provide recreational opportunities.

Wetland Conditions

Sensitivity to Future Impacts: Evaluates the wetland's ability to sustain itself and its ability to recover from future impacts. It is an indication of risk to the wetland because of future changes in the watershed and surrounding land. A wetland can be assessed by OFWAM as sensitive to future impacts, potentially sensitive to future impacts, or not sensitive to future impacts. An undisturbed forested wetland is more sensitive to future impact than a wetland that has already been disturbed, such as agricultural wetland.

Enhancement Potential: Evaluates the suitability of a degraded wetland for enhancement. A wetland providing this condition does not provide one or more of the functions assessed by OFWAM. A wetland fulfilling this condition, therefore, would be of lower overall quality than a wetland providing wildlife habitat, fish habitat, etc. Wetlands that provide diverse wildlife habitat were not assessed in this section, as per the revised OFWAM. Wetlands are assessed as either high enhancement potential, moderate enhancement potential, or little enhancement potential.

Aesthetic quality: Evaluates the visual and aesthetic quality of the wetland. Wetlands can be considered pleasing, moderately pleasing, or not pleasing.

3.3.2 Wetlands of Special Interest for Protection

The first filter in OFWAM is to determine whether the wetland is in a management plan, is protected by regulatory rules or statutes, or is uncommon in Oregon. Ten questions are answered for each wetland and a "yes" answer to any of the questions puts the wetland into the "special interest for protection" category. If the wetland falls into this category, it is noted on the wetland characterization sheet.

3.3.3 Field Methodology

During the process of determining the boundaries for the LWI, data were also collected for the process of determining its relative quality. Data collected for this purpose are explained in the *Wetland Characterization* section of OFWAM. Data collected in the field included the Cowardin classes, the types of disturbance (if any) in the wetland area, the hydrology of the wetland area (e.g. the location of constrictions), the presence of fish, large woody debris, the degree of vegetative cover, and other information necessary to complete the assessment of the wetland in the office.

If the wetland determination was off-site, the OFWAM section and wetland characterization was based on review of the aerial photographs and knowledge of other similar or adjacent wetlands.

3.3.4 Office Assessment

Subsequent to the field work, the data collected for each wetland were used to answer questions for each function and condition. Additional information on the wetlands, the landscape and the general area were gathered in the office. The answers within each function and condition section of the methodology were entered into a computer spreadsheet, which automatically displays the results of the assessment methodology.

Prior to starting the OFWAM assessment certain criteria or baseline information was established. The following is a list of the criteria used in answering the questions:

The Oregon Department of Environmental Quality has not mapped any bodies of water within the Depoe Bay study area as water quality limited.

Oregon Department of Fish and Wildlife (ODFW) has electroshocked creeks throughout the study area to determine fish presence. North and South Depoe Bay Creeks contain coho, steelhead, and cutthroat trout (ODFW, pers. comm.). This information was used in Fish Habitat, question 6. These creeks are considered to be Essential Indigenous Anadromous Salmonid Habitat by ODFW and DSL (DSL, OAR 141-102-030, 1996). Surprisingly, no other creek within the Depoe Bay study area, including those within the Little Whale Cove residential area, provide habitat for any species of fish.

The enhancement potential section was not required if the wetland was assessed with "diverse wildlife habitat," as per OFWAM directive. In addition, question 3 was specifically directed towards wetlands whose primary source of hydrology was surface water. If this was not the case (i.e. primary source of hydrology is groundwater), question 3 was not answered.

3.4 Riparian Inventory

3.4.1 Urban Riparian Inventory and Assessment Guide

The Urban Riparian Inventory and Assessment Guide (Riparian Guide) was used for the Depoe Bay Riparian Inventory. The Riparian Guide depends on a combination of best available knowledge, field observations, and best professional judgment. The methodology is comprised of the riparian inventory and the riparian assessment. The riparian inventory involves gathering and assimilating information pertinent to the project site, developing a base map, and completing the Riparian Characterization Form.

The guide was designed to work in conjunction with the LWI and relies on the same aerial photograph or base map. In addition, coding of the riparian areas is based on hydrologic basins, reflecting the coding system established for the LWI. The inventory portion of the Guide depends on the completion of a Riparian Characterization Form and Riparian Width Determination Form.

A completed Riparian Characterization Form provides information on the physical and biological characteristics of the riparian area, such as vegetation, slope, adjacent land uses, and degree of disturbance. Most of the form was completed on-site, provided access was allowed. However, some portions, such as the mapped soil series, were completed in the office.

The riparian width is measured from the edge of the water resource, typically either the top of a streambank or the outer edge of a wetland, lake, or pond. The riparian potential width is based on the dominant riparian tree species within 100 feet of the water resource. The height of the dominant tree species at maturity will be used as a distance to define the outer riparian boundary. The height of this tree species at maturity is called the potential tree height (PTH). PTH is used as the potential riparian width because it represents a distance in which a tree can still affect the water resource (e.g. shade, organic material).

Where riparian trees have been eliminated by land-use activities or natural causes, such as development, land slides, or logging, it may be necessary to extrapolate tree heights from a reference site. The reference site should be similar in character and landscape position and should be located as close as possible to the riparian reach. If a reference site is used, it is noted on the Width Determination Form. If a reference site cannot be located, field observations and reference materials must be used to establish PTH.

Although the riparian width will never exceed the PTH, it may be less than the PTH if impervious surfaces or permanent structures (e.g. buildings or roads) are inventoried within the riparian area.

Completion of the Riparian Width Determination Form also requires drawing a typical cross section through the riparian area.

3.4.2 Riparian Assessment

Riparian areas provide numerous and complex functions that affect both aquatic and terrestrial systems. Many ecological functions of riparian areas are also provided by wetlands, floodplains, and vegetated upland areas.

The Riparian Function Assessment evaluates the ability of the riparian area to provide water quality, flood management, thermal regulation, and wildlife habitat functions. The results indicate whether the functions of each reach are intact, degraded, or severely impacted. The assessment is completed by answering a series of questions. Most of the questions are intended to be answered using data from the Riparian Characterization Form.

Because certain elements or characteristics of a riparian area are more critical to its function, the answers are "weighted." The points are then totaled for each side and for each function. Based on the score, the riparian function will be assessed as high, medium or low.

The results of the Riparian Function Assessment for all of the riparian areas within the inventory study area are then transferred to a Riparian Function Assessment Summary Table.

3.4.3 Riparian Functions

Water Quality

Riparian areas can enhance water quality in many ways. Undisturbed, densely vegetated riparian areas trap sediments, inhibit erosion and filter runoff originating from impervious surfaces, lawns, golf courses, etc.

Sedimentation and erosion, although natural processes, are accelerated in urban areas by increased impervious surfaces. Impervious surfaces also inhibit infiltration. Sediment within a riparian area can be from erosion of poorly vegetated uplands, runoff from impervious surfaces, or floods from an adjacent water resource. Sediments often carry nutrients (e.g. phosphates and nitrates) and pollutants (e.g. heavy metals, hydrocarbons) to water resources, altering water chemistry, burying spawning gravels and impacting fish and wildlife habitat.

Excessive concentration of nutrients in the water can trigger algal blooms, depleting the water of oxygen required by fish and other aquatic organisms.

The ability of a riparian area to resist erosion is related to slope, soil type, type of vegetation, vegetation cover, landscape position, and degree of human disturbance.

Flood Management

Riparian areas and associated wetlands and floodplains provide a valuable flood management function by reducing the force and volume of floodwaters. Floodwaters flowing into a vegetated flood prone riparian area can be slowed or temporarily stored, reducing peak flows and flooding downstream. Woody vegetation, in particular, resists floodwaters and reduces its velocity. Topographic features, such as swales and depressions, can enhance a riparian area's ability to manage flood flows. Reducing the velocity of floodwaters in the riparian area allows infiltration of water into the soil. Water entering the soil is slowly released into the main channel, delaying its movement downstream.

Thermal Regulation

Water temperature affects the ability of a stream to support viable populations of certain aquatic organisms. Riparian shade, especially forest canopy, moderates temperature within and adjacent to a water resource. Although stream temperatures are important throughout the year, summer temperature is generally more critical for fish species such as salmonids. High water temperatures and sunlight are factors that can promote algal blooms, reducing dissolved oxygen required by anadromous fish and other cold-water dependent organisms.

The aspect or orientation of the water resource and the height of the adjacent riparian vegetation play important roles in how effective riparian vegetation is in providing shade.

Wildlife Habitat

Riparian areas provide valuable habitat for wildlife and influence fish habitat. The highest quality wildlife habitat in urban areas has a variety of plant species and layers, a perennial water source, and some degree of protection or buffering from disturbance.

Riparian areas are particularly important migration corridors between upland and aquatic systems for a wide variety of species. It has been reported that the majority of Oregon's major wildlife species, including amphibians and reptiles, use wetlands or riparian areas during some portion of their life cycle.

3.5 Wildlife Habitat

To determine wildlife habitat within the Depoe Bay study area, PHS reviewed the information from the Oregon Natural Heritage Information Center and discussed wildlife habitat and species presence with representatives of the Oregon Department of Fish and Wildlife. Aerial photographs of Depoe Bay were reviewed to document existing conditions and to identify areas of potential habitat. The focus of the research was to locate areas that appeared to have a canopy cover of native vegetation or that could provide a corridor for wildlife passage within the study area.

Large tracts of forested land still exist within the Depoe Bay study area. These tracts of forest provide habitat for a variety of wildlife species. However, according to ODFW, the most important habitat is within the riparian areas. Ground visits to riparian areas were conducted, where a Wildlife Habitat Assessment Form (WHA), similar to those adopted by other municipalities during their Goal 5 Inventories, was completed. The Habitat Assessment Forms generate a numerical score that can be used as an indication of habitat quality. Various aspects of the three primary habitat components, food, water and cover are scored in terms of quality, diversity and availability. These scores are then totaled for an existing habitat score. The wildlife habitat assessment was conducted at the same time as the LWI and riparian inventory. As such, on-site observation, where possible, were made and assessments were performed from adjacent properties or nearby roads where access was denied.

4.0 CARTOGRAPHY

Color aerial photographs were obtained for use in the field. These photos are 2002 true color, with a scale of approximately 1 inch = 400 feet. Clear acetate was overlaid and permanently registered on the photographs and preliminary wetland boundaries and data point locations were drawn directly on the acetate in the field. In addition, areas within the project area where permission to enter was denied were drawn on the acetate overlays. The wetland boundaries and approximate affected tax lot boundaries were then transferred into a digital format and inserted into a computer-based map derived from the County's GIS base.

Additional layers added to the AutoCAD base map included watershed basin boundaries, streams from the USGS, additional geographic names, wetland codes, riparian codes, wildlife habitat codes, forested lands, open space and sample point locations. A hydrologic basin refers to the drainage area for an individually named stream or creek.

Each wetland was assigned a code beginning with the two letter hydrologic basin designation and the number of wetlands within each watershed (e.g. NDB- # for North Depoe Bay Creek, SDB-# for South Depoe Bay Creek, WC-# for Whale Cove). Wetlands that were hydrologically connected but separated by roads or were similar in character and in close proximity, were labeled with a code modifier (e.g. WC-1a and 1b). Several wetlands that are less than one-half acre in size were labeled with a different modifier "PW" ("probable wetland").

The riparian mapping was drawn on the 1" = 400' base maps and scanned into the base as a separate layer. The riparian areas were labeled with a riparian code (e.g. R-NDB-2). Each reach was assigned a separate code. Riparian widths were transferred to the base map. They were measured horizontally from the outer edge of the stream or associated wetland. The final digital maps include a legend, north arrow, scale, and a disclaimer if not all wetland or riparian areas were assessed on-site or if mapping inaccuracies occur. The map projection is the Universal Transverse Mercator (UTM), Oregon State Plane NAD 83 South.

5.0 STUDY AREA CHARACTERISTICS AND EXISTING INVENTORY INFORMATION

5.1 Geologic Setting

The oldest geologic materials in Depoe Bay are sediments of the Astoria Formation. These early to middle Miocene marine sediments consist of clastics deposited in a shallow marine environment The Astoria Formation, which extends to the north all along the Oregon coast, consists of mica-bearing siltstones and sandstones with numerous shell fossils.

Overlying and intruding the marine sediments are the Depoe Bay basalts, a sequence of pillow basalts that forms the base of Depoe Bay. These basalts, which have the geochemical signature of the Grande Ronde flows of Columbia River basalts, have apparently been extruded into an environment of seawater and unconsolidated sediments. The emplacement mechanism is probably multiple with numerous dikes intruding the underlying sediments. The dikes in many cases have numerous inclusions of the surrounding clastic sediments. A 15-meter section of similar basalt was found 10.8 miles seaward in the Nautilus well at a depth of about 3,730 feet.

Within and overlying the pillow basalt is a sandstone known locally as the Whale Cove Sandstone. This coarse and massive sandstone occupies channels cut into a thin-bedded estuarine siltstone. Sedimentary structures within the sandstone suggest contemporary rapid deposition and soft sediment disturbance from the rapid loading.

Overlying the Whale Cove Sandstone and forming the headlands that define Depoe Bay are the Cape Foulweather Basalts. These thick basalts have the geochemical signature of the Frenchman Springs member of the Wanapum flows of the Columbia River basalts.

Although the notion of subaerial flood basalts intruding marine sediments at great distance from the vents is an unusual one, many geologists have come to regard these basalt intrusions of nearly contemporary unconsolidated sediments as the Pacific equivalent of the remote Columbia River basalts.

Subsequent downward faulting between northwest and southwest trending faults around Depoe Bay have emplaced the Cape Foulweather basalt headlands that define the bay. All the rocks within the sequence are presently dipping gently (10°-20°) seaward.

5.2 Topography

The City of Depoe Bay rests on marine terrace materials that in turn overlie sandstone and basaltic rock formations. The project area is comprised of a narrow level terrace along the north and south sides of Depoe Bay and steep slopes to the south, north and east. Several perennial creeks and numerous intermittent drainages are within the study area, including the North Depoe Bay Creek, South Depoe Bay Creek, Depoe Bay Creek and Deadhorse Creek.

The nearly level area located between the ocean and just east of Highway 101 is a combination of residential, light industrial, marine and commercial properties. Within this area, the Port of Depoe Bay operates a marina, and landings and floats to accommodate excursion and commercial fishing boats.

Elevations range from 0 feet National Geodetic Vertical Datum (NGVD) to approximately 820 feet NGVD at the tops of hills in the northeast region of the UGB.

5.3 Hydrology

5.3.1 Hydrologic Features of the Depoe Bay Study Area

Major hydrologic features of the project area include North and South Depoe Bay Creek, which flow into Depoe Bay; and Depoe Bay Creek, which is a tributary to South Depoe Bay Creek. Minor hydrologic features include several intermittent drainages originating in the steep hillsides. One such drainage is Deadhorse Creek, which flows into Whale Cove; another drainage flows into Pirate Cove.

North Depoe Bay Creek is a tributary to Depoe Bay. Within the Depoe Bay UGB, North Depoe Bay Creek is a 6th-order stream. North Depoe Bay Creek provides spawning and rearing habitat for several anadromous salmonids and is DSL-designated essential habitat for that reason.

Another main drainage is South Depoe Bay Creek, located in the central third of the UGB. It is also salmonid-bearing and DSL-designated essential salmonid habitat. Several tributaries to South Depoe Bay Creek are present, but have their points of origin outside the UGB.

Deadhorse Creek drains from the eastern hillsides west to the Pacific Ocean at Whale Cove in the southern tip of the UGB. A small unnamed drainage also flows into the Pacific Ocean in the southern tip of Depoe Bay. Minor drainages, spring and seeps are also present in the study area; however, due to the steep topography and permeable soils, they are generally intermittent.

In addition, low-lying areas along the coastline and adjacent to the major creeks are mapped within the 100-year floodplain by the Federal Emergency Management Agency (FEMA).

5.3.2 Hydrologic Basin Designation

The study area was divided into three primary hydrologic basins: North Depoe Bay Creek (NDB), South Depoe Bay Creek (SDB) and Whale Cove (WC). Determination of the basins was based on USGS topography and observations of drainage patterns from the aerial photographs. The watersheds and their sizes are listed in Table 1.

Table 1: Hydrologic Basins and Acreage for the City of Depoe Bay Local Wetlands and Riparian Inventories

Hydrologic Basin	Basin Area (acres)
North Depoe Bay	545
South Depoe Bay	329
Whale Cove	266
Total Project Acreage	**1,140**

5.3.3 Hydrologic Indicators

Direct indicators of hydrology observed during the inventory included soils saturated at or near the surface, inundation, and a shallow water table. Indirect indicators included oxidized rhizospheres with living roots, algal mats, drift lines, and wetland drainage patterns.

5.4 Soils

Table 2 lists the soils that have been mapped by the Natural Resources Conservation Service (NRCS; formerly the Soil Conservation Service) within the Depoe Bay study area. Figure 2 shows the mapped soils within the Depoe Bay UGB.

Table 2. Soils Mapped Within the Depoe Bay LWI Study Area

Soil Series	Soil Name	Slopes	Classification	Drainage Class	Hydric?
3C	Bandon fine sandy loam	3-12%	Typic Haplorthods	Well drained	No
3E	Bandon fine sandy loam	12-50%	Typic Haplorthods	Well drained	No
4A	Beaches	1-2%	N/A	N/A	Yes
14B	Depoe loam		Typic Duraquods	Poorly drained	Yes
18G	Fendall-Templeton silt loam	35-60%	Andic Humitropepts	Well drained	No
22C	Gleneden silty clay loam		Aquic Humic Dystrudepts	Somewhat poorly drained	No
35E	Lint silt loam	5-25%	Typic Fulvudands	Well drained	No
42C	Nelscott loam	3-12%	Typic Durorthods	Moderately well drained	No
42E	Nelscott loam	12-50%	Typic Durorthods	Moderately well drained	No
45E	Neskowin-Salander silt loam	5-35%	Typic Fulvudands	Well drained	No
45G	Neskowin-Salander silt loam	35-60%	Typic Fulvudands	Well drained	No
46A	Nestucca silt loam	0-2%	Fluvaquentic Humaquepts	Somewhat poorly drained	No
55E	Templeton-Fendall silt loam-	5-35%	Andic Humitropepts	Well drained	No

A variety of soil types were sampled during field visits to the study area; surface features are described on data sheets in Appendix C. Hydric soil indicators observed during the survey included low chroma soils, both with and without redoximorphic features.

5.5 Vegetation

5.5.1 Vegetation Overview

The City of Depoe Bay is located within the Sitka Spruce (*Picea sitchensis*) Forest Zone (as characterized by Franklin and Dyrness, 1973). This vegetation zone occupies a low-elevation strip along the immediate coastline, often only a few miles wide, and is subject to a relatively wet and mild climate. The zone is distinguished largely by the presence of Sitka spruce, frequent summer fogs, and proximity to the ocean. This portion of the Oregon coast is drier however, than other coastal areas to the north. Areas to the east of the first ridge or sheltered from prevailing winds and fog begin to assume plant compositions more similar to the interior valleys.

Common trees found in this region include Sitka spruce, western hemlock (*Tsuga heterophylla*), western red cedar (*Thuja plicata*), Douglas-fir (*Pseudotsuga menziesii*), grand fir (*Abies grandis*) and red alder (*Alnus rubra*). Other trees observed in the drier or more protected areas include shore pine (*Pinus contorta*). Further discussion of coastal plant communities within the Sitka Spruce Zone can be found in *Natural Vegetation of Oregon and Washington* (Franklin and Dyrness 1973).

5.5.2 Local Vegetation Communities

Generalized plant communities encountered within the City of Depoe Bay study area include upland broadleaf-scrub/shrub thicket, upland coniferous forest, upland mixed coniferous/deciduous forest, developed-urban, wetland, and riparian. Wetland communities are further distinguished as freshwater (palustrine emergent, palustrine scrub-shrub, palustrine forested; and riverine systems), and brackish (estuarine emergent, estuarine scrub-shrub, and estuarine forested) following the Cowardin classification system developed for the US Fish and Wildlife Service (Cowardin, et. al., 1979). Each of the above communities is described in the sections below. A list of plant species known or expected to be in the area is included in Appendix H.

Upland Broadleaf Scrub/Shrub Thicket

Shrub communities are typically associated with relatively recent or periodically occurring disturbances (i.e. following logging, grading, and fire; or subject to flooding). Dominant species may include saplings of regenerating conifers such as Sitka spruce or Douglas-fir, deciduous trees such as red alder, and shrubs such as salmonberry (*Rubus spectabilis*), thimbleberry (*Rubus parviflorus*), salal (*Gaultheria shallon*), vine maple (*Acer circinatum*), evergreen huckleberry (*Vaccinium ovatum*), rhododendron (*Rhododendron macrophyllum*), and blackberries (*Rubus* spp.). Introduced Scots' broom (*Cytisus scoparius*) and Himalayan blackberry (*Rubus discolor*) are also rapid colonizers in disturbed areas. Herbaceous species are common in cleared openings, often being the first plants to colonize disturbed ground.

Upland Coniferous Forest

The dominant species in the coniferous overstory are Douglas-fir, Sitka spruce, western hemlock, and western red cedar. Sitka spruce is more common closer to the ocean, with the other species becoming more dominant further inland or in managed forests. Understory plants vary greatly with the density of the tree canopy. A closed canopy forest tends to suppress understory species diversity and density, though species such as false lily-of-the-valley (*Maianthemum dilatatum*) and sword fern *(Polystichum munitum*) are commonly encountered. Openings in the canopy allow greater shrub development, with salmonberry, salal, rhododendron, and evergreen huckleberry often evident.

Upland Mixed Coniferous-Deciduous Forest

The conifer species mentioned above may be codominant with deciduous hardwoods such as red alder, bigleaf maple, and willows (*Salix* spp). Shrub understories are often well-developed due to a more open tree overstory for much of the year. Common shrubs include salmonberry, red elderberry (*Sambucus racemosa*), vine maple, evergreen huckleberry, salal, and cascara (*Rhamnus purshiana*).

Developed-Urban

In general, plant communities in the City of Depoe Bay study area have been influenced by human activities for most of this century. The study area includes developed commercial areas and single-family residential subdivisions, as well as widely dispersed rural residential. No old growth stands exist. As such, there are few undisturbed natural areas within the UGB. Residences, businesses, parking areas, roads, and sidewalks all represent unvegetated or landscaped areas. Vegetation is often of horticultural origin or weedy in these areas. The fringes of these developed areas may have been subject to disturbance as well, often allowed to regenerate as red alder, Scot's broom or blackberry thickets. More frequent disturbance may maintain areas as open spaces dominated by weedy grasses and forbs.

Wetlands

Wetland areas are generally transitional between upland or riparian areas and truly aquatic sites with permanently open water. Open water may or may not be present, in which case the wetland can occupy a position where the groundwater table comes close to the surface for an extended period at some time during the growing season.

Palustrine forested wetlands (PFO) in the area are dominated primarily by an overstory of Sitka spruce, western hemlock, western red cedar, and red alder. Palustrine scrub/shrub (PSS) wetlands typically include sapling red alder, willows and twinberry (*Lonicera involucrata).* Palustrine emergent wetlands (PEM) are dominated by herbaceous species such as sedges (*Carex* spp.) water parsley *(Oenanthe sarmentosa*), rushes (*Juncus spp.*), birds foot trefoil (*Lotus corniculatus*) and creeping buttercup (*Ranunculus repens*).

Riparian

Riparian forests are often similar to the upland mixed evergreen-deciduous forests, though species preferring wetter sites may be more common. Alder and willow dominate in the wetter areas, with Sitka spruce and bigleaf maple more common in the drier riparian zones.

5.5.3 Wetland and Upland Indicator Species

Species lists of commonly encountered plants, along with their status as indicators of wetland conditions, have been prepared for all regions of the country by the USFWS (1988). The status of a particular plant, as discussed in Section 2.0, is the probability of that plant occurring in a wetland. Table 3 summarizes the wetland indicator codes.

Table 3. Wetland Indicator Codes and Status

Indicator Code	Status
OBL	Obligate wetland. Estimated to occur almost exclusively in wetlands (>99%)
FACW	Facultative wetland. Estimated to occur 67-99% of the time in wetlands.
FAC	Facultative. Occur equally in wetlands and non-wetlands (34-66%).
FACU	Facultative upland. Usually occur in non-wetlands (67-99%).
UPL	Obligate upland. Estimated to occur almost exclusively in non-wetlands (>99%). If a species is not assigned to one of the four groups described above it is assumed to be obligate upland.
NI	Has not yet received a wetland indicator status, but is probably not obligate upland.

Many plants are found in transitional areas between wetlands and uplands. These areas are usually characterized by flat to gradually sloping terrain where the species composition may not reflect true wetland boundaries. In such areas, a species with a status of FACU may extend into the wetland areas, just as FACW species may also be present in upland areas.

A non-comprehensive listing of plant species encountered or expected within the project area, and their wetland indicator status, is included in Appendix H.

5.6 Wildlife

5.6.1 Threatened or Endangered Species

The federal Endangered Species Act (ESA) is administered through the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS). The Oregon Endangered Species Act of 1987 (OESA) is administered by the state Departments of Agriculture (ODA) and Fish and Wildlife (ODFW). Each have particular powers and limitations depending on the ownership status and/or actions being considered on the sensitive species' habitat. In addition, individual land management agencies (including the US Forest Service) typically maintain their own sensitive species lists. These may be more inclusive than required by the ESA, with management goals set for unlisted sensitive species as well.

The Oregon Natural Heritage Information Center (ORNHIC, previously the Oregon Natural Heritage Program, or ORNHP) maintains a statewide database that tracks population trends for individual plant and animal species (ORNHP, 2001). The sensitivity of species to various influences, regardless of origin, is monitored through many sources, including public agencies, academic institutions, and private groups. Trends are re-evaluated periodically to assess whether an individual species warrants legal protection under the federal and state endangered species acts. ORNHIC has records of the following species occurrences within or near the UGB of the City of Depoe Bay:

Bald eagle (*Haliaeetus leucocephalus*)
Federal status: Threatened, Proposed Delisted; State status: Threatened

Use of habitat by bald eagles within and immediately adjacent to the Depoe Bay UGB has been documented by ORNHIC. This species forages aerially over water bodies, and Depoe Bay waters (e.g., the Pacific Ocean) have sufficient fisheries resources to support bald eagles. Several nesting sites have been documented in Whale Cove (in the southern portion of the UGB), with successful fledging within the past 3 years.

Bald eagles nest in tall snags or mature trees, often utilizing the tallest tree in a given area to facilitate location of prey. These nest sites are usually near water (e.g., within riparian corridors). Primary habitat use within the city limits is likely feeding. Critical habitat has not been designated for this species.

Coho salmon (Oregon Coastal Run ESU) (*Oncorhynchus kisutch*)
Federal status: Threatened; State status: Sensitive-Critical

Coho salmon are anadromous fish species that use aquatic resources within the City of Depoe Bay. This species has been documented by ORNHIC and StreamNet (2003) as using Depoe Bay for migration and rearing habitat. Coho use North Depoe Bay Creek as spawning and rearing habitat (from river mile 0.0 to 0.6), and South Depoe Bay Creek for migration and rearing habitat (from river mile 0.0 to 0.2); and spawning and rearing habitat (from river mile 0.2 to 3.4).

Coho spawn in small coastal streams and tributaries of large rivers. They prefer areas of mid-velocity water with small to medium-sized gravels and ample riparian vegetation. Coho fry are usually found in the pools of small coastal streams and the tributaries of larger rivers (ORNHIC, 2003). Critical habitat for this species has been vacated by NOAA fisheries, pending further developments.

Steelhead (Oregon Coast Winter Run) (*Oncorhynchus mykiss*)
Federal status: Candidate; State status: Sensitive-Vulnerable

Steelhead are anadromous fish species that use habitat within the City of Depoe Bay. This species has been documented by ORNHIC and StreamNet (2003) as using Depoe Bay for migration. Steelhead use North Depoe Bay Creek as spawning and rearing habitat (from river mile 0.0 to 0.4), and uses the entirety of South Depoe Bay Creek for spawning and rearing habitat.

Steelhead generally prefer fast water in small-to-large mainstem rivers and medium-to-large tributaries. In streams with steep gradient and large substrate, they spawn between the steep areas, where the water is flatter and the substrate is small enough to dig into. The steeper areas make excellent rearing habitat for juveniles. Fry use areas of fast water and large substrate for rearing (ORNHIC, 2003). Critical habitat for this species has been vacated by NOAA fisheries, pending further developments.

Oregon silverspot butterfly (*Speyeria zerene hippolyta*)
Federal status: Threatened; State status: Not listed

Oregon silverspot butterfly was last seen within the vicinity of the City of Depoe Bay in 1971. That population is now considered to be extinct (ORNHIC, 2003). However, Critical Habitat was designated in nearby Lane County in 1980, and the Recovery Plan, initially completed in 1982, was updated in 2001 (Federal Register. Vol. 66, No. 231. November 30, 2001. Department of the Interior, Fish and Wildlife Service). No other occurrence of this species has been documented within the vicinity of the UGB.

This species depends on coastal grasslands (salt spray meadows) that contain early blue violet (*Viola adunca*). This open vegetation type has always had a patchy distribution that was maintained through wildfire, salt-laden winds, grazing and controlled burning (Federal Register. Vol. 66, No. 231, p. 59807. November 30, 2001. Department of the Interior, Fish and Wildlife Service).

In addition to those species documented by ORNHIC, other listed species may utilize habitat within the UGB. The City of Depoe Bay's rocky shorelines provides potential habitat for many protected terrestrial wildlife species, and its streams and riparian areas provide important habitat for numerous fish and wildlife species.

Marbled murrelet (*Brachyramphus marmoratus*, Threatened) has been documented feeding offshore but does not likely utilize the fragmented mature forest habitats within the UGB for nesting and roosting. Brown pelican (*Pelicanus occidentalis*, Endangered) has also been documented feeding offshore.

5.6.2 Other Wildlife Habitat

The coast range provides habitat for a wide variety of wildlife. The large tracts of forest to the east provide cover for many species of migratory and shorebirds and other terrestrial wildlife species. Additionally, the rocky shorelines of Depoe Bay may provide roosting habitat for pelagic birds including black cormorant, black oyster-catcher, rhinoceros auklet, common murre, tufted puffin and pigeon guillemot.

Wetlands in coastal areas may provide key migration and overwintering habitat for waterfowl and numerous other species protected by the Migratory Bird Treaty Act. There was no documentation of migratory waterfowl utilizing wetland habitats at the time of survey, but birds may use these areas at other times of year (e.g., springtime migration).

5.6.3 Managed Wildlife Areas

Special marine fish and wildlife managed areas (regulated by state agencies) within the UGB include Whale Cove Habitat Refuge (Intertidal Research Area) and Pirate Cove Research Reserve (Subtidal Research Area) (Oregon Department of Land Conservation and Development, Ocean-Coastal Management Program, *Rocky Shores Management Strategy*).

Whale Cove Habitat Refuge is 0.9 miles of cliffs, rocky intertidal habitat and subtidal habitat located in the southern tip of Depoe Bay's UGB. This small cove is closed to all harvest of marine fish and shellfish. The submerged and tidal lands are owned by DSL and the beaches are owned by Oregon State Parks. The key resources for this area include rich and diverse intertidal habitat; harbor seal haulout; bald eagle use; and two nesting colony sites for pigeon guillemot.

Use of the area from shore is relatively low and restricted to the nearby residents and guests on adjacent private property. ODFW has ongoing monitoring studies in the cove. ODFW manages this area as a habitat refuge and research natural area.

Pirate Cove is 5.2 acres of intertidal and 3.3 acres of subtidal habitat in the northern portion of the City of Depoe Bay UGB. Pirate Cove is a very small semi-enclosed shallow embayment directly open to the ocean that provides an excellent area for both basic and applied subtidal research. Public access to this site is from the ocean only. Key resources for this area are subtidal habitat.

Current uses include scientific research, scuba diving and some commercial urchin harvest. ODFW and the Urchin Commodity Commission are jointly conducting a red sea urchin outplanting experiment. There is currently no on-site management of the cove.

6.0 LWI DISCUSSION AND CONCLUSIONS

6.1 U.S. Fish & Wildlife Service National Wetland Inventory Areas

The U.S. Fish and Wildlife Service, as part of the National Wetlands Inventory (NWI) program, has mapped wetland in the study area (Figure 3). The NWI maps are generated primarily on the basis of interpretation of relatively small-scale color infrared aerial photographs (e.g., scale of 1:58,000) with limited "ground truthing" conducted to confirm the interpretations.

As shown on the NWI, wetlands were mapped along the creeks and along the shoreline, including the estuary of Depoe Bay. Two palustrine, unconsolidated bottom wetlands were also mapped in association with North Depoe Bay Creek and an unnamed drainage north of Whale Cove.

6.2 Local Wetlands Inventory Results

6.2.1 Wetland Acreage and Distribution

A total of 14 wetland units were identified during the LWI with a total area of approximately 20.51 acres (Figures 4A-4B). The Whale Cove basin contains the majority (57%) of total wetland area within the UGB. Table 4 summarizes the wetland acreage and distribution in the study area.

Table 4. Wetland Areas Within Each Basin for the Depoe Bay LWI

Watershed	Area (acres)	Wetland (acres)	Percent of basin that is wetland
North Depoe Bay Creek	544.77	5.39	1%
South Depoe Bay Creek	329.42	3.5	1%
Whale Cove	265.62	11.62	4%
Total Project Acreage	**1,139.81**	**20.51**	

6.2.2 Wetland Classification

Each wetland was classified according to the Cowardin and Hydrogeomorphic system. Palustrine forested (PFO) wetlands are the dominant (46%) wetland type in the study area, totaling 9.38 acres. Palustrine scrub-shrub (PSS) wetlands were the second most common (29%), totaling 5.87 acres. Palustrine emergent wetlands were third most common with areas totaling 5.19 acres (25%). Riverine wetlands were the least common, totaling only 0.07 acres within the UGB.

Tables 5 and 6 summarize the wetland classifications for the Depoe Bay LWI study area. Table 5 is a summary of the distribution of wetland classes within each basin. Table 6 (page 25) is a classification and acreage for each wetland.

Table 5. Types of Wetlands Within the Depoe Bay LWI Study Area

Wetland Classification	Area (acres)	Percent of Wetlands
Palustrine forested (PFO)	9.38	46%
Palustrine scrub-shrub (PSS)	5.87	29%
Palustrine emergent (PEM)	5.19	25%
Riverine (R)	0.07	0%*
Total	**20.51**	**100%**

*Actual figure is 0.003%

Table 6. Cowardin Classification of all Wetlands Identified in the Depoe Bay LWI

Wetland Code	USFWS Wetland Classification				Total Acreage
	PFO	PSS	PEM	R	
NDB-1		0.79	1.18		1.97
NDB-2	2.19				2.19
NDB-3	1.17		0.06		1.23
SDB-1	1.14		0.46		1.60
SDB-2	1.90				1.90
WC-1A	2.05	3.42	2.43		7.90
WC-1B			0.3		0.3
WC-2		0.36			0.36
WC-3		0.48	0.31		0.79
WC-4		0.32	0.08		0.40
WC-5	0.03	0.28	0.32	0.07	0.70
WC-6A	0.36				0.36
WC-6B	0.54				0.54
WC-7		0.22	0.05		0.27
TOTAL	**9.38**	**5.87**	**5.19**	**0.07**	**20.51**

6.3 Oregon Freshwater Wetland Assessment Methodology Results

6.3.1 Wetland Quality Assessment

An assessment of the quality for each of the Goal 5 wetlands identified through the inventory was conducted using the *Oregon Freshwater Assessment Methodology* (OFWAM) (Roth et al, April 1996). OFWAM assesses 6 functions and 3 conditions, as described in Section 3.3.1. Appendix D contains all of the results for each of the 14 wetlands assessed by the methodology along with summary sheets of the functions and conditions assessed by the methodology and the rationale for the results. Table 7 summarizes the wetlands within the study area.

Table 7. Summary of Wetlands inventoried within the study area

GOAL 5		
NDB-1	WC-1A	WC-5
NDB-2	WC-1B	WC-6A
NDB-3	WC-2	WC-6B
SDB-1	WC-3	WC-7
SDB-2	WC-4	

Although OFWAM provides qualitative information on the relative value of wetlands and does not have a numerical ranking, numbers were assigned to the assessment criteria to easily compare the results. A number 1 was assigned to wetlands receiving the highest function or condition result (e.g. intact, diverse), a number 3 was assigned to the wetlands

receiving the lowest result (lost or not present, not appropriate), and a number 2 was assigned to the results which do not fit the other criteria (potential, impacted or degraded). This system is summarized in Table 8 (page 26).

Table 9 (page 27)shows the results of the quality assessment conducted on all of the wetlands identified through the inventory. Some functions or conditions were not applicable to certain wetlands. For instance the methodology states that if a wetland receives an assessment of "diverse wildlife habitat" then the enhancement potential assessment is not applicable.

Table 8. Key to the Oregon Freshwater Wetland Assessment Methodology Numerical Ranking

Wildlife Habitat	1. *Wetland provides diverse wildlife habitat* 2. *Wetland provides habitat for some wildlife species* 3. *Wetland does not provide wildlife habitat*
Fish Habitat	1. *Wetland's fish habitat function is intact* 2. *Wetland's fish habitat function is impacted or degraded* 3. *Wetland's fish habitat function is lost or not present*
Water Quality	1. *Wetland's water-quality function is intact* 2. *Wetland's water-quality function is impacted or degraded* 3. *Wetland's water-quality function is lost or not present*
Hydrologic Control	1. *Wetland's hydrologic control function is intact* 2. *Wetland's hydrologic control function is impacted or degraded* 3. *Wetland's hydrologic control function is lost or not present*
Sensitivity to Impact	*1. Wetland is sensitive to future impacts* *2. Wetland is potentially sensitive to future impacts* *3. Wetland is not sensitive to future impacts*
Enhancement Potential	1. *Wetland has high enhancement potential* 2. *Wetland has moderate potential for enhancement* 3. *Wetland has little enhancement potential*
Education	1. *Wetland has educational uses* 2. *Wetland has potential for educational use* 3. *Wetland is not appropriate for educational use*
Recreation	1. *Wetland provides recreational opportunities* 2. *Wetland has the potential to provide recreational activities* 3. *Wetland is not appropriate for or does not provide recreational opportunities*
Aesthetic Quality	1. *Wetland is considered to be pleasing* 2. *Wetland is considered to be moderately pleasing* 3. *Wetland is not pleasing*

Table 9. Oregon Freshwater Wetland Assessment Methodology Numerical Ranking Results for the Depoe Bay Local Wetlands Inventory

Wetland Code	Wildlife Habitat	Fish Habitat	Water Quality	Hydrologic Control	Sensitivity to Impact	Enhancement Potential	Education	Recreation	Aesthetic Quality	Size (acres)
NDB-1	2	n/a	3	3	2	2	3	2	1	1.97
NDB-2	1	1	1	2	2	n/a	3	3	3	2.19
NDB-3	2	1	2	2	2	1	3	3	2	1.23
SDB-1	2	1	2	3	2	1	3	3	3	1.60
SDB-2	1	1	2	1	2	n/a	2	1	2	1.90
WC-1A	2	n/a	2	1	2	2	2	3	3	7.90
WC-1B	2	n/a	2	2	3	2	2	2	1	≈0.3
WC-2	2	n/a	3	2	2	2	3	3	3	0.36
WC-3	2	n/a	1	1	2	2	3	2	2	0.79
WC-4	2	2	1	1	2	2	3	1	3	0.40
WC-5	1	2	2	1	2	n/a	2	1	1	0.70
WC-6A	2	1	3	3	2	2	3	3	2	0.36
WC-6B	2	1	2	2	2	2	3	3	2	0.54
WC-7	2	n/a	2	1	2	3	2	1	1	0.27

Twenty-one percent (21%) of the assessed wetlands provided diverse wildlife habitat and the other 79% provided wildlife habitat for some species. Forty-three percent (43%) of wetlands had intact fish habitat, 14% had fish habitat impacted or degraded due to lack of shade, instream structures, or channel modifications. Six (6) of the wetlands were not assessed for fish habitat.

The water quality function was assessed as intact in 21% of the wetlands; impacted or degraded in 50% of the wetlands; and lost or not present in 29%. The impacted water quality function is due to lack of floodplain within the UGB, generally due to the incised nature of channels and steep stream gradient (most of the drainages run off steep slopes).

Hydrologic control was assessed as intact in 43% of the wetlands, while 36% were assessed as impacted or degraded. Impacts were generally due to lack of floodplain, unrestricted outflow and downstream open space. The remaining 21% were assessed with lost or not present function.

All the wetlands were considered to be potentially sensitive to future impacts due to existing or zoned development in adjacent lands. Most of the wetlands (8) were assessed with moderate enhancement potential, while 3 were not assessed due to diverse wildlife habitat. All wetlands were given a low (not appropriate) or medium (has potential for) rating for educational or recreational opportunities in a majority of the wetlands due to their location on private lands, lack of public access or developed paths, and safety concerns associated with public access and physically-challenged access. Aesthetic quality of the wetlands was varied according to presence of major roads and noisy traffic, adjacent development, and number of Cowardin classes in the wetland. Twenty-nine percent (29%) were considered to be aesthetically pleasing.

6.3.2 Wetlands of Special Interest for Protection

Each wetland was assessed according to the ten questions in this section of OFWAM. These questions are regarding the presence of Federal or State listed threatened, endangered or sensitive species, existing management plans, conservation plans, protected mitigation areas, critical habitat, wetland reserve areas and the presence of uncommon wetland plant communities in Oregon.

These questions were answered "no" for the majority of wetlands, however wetlands immediately adjacent to North and South Depoe Bay Creek qualify as "wetlands of special interest for protection" due to essential salmonid habitat in those creeks. The following wetlands meet this criterion:

- NDB-2
- SDB-1
- SDB-2

7.0 SIGNIFICANT WETLANDS DETERMINATION

7.1 Distinction between Goals 5 and 17 Areas

The City is divided between the Statewide Goal 5 and the Goal 17 Planning areas. Goal 17 (Coastal Shorelands) defines the Coastal Shorelands Planning Area (CSPA) as: All lands west of the Oregon Coast Highway (Highway 101) and; all lands within an area defined by a line measured horizontally 1,000 feet from the shoreline of estuaries and 500 feet from the shoreline of coastal lakes (DLCD, 1996). For the Depoe Bay LWI, the CSPA includes all lands seaward from Highway 101 (i.e. west of Highway 101). Goal 5 applies to all areas of the UGB, and can also overlap Goal 17 lands. However, if a wetland qualifies as both a Goal 5 and Goal 17 resource, Goal 17 takes precedence.

7.2 Goal 5 Locally Significant Wetlands Criteria

On September 1, 1996, the Land Conservation and Development Commission adopted a revised Statewide Planning Goal 5. Goal 5 is the planning goal for natural resources, scenic and historic areas, and open spaces. The goal requires local jurisdictions to inventory the natural resources covered under the goal, determine the significance of these resources, and develop plans to achieve the goal. In other words, local jurisdictions must adopt land use ordinances regulating development in and around significant areas.

Local jurisdictions determining significant wetlands must use the criteria adopted by the Oregon Department of State Lands (ORS 197.279(3)(b)). These criteria identifies *Locally Significant Wetlands.* The significance criteria is divided into three sections, as shown in Table 10.

Table 10. Criteria for Determining Goal 5 Locally Significant Wetlands

***Exclusions*: A wetland cannot be designated as significant if the answer to any of the criteria below is "Yes".**
1 Is this wetland artificially created entirely from upland and:
a. created for the purpose of controlling, storing, or maintaining storm water
b. is used for active surface mining or as a log pond
c. is a ditch without a free and open connection to natural waters of the state
d. is less than 1 acre and created unintentionally from irrigation or construction
e. created for the purpose of wastewater treatment, cranberry production, farm watering, sediment settling, cooling industrial water, or a golf hazard
2 Is the wetland or portion of the wetland contaminated by hazardous substances, materials or wastes as per the conditions of ORS 141-86-350 1(b)

Table 10, continued

***Mandatory Locally Significant Wetland Criteria*: A wetland is locally significant if "Yes" is the answer to any of the criteria below.**
1 Does the wetland provide *diverse wildlife habitat*?
2 Is the wetland's *fish habitat function intact*?
3 Is the wetland's *water quality function intact*?
4 Is the wetland's *hydrologic control function intact*?
5 Is the wetland less than 1/4 mile from a water body listed by DEQ as a water quality limited water body (303(d) list) and is the wetland's *water quality function intact, or impacted or degraded*?
6 Does the wetland contain a rare plant community?
7 Is the wetland inhabited by any species listed federally as threatened or endangered, or state listed as sensitive, threatened or endangered?
8 Does the wetland have a direct surface water connection to a stream segment mapped by ODFW as habitat for indigenous anadromous salmonids and is the wetland's *fish habitat function intact, or impacted or degraded*?
***Optional Locally Significant Wetland Criteria*: local governments may identify a wetland as significant if "Yes" is the answer to the criteria below**
1 Does the wetland represent a locally unique native plant community and provides *diverse wildlife habitat or habitat for some species* or has a *intact, or impacted or degraded fish habitat function* or has a *intact, or impacted or degraded water quality function* or has a *intact, or impacted or degraded hydrologic control function.*
2 Is the wetland publicly owned and used by a school or organization and does the wetland provide *educational uses*?

7.3 Applying Significant Wetland Criteria to the LWI Study Area

7.3.1 Goal 5 Significant Wetlands

The Locally Significant Wetlands criteria were applied to all wetlands. The results of applying the criteria are included in Appendix E. These wetlands are shown in Table 11.

Table 11. Goal 5 Locally Significant Wetlands in the Depoe Bay LWI

GOAL 5		
NDB-1	WC- 1a*	WC-5*
NDB-2*	WC-1b	WC-6a*
NDB-3*	WC-2	WC-6b*
SDB-1*	WC-3*	WC-7*
SDB-2*	WC-4*	

*Locally Significant Wetlands

Based on the criteria, 11 of the 14 wetlands (78%) were determined to be significant: 2 in the North Depoe Bay Creek watershed, 2 in the South Depoe Bay Creek watershed and 7 in the Whale Cove watershed. The Whale Cove (WC) wetlands are technically within the Goal 17 CSPA; however, they are not included as Goal 17 wetlands only, because they do not derive their habitat quality from "association with coastal water areas" (LCDC, 1996). These wetlands met the criteria for significance because they meet one or more of the mandatory criteria. Although other wetlands within the Goal 5 area are relatively valuable for some functions, they do not satisfy the significant wetlands criteria.

8.0 RIPARIAN INVENTORY RESULTS

8.1 Location, Width and Quality of Riparian Areas

The *Urban Riparian Inventory and Assessment Guide* (Riparian Guide) (DSL 1998) was used to identify the width of riparian areas within the project area. The Riparian Guide is a method of determining the width of riparian areas adjacent to wetlands, creeks, and lakes (water resources). The Riparian Guide includes a riparian function assessment, which evaluates the ability of the riparian area to provide water quality, flood management, thermal regulation, and wildlife habitat functions. The results indicate whether the functional integrity of each reach is high, medium, or low.

8.2 Riparian Acreage and Distribution

Twelve riparian assessments were conducted in the project area. Each riparian area was assigned a code and a watershed code (e.g. R-NDB-2). A data sheet was compiled which documents the existing riparian characteristics and establishes the riparian width based on potential tree height (PTH) and actual site conditions (Appendix F). The majority of the assessments were on-site observation. Off-site assessments were based on observation from an off-site vantage point or review of maps and aerial photos.

Potential tree heights were generally based on either Sitka spruce, western hemlock (both 120-foot PTH) or red alder (65-foot PTH). Riparian areas on steep slopes were generally forested or potentially forested with the coniferous trees. Riparian areas in flatter topographic areas were generally dominated by early successional trees such as red alder. Figures 4A-4B show the location of the riparian assessments, the riparian reaches, and the width of the riparian areas. The following table summarizes the riparian area lengths and potential tree heights.

Table 12. Riparian Corridors and Their Widths for the Depoe Bay Riparian Inventory

RIPARIAN AREA CODE	Potential Tree Height (PTH) (ft)	Riparian Area length (ft)
R-NDB-1	120	1,800
R-NDB-2	120	10,560
R-NDB-3	65	500
R-NDB-4	65	600
R-SDB-1	120	2,000
R-SDB-2	65	20,600
R-SDB-3	65	1,200
R-WC-1	120	1,200
R-WC-2	120	1,300
R-WC-3	120	1,300
R-WC-4A	65	500
R-WC-4B	65	500

8.3 Riparian Assessment Results

An assessment of four riparian functions, water quality, flood management, thermal regulation, and wildlife habitat, was conducted for each of the riparian areas. The questions and answer sheets for the riparian assessment are included in Appendix F. The riparian functions are described in Section 3.4.3.

The riparian assessment is completed by answering a series of questions relating to the riparian functions. Each answer is assigned a score that reflects its overall importance to the function. Questions that were answered "a" received a higher score than "c" answers. After the score was totaled for each function, it was assigned a rating of high (H), medium (M), or low (L) according to the results. Table 13 summarizes the results of the riparian functional assessment.

Table 13. Summary of Depoe Bay's Riparian Functional Assessments

Riparian Code	Water Quality	Flood Management	Thermal Regulation	Wildlife Habitat
R-NDB-1	H	M	H	H
R-NDB-2	H	L	H	H
R-NDB-3	H	L	H	H
R-NDB-4	H	M	H	H
R-SDB-1	H	M	H	H
R-SDB-2	H	H	H	H
R-SDB-3	H	L	H	M
R-WC-1	H	H	M	H
R-WC-2	H	L	H	H
R-WC-3	H	H	H	H
R-WC-4a	H	L	H	H
R-WC-4b	H	L	H	H

Riparian areas along coastal waters are extremely important for a number of reasons. Goal 17 recognizes the importance of riparian vegetation along the coast and states in the *Identification Section* that coastal shorelands should at least include "Natural or man-made riparian resources, especially vegetation necessary to stabilize the shoreline and to maintain water quality and temperature necessary for the maintenance of fish habitat and spawning areas." Due to the listing of several salmonids as Threatened under the Endangered Species Act by the National Marine Fisheries Service, protecting and restoring riparian areas has never been more important.

All of the riparian areas provide a high water quality function due to a dominance of woody trees and shrubs in the riparian areas and low extents of impervious surfaces. Thermal regulation was also generally assessed with a high functional integrity, with 92% of the riparian assessed in this condition. The flood management function was generally ranked as medium or low due to steep topography within the riparian area, thereby limiting the potential for flooding.

Wildlife habitat was high for 92% of the riparian areas due to the presence of perennial surface water, well vegetated areas, and lack of impervious surfaces in the study area.

In general the riparian areas of Depoe Bay are in good condition.

8.4 Determination of Significant Riparian Corridors

Once the location and the quality of the riparian corridors were established, we determined the significance of each resource. For riparian corridors, local jurisdictions are given a choice of implementing the "standard" Goal 5 inventory process, or the "safe harbor" process, or a combination of the two. As described above, the standard inventory process was conducted using the Riparian Guide.

8.4.1 Safe Harbor

The safe harbor process uses criteria already established by Goal 5 to determine boundaries of significant riparian corridors using a standard setback distance from all fish bearing streams and lakes (OAR 660-23-090(5)).

These setback distances are as follows:

(a) Along all streams with average annual stream flow greater than 1,000 cubic feet per second (cfs) the riparian corridor boundary shall be 75 feet upland from the top of each bank.

(b) Along all lakes, and fish-bearing streams with average annual stream flow less than 1,000 cfs, the riparian corridor boundary shall be 50 feet from the top of bank.

(c) Where the riparian corridor includes all or portions of a significant wetland as set out in OAR 660-23-100, the standard distance to the riparian corridor boundary shall be measured from, and include, the upland edge of the wetland.

(d) In areas where the top of each bank is not clearly defined, or where the predominant terrain consists of steep cliffs, local governments shall apply OAR 660-23-030 rather than apply the safe harbor provisions of this section.

The City can adopt the safe harbor widths of 50 feet or the standard inventory widths established by use of potential tree height, as listed in Table 12.

8.4.2 Standard Inventory

Table 14 presents the significance criteria for significant Goal 5 riparian corridors.

Table 14. Criteria for Determining Significant Riparian Corridors

	***Goal 5 Significant Riparian Corridor Criteria:* A riparian corridor is considered to be significant if "Yes" is the answer to any of the criteria below.**
1	Does the riparian area have a high water quality function?
2	Does the riparian area have a high flood management function?
3	Does the riparian area have a high thermal regulation function?
4	Does the riparian area have a high wildlife habitat function?
5	Is the riparian area adjacent to the North Depoe Bay Creek or South Depoe Bay Creek (water bodies mapped by ODFW as essential indigenous anadromous salmonid habitat)?
6	Does the riparian corridor contain a rare plant community?
7	Is the riparian area inhabited by any species listed federally as Threatened or Endangered, or state listed as sensitive, threatened or endangered?
8	Is the riparian area immediately adjacent to a Locally Significant Wetland?

Riparian areas along several streams within the City have been impacted by urban development. This is true of the two northern drainages that flow into Little Whale Cove, where roads and paths have been constructed within or across the riparian areas.

9.0 WILDLIFE HABITAT INVENTORY RESULTS

9.1 Location of Wildlife Habitat

Historically, all of Depoe Bay was dominated by a mixed coniferous forest composed of Douglas-fir, western hemlock, western red cedar and Sitka spruce. This forest extended from the Coast Range to the bluffs of the Pacific Ocean. There are no old growth stands left within the City and urban encroachment has reduced the cover of forested habitat.

Fewer species of birds live in the forests of the Coast Range than in other western conifer formations because the habitat offers less diversity of vegetation and fewer sources of food. The dominance of conifers means that birds preferring or requiring deciduous trees are restricted to habitats such as riparian areas and wetlands. As such, there are fewer niches for birds in coastal forests than in mixed forests. Another factor limiting the diversity of bird

species is the scarcity of food sources, such as acorns, large seeds (e.g. grass seeds) and pine nuts, which are important food sources of western forests. Grasses are generally replaced by mosses, which are less nutritious. However, birds and mammals take advantage of all parts of conifers (seeds, bark, twigs, buds, needles, cones) for food. The seeds of Douglas-fir, hemlock, and spruce, contain both proteins and essential fats.

9.2 Discussion of Wildlife Habitat Assessment Results

At one time, the Depoe Bay area was covered by a mixed coniferous forest that provided habitat for a variety of species. With the exception of land that is zoned for commercial timber production (and adjacent residential-zoned land that has not yet been developed), this habitat has been impacted or removed. Currently the only identifiable wildlife habitat is located within riparian corridors along the various creeks and drainages, where plant species composition tends to be more diverse (Figure 5A - 5B). The wildlife habitat found along these creeks does not appear to extend beyond the riparian zone for any of these waterways. While also important habitat, the rocky shores along the coastlines were not assessed as habitat for the intent and purpose of this report. These areas are currently managed by the Oregon Department of Land Conservation and Development.

9.3 Discussion of Significant Wildlife Habitat

As with riparian corridors, Goal 5 allows local governments to conduct a "standard" Goal 5 inventory process, as contained in OAR 660-23-040, or a "safe harbor" process, but not a combination of the two. The safe harbor process in Goal 5 is as follows:

(4) Local governments may determine wildlife habitat significance under OAR 660-23-040, or apply the safe harbor criteria in this section. Under the safe harbor, local governments may determine that "wildlife" does not include fish, and that significant wildlife habitat is only those sites where one or more of the following conditions exist:

(a) The habitat has been documented to perform a life support function for a wildlife species listed by the federal government as a threatened or endangered species, or by the state of Oregon as threatened, endangered, or sensitive species;

(b) The habitat has documented occurrences of more than incidental use by a species described in subsection (a) of this section;

(c) The habitat has been documented as a sensitive bird nesting, roosting, or watering resource site for osprey or great blue herons pursuant to OAR 527.710 (Oregon Forest Practices Act) and OAR 629-24-700 (Forest Practices Rules);

(d) The habitat has been documented to be essential to achieving policies or population objectives specified in a wildlife species management plan adopted by the Oregon Fish and Wildlife Commission pursuant to ORS Chapter 496;

(e) The area is identified and mapped by ODFW as habitat for a wildlife species of concern and/or as habitat of concern (e.g. big game winter range and migration corridors, golden eagle and prairie falcon nest sites, or pigeon springs).

To determine whether the study area contains significant wildlife habitat, PHS reviewed the safe harbor criteria and conducted a standard inventory of wildlife habitat, as described in the sections above. The results determined that:

- no rare, threatened, or endangered species are found within the study area;
- all wildlife habitat polygons are located within riparian corridors;
- the highest quality habitat is found within the riparian corridors of North and South Depoe Bay Creeks and in the wetland mosaic in the northern part of the Whale Cove watershed, and
- the poorest quality habitat is found within the denser urban areas throughout the city

It was determined, however, that wildlife habitat within riparian corridors is already protected through the regulation of riparian corridors and significant wetlands. For this reason, PHS applied the safe harbor criteria for significant wildlife habitat. When these criteria are used, none of the polygons surveyed within the study area can be deemed significant.

10.0 SHORELINE

The construction of residential lots along the ocean front within the City requires the prevention of coastal erosion. The allowed lot area, as stated in the City's zoning ordinance, is the amount of area from the line of mean high water to the landward extent of the property. When ocean front development is proposed, the applicant must determine whether the area is geologically stable (i.e. whether a geologic hazard exists as identified in the *Environmental Hazards Inventory, Coastal Lincoln County, Oregon.* RNKR Associates, 1978). Page 35 of the RNKR report lists the minimum setbacks recommended for each category of coastal erosion (slight: 45o from the mean high high tide (MHHT), moderate: 25o from the MHHT, or severe: 20° from the MHHT).

PHS attempted to map the limits of the apparent stable "top of bank" using our observations in the field and using the aerial photograph. Unfortunately, little access to ocean front lots was granted and the scale of the aerial photograph does not allow the accurate mapping of this important feature. As such, this report does not inventory a setback that the city can use for ocean front development. Discussions with DLCD representatives and planners from several coastal communities determined that no simple mapping solution appears to exist along the Oregon coast.

One method that is successfully used along rivers and streams within the Portland Metropolitan area is to determine site-specific setbacks based on the degree of slope present on the property. For the City of Depoe Bay this could mean that a minimum setback is established from the MHHT. Once this minimum setback distance is reached, the degree of the slope is determined and setback is evaluated based on the severity of the slope.

For the Portland Metropolitan area, the setback continues until there is a break in slope (i.e. less than 25%). At this point, the setback is increased another 35 feet (or 15' feet with a geotechnical report stating that the ground is stable). This continues until the maximum setback distance of 200 feet is reached.

11.0 FORESTED LANDS

Approximately 622 acres of lands within the UGB of Depoe Bay are forested (Figures 6A - 6B). The U.S. Forest Service Pacific Northwest Forest and Range Experiment Station's 1946 Douglas-fir potential productivity study classified all western Oregon forest lands on the basis of five site classes with site class I being the most productive and site class V being the least productive. The majority of the forest lands within the City of Depoe Bay are site class III lands, which means they have a productivity of at least 121 cubic feet of timber per acre per year. This is a productive capacity deemed adequate for commercial forest use; through modern intensive forest management practices, considerably higher yields are expected (Inventory Information: City of Depoe Bay, 1991, pp. 1-2).

Within the City of Depoe Bay, the majority of forested lands (55%, or approximately 344 acres) are zoned as Timber Conservation zones (T-C), which are owned by Boise Cascade Corporation and managed for commercial timber production. By designating commercial timber lands which lie within the UGB as suitable for timber production (i.e., "Forest Land") rather than zone those lands for residential development, this open space will be managed to preserve open space values (Inventory Information: City of Depoe Bay, 1991, p.3).

Areas within the UGB that are currently forested but not zoned T-C are zoned for residential development (R-1 through R-5) and/or light industrial (L-1) and will potentially be cleared as the need for additional urban lands arise.

12.0 OPEN SPACE

Water areas appropriately constitute the most important visual open space for residents and visitors to Depoe Bay (Figures 7A - 7B). Visual access to these spaces are provided by extensive Oregon State Park holdings and by US Highway 101, including the highway bridge. The dish-shaped lands surrounding the historic inner harbor provide via slope many commercial and residential views.

Two public parks exist within the designated urban growth boundaries of Depoe Bay. These are:

- The Depoe Bay City Park and Boat Launch Ramp. This park is located on the southern edge of the inner harbor. The park provides restroom and picnic facilities. The boat launch ramp provides ocean access for privately owned, trailer-transported boats. It is a busy facility during summer months.
- Other city parkland along the oceanfront consists of 3.35 acres at the seawall in the City. The facility provides views of the channel into the inner bay and access to the basaltic intertidal area to either side of the channel. The day use area provides tourist and resident recreation opportunities. Its central location has important economic benefits for the City's tourist-oriented businesses.

13.0 STAFF QUALIFICATIONS

John van Staveren: President/Natural Resources Division; Senior Scientist; Professional Wetland Scientist

Project Role: Project Manager
Project Responsibility: Contract negotiations, monthly billing
Wetland and riparian inventory field work and assessment
Public presentations
Quality control
Regulatory agency coordination

John van Staveren has managed over 600 wetlands-related projects, including 21 local wetland inventories; conducted over 750 wetland delineations; testified at numerous public hearings; and provided expert witness testimony. He served as technical advisor to two Citizen Advisory Committees responsible for establishing criteria for the determination of significant wetlands for purposes of Goal 5 and the determination of significant natural resources for purposes of Goal 17.

John van Staveren served on two Oregon Division of State Land's Technical Advisory Committees (TACs) responsible for developing statewide policy on wetlands. These TACs are to establish statewide criteria for determining locally significant wetlands for Goal 5 and to establish a payment option for wetland mitigation. He was a Wetlands Expert team member providing analysis of the OFWAM, and was a reviewer for the latest revision to the methodology. He has conducted a riparian inventory of Dunes City, Florence, and Reedsport. He has managed dozens of Section 404 and Removal-Fill permit projects for wetland fills; designed dozens of freshwater and estuarine wetland mitigation projects; and drafted two local land use ordinances regulating development activities within natural resource areas.

Fred Small: Wetland Scientist, Botanist

Project Role: Botanist, Wetland Scientist
Project Responsibility: Wetland and riparian inventory field work and assessment
Plant identification and cataloging
Report writing

Fred Small has a bachelor's degree in biology with strong emphasis in botany. Fred has delineated over 100 wetlands; played a role in several large scale local wetland inventories; conducted rare, threatened, endangered plant surveys for sites in the Oregon Cascades, Willamette Valley, and Oregon Coast.

Caroline Rim: Wetland Scientist, Field Biologist

Project Role: Wetland Scientist
Project Responsibility: Wetland and Riparian inventory field work and assessment
Aerial photo interpretation
Report writing

Caroline Rim has a bachelors degree in biology and is a wetland scientist with experience in LWI and riparian inventory field investigations, wetland delineations, interpretation of aerial photographs, and technical report writing. She has played a major role in several LWIs.

Shawn Eisner: Wetland Scientist

Project Role:	Wetland Scientist
Project Responsibility:	Wetland and riparian inventory field work and assessment
	Quality control and editing
	Report writing
	Data input

Shawn has Bachelor's degrees in Earth and Environmental Sciences. Shawn provides specialized support pertaining to wetland delineations, determinations, and monitoring; stream and natural resource assessments and environmental permit processing. He conducts field work and data collection for Local Wetland Inventories and is involved in report preparation and wetland/riparian assessments.

Michele Eccleston: Wetland Scientist

Project Role:	Wetland Scientist
Project Responsibility:	Wetland and riparian inventory field work and assessment
	Report writing

Michele Eccleston has delineated numerous wetlands and prepared wetland mitigation plans. She has conducted an LWI and riparian inventory in Bandon and helped conducted OFWAM, data collection and wetland characterization.

Jane Le Blanc: Technical Editor

Project Role:	Technical Editor
Project Responsibility:	Graphics
	Report editing, formatting and layout
	Data input

Jane Le Blanc is a technical editor and provides permitting support for PHS. Her duties include formatting and editing wetland reports, proposals, and letters as well as data input.

Tom Rodgers:	AutoCAD and Arc-Info Specialist
Project Role:	Cartographer
Project Responsibility:	Mapping
	Graphics

Tom Rodgers is a computer graphics specialist, with experience in the production of Local Wetlands Inventories. He is proficient with AutoCAD Map, Arc-View and Arc-Info programs. He has prepared the maps for several LWIs and coordinated with Planning Departments and Council of Governments to ensure that map products and digital information is compatible with local operating systems.

14.0 PROJECT SUMMARY

- Pacific Habitat Services was hired to conduct a Local Wetlands Inventory and Riparian Inventory for the City of Depoe Bay.

- The project area is approximately 1,140 acres, and includes North and South Depoe Bay Creeks and several smaller tributaries.

- Field work was conducted between September and October 2003. Each wetland unit was assigned a unique code based on the hydrologic basin. A wetland characterization and wetland assessment was completed for each wetland unit. The wetland assessment was based on the *Oregon Freshwater Wetland Assessment Methodology*.

- The study area includes both Goal 5 and Goal 17 planning areas.

- Locally Significant Wetlands (Goal 5) were identified based on Oregon Administrative Rules.

- A total of 14 wetland units were identified in the Depoe Bay project area, with a total acreage of approximately 20.44 acres of wetland.

- Palustrine forested (PFO) wetlands are the dominant (39%) wetland type in the study area, totaling 7.98 acres. Palustrine scrub-shrub (PSS) wetlands were the second most common, totaling 7.18 acres (35%). Palustrine emergent wetlands (PEM)were third most common with areas totaling 5.21 acres (26%).

- Three of the wetlands met the criteria for "wetlands of special interest for protection."

- Eleven of the fourteen Goal 5 wetlands met the criteria for Locally Significant Wetlands.

- The riparian inventory assessed 12 areas associated with North Depoe Bay Creek, South Depoe Bay Creek and numerous tributaries to these creeks.

- Riparian widths in the project area range from 65-to-120 feet, based potential tree height.

- All of the riparian areas were assessed with at least one function (water quality, flood management, thermal regulation, wildlife habitat) as having high functional integrity.

15.0 REFERENCES

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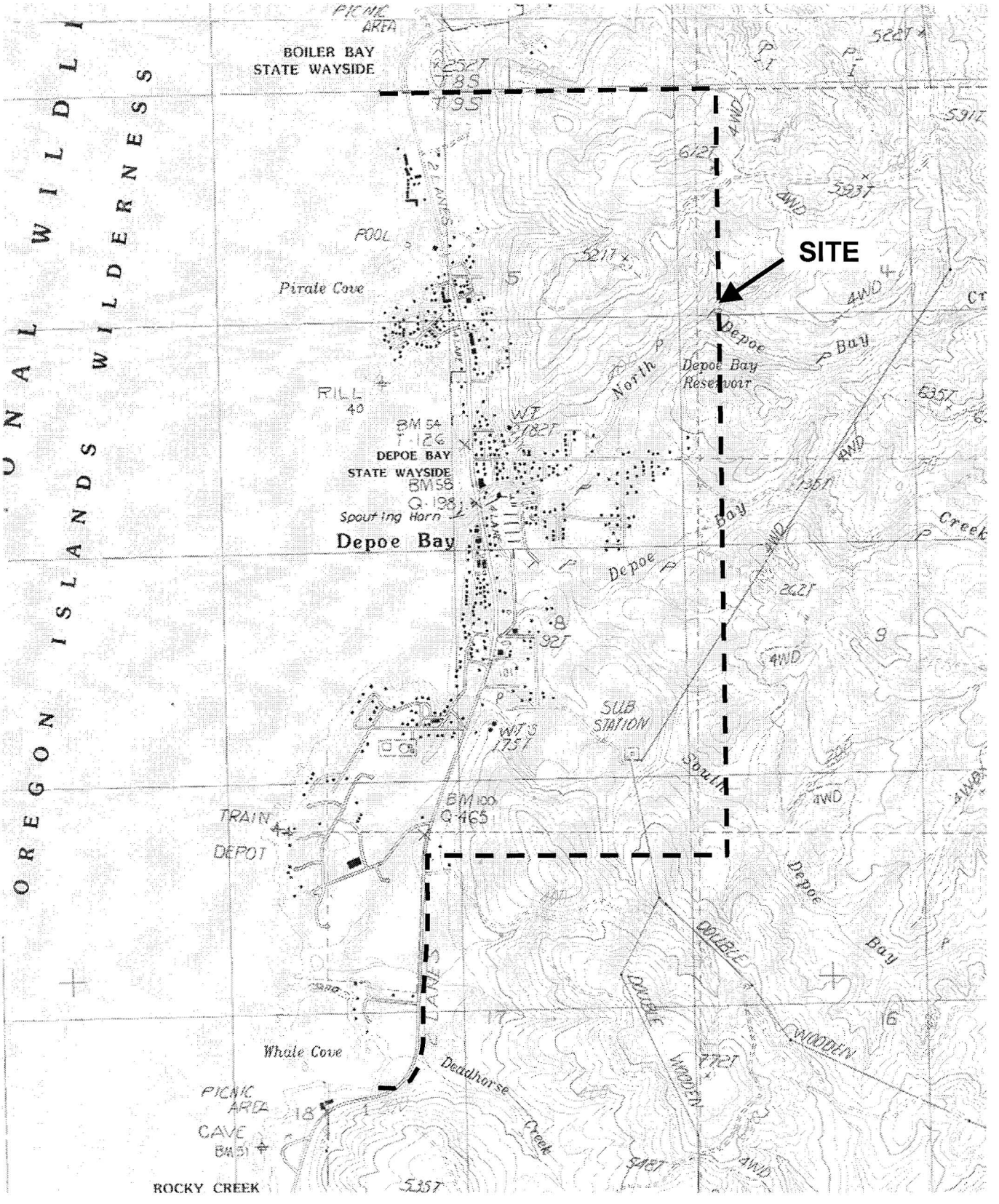
U.S.F.W.S. *National Wetlands Inventory* 7.5-minute quadrangle map, 1982, Depoe Bay, OR, 1:58,000

U.S.G.S. *7.5-minute topographic quadrangle*, 1984 Provisional Edition. Depoe Bay, OR, 1:24,000.

Appendix A

Figures



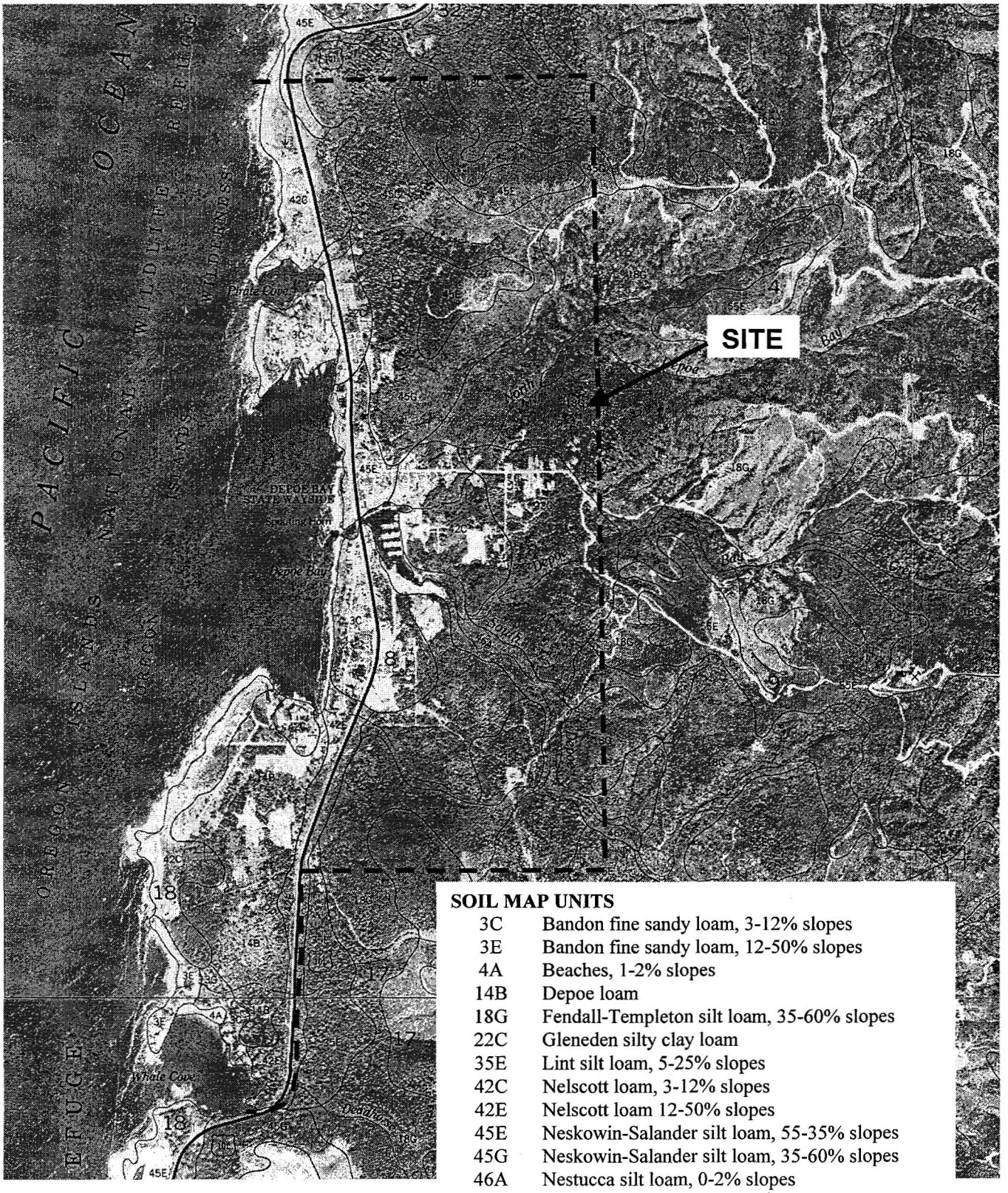


12/12/03

2853

Location and general topography of a Local Wetlands and Riparian Inventory in Depoe Bay, Oregon (USGS, Depoe Bay quadrant, Provisional Edition, 1984).

FIGURE 1



SOIL MAP UNITS

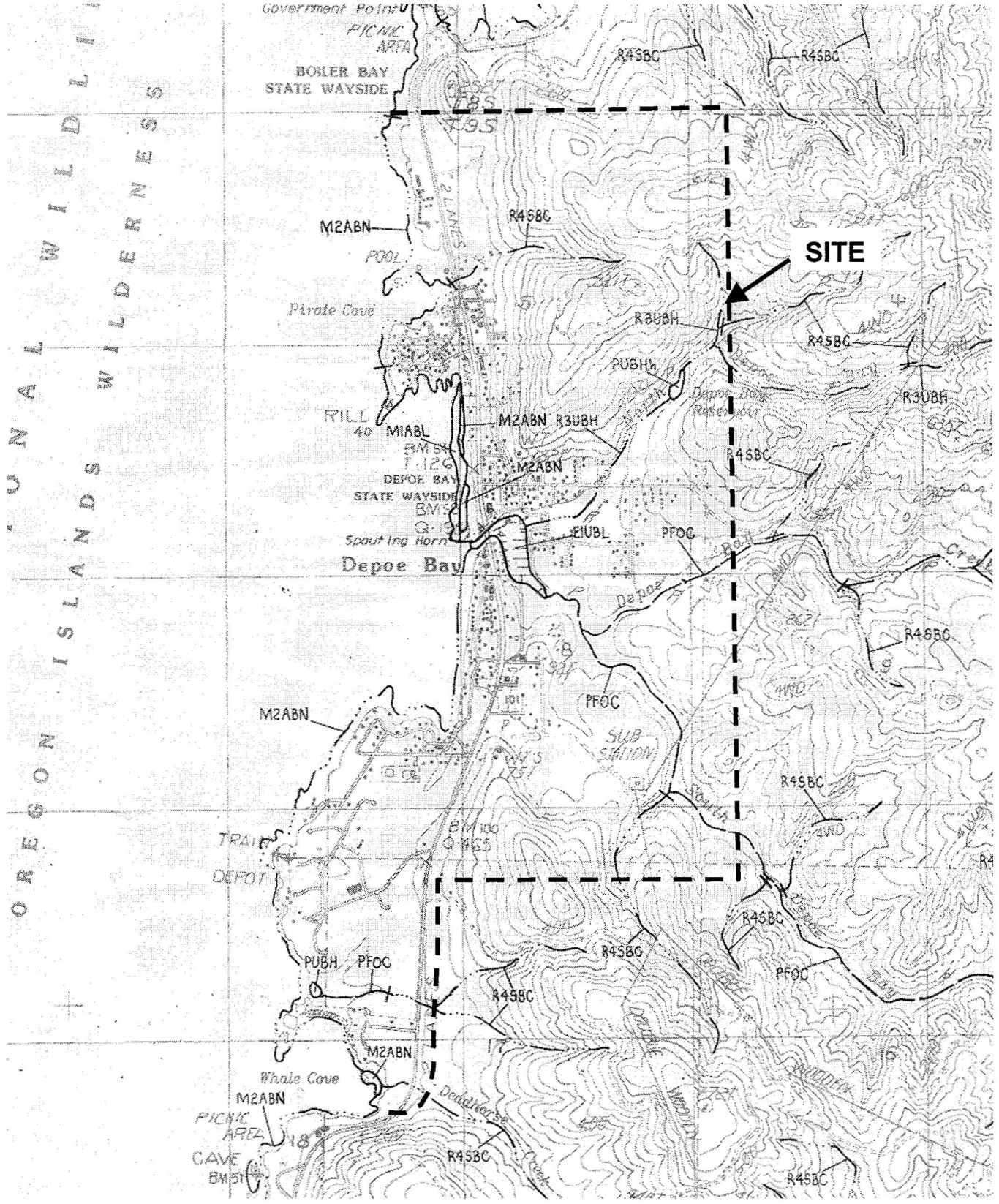
3C	Bandon fine sandy loam, 3-12% slopes
3E	Bandon fine sandy loam, 12-50% slopes
4A	Beaches, 1-2% slopes
14B	Depoe loam
18G	Fendall-Templeton silt loam, 35-60% slopes
22C	Gleneden silty clay loam
35E	Lint silt loam, 5-25% slopes
42C	Nelscott loam, 3-12% slopes
42E	Nelscott loam 12-50% slopes
45E	Neskowin-Salander silt loam, 55-35% slopes
45G	Neskowin-Salander silt loam, 35-60% slopes
46A	Nestucca silt loam, 0-2% slopes
55E	Templeton-Fendall silt loam, 5-35% slopes

12/12/03

2853

Soil series for a Local Wetlands and Riparian Inventory in Depoe Bay, Oregon (SCS, Soil Survey of Lincoln County, Oregon 1997, sheets number 14 and 17).

FIGURE 2

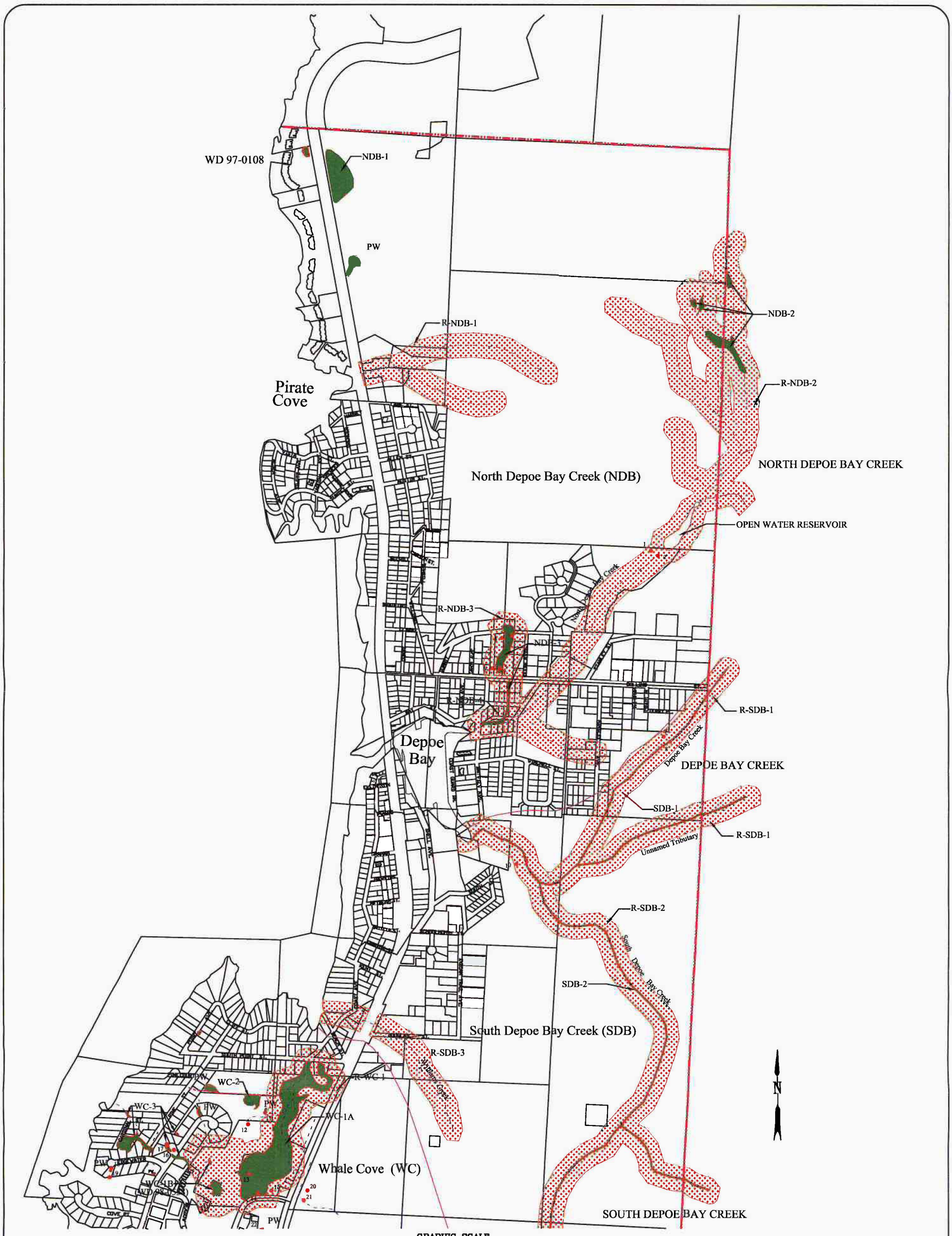


12/12/03

2853

National Wetlands Inventory information for a Local Wetlands and Riparian Inventory in Depoe Bay, Oregon (USFWS, Depoe Bay, Oregon quadrangle, 1995).

FIGURE 3



Funding for this project was provided by a grant from the Oregon Department of Land Conservation and Development

THIS MAP IS FOR PLANNING PURPOSES ONLY
WETLAND BOUNDARIES ARE APPROXIMATE AND SUBJECT TO CHANGE

Information shown on this map is for planning purposes only and wetland information is subject to change. There may be unmapped wetlands subject to regulation and all wetland boundary mapping is approximate. In all cases, actual field conditions determine wetland boundaries. You are advised to contact the Department of State Lands and the U.S. Army Corps of Engineers with any regulatory questions.

DATE: October, 2003

BASE MAP INFO: Supplied by City of Depoe Bay

JOB NO.: 2853

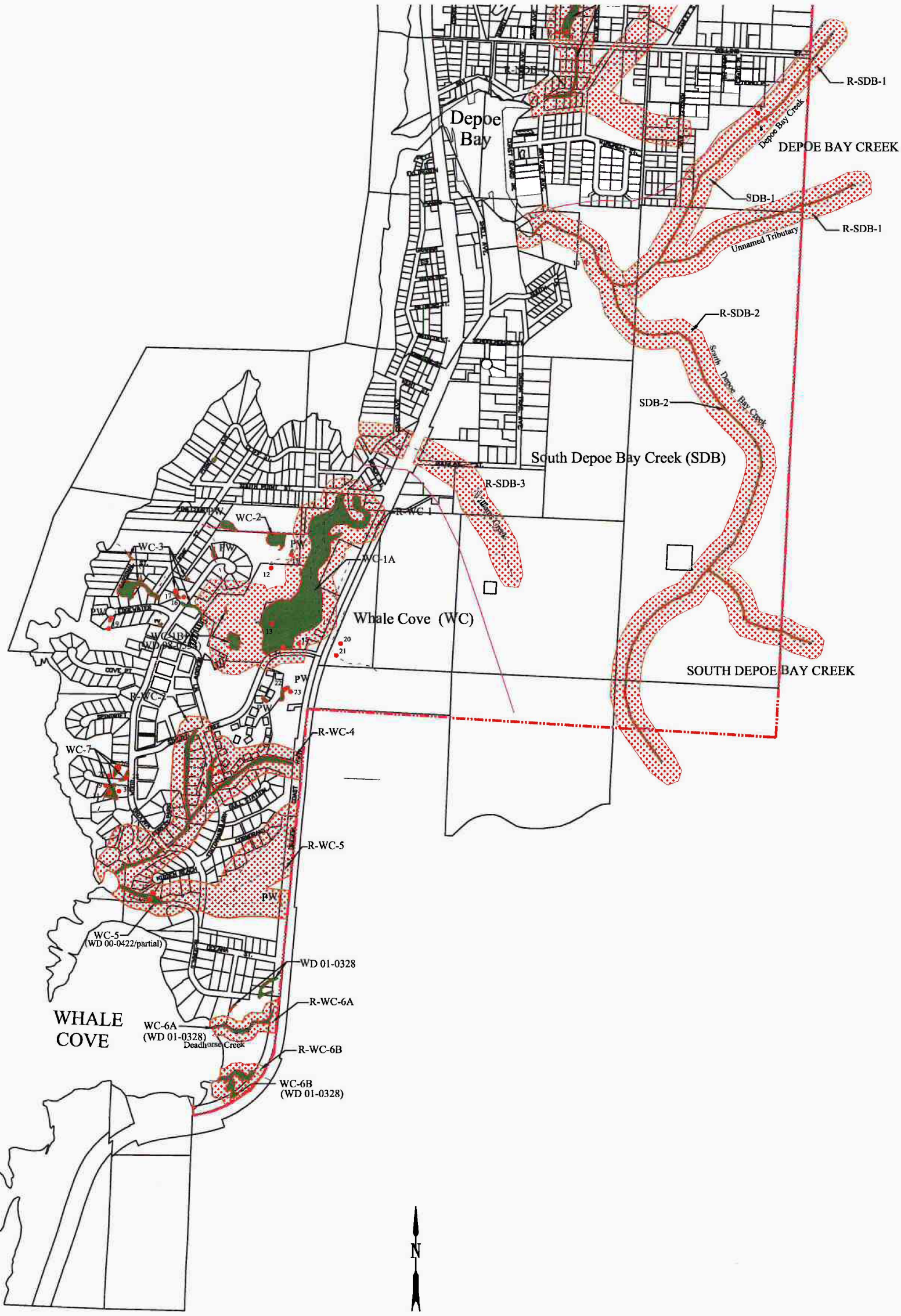
Depoe Bay

Local Wetlands and Riparian Inventory

Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, Oregon 97070
Phone: (503) 570-0800

Sheet: 1

of: 2



Watershed Boundary
Project Boundary/UGB
Potentially Jurisdictional Creeks/drainages
Sample Point
Wetland Code NDB-1
Riparian Area
Wetland
Probable Wetland
Ditch
PW
Riparian Code R-NDB-1

GRAPHIC SCALE

Scale in Feet

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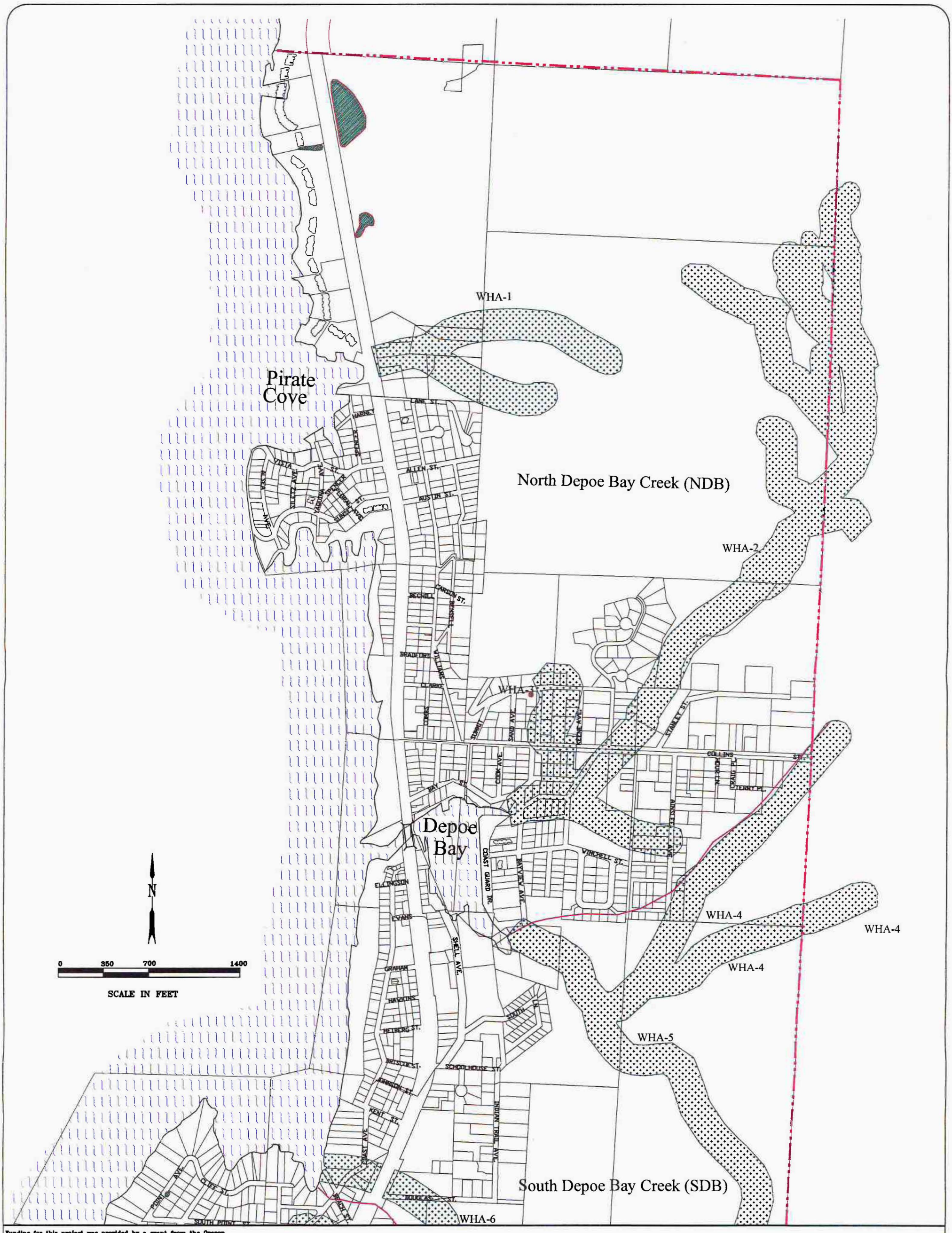
Sheet: 2

of: 2



Funding for this project was provided by a grant from the Oregon Department of Land Conservation and Development

Watershed Boundary
Project Boundary/UGB/City Limits
Wildlife Area
Estuarine and Near Shore Habitat
Wetland Outside of Wildlife Area

WILDLIFE AREAS

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JOB NO.: 2853

Depoe Bay

Local Wetlands and Riparian Inventory

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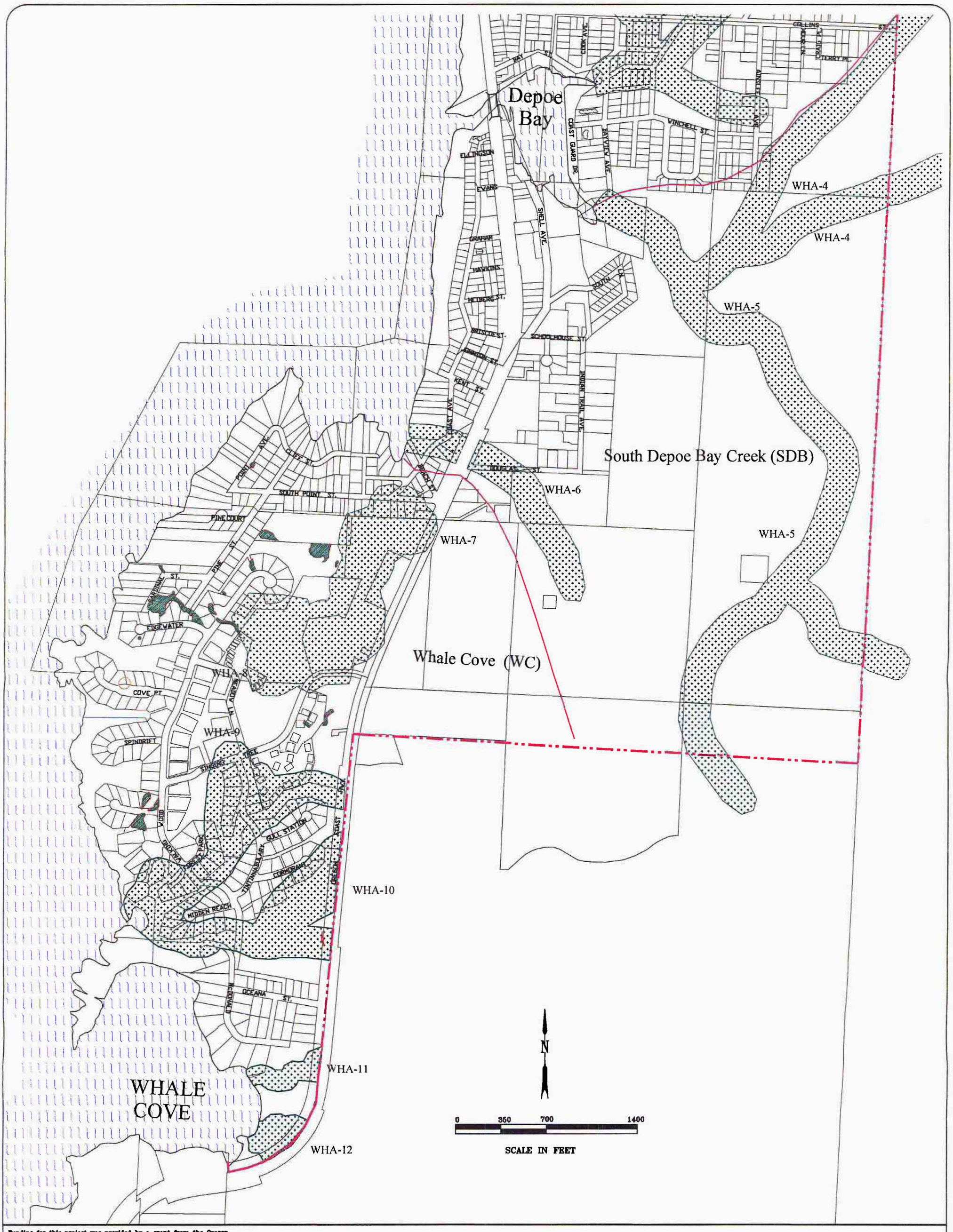
Wilsonville, Oregon 97070
Phone: (503) 570-0800

PHS

5A



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Watershed Boundary

Project Boundary/UGB/City Limits

Wildlife Area

Estuarine and Near Shore Habitat

Wetland Outside of Wildlife Area

WILDLIFE AREAS

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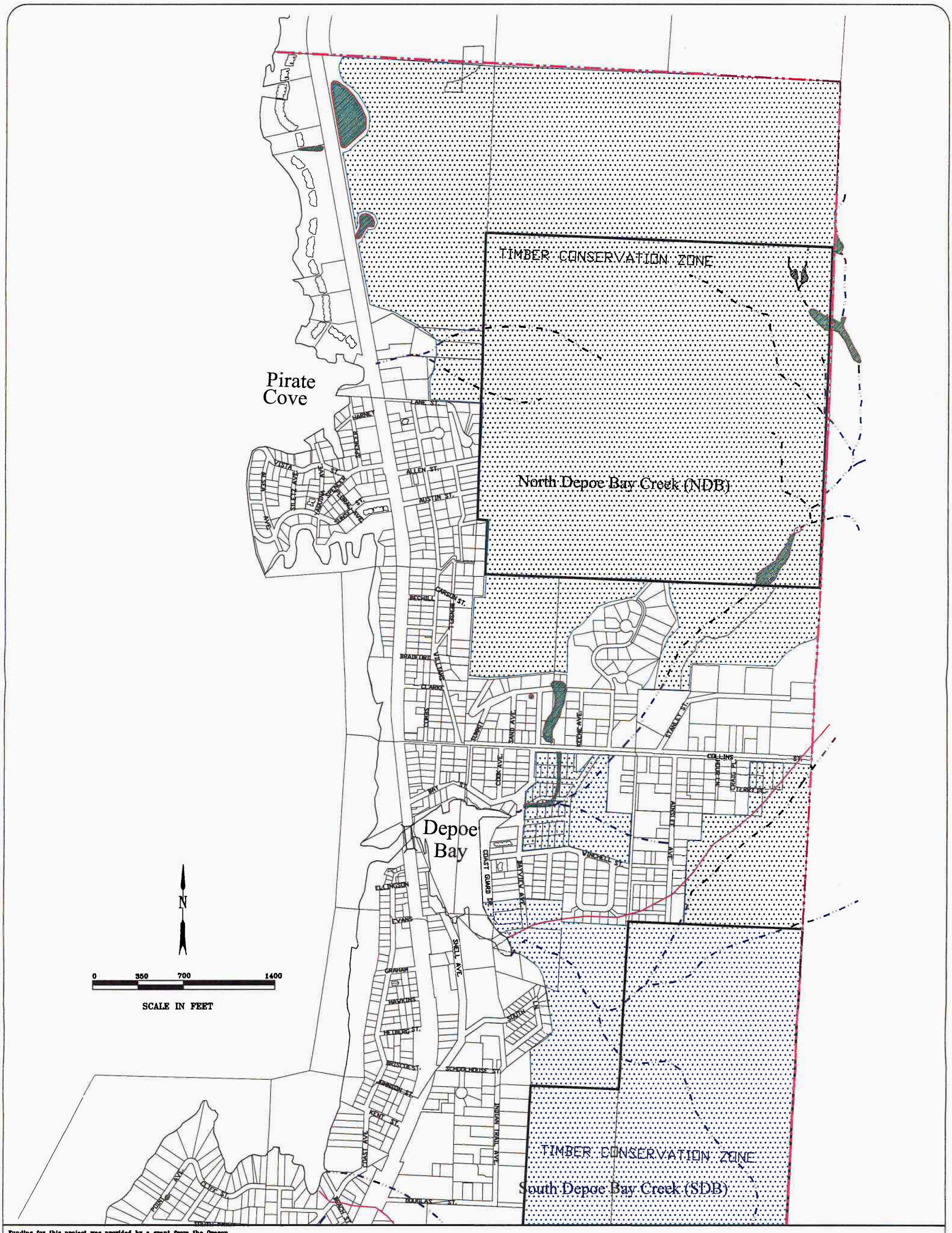
5B



Funding for this project was provided by a grant from the Oregon Department of Land Conservation and Development

Watershed Boundary
Project Boundary/UGB/City Limits
Forested Area
Wetland

FORESTED AREAS

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Depoe Bay

Local Wetlands and Riparian Inventory

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PHS

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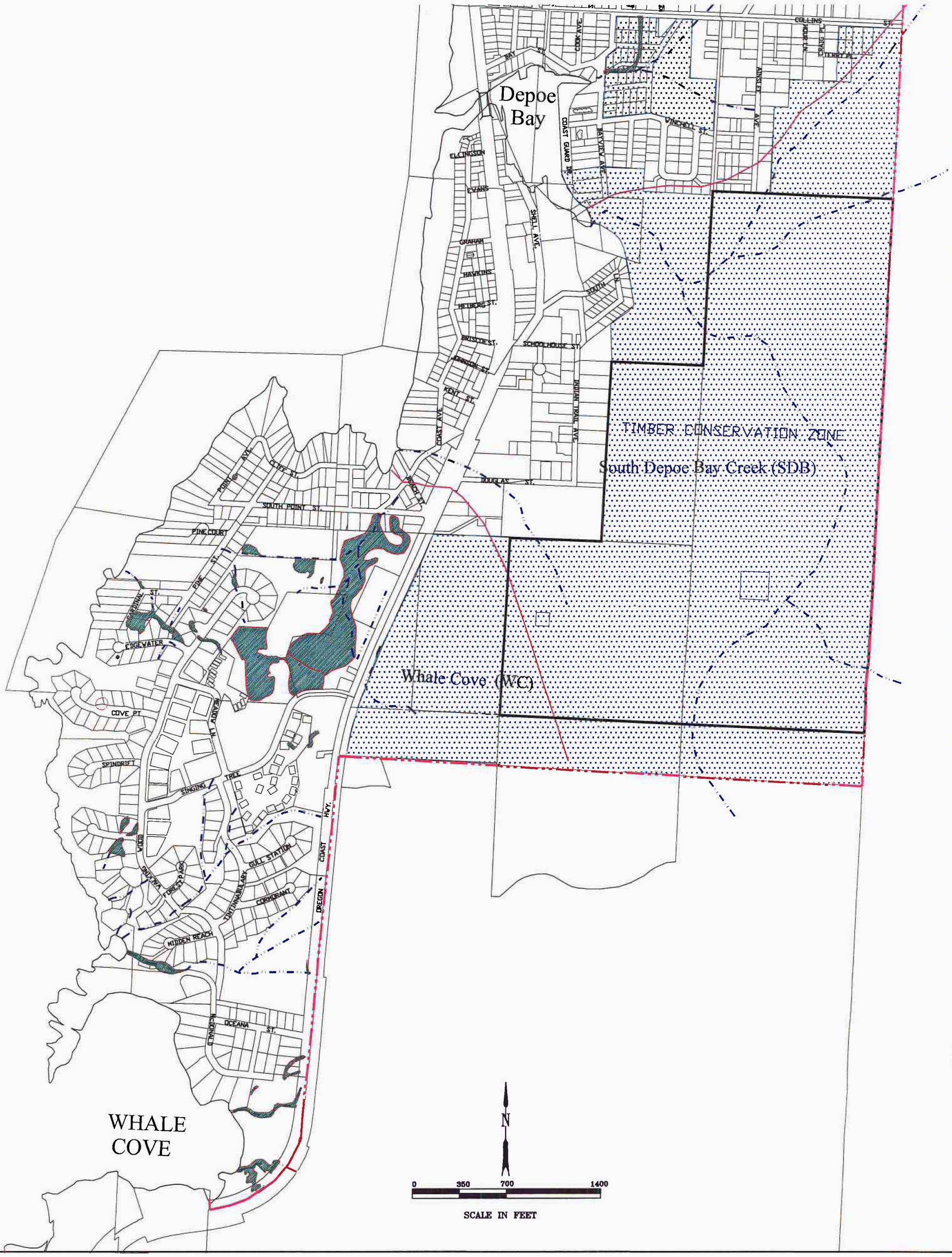

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Watershed Boundary ———
Project Boundary/UGB/City Limits - - - -

Forested Area

Wetland

FORESTED AREAS

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PHS

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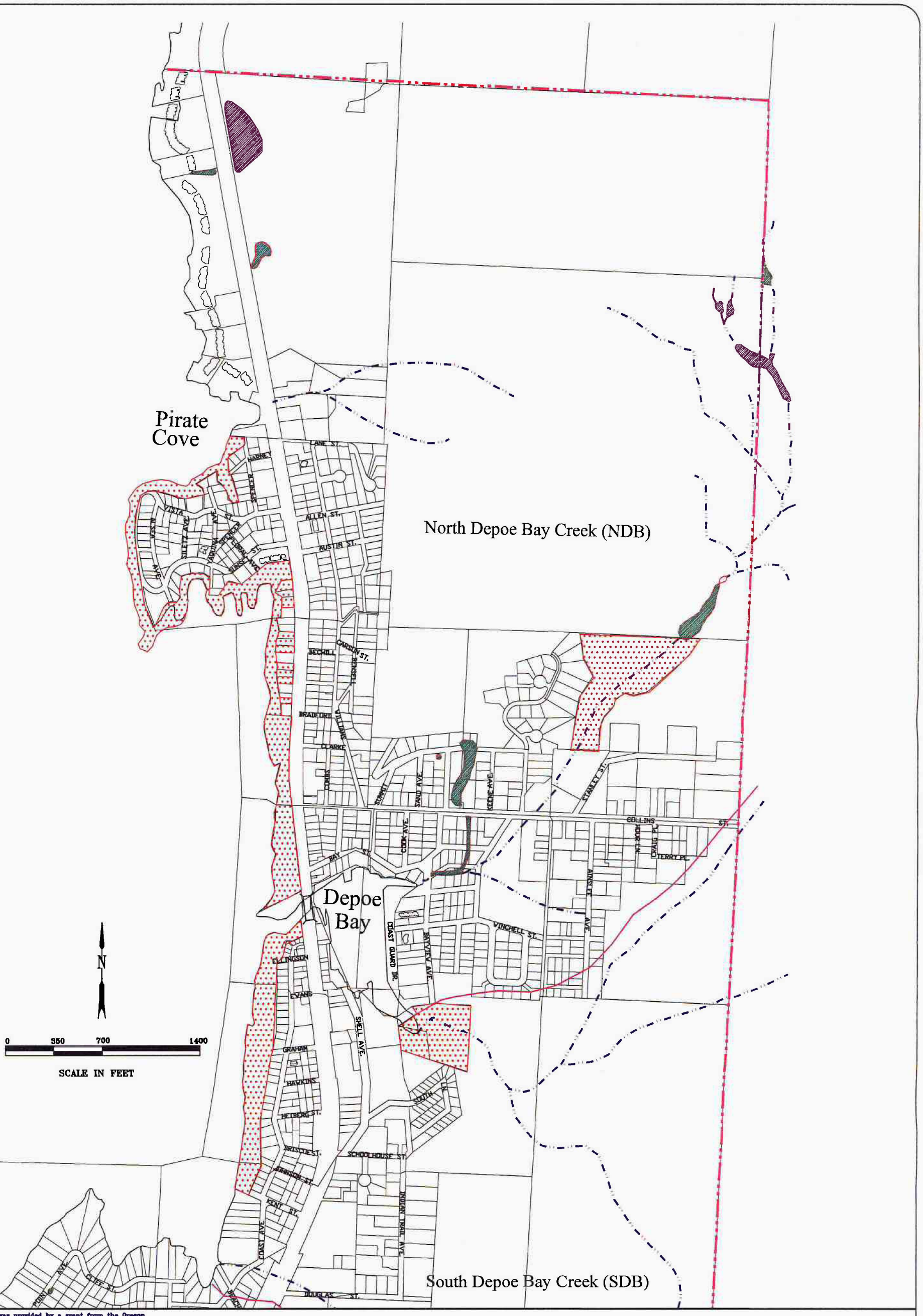

Funding for this project was provided by a grant from the Oregon Department of Land Conservation and Development

Watershed Boundary
Project Boundary/UGB/City Limits
Designated Open Space
Wetland

OPEN SPACE

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Depoe Bay

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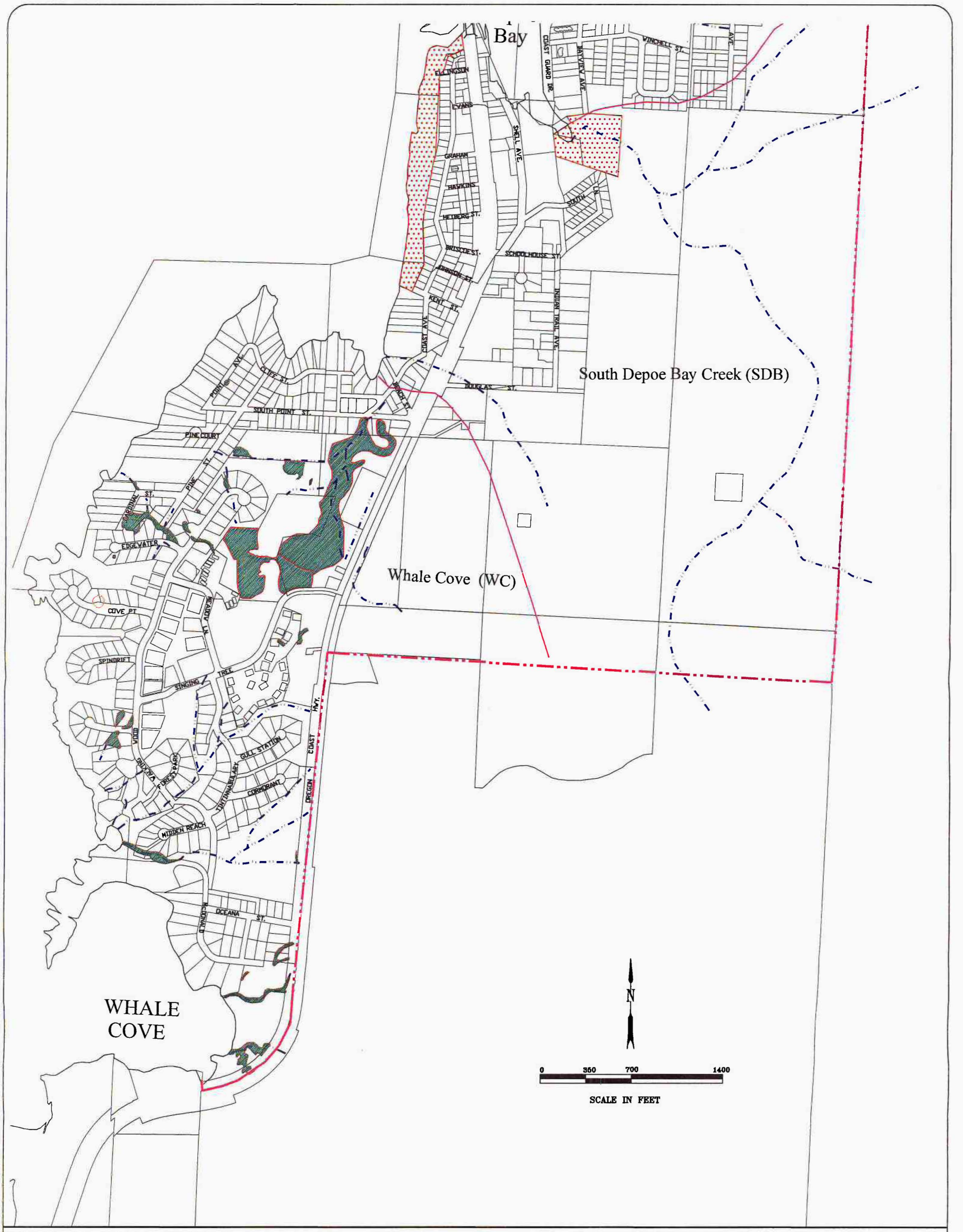
7A



Funding for this project was provided by a grant from the Oregon Department of Land Conservation and Development

Watershed Boundary
Project Boundary/UGB/City Limits
Designated Open Space
Wetland

OPEN SPACE

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DATE: DECEMBER, 2003
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JOB NO.: 2853

Depoe Bay

Local Wetlands and Riparian Inventory

Pacific Habitat Services,Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, Oregon 97070
Phone: (503) 570-0800

PHS

7B

Appendix B

Wetland Characterization Sheets



Wetland Characterization Sheet

Project Name: Depoe Bay Local Wetlands Inventory

		Wetland Code:	**NDB-1**
Date(s) of field work:	**9/24/2003**	Size (acres):	**1.97**
Data Sheet Numbers:	**OFF-SITE**	Cowardin Class(es):	**PSS, PEM**
Investigator(s):	**JVS**	HGM Class(es):	**S/F**

Location -- Legal:	**T9S R11W Sec. 5**
Other:	**East of Highway 101, just south of UGB**
Tax Lots:	**1109**
Hydrologic basin:	**North Depoe Bay Creek**
Soil -- Mapped series:	**Neskowin-Salander silt loam, 5-35% slopes**
Hydrologic Source:	**Groundwater**

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Lonicera involucrata	**Bearberry Honeysuckle**	*Carex obnupta*	**Slough Sedge**
Salix hookeriana	**Hooker Willow**	*Equisetum arvense*	**Field Horsetail**
Myrica californica	**Pacific Wax-Myrtle**		
Picea sitchensis	**Sitka Spruce**		
Pinus contorta	**Shore Pine**		

Comments:

OFF-SITE assessment. Isolated wetland at the base of the hillside east of Highway 101 at the north end of Depoe Bay. Wetland is 40% scrub-shrub and 60% emergent. The area is currently undeveloped but is zoned retail commercial, with upslope areas to the east zoned residential but currently undeveloped and used for timber production.

Adjacent upland species: *Pseudotsuga menziesii, Gaultheria shallon, Rubus discolor, Tanacetum vulgare, Festuca arundinacea*

COWARDIN CODES:	E2FO = estuarine forested	E2SS = estuarine scrub shrub	E2EM = estuarine emergent
PFO = palustrine forested	PSS = palustrine scrub-shrub	PEM = palustrine emergent	POW = palustrine open water
HGM CODES:	EFB = Estuarine Fringe Embayment	EFR = Estuarine Fringe Riverine	RFT = Riverine Flow Through
RI = River Impounding	LFH = Lacustrine Fringe Headwater	LFV = Lacustrine Fringe Valley	DB = Depressional Bog
DA- Depressional Alkaline	DO = Depressional Outflow	DCP = Depressional Closed Permanent	DCNP = Depressional Nonpermanent
	S = Slope	FL= Flats	

Wetland Characterization Sheet

Project Name: Depoe Bay Local Wetlands Inventory

		Wetland Code:	NDB-2
Date(s) of field work:	9/30/2003	Size (acres):	2.19
Data Sheet Numbers:	1, 2	Cowardin Class(es):	PFO
Investigator(s):	JVS/CR	HGM Class(es):	RFT

Location -- Legal:	**T9S R11W Sec. 5**
Other:	**Along the eastern UGB, North Depoe Bay Creek**
Tax Lots:	**100, 105, 200, 300, 301, 400, 403, 6200, 6900**
Hydrologic basin:	**North Depoe Bay Creek**
Soil -- Mapped series:	**Fendall-Templeton silt loam, 35-60% slopes**
Hydrologic Source:	**Surface Flow**

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Alnus rubra	**Red Alder**	*Lysichiton americanum*	**American Skunk-Cabbage**
Picea sitchensis	**Sitka Spruce**	*Oenanthe sarmentosa*	**Water-Parsley**
Thuja plicata	**Western Red Cedar**	*Carex sp.*	**Sedge**
Rubus spectabilis	**Salmonberry**	*Polygonum lapathifolium*	**Willow-Weed**
		Athyrium filix-femina	**Subarctic Lady Fern**
		Equisetum arvense	**Field Horsetail**

Comments: **Locally Significant Wetland**

WETLAND OF SPECIAL INTEREST FOR PROTECTION. Located in the hills along the east side of the Urban Growth Boundary and extending beyond to the east along North Depoe Bay Creek, NDB-2 is a collection of wetlands adjacent to the creek channels. This wetland is heavily forested and is located in a timber conservation zone.

Adjacent upland species: *Tsuga heterophylla, Gaultheria shallon, Sambucus racemosa, Polystichum munitum*

COWARDIN CODES:	E2FO = estuarine forested	E2SS = estuarine scrub shrub	E2EM = estuarine emergent
PFO = palustrine forested	PSS = palustrine scrub-shrub	PEM = palustrine emergent	POW = palustrine open water
HGM CODES:	EFB = Estuarine Fringe Embayment	EFR = Estuarine Fringe Riverine	RFT = Riverine Flow Through
RI = River Impounding	LFH = Lacustrine Fringe Headwater	LFV = Lacustrine Fringe Valley	DB = Depressional Bog
DA- Depressional Alkaline	DO = Depressional Outflow	DCP = Depressional Closed Permanent	DCNP = Depressional Nonpermanent
	S = Slope	FL= Flats	

Wetland Characterization Sheet

Project Name: Depoe Bay Local Wetlands Inventory

		Wetland Code:	NDB-3
Date(s) of field work:	9/24/2003	Size (acres):	1.23
Data Sheet Numbers:	3, 4, 5, 6	Cowardin Class(es):	PFO, PEM
Investigator(s):	JVS/FS	HGM Class(es):	RFT

Location -- Legal:	**T9S R12W Sec. 5**
Other:	**Collins Road, at edge of drainageway**
Tax Lots:	**900, 1000, 1102, 1400, 1500, 1600, 1700, 1800, 4000, 4100, 4800, 5600, 5800, 5900, 6000, 6100**
Hydrologic basin:	**North Depoe Bay Creek**
Soil -- Mapped series:	**Fendall-Templeton silt loam, 35-60% slopes**
Hydrologic Source:	**Groundwater**

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Picea sitchensis	**Sitka Spruce**	*Polypodium scouleri*	**Leathery Polypody**
Alnus rubra	**Red Alder**	*Athyrium filix-femina*	**Subarctic Lady Fern**
Rubus spectabilis	**Salmonberry**	*Equisetum arvense*	**Field Horsetail**
		Dryopteris austriaca	**Mountain Woodfern**
		Blechnum spicant	**Deer Fern**
		Maianthemum dilatatum	**False Lily-Of-The-Valley**
		Claytonia sibirica	**Western Springbeauty**
		Tolmiea menziesii	**Youth-On-Age**
		Oenanthe sarmentosa	**Water-Parsley**
		Veronica americana	**American Speedwell**

Comments: **Locally Significant Wetland**

Wetland is associated with drainageway that borders residential development. The wetland is divided north from south by Collins Road but a culvert under the road provides an open hydrologic connection. To the south the drainageway is narrower, with steeper banks than to the north. Wetland is 95% forested and 5% emergent.

Adjacent upland species: *Tsuga heterophylla, Gaultheria shallon, Sambucus racemosa, Ilex aquifolium, Ribes sp., Vaccinium ovatum, Vaccinium parvifolium, Polystichum munitum, Trillium ovatum*

COWARDIN CODES:	E2FO = estuarine forested	E2SS = estuarine scrub shrub	E2EM = estuarine emergent
PFO = palustrine forested	PSS = palustrine scrub-shrub	PEM = palustrine emergent	POW = palustrine open water
HGM CODES:	EFB = Estuarine Fringe Embayment	EFR = Estuarine Fringe Riverine	RFT = Riverine Flow Through
RI = River Impounding	LFH = Lacustrine Fringe Headwater	LFV = Lacustrine Fringe Valley	DB = Depressional Bog
DA- Depressional Alkaline	DO = Depressional Outflow	DCP = Depressional Closed Permanent	DCNP = Depressional Nonpermanent
	S = Slope	FL= Flats	

Wetland Characterization Sheet

Project Name: Depoe Bay Local Wetlands Inventory

		Wetland Code:	SDB-1
Date(s) of field work:	9/24/2003	Size (acres):	1.60
Data Sheet Numbers:	7, 8	Cowardin Class(es):	PFO, PEM
Investigator(s):	JVS/FS	HGM Class(es):	RFT

Location -- Legal:	**T9S R11W Sec. 8**
Other:	**Depoe Bay Creek and unnamed tributary; east of Winchell Street**
Tax Lots:	**101, 942, 2000, 3000**
Hydrologic basin:	**South Depoe Bay Creek**
Soil -- Mapped series:	**Glenedon silty clay loam**
Hydrologic Source:	**Surface Flow**

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Alnus rubra	**Red Alder**	*Agrostis tenuis*	**Colonial Bentgrass**
Salix hookeriana	**Hooker Willow**	*Lysichiton americanum*	**American Skunk-Cabbage**
		Blechnum spicant	**Deer Fern**

Comments: **Locally Significant Wetland**

WETLAND OF SPECIAL INTEREST FOR PROTECTION. 70% forested and 30% emergent wetlands associated with Depoe Bay Creek and unnamed tributary (wetlands restricted to channel). Zoned timber conservation and residential. Area remains undeveloped but portions of the watershed have been recently logged.

Adjacent upland species: *Pseusotsuga menziesii, Pteridium aquilinum, Hypochaeris radicata, Gaultheria shallon, Rubus ursinus*

COWARDIN CODES:	E2FO = estuarine forested	E2SS = estuarine scrub shrub	E2EM = estuarine emergent
PFO = palustrine forested	PSS = palustrine scrub-shrub	PEM = palustrine emergent	POW = palustrine open water
HGM CODES:	EFB = Estuarine Fringe Embayment	EFR = Estuarine Fringe Riverine	RFT = Riverine Flow Through
RI = River Impounding	LFH = Lacustrine Fringe Headwater	LFV = Lacustrine Fringe Valley	DB = Depressional Bog
DA- Depressional Alkaline	DO = Depressional Outflow	DCP = Depressional Closed Permanent	DCNP = Depressional Nonpermanent
	S = Slope	FL= Flats	

Wetland Characterization Sheet

Project Name: Depoe Bay Local Wetlands Inventory

		Wetland Code:	SDB-2
Date(s) of field work:	9/30/2003	Size (acres):	1.90
Data Sheet Numbers:	9, 10	Cowardin Class(es):	PFO
Investigator(s):	JVS/CR	HGM Class(es):	S/F

Location -- Legal:	**T9S R11W Sec. 8**
Other:	**Southern tributaries of South Depoe Bay Creek; Shell Ln south to UGB**
Tax Lots:	**101, 200, 942**
Hydrologic basin:	**South Depoe Bay Creek**
Soil -- Mapped series:	**Nestucca silt loam, 0-2% slopes**
Hydrologic Source:	**Groundwater**

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Alnus rubra	**Red Alder**	*Tolmiea menziesii*	**Youth-On-Age**
Rubus spectabilis	**Salmonberry**	*Lysichiton americanum*	**American Skunk-Cabbage**
Thuja plicata	**Western Red Cedar**	*Athyrium filix-femina*	**Subarctic Lady Fern**
		Maianthemum dilatatum	**False Lily-Of-The-Valley**

Comments: **Locally Significant Wetland**

WETLAND OF SPECIAL INTEREST FOR PROTECTION. 100% forested wetlands associated with southern channels of South Depoe Bay Creek. Zoned timber conservation and residential. Area is undeveloped but portions of the southernmost end have been logged in recent years.

Adjacent upland species: *Polystichum munitum, Sambucus racemosa, Tsuga heterophylla, Pseudotsuga menziesii, Rubus discolor*

COWARDIN CODES:	E2FO = estuarine forested	E2SS = estuarine scrub shrub	E2EM = estuarine emergent
PFO = palustrine forested	PSS = palustrine scrub-shrub	PEM = palustrine emergent	POW = palustrine open water
HGM CODES:	EFB = Estuarine Fringe Embayment	EFR = Estuarine Fringe Riverine	RFT = Riverine Flow Through
RI = River Impounding	LFH = Lacustrine Fringe Headwater	LFV = Lacustrine Fringe Valley	DB = Depressional Bog
DA- Depressional Alkaline	DO = Depressional Outflow	DCP = Depressional Closed Permanent	DCNP = Depressional Nonpermanent
	S = Slope	FL= Flats	

Wetland Characterization Sheet

Project Name: Depoe Bay Local Wetlands Inventory

		Wetland Code:	WC-1A
Date(s) of field work:	10/10 & 10/23/2003	Size (acres):	7.90
Data Sheet Numbers:	13, 14, 15	Cowardin Class(es):	PSS, PFO, PEM
Investigator(s):	ME/SE/JVS/CR	HGM Class(es):	DO, RFT

Location -- Legal:	**T9S R11W Sec. 8**
Other:	**South Point Street south to Singing Tree Street.**
Tax Lots:	**128, 300, 4201, 4500, 4600, 4700, 4800**
Hydrologic basin:	**Whale Cove**
Soil -- Mapped series:	**Nelscott loam, -12% slopes**
Hydrologic Source:	**Groundwater**

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Lonicera involucrata	**Bearberry Honeysuckle**	*Carex obnupta*	**Slough Sedge**
Picea sitchensis	**Sitka Spruce**	*Maianthemum dilatatum*	**False Lily-Of-The-Valley**
Myrica californica	**Pacific Wax-Myrtle**	*Lysichiton americanum*	**American Skunk-Cabbage**
		Ranunculus repens	**Creeping Butter-Cup**

Comments: **Locally Significant Wetland**

This mosaic wetland (40% wet/60% upland) includes areas adjacent to defined drainages south of South Point Street as well as depressional areas to the south, as far as Singing Tree Street in Little Whale Cove. Composed of 30% forested, 50% scrub shrub, and 20% emergent cover, this wetland is bordered on all sides by residential development, with Highway 101 to the east.

Adjacent upland species: *Psudotsuga menziesii, Tsuga heterophylla, Polystichum munitum, Gaultheria shallon, Blechnum spicant*

COWARDIN CODES:	E2FO = estuarine forested	E2SS = estuarine scrub shrub	E2EM = estuarine emergent
PFO = palustrine forested	PSS = palustrine scrub-shrub	PEM = palustrine emergent	POW = palustrine open water
HGM CODES:	EFB = Estuarine Fringe Embayment	EFR = Estuarine Fringe Riverine	RFT = Riverine Flow Through
RI = River Impounding	LFH = Lacustrine Fringe Headwater	LFV = Lacustrine Fringe Valley	DB = Depressional Bog
DA- Depressional Alkaline	DO = Depressional Outflow	DCP = Depressional Closed Permanent	DCNP = Depressional Nonpermanent
	S = Slope	FL= Flats	

Wetland Characterization Sheet

Project Name: Depoe Bay Local Wetlands Inventory

		Wetland Code:	**WC-1B**
Date(s) of field work:	**10/2/03, 10/16/03**	Size (acres):	**0.3 (approximate)**
Data Sheet Numbers:	**OFF-SITE**	Cowardin Class(es):	**PSS, PEM, PFO**
Investigator(s):	**JVS/FS, SE/ME**	HGM Class(es):	**S/F**

Location -- Legal:	**T9S R11W Sec. 8**
Other:	**Northeast of Meadow Ln., northwest of Singing tree St.**
Tax Lots:	**128, 300**
Hydrologic basin:	**Whale Cove**
Soil -- Mapped series:	**Depoe loam, 0-7% slopes**
Hydrologic Source:	**Groundwater**

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Alnus rubra	**Red Alder**	*Poa annua*	**Annual Bluegrass**
Lonicera involucrata	**Bearberry Honeysuckle**	*Ranunculus repens*	**Creeping Butter-Cup**
		Carex obnupta	**Slough Sedge**
		Athyrium filix-femina	**Subarctic Lady Fern**
		Epilobium watsonii	**Watson's Willow-Herb**

Comments:

OFF-SITE assessment. This mosaic wetland (80% wetland / 20% upland) is located east of Walking Wood Street near the north end of the community of Little Whale Cove. It is hydrologically connected to WC-1a and is composed of 15% forested, 35% scrub shrub, and 50% emergent cover. This wetland is bordered by residential development to the west, north, and south but remains undeveloped to the east. Previous Delineation Concurrence:WD #98-0538

Adjacent upland species: *Psudotsuga menziesii, Tsuga heterophylla, Polystichum munitum, Gaultheria shallon Erechtites minima, Sonchus asper, Rubus ursuinus, Senecio jacobaea, Sambucus racemosa,*

COWARDIN CODES:	E2FO = estuarine forested	E2SS = estuarine scrub shrub	E2EM = estuarine emergent
PFO = palustrine forested	PSS = palustrine scrub-shrub	PEM = palustrine emergent	POW = palustrine open water
HGM CODES:	EFB = Estuarine Fringe Embayment	EFR = Estuarine Fringe Riverine	RFT = Riverine Flow Through
RI = River Impounding	LFH = Lacustrine Fringe Headwater	LFV = Lacustrine Fringe Valley	DB = Depressional Bog
DA- Depressional Alkaline	DO = Depressional Outflow	DCP = Depressional Closed Permanent	DCNP = Depressional Nonpermanent
	S = Slope	FL= Flats	

Wetland Characterization Sheet

Project Name: Depoe Bay Local Wetlands Inventory

		Wetland Code:	WC-2
Date(s) of field work:	11/29/2003	Size (acres):	0.36
Data Sheet Numbers:	OFF-SITE	Cowardin Class(es):	PSS
Investigator(s):	SE/ME/JVS	HGM Class(es):	S/F

Location -- Legal:	**T9S R11W Sec. 8**
Other:	**South of treament plant, south of South Point Street**
Tax Lots:	**90000**
Hydrologic basin:	**Whale Cove**
Soil -- Mapped series:	**Depoe loam, 0-7% slopes**
Hydrologic Source:	**Groundwater**

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Rubus spectabilis	**Salmonberry**	*Carex obnupta*	**Slough Sedge**
Salix hookeriana	**Hooker Willow**	*Potentilla anserina*	**Silverweed**
Alnus rubra	**Red Alder**	*Holcus lanatus*	**Common Velvet Grass**
Picea sitchensis	**Sitka Spruce**		

Comments:

OFF-SITE assessment. Primarily scrub shrub wetland located adjacent to drainage that parallels the south side of the City treatment plant. Drainage continues to the north and flows into WC-1A. The area remains undeveloped but is zoned residential.

Adjacent upland species: *Picea sitchensis, Pteridium aquilinum, Gaultheria shallon, Polystichum munitum, Hedera helix, Rubus parviflorus, Rubus ursuinus*

COWARDIN CODES:	E2FO = estuarine forested	E2SS = estuarine scrub shrub	E2EM = estuarine emergent
PFO = palustrine forested	PSS = palustrine scrub-shrub	PEM = palustrine emergent	POW = palustrine open water
HGM CODES:	EFB = Estuarine Fringe Embayment	EFR = Estuarine Fringe Riverine	RFT = Riverine Flow Through
RI = River Impounding	LFH = Lacustrine Fringe Headwater	LFV = Lacustrine Fringe Valley	DB = Depressional Bog
DA- Depressional Alkaline	DO = Depressional Outflow	DCP = Depressional Closed Permanent	DCNP = Depressional Nonpermanent
	S = Slope	FL= Flats	

Wetland Characterization Sheet

Project Name: Depoe Bay Local Wetlands Inventory

		Wetland Code:	WC-3
Date(s) of field work:	10/2/2003	Size (acres):	0.79
Data Sheet Numbers:	16,17	Cowardin Class(es):	PSS, PEM
Investigator(s):	ME/SE	HGM Class(es):	DCNP

Location -- Legal:	**T9S R11W Section 7 DD; Section 8 CC**
Other:	**South and east of Cardinal St., north of Edgewater**
Tax Lots:	**Section 7: 301, 304, 401, 402, 2800, 3800, 3900, 4000**
	Section 8: 102 118, 119 121, 122, 9000
Hydrologic basin:	**Whale Cove**
Soil -- Mapped series:	**Nelscott loam, 3-12% slopes**
Hydrologic Source:	**Precipitation**

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Lonicera involucrata	**Bearberry Honeysuckle**	*Carex obnupta*	**Slough Sedge**
Pinus contorta	**Shore Pine**	*Athyrium filix-femina*	**Subarctic Lady Fern**
		Equisetum arvense	**Field Horsetail**
		Epilobium watsonii	**Watson's Willow-Herb**
		Dipsacus sylvestris	**Teasel**
		Rumex crispus	**Curly Dock**
		Juncus effusus	**Soft Rush**
		Potentilla gracilis	**Northwest Cinquefoil**
		Plantago lanceolata	**English Plantain**
		Trifolium repens	**White Clover**

Comments: **Locally Significant Wetland**

Off-site assessment. 80% scrub shrub and 20% emergent wetland located on undeveloped parcels in a residential area south and east of Cardinal Street. A 12 inch concrete culvert on the west end of the wetland conveys water under Cardinal Street and adjacent development and onto the cliffs to the west.

Adjacent upland species: *Pinus contorta, Picea sitchensis, Plantago lanceolata, lawn grasses, Hypochaeris radicata, Rubus discolor, Gaultheria shallon*

COWARDIN CODES:	E2FO = estuarine forested	E2SS = estuarine scrub shrub	E2EM = estuarine emergent
PFO = palustrine forested	PSS = palustrine scrub-shrub	PEM = palustrine emergent	POW = palustrine open water
HGM CODES:	EFB = Estuarine Fringe Embayment	EFR = Estuarine Fringe Riverine	RFT = Riverine Flow Through
RI = River Impounding	LFH = Lacustrine Fringe Headwater	LFV = Lacustrine Fringe Valley	DB = Depressional Bog
DA- Depressional Alkaline	DO = Depressional Outflow	DCP = Depressional Closed Permanent	DCNP = Depressional Nonpermanent
	S = Slope	FL= Flats	

Wetland Characterization Sheet

Project Name: Depoe Bay Local Wetlands Inventory

		Wetland Code:	WC-4
Date(s) of field work:	10/2/2003	Size (acres):	0.40
Data Sheet Numbers:	24, 25	Cowardin Class(es):	PEM, PSS
Investigator(s):	JVS	HGM Class(es):	RFT

Location -- Legal:	**T9S R11W Sec. 17**
Other:	**North of Hidden Reach and Gull Station Streets in Little Whale Cove**
Tax Lots:	**700, 800, 2400, 2500, 2600, 3000, 3100, 3200, 3201, 3400, 3500, 3600, 3700, 7600**
Hydrologic basin:	**Whale Cove**
Soil -- Mapped series:	**Depoe loam, 0-7% slopes**
Hydrologic Source:	**Surface Flow**

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Rubus spectabilis	**Salmonberry**	*Lysichiton americanum*	**American Skunk-Cabbage**
Alnus rubra	**Red Alder**	*Carex obnupta*	**Slough Sedge**
Thuja plicata	**Western red cedar**	*Equisetum arvense*	**Field Horsetail**
Myrica gale	**Pacifc bayberry**	*Athyrium filix-femina*	**Subarctic Lady Fern**
		Blechnum spicant	**Deer fern**

Comments: **Locally Significant Wetland**

80% scrub shrub and 20% emergent wetland associated with the channel of an unnamed creek that flows west from areas east of Highway 101 and into the Pacific Ocean. The system is bordered by existing homes and other properties proposed for development in the community of Little Whale Cove.

Adjacent upland species: *Picea sitchensis, Pinus contorta, Tsuga heterophylla, Vaccinium ovatum, Polystichum munitum, Gaultheria shallon, Hedera helix, Ilex aquifolium, Rubus ursinus, Vaccinium parviflorum, Sambucus racemosa*

COWARDIN CODES:	E2FO = estuarine forested	E2SS = estuarine scrub shrub	E2EM = estuarine emergent
PFO = palustrine forested	PSS = palustrine scrub-shrub	PEM = palustrine emergent	POW = palustrine open water
HGM CODES:	EFB = Estuarine Fringe Embayment	EFR = Estuarine Fringe Riverine	RFT = Riverine Flow Through
RI = River Impounding	LFH = Lacustrine Fringe Headwater	LFV = Lacustrine Fringe Valley	DB = Depressional Bog
DA- Depressional Alkaline	DO = Depressional Outflow	DCP = Depressional Closed Permanent	DCNP = Depressional Nonpermanent
	S = Slope	FL= Flats	

Wetland Characterization Sheet

Project Name: Depoe Bay Local Wetlands Inventory

		Wetland Code:	WC-5
Date(s) of field work:	9/16/2003	Size (acres):	0.70
Data Sheet Numbers:	32, 33	Cowardin Class(es):	PEM, PSS, R, PFO
Investigator(s):	JVS/ME	HGM Class(es):	S/F, RFT

Location -- Legal:	T9S R11W Sec. 17
Other:	South of Hidden Reach and Cormorant Streets in Little Whale Cove
Tax Lots:	800, 2300, 4600, 4700, 4800, 7500, 7600
Hydrologic basin:	Whale Cove
Soil -- Mapped series:	Bandon fine sandy loam, 3-12% slopes
Hydrologic Source:	Groundwater

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Alnus rubra	**Red Alder**	*Oenanthe sarmentosa*	**Water-Parsley**
Lonicera involucrata	**Bearberry Honeysuckle**	*Lysichiton americanum*	**American Skunk-Cabbage**
Salix hookeriana	**Hooker Willow**	*Equisetum arvense*	**Field Horsetail**
Picea sitchensis	**Sitka Spruce**	*Carex obnupta*	**Slough Sedge**
		Agrostis exarata	**Spike Bentgrass**
		Maianthemum dilatatum	**False Lily-Of-The-Valley**
		Equisetum hyemale	**Rough Horsetail**

Comments: **Locally Significant Wetland**

Primarily scrub shrub and emergent wetlands associated with the channel of an unnamed creek at the south end of the community of Little Whale Cove. Due to steep banks adjacent to the creek most of this area remains undeveloped, though it is bordered by residential properties to the north. Partially previously delineated (DSL # WD 00-0422).

Adjacent upland species: *Picea sitchensis, Pinus contorta, Tsuga heterophylla, Vaccinium ovatum, Polystichum munitum, Gaultheria shallon, Hedera helix*

COWARDIN CODES:	E2FO = estuarine forested	E2SS = estuarine scrub shrub	E2EM = estuarine emergent
PFO = palustrine forested	PSS = palustrine scrub-shrub	PEM = palustrine emergent	POW = palustrine open water
HGM CODES:	EFB = Estuarine Fringe Embayment	EFR = Estuarine Fringe Riverine	RFT = Riverine Flow Through
RI = River Impounding	LFH = Lacustrine Fringe Headwater	LFV = Lacustrine Fringe Valley	DB = Depressional Bog
DA- Depressional Alkaline	DO = Depressional Outflow	DCP = Depressional Closed Permanent	DCNP = Depressional Nonpermanent
	S = Slope	FL= Flats	

Wetland Characterization Sheet

Project Name: Depoe Bay Local Wetlands Inventory

		Wetland Code:	**WC-6A**
Date(s) of field work:	**11/21/2003**	Size (acres):	**0.36**
Data Sheet Numbers:	**OFF-SITE**	Cowardin Class(es):	**PSS, PFO**
Investigator(s):	**HA**	HGM Class(es):	**RFT**

Location -- Legal:	**T9S R11W Sec. 18**
Other:	**Whale Cove; south of McDonald, west of Interstate 5**
Tax Lots:	**400**
Hydrologic basin:	**Whale Cove**
Soil -- Mapped series:	**Nelscott loam, 12-50% slopes**
Hydrologic Source:	**Surface water**

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Alnus rubra	**Red Alder**	*Lysichiton americanum*	**American Skunk-Cabbage**
Rubus spectabilis	**Salmonberry**	*Blechnum spicant*	**Deer Fern**
Gaultheria shallon	**Salal**		

Comments: **Locally Significant Wetland**

OFF-SITE assessment. Data based upon previous delineation by W&H Pacific (DSL# WD 01-0328). Wetlands associated with the bottomlands of an unnamed creek which flows into Whale Cove. Stands of salmonberry with pockets of skunk cabbage. This is a forested, undeveloped area just south of residential properties.

Adjacent upland species: *Tsuga heterophylla, Rubus spectabilis, Gaultheria shallon, Polystichum munitum, Maianthemum dilatatum*

COWARDIN CODES:	E2FO = estuarine forested	E2SS = estuarine scrub shrub	E2EM = estuarine emergent
PFO = palustrine forested	PSS = palustrine scrub-shrub	PEM = palustrine emergent	POW = palustrine open water
HGM CODES:	EFB = Estuarine Fringe Embayment	EFR = Estuarine Fringe Riverine	RFT = Riverine Flow Through
RI = River Impounding	LFH = Lacustrine Fringe Headwater	LFV = Lacustrine Fringe Valley	DB = Depressional Bog
DA- Depressional Alkaline	DO = Depressional Outflow	DCP = Depressional Closed Permanent	DCNP = Depressional Nonpermanent
	S = Slope	FL= Flats	

Wetland Characterization Sheet

Project Name: Depoe Bay Local Wetlands Inventory

		Wetland Code:	**WC-6B**
Date(s) of field work:	**11/21/2003**	Size (acres):	**0.54**
Data Sheet Numbers:	**OFF-SITE**	Cowardin Class(es):	**PFO**
Investigator(s):	**HA**	HGM Class(es):	**RFT, S**

Location -- Legal:	**T9S R11W Sec. 18**
Other:	**South tip of Whale Cove; south of McDonald, west of Interstate 5**
Tax Lots:	**400**
Hydrologic basin:	**Whale Cove**
Soil -- Mapped series:	**Nelscott loam, 12-50% slopes**
Hydrologic Source:	**Surface water, Groundwater**

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Alnus rubra	**Red Alder**	*Cardamine angulata*	**Angled Bitter-Cress**
Rubus spectabilis	**Salmonberry**	*Oenanthe sarmentosa*	**Water-Parsley**
Picea sitchensis	**Sitka Spruce**	*Athyrium filix-femina*	**Subarctic Lady Fern**
Gaultheria shallon	**Salal**	*Chrysosplenium glechomifol*	**Western Golden-Saxifrage**
Thuja plicata	**Western Red Cedar**	*Tolmiea menziesii*	**Youth-On-Age**
		Lysichiton americanum	**American Skunk-Cabbage**
		Carex obnupta	**Slough Sedge**

Comments: **Locally Significant Wetland**

OFF-SITE assessment. Data based upon previous delineation by W&H Pacific (DSL# WD 01-0328). Wetlands associated with the perennial channel of Deadhorse Creek, which flows into Whale Cove. Adjacent slopes are steep and include seeps that flow into the wetland. This is a forested, undeveloped area that is zoned residential.

Adjacent upland species: *Picea sitchensis, Pinus contorta, Tsuga heterophylla, Rubus spectabilis, Sambucus racemosa, Vaccinium ovatum, Gaultheria shallon, Trillium ovatum, Maianthemum dilatatum,*

COWARDIN CODES:	E2FO = estuarine forested	E2SS = estuarine scrub shrub	E2EM = estuarine emergent
PFO = palustrine forested	PSS = palustrine scrub-shrub	PEM = palustrine emergent	POW = palustrine open water
HGM CODES:	EFB = Estuarine Fringe Embayment	EFR = Estuarine Fringe Riverine	RFT = Riverine Flow Through
RI = River Impounding	LFH = Lacustrine Fringe Headwater	LFV = Lacustrine Fringe Valley	DB = Depressional Bog
DA- Depressional Alkaline	DO = Depressional Outflow	DCP = Depressional Closed Permanent	DCNP = Depressional Nonpermanent
	S = Slope	FL= Flats	

Wetland Characterization Sheet

Project Name: Depoe Bay Local Wetlands Inventory

		Wetland Code:	**WC-7**
Date(s) of field work:	**10/10/2003**	Size (acres):	**0.27**
Data Sheet Numbers:	**WC-26-31**	Cowardin Class(es):	**PSS, PEM**
Investigator(s):	**ME/SE**	HGM Class(es):	**DCNP**

Location -- Legal:	**T9S R11W Sec. 18**
Other:	**West of Walking Wood Street at Scarp Street**
Tax Lots:	**1900, 2900, 3000, 3100**
Hydrologic basin:	**Whale Cove**
Soil -- Mapped series:	**Nelscott loam, 3-12% slopes**
Hydrologic Source:	**Precipitation**

Dominant Wetland Vegetation

TREES / SHRUBS		VINES / HERBS	
Lonicera involucrata	**Bearberry Honeysuckle**	*Carex obnupta*	**Slough Sedge**
Picea sitchensis	**Sitka Spruce**	*Equisetum arvense*	**Field Horsetail**
Myrica californica	**Pacific Wax-Myrtle**	*Athyrium filix-femina*	**Subarctic Lady Fern**
Rubus spectabilis	**Salmonberry**	*Rumex crispus*	**Curly Dock**
Salix hookeriana	**Hooker Willow**		

Comments: **Locally Significant Wetland**

Primarily scrub shrub wetland (60%) with small amounts of forested (10%) and emergent (30%) areas. Associated with two depressional, linear features that converge north of Scarp Street and flow into adjacent depression to the south. This is a residential area within the community of Little Whale Cove.

Adjacent upland species: *Pinus contorta, Rhododendron sp., Picea sitchensis, Hedera helix, Polystichum munitum, Gaultheria shallon*

COWARDIN CODES:	E2FO = estuarine forested	E2SS = estuarine scrub shrub	E2EM = estuarine emergent
PFO = palustrine forested	PSS = palustrine scrub-shrub	PEM = palustrine emergent	POW = palustrine open water
HGM CODES:	EFB = Estuarine Fringe Embayment	EFR = Estuarine Fringe Riverine	RFT = Riverine Flow Through
RI = River Impounding	LFH = Lacustrine Fringe Headwater	LFV = Lacustrine Fringe Valley	DB = Depressional Bog
DA- Depressional Alkaline	DO = Depressional Outflow	DCP = Depressional Closed Permanent	DCNP = Depressional Nonpermanent
	S = Slope	FL= Flats	

Appendix C

Wetland Determination Data Forms



Wetland Determination Data Form
Routine Onsite Method

Pacific Habitat Services, Inc.

Project:	Depoe Bay LWI	Number:	2853	Sample Site	NDB-2-1
Applicant:	City of Depoe Bay	County:	Lincoln	Date:	10/23/2003
Investigators:	CR/JVS	Township:	9S Range: 11W	Section:	5

Do Normal Circumstances exist on this site? **Yes** Is the area a potential Problem Area? **No**

Is this an Atypical Situation? **No**

HYDROLOGY

Depth of Surf. H2O		**Inches**
Depth to Free H20	**>16**	**Inches**
Depth to Saturation	**>16**	**Inches**

Primary Indicators	**Secondary Indicators**
Inundated	**Ox. rhizospheres**
Sat. in Upper 12"	**H20-stained leaves**
Water Marks	**Local Soil Survey**
Drift Lines	**FAC Neutral Test**
Sediment Deposits	**Other** _____
Drainage patterns	**Criteria Met: No**

SOILS **Mapped Series:** Fendall-Templeton silt loam **Hydric Soil?:** No

Classification: Andic Humitropepts **Drainage Class:** well drained

Depth (Inches)	Matrix Color	Soil Texture*	Redox Concentrations Color	Redox Concentrations abundance/size/contrast	Other Hydric Soil Field Indicators	Comments
0-3		duff				
3-16	10YR 4/6	SL				

*SD=Sand, SDL=Sandy Loam, L=Loam, SDCL=Sandy Clay Loam, S=Silt, SL=Silt Loam, SCL=Silty Clay Loam, CL=Clay Loam, C=Clay

Criteria Met: No

VEGETATION

Tree Stratum (40%)	Status	% Cover
*Picea sitchensis**	FAC	80
Abies grandis	FACU-	10
Chamaecyparis lawsoniana	FACU+	10

Shrub Stratum (40%)	Status	% Cover
*Vaccinium parvifolium**	UPL	50
*Vaccinium ovatum**	UPL	30
*Gaultheria shallon**	FACU	20

Herbaceous Stratum (10%)	Status	% Cover
*Polystichum munitum**	FACU	70
Ranunculus repens	FACW	10
Galium aparine	FACU	15
Equisetum arvense	FAC	5

Woody Vine Stratum (10%)	Status	% Cover
*Rubus ursinus**	FACU	100

***Percent of dominant species FAC, FACW, or OBL:** 17% **Criteria Met: No**

Comments:

Determination: Upland

Wetland Determination Data Form
Routine Onsite Method

Pacific Habitat Services, Inc.

Project:	Depoe Bay LWI	Number:	2853	Sample Site	NDB-2-2
Applicant:	City of Depoe Bay	County:	Lincoln	Date:	10/23/2003
Investigators:	CR/JVS	Township:	9S Range: 11W	Section:	5

Do Normal Circumstances exist on this site? **Yes** Is the area a potential Problem Area? **No**

Is this an Atypical Situation? **No**

HYDROLOGY

Depth of Surf. H2O		Inches
Depth to Free H20	18	Inches
Depth to Saturation	0	Inches

Primary Indicators		Secondary Indicators	
Inundated		**Ox. rhizospheres**	**Yes**
Sat. in Upper 12"		**H20-stained leaves**	
Water Marks		**Local Soil Survey**	
Drift Lines		**FAC Neutral Test**	
Sediment Deposits		**Other**	
Drainage patterns	**Yes**	**Criteria Met:**	**Yes**

SOILS **Mapped Series:** Fendall-Templeton silt loam **Hydric Soil?:** No

Classification: Andic Humitropepts **Drainage Class:** well drained

Depth (Inches)	Matrix Color	Soil Texture*	Redox Concentrations Color	Redox Concentrations abundance/size/contrast	Other Hydric Soil Field Indicators	Comments
0-12	10YR 3/2	SL	7.5YR 5/6	common, medium, distinct		

*SD=Sand, SDL=Sandy Loam, L=Loam, SDCL=Sandy Clay Loam, S=Silt, SL=Silt Loam, SCL=Silty Clay Loam, CL=Clay Loam, C=Clay

Criteria Met: **Yes**

VEGETATION

Tree Stratum (30%)	Status	% Cover
*Alnus rubra**	FAC	100

Shrub Stratum (20%)	Status	% Cover
*Sambucus racemosa**	FACU	100

Herbaceous Stratum (50%)	Status	% Cover
*Lysichiton americanum**	OBL	30
*Ranunculus repens**	FACW	25
*Oenanthe sarmentosa**	OBL	25
*Equisetum arvense**	FAC	20

Woody Vine Stratum (0%)	Status	% Cover

***Percent of dominant species FAC, FACW, or OBL:** 83% **Criteria Met:** **Yes**

Comments:

Determination: **Wetland**

Wetland Determination Data Form
Routine Onsite Method

Pacific Habitat Services, Inc.

Project:	Depoe Bay LWI	Number:	2853	Sample Site	NDB-3-3
Applicant:	City of Depoe Bay	County:	Lincoln	Date:	9/24/2003
Investigators:	JVS/FS	Township:	9S Range: 11W	Section:	5

Do Normal Circumstances exist on this site? **Yes** Is the area a potential Problem Area? **No**

Is this an Atypical Situation? **No**

HYDROLOGY

Depth of Surf. H2O	**1**	**Inches**
Depth to Free H20		**Inches**
Depth to Saturation	**0**	**Inches**

Primary Indicators		Secondary Indicators
Inundated	**Yes**	**Ox. rhizospheres**
Sat. in Upper 12"	**Yes**	**H20-stained leaves**
Water Marks		**Local Soil Survey**
Drift Lines		**FAC Neutral Test**
Sediment Deposits		**Other** _____
Drainage patterns	**Yes**	**Criteria Met: Yes**

SOILS **Mapped Series:** Fendall-Templeton silt loam **Hydric Soil?:** No

Classification: Andic Humitropepts **Drainage Class:** well drained

Depth (Inches)	Matrix Color	Soil Texture*	Redox Concentrations Color	Redox Concentrations abundance/size/contrast	Other Hydric Soil Field Indicators	Comments
0-5	10YR 2/2	Peat			Mucky	

*SD=Sand, SDL=Sandy Loam, L=Loam, SDCL=Sandy Clay Loam, S=Silt, SL=Silt Loam, SCL=Silty Clay Loam, CL=Clay Loam, C=Clay

Criteria Met: Yes

VEGETATION

Tree Stratum (30%)	Status	% Cover
*Alnus rubra**	FAC	60
*Picea sitchensis**	FAC	40

Shrub Stratum (40%)	Status	% Cover
*Rubus spectabilis**	FAC+	80
Vaccinium parvifolium	UPL	30
Ribes divaricatum	FAC	10

Herbaceous Stratum (30%)	Status	% Cover
*Athyrium filix-femina**	FAC	90
Lysichiton americanum	OBL	10

Woody Vine Stratum (0%)	Status	% Cover

***Percent of dominant species FAC, FACW, or OBL:** 80% **Criteria Met: Yes**

Comments:

Determination: Wetland

Wetland Determination Data Form
Routine Onsite Method

Pacific Habitat Services, Inc.

Project:	Depoe Bay LWI	Number:	2853	Sample Site	NDB-3-4
Applicant:	City of Depoe Bay	County:	Lincoln	Date:	9/24/2003
Investigators:	JVS/FS	Township:	9S Range: 11W	Section:	5

Do Normal Circumstances exist on this site? **Yes** Is the area a potential Problem Area? **No**

Is this an Atypical Situation? **No**

HYDROLOGY

Depth of Surf. H2O		**Inches**
Depth to Free H20	**>18**	**Inches**
Depth to Saturation	**>18**	**Inches**

Primary Indicators	**Secondary Indicators**
Inundated	**Ox. rhizospheres**
Sat. in Upper 12"	**H20-stained leaves**
Water Marks	**Local Soil Survey**
Drift Lines	**FAC Neutral Test**
Sediment Deposits	**Other** _____
Drainage patterns	**Criteria Met: No**

SOILS **Mapped Series:** Fendall-Templeton silt loam **Hydric Soil?:** No

Classification: Andic Humitropepts **Drainage Class:** well drained

Depth (Inches)	Matrix Color	Soil Texture*	Redox Concentrations Color	Redox Concentrations abundance/size/contrast	Other Hydric Soil Field Indicators	Comments
0-18	2.5YR 3/3	L				

*SD=Sand, SDL=Sandy Loam, L=Loam, SDCL=Sandy Clay Loam, S=Silt, SL=Silt Loam, SCL=Silty Clay Loam, CL=Clay Loam, C=Clay

Criteria Met: No

VEGETATION

Tree Stratum (40%)	Status	% Cover
*Alnus rubra**	FAC	30
*Thuja plicata**	FAC	30
*Tsuga heterophylla**	FACU-	40

Shrub Stratum (40%)	Status	% Cover
*Sambucus racemosa**	FACU	30
*Gaultheria shallon**	FACU	40
*Rubus spectabilis**	FAC+	30

Herbaceous Stratum (20%)	Status	% Cover
*Athyrium filix-femina**	FAC	80
*Polystichum munitum**	FACU	20

Woody Vine Stratum (0%)	Status	% Cover

***Percent of dominant species FAC, FACW, or OBL:** 50% **Criteria Met: No**

Comments:

Determination: Upland

Wetland Determination Data Form
Routine Onsite Method

Pacific Habitat Services, Inc.

Project:	Depoe Bay LWI	Number:	2853	Sample Site	NDB-3-5
Applicant:	City of Depoe Bay	County:	Lincoln	Date:	9/24/2003
Investigators:	JVS/FS	Township:	9S	Range: 11W	Section: 5

Do Normal Circumstances exist on this site? **Yes** Is the area a potential Problem Area? **No**

Is this an Atypical Situation? **No**

HYDROLOGY

			Primary Indicators		Secondary Indicators
			Inundated	Yes	Ox. rhizospheres
			Sat. in Upper 12"	Yes	H20-stained leaves
Depth of Surf. H2O	1	Inches	Water Marks		Local Soil Survey
Depth to Free H20		Inches	Drift Lines		FAC Neutral Test
Depth to Saturation	0	Inches	Sediment Deposits		Other
			Drainage patterns	Yes	Criteria Met: Yes

SOILS **Mapped Series:** Nelscott loam **Hydric Soil?:** No

Classification: Typic Haplorthods **Drainage Class:** moderately well drained

Depth (Inches)	Matrix Color	Soil Texture*	Redox Concentrations Color	Redox Concentrations abundance/size/contrast	Other Hydric Soil Field Indicators	Comments
0-7	10YR 2/2	SD			Mucky	
7-14	10YR 3/1	L	7.5YR 3/3	few/coarse/distinct		Gravelly

*SD=Sand, SDL=Sandy Loam, L=Loam, SDCL=Sandy Clay Loam, S=Silt, SL=Silt Loam, SCL=Silty Clay Loam, CL=Clay Loam, C=Clay

Criteria Met: Yes

VEGETATION

Tree Stratum (0%)	Status	% Cover

Shrub Stratum (0%)	Status	% Cover

Herbaceous Stratum (100%)	Status	% Cover
*Scirpus microcarpus**	OBL	30
*Sparganium emersum**	OBL	30
*Oenanthe sarmentosa**	OBL	20
Ranunculus repens	FACW	10
Epilobium watsonii	FACW-	5
Veronica americana	OBL	5

Woody Vine Stratum (0%)	Status	% Cover

***Percent of dominant species FAC, FACW, or OBL:** 100% Criteria Met: Yes

Comments:

Determination: Wetland

Wetland Determination Data Form
Routine Onsite Method

Pacific Habitat Services, Inc.

Project:	Depoe Bay LWI	Number:	2853	Sample Site	NDB-3-6
Applicant:	City of Depoe Bay	County:	Lincoln	Date:	9/24/2003
Investigators:	JVS/FS	Township:	9S Range: 11W	Section:	5

Do Normal Circumstances exist on this site? **Yes** Is the area a potential Problem Area? **No**

Is this an Atypical Situation? **No**

HYDROLOGY

Depth of Surf. H2O		Inches
Depth to Free H20	>16	Inches
Depth to Saturation	>16	Inches

Primary Indicators	Secondary Indicators
Inundated	Ox. rhizospheres
Sat. in Upper 12"	H20-stained leaves
Water Marks	Local Soil Survey
Drift Lines	FAC Neutral Test
Sediment Deposits	Other
Drainage patterns	

Criteria Met: No

SOILS **Mapped Series:** Nelscott loam **Hydric Soil?:** No

Classification: Typic Haplorthods **Drainage Class:** moderately well drained

Depth (Inches)	Matrix Color	Soil Texture*	Redox Concentrations Color	Redox Concentrations abundance/size/contrast	Other Hydric Soil Field Indicators	Comments
0-16	5YR 3/2	L				

*SD=Sand, SDL=Sandy Loam, L=Loam, SDCL=Sandy Clay Loam, S=Silt, SL=Silt Loam, SCL=Silty Clay Loam, CL=Clay Loam, C=Clay

Criteria Met: No

VEGETATION

Tree Stratum (10%)	Status	% Cover
*Alnus rubra**	FAC	100

Shrub Stratum (40%)	Status	% Cover
*Sambucus racemosa**	FACU	30
*Rubus parviflorus**	FAC-	40

Herbaceous Stratum (20%)	Status	% Cover
*Ranunculus repens**	FACW	30
*Polystichum munitum**	FACU	30
*Epilobium watsonii**	FACW-	20
*Maianthemum dilatatum**	FAC	20

Woody Vine Stratum (10%)	Status	% Cover
*Rubus ursinus**	FACU	100

***Percent of dominant species FAC, FACW, or OBL:** 50% **Criteria Met: No**

Comments:

Determination: Upland

Wetland Determination Data Form
Routine Onsite Method

Pacific Habitat Services, Inc.

Project:	Depoe Bay LWI	Number:	2853	Sample Site	SDB-1-7
Applicant:	City of Depoe Bay	County:	Lincoln	Date:	9/24/2003
Investigators:	JVS/FS	Township:	9S	Range: 11W	Section: 8

Do Normal Circumstances exist on this site? **Yes** Is the area a potential Problem Area? **No**

Is this an Atypical Situation? **No**

HYDROLOGY

Depth of Surf. H2O		Inches
Depth to Free H20	>10	Inches
Depth to Saturation	>10	Inches

Primary Indicators	Secondary Indicators
Inundated	Ox. rhizospheres
Sat. in Upper 12"	H20-stained leaves
Water Marks	Local Soil Survey
Drift Lines	FAC Neutral Test
Sediment Deposits	Other
Drainage patterns	

Criteria Met: No

SOILS **Mapped Series:** Glenedon silty clay loam **Hydric Soil?:** No

Classification: Aquic Humitropepts **Drainage Class:** somewhat poorly drained

Depth (Inches)	Matrix Color	Soil Texture*	Redox Concentrations Color	Redox Concentrations abundance/size/contrast	Other Hydric Soil Field Indicators	Comments
0-4	10YR 3/2	SL				
4-10	10YR 3/2	SCL				mixed w/10YR 4/4
>10	10YR 2/2	CL				

*SD=Sand, SDL=Sandy Loam, L=Loam, SDCL=Sandy Clay Loam, S=Silt, SL=Silt Loam, SCL=Silty Clay Loam, CL=Clay Loam, C=Clay

Criteria Met: No

VEGETATION

Tree Stratum (0%)	Status	% Cover

Shrub Stratum (50%)	Status	% Cover
*Gaultheria shallon**	FACU	60
*Alnus rubra**	FAC	20
*Salix hookeriana**	FACW-	20

Herbaceous Stratum (25%)	Status	% Cover
*Agrostis tenuis**	FAC	30
*Pteridium aquilinum**	FACU	20
*Blechnum spicant**	FAC+	25
*Hypochaeris radicata**	FACU	20

Woody Vine Stratum (25%)	Status	% Cover
*Rubus ursinus**	FACU	100

***Percent of dominant species FAC, FACW, or OBL:** 50% **Criteria Met: No**

Comments:

Determination: Upland

Wetland Determination Data Form
Routine Onsite Method

Pacific Habitat Services, Inc.

Project:	Depoe Bay LWI	Number:	2853	Sample Site	SDB-1-8
Applicant:	City of Depoe Bay	County:	Lincoln	Date:	9/24/2003
Investigators:	JVS/FS	Township:	9S Range: 11W	Section:	8

Do Normal Circumstances exist on this site? **Yes** Is the area a potential Problem Area? **No**

Is this an Atypical Situation? **No**

HYDROLOGY

			Primary Indicators		Secondary Indicators
			Inundated		Ox. rhizospheres
			Sat. in Upper 12"	Yes	H20-stained leaves
Depth of Surf. H2O		Inches	Water Marks		Local Soil Survey
Depth to Free H20	5	Inches	Drift Lines		FAC Neutral Test
Depth to Saturation	0	Inches	Sediment Deposits		Other _____
			Drainage patterns		Criteria Met: Yes

SOILS **Mapped Series:** Glenedon silty clay loam **Hydric Soil?:** No

Classification: Aquic Humitropepts **Drainage Class:** somewhat poorly drained

Depth (Inches)	Matrix Color	Soil Texture*	Redox Concentrations Color	Redox Concentrations abundance/size/contrast	Other Hydric Soil Field Indicators	Comments
0-8	10YR 2.5/2	silty muck	5YR 4/6	few/coarse/distinct		
8-14	2.5YR 3/2	silty muck				

*SD=Sand, SDL=Sandy Loam, L=Loam, SDCL=Sandy Clay Loam, S=Silt, SL=Silt Loam, SCL=Silty Clay Loam, CL=Clay Loam, C=Clay

Criteria Met: Yes

VEGETATION

Tree Stratum (0%)	Status	% Cover	Herbaceous Stratum (100%)	Status	% Cover
			*Lysichiton americanum**	OBL	100
Shrub Stratum (0%)	**Status**	**% Cover**			
			Woody Vine Stratum (0%)	**Status**	**% Cover**

***Percent of dominant species FAC, FACW, or OBL:** 100% Criteria Met: Yes

Comments:

Determination: Wetland

Wetland Determination Data Form
Routine Onsite Method

Pacific Habitat Services, Inc.

Project:	Depoe Bay LWI	Number:	2853	Sample Site	SDB-2-9
Applicant:	City of Depoe Bay	County:	Lincoln	Date:	9/30/2003
Investigators:	JVS/CSR	Township:	9S Range: 11W	Section:	8

Do Normal Circumstances exist on this site? **Yes** Is the area a potential Problem Area? **No**

Is this an Atypical Situation? **No**

HYDROLOGY

			Primary Indicators	Secondary Indicators
			Inundated	Ox. rhizospheres
			Sat. in Upper 12"	H20-stained leaves
Depth of Surf. H2O		Inches	Water Marks	Local Soil Survey
Depth to Free H20	>16	Inches	Drift Lines	FAC Neutral Test
Depth to Saturation	>16	Inches	Sediment Deposits	Other _____
			Drainage patterns Yes	Criteria Met: Yes

SOILS **Mapped Series:** Nelscott loam **Hydric Soil?:** No

Classification: Typic Haplorthods **Drainage Class:** moderately well drained

Depth (Inches)	Matrix Color	Soil Texture*	Redox Concentrations Color	Redox Concentrations abundance/size/contrast	Other Hydric Soil Field Indicators	Comments
0-16	10YR 2/1	SL				

*SD=Sand, SDL=Sandy Loam, L=Loam, SDCL=Sandy Clay Loam, S=Silt, SL=Silt Loam, SCL=Silty Clay Loam, CL=Clay Loam, C=Clay

Criteria Met: Yes

VEGETATION

Tree Stratum (30%)	Status	% Cover
*Alnus rubra**	FAC	100

Shrub Stratum (30%)	Status	% Cover
*Rubus spectabilis**	FAC+	70
*Sambucus racemosa**	FACU	30

Herbaceous Stratum (20%)	Status	% Cover
*Tolmiea menziesii**	FAC	60
*Lysichiton americanum**	OBL	40

Woody Vine Stratum (0%)	Status	% Cover

***Percent of dominant species FAC, FACW, or OBL:** 80% Criteria Met: Yes

Comments:

Determination: Wetland

Wetland Determination Data Form
Routine Onsite Method

Pacific Habitat Services, Inc.

Project:	Depoe Bay LWI	Number:	2853	Sample Site	SDB-2-10
Applicant:	City of Depoe Bay	County:	Lincoln	Date:	9/30/2003
Investigators:	JVS/CSR	Township:	9S Range: 11W	Section:	8

Do Normal Circumstances exist on this site? **Yes** Is the area a potential Problem Area? **No**

Is this an Atypical Situation? **No**

HYDROLOGY

			Primary Indicators	Secondary Indicators
			Inundated	Ox. rhizospheres
			Sat. in Upper 12"	H20-stained leaves
Depth of Surf. H2O		Inches	Water Marks	Local Soil Survey
Depth to Free H20	>16	Inches	Drift Lines	FAC Neutral Test
Depth to Saturation	>16	Inches	Sediment Deposits	Other
			Drainage patterns	Criteria Met: No

SOILS **Mapped Series:** Nelscott loam **Hydric Soil?:** No

Classification: Typic Haplorthods **Drainage Class:** moderately well drained

Depth (Inches)	Matrix Color	Soil Texture*	Redox Concentrations Color	Redox Concentrations abundance/size/contrast	Other Hydric Soil Field Indicators	Comments
0-2		Duff				
2-8	10YR 3/3	CL				
8-16	10YR 5/3	SL				

*SD=Sand, SDL=Sandy Loam, L=Loam, SDCL=Sandy Clay Loam, S=Silt, SL=Silt Loam, SCL=Silty Clay Loam, CL=Clay Loam, C=Clay

Criteria Met: No

VEGETATION

Tree Stratum (50%)	Status	% Cover
*Thuja plicata**	FAC	100

Shrub Stratum (35%)	Status	% Cover
*Rubus spectabilis**	FAC+	70
*Sambucus racemosa**	FACU	30

Herbaceous Stratum (15%)	Status	% Cover
*Polystichum munitum**	FACU	50
*Athyrium filix-femina**	FAC	25
*Maianthemum dilatatum**	FAC	20

Woody Vine Stratum (0%)	Status	% Cover

***Percent of dominant species FAC, FACW, or OBL:** 67% Criteria Met: Yes

Comments:

Determination: Upland

Wetland Determination Data Form
Routine Onsite Method

Pacific Habitat Services, Inc.

Project:	Depoe Bay LWI	Number:	2853	Sample Site	WC-PW-11
Applicant:	City of Depoe Bay	County:	Lincoln	Date:	10/23/2003
Investigators:	CR/JVS	Township:	9S	Range: 11W	Section: 8

Do Normal Circumstances exist on this site? **Yes** Is the area a potential Problem Area? **No**

Is this an Atypical Situation? **No**

HYDROLOGY

Depth of Surf. H2O		Inches
Depth to Free H20	18	Inches
Depth to Saturation	0	Inches

Primary Indicators		Secondary Indicators
Inundated		Ox. rhizospheres
Sat. in Upper 12"		H20-stained leaves
Water Marks		Local Soil Survey
Drift Lines		FAC Neutral Test
Sediment Deposits		Other
Drainage patterns	Yes	Criteria Met: Yes

SOILS **Mapped Series:** Depoe loam **Hydric Soil?:** Yes

Classification: Typic Duraquods **Drainage Class:** poorly drained

Depth (Inches)	Matrix Color	Soil Texture*	Redox Concentrations Color	Redox Concentrations abundance/size/contrast	Other Hydric Soil Field Indicators	Comments
0-16	10YR 2/1	S				

*SD=Sand, SDL=Sandy Loam, L=Loam, SDCL=Sandy Clay Loam, S=Silt, SL=Silt Loam, SCL=Silty Clay Loam, CL=Clay Loam, C=Clay

Criteria Met: Yes

VEGETATION

Tree Stratum (20%)	Status	% Cover
*Picea sitchensis**	FAC	80
Pseudotsuga menziesii	FACU	10
Alnus rubra	FAC	10

Shrub Stratum (30%)	Status	% Cover
*Rubus spectabilis**	FAC+	80
Ilex aquifolium	UPL	10
Gaultheria shallon	FACU	10

Herbaceous Stratum (25%)	Status	% Cover
*Lysichiton americanum**	OBL	55
*Athyrium filix-femina**	FAC	20
Carex obnupta	OBL	15
Polystichum munitum	FACU	10

Woody Vine Stratum (25%)	Status	% Cover
*Hedera helix**	UPL	100

***Percent of dominant species FAC, FACW, or OBL:** 80% Criteria Met: Yes

Comments:

Determination: Wetland

Wetland Determination Data Form
Routine Onsite Method

Pacific Habitat Services, Inc.

Project:	Depoe Bay LWI	Number:	2853	Sample Site	WC-PW-12
Applicant:	City of Depoe Bay	County:	Lincoln	Date:	10/23/2003
Investigators:	CR/JVS	Township:	9S Range: 11W	Section:	8

Do Normal Circumstances exist on this site? **Yes** Is the area a potential Problem Area? **No**

Is this an Atypical Situation? **No**

HYDROLOGY

			Primary Indicators	Secondary Indicators
			Inundated	Ox. rhizospheres
			Sat. in Upper 12"	H20-stained leaves
Depth of Surf. H2O		Inches	Water Marks	Local Soil Survey
Depth to Free H20	>16	Inches	Drift Lines	FAC Neutral Test
Depth to Saturation	>16	Inches	Sediment Deposits	Other _____
			Drainage patterns	Criteria Met: No

SOILS **Mapped Series:** Depoe loam **Hydric Soil?:** Yes

Classification: Typic Duraquods **Drainage Class:** poorly drained

Depth (Inches)	Matrix Color	Soil Texture*	Redox Concentrations Color	Redox Concentrations abundance/size/contrast	Other Hydric Soil Field Indicators	Comments
0-2		duff				
2-16	10YR 2/2	SL				

*SD=Sand, SDL=Sandy Loam, L=Loam, SDCL=Sandy Clay Loam, S=Silt, SL=Silt Loam, SCL=Silty Clay Loam, CL=Clay Loam, C=Clay

Criteria Met: No

VEGETATION

Tree Stratum (25%)	Status	% Cover
*Pseudotsuga menziesii**	FACU	50
*Tsuga heterophylla**	FACU-	50

Shrub Stratum (35%)	Status	% Cover
*Gaultheria shallon**	FACU	80
*Rubus spectabilis**	FAC+	20

Herbaceous Stratum (10%)	Status	% Cover
*Polystichum munitum**	FACU	50
*Blechnum spicant**	FAC+	30
*Maianthemum dilatatum**	FAC	20

Woody Vine Stratum (30%)	Status	% Cover
*Hedera helix**	UPL	100

***Percent of dominant species FAC, FACW, or OBL:** 38% Criteria Met: No

Comments:

Determination: Upland

Wetland Determination Data Form
Routine Onsite Method

Pacific Habitat Services, Inc.

Project:	Depoe Bay LWI	Number:	2853	Sample Site	WC-1A-13
Applicant:	City of Depoe Bay	County:	Lincoln	Date:	10/2/2003
Investigators:	SE/ME	Township:	9S	Range: 11W	Section: 8

Do Normal Circumstances exist on this site? **Yes** Is the area a potential Problem Area? **No**

Is this an Atypical Situation? **No**

HYDROLOGY

Depth of Surf. H2O		Inches
Depth to Free H20	>16	Inches
Depth to Saturation	>16	Inches

Primary Indicators	Secondary Indicators
Inundated	Ox. rhizospheres
Sat. in Upper 12"	H20-stained leaves
Water Marks	Local Soil Survey
Drift Lines	FAC Neutral Test
Sediment Deposits	Other _____
Drainage patterns Yes	Criteria Met: Yes

SOILS **Mapped Series:** Depoe loam **Hydric Soil?:** Yes

Classification: Typic Duraquods **Drainage Class:** poorly drained

Depth (Inches)	Matrix Color	Soil Texture*	Redox Concentrations Color	Redox Concentrations abundance/size/contrast	Other Hydric Soil Field Indicators	Comments
0-16	10YR 3/1	SCL				

*SD=Sand, SDL=Sandy Loam, L=Loam, SDCL=Sandy Clay Loam, S=Silt, SL=Silt Loam, SCL=Silty Clay Loam, CL=Clay Loam, C=Clay

Criteria Met: Yes

VEGETATION

Tree Stratum (15%)	Status	% Cover
*Alnus rubra**	FAC	100

Shrub Stratum (10%)	Status	% Cover
*Lonicera involucrata**	FAC+	90
Sambucus racemosa	FACU	10

Herbaceous Stratum (65%)	Status	% Cover
*Poa annua**	FAC	35
*Ranunculus repens**	FACW	32
*Carex obnupta**	OBL	20
Athyrium filix-femina	FAC	5
Epilobium watsonii	FACW-	5
Senecio jacobaea	FACU	3

Woody Vine Stratum (10%)	Status	% Cover
*Rubus ursinus**	FACU	100

***Percent of dominant species FAC, FACW, or OBL:** 83% Criteria Met: Yes

Comments:

Determination: Wetland

Wetland Determination Data Form
Routine Onsite Method

Pacific Habitat Services, Inc.

Project:	Depoe Bay LWI	Number:	2853	Sample Site	WC-1A-14
Applicant:	City of Depoe Bay	County:	Lincoln	Date:	10/16/2003
Investigators:	JVS/FS	Township:	9S Range: 11W	Section:	8

Do Normal Circumstances exist on this site? **Yes** Is the area a potential Problem Area? **No**

Is this an Atypical Situation? **No**

HYDROLOGY

Depth of Surf. H2O		**Inches**
Depth to Free H20	**16**	**Inches**
Depth to Saturation	**12**	**Inches**

Primary Indicators		**Secondary Indicators**
Inundated		**Ox. rhizospheres**
Sat. in Upper 12"	**Yes**	**H20-stained leaves**
Water Marks		**Local Soil Survey**
Drift Lines		**FAC Neutral Test**
Sediment Deposits		**Other** _____
Drainage patterns	**Yes**	**Criteria Met: Yes**

SOILS **Mapped Series:** Depoe loam **Hydric Soil?:** Yes

Classification: Typic Duraquods **Drainage Class:** poorly drained

Depth (Inches)	Matrix Color	Soil Texture*	Redox Concentrations Color	Redox Concentrations abundance/size/contrast	Other Hydric Soil Field Indicators	Comments
0-16	10YR 2/1	L				
16-20	2.5YR 4/2	SCL	10YR 5/6	common, medium, distinct		

*SD=Sand, SDL=Sandy Loam, L=Loam, SDCL=Sandy Clay Loam, S=Silt, SL=Silt Loam, SCL=Silty Clay Loam, CL=Clay Loam, C=Clay

Criteria Met: Yes

VEGETATION

Tree Stratum (0%)	Status	% Cover

Shrub Stratum (15%)	Status	% Cover
*Ribes acerifolium**	NI	100

Herbaceous Stratum (85%)	Status	% Cover
*Carex obnupta**	OBL	90
Erechtites minima	UPL	3
Sonchus asper	FAC-	2

Woody Vine Stratum (0%)	Status	% Cover

***Percent of dominant species FAC, FACW, or OBL:** 100% **Criteria Met: Yes**

Comments:

Determination: Wetland

Wetland Determination Data Form
Routine Onsite Method

Pacific Habitat Services, Inc.

Project:	Depoe Bay LWI	Number:	2853	Sample Site	WC-1A-15
Applicant:	City of Depoe Bay	County:	Lincoln	Date:	10/16/2003
Investigators:	JVS/FS	Township:	9S Range: 11W	Section:	8

Do Normal Circumstances exist on this site? **Yes** Is the area a potential Problem Area? **No**

Is this an Atypical Situation? **No**

HYDROLOGY

Depth of Surf. H2O		**Inches**
Depth to Free H20	**>15**	**Inches**
Depth to Saturation	**>15**	**Inches**

Primary Indicators	**Secondary Indicators**
Inundated	**Ox. rhizospheres**
Sat. in Upper 12"	**H20-stained leaves**
Water Marks	**Local Soil Survey**
Drift Lines	**FAC Neutral Test**
Sediment Deposits	**Other** _____
Drainage patterns	**Criteria Met: No**

SOILS **Mapped Series:** Depoe loam **Hydric Soil?:** Yes

Classification: Typic Duraquods **Drainage Class:** poorly drained

Depth (Inches)	Matrix Color	Soil Texture*	Redox Concentrations Color	Redox Concentrations abundance/size/contrast	Other Hydric Soil Field Indicators	Comments
0-5	10YR 3/3	SL				
5-15	10YR 3/2	SL				

*SD=Sand, SDL=Sandy Loam, L=Loam, SDCL=Sandy Clay Loam, S=Silt, SL=Silt Loam, SCL=Silty Clay Loam, CL=Clay Loam, C=Clay

Criteria Met: No

VEGETATION

Tree Stratum (20%)	Status	% Cover
*Picea sitchensis**	FAC	100

Shrub Stratum (10%)	Status	% Cover
*Gaultheria shallon**	FACU	70
*Ilex aquifolium**	UPL	30

Herbaceous Stratum (10%)	Status	% Cover
*Carex obnupta**	OBL	60
*Dactylis glomerata**	FACU	40

Woody Vine Stratum (60%)	Status	% Cover
*Hedera helix**	UPL	100

***Percent of dominant species FAC, FACW, or OBL:** 33% **Criteria Met: No**

Comments:

Determination: Upland

Wetland Determination Data Form
Routine Onsite Method

Pacific Habitat Services, Inc.

Project:	Depoe Bay LWI	Number:	2853	Sample Site	WC-3-16
Applicant:	City of Depoe Bay	County:	Lincoln	Date:	10/10/2003
Investigators:	SE/ME	Township:	9S Range: 11W	Section:	8

Do Normal Circumstances exist on this site? **Yes** Is the area a potential Problem Area? **No**

Is this an Atypical Situation? **No**

HYDROLOGY

			Primary Indicators	Secondary Indicators
			Inundated	Ox. rhizospheres
			Sat. in Upper 12"	H20-stained leaves
Depth of Surf. H2O		Inches	Water Marks	Local Soil Survey
Depth to Free H20	>14	Inches	Drift Lines	FAC Neutral Test
Depth to Saturation	>14	Inches	Sediment Deposits	Other _____
			Drainage patterns	Criteria Met: No

SOILS **Mapped Series:** Depoe loam **Hydric Soil?:** Yes

Classification: Typic Duraquods **Drainage Class:** poorly drained

Depth (Inches)	Matrix Color	Soil Texture*	Redox Concentrations Color	Redox Concentrations abundance/size/contrast	Other Hydric Soil Field Indicators	Comments
0-14	10YR 3/3	SDL				

*SD=Sand, SDL=Sandy Loam, L=Loam, SDCL=Sandy Clay Loam, S=Silt, SL=Silt Loam, SCL=Silty Clay Loam, CL=Clay Loam, C=Clay

Criteria Met: No

VEGETATION

Tree Stratum (60%)	Status	% Cover
*Pinus contorta**	FAC	50
*Picea sitchensis**	FAC	50

Shrub Stratum (30%)	Status	% Cover
*Gaultheria shallon**	FACU	100

Herbaceous Stratum (10%)	Status	% Cover
*Carex obnupta**	OBL	40
*Polystichum munitum**	FACU	30
*Rubus ursinus**	FACU	20
Trifolium pratense	FACU	10

Woody Vine Stratum (0%)	Status	% Cover

*Percent of dominant species FAC, FACW, or OBL: 50% Criteria Met: No

Comments:

Determination: Upland

Wetland Determination Data Form
Routine Onsite Method

Pacific Habitat Services, Inc.

Project:	Depoe Bay LWI	Number:	2853	Sample Site	WC-3-17
Applicant:	City of Depoe Bay	County:	Lincoln	Date:	10/10/2003
Investigators:	SE/ME	Township:	9S	Range: 11W	Section: 8

Do Normal Circumstances exist on this site? **Yes** Is the area a potential Problem Area? **No**

Is this an Atypical Situation? **No**

HYDROLOGY

			Primary Indicators		Secondary Indicators
			Inundated		Ox. rhizospheres
			Sat. in Upper 12"		H20-stained leaves
Depth of Surf. H2O		Inches	Water Marks		Local Soil Survey
Depth to Free H20	9	Inches	Drift Lines		FAC Neutral Test
Depth to Saturation	5	Inches	Sediment Deposits		Other
			Drainage patterns	Yes	Criteria Met: Yes

SOILS **Mapped Series:** Depoe loam **Hydric Soil?:** Yes

Classification: Typic Duraquods **Drainage Class:** poorly drained

Depth (Inches)	Matrix Color	Soil Texture*	Redox Concentrations Color	Redox Concentrations abundance/size/contrast	Other Hydric Soil Field Indicators	Comments
0-14	2.5Y 2.5/1	Muck				

*SD=Sand, SDL=Sandy Loam, L=Loam, SDCL=Sandy Clay Loam, S=Silt, SL=Silt Loam, SCL=Silty Clay Loam, CL=Clay Loam, C=Clay

Criteria Met: Yes

VEGETATION

Tree Stratum (10%)	Status	% Cover
*Pinus contorta**	FAC	100

Shrub Stratum (45%)	Status	% Cover
*Lonicera involucrata**	FAC+	55
*Gaultheria shallon**	FACU	30
Myrica gale	OBL	10
Rubus spectabilis	FAC+	5

Herbaceous Stratum (40%)	Status	% Cover
*Carex obnupta**	OBL	50
*Maianthemum dilatatum**	FAC	25
Juncus tenuis	FACW-	15
Lysichiton americanum	OBL	5
Ranunculus repens	FACW	5

Woody Vine Stratum (0%)	Status	% Cover

Percent of dominant species FAC, FACW, or OBL: 80% Criteria Met: Yes

Comments:

Determination: Wetland

Wetland Determination Data Form
Routine Onsite Method

Pacific Habitat Services, Inc.

Project:	Depoe Bay LWI	Number:	2853	Sample Site	WC-PW-17
Applicant:	City of Depoe Bay	County:	Lincoln	Date:	10/10/2003
Investigators:	SE/ME	Township:	9S Range: 11W	Section:	8

Do Normal Circumstances exist on this site? **Yes** Is the area a potential Problem Area? **No**

Is this an Atypical Situation? **No**

HYDROLOGY

Depth of Surf. H2O		**Inches**
Depth to Free H20	**9**	**Inches**
Depth to Saturation	**5**	**Inches**

Primary Indicators	**Secondary Indicators**
Inundated	**Ox. rhizospheres**
Sat. in Upper 12"	**H20-stained leaves**
Water Marks	**Local Soil Survey**
Drift Lines	**FAC Neutral Test**
Sediment Deposits	**Other** _____
Drainage patterns Yes	**Criteria Met: Yes**

SOILS **Mapped Series:** Depoe loam **Hydric Soil?:** Yes

Classification: Typic Duraquods **Drainage Class:** poorly drained

Depth (Inches)	Matrix Color	Soil Texture*	Redox Concentrations Color	Redox Concentrations abundance/size/contrast	Other Hydric Soil Field Indicators	Comments
0-14	2.5Y 2.5/1	Muck				

*SD=Sand, SDL=Sandy Loam, L=Loam, SDCL=Sandy Clay Loam, S=Silt, SL=Silt Loam, SCL=Silty Clay Loam, CL=Clay Loam, C=Clay

Criteria Met: Yes

VEGETATION

Tree Stratum (10%)	Status	% Cover
*Pinus contorta**	FAC	100

Shrub Stratum (45%)	Status	% Cover
*Lonicera involucrata**	FAC+	55
*Gaultheria shallon**	FACU	30
Myrica gale	OBL	10
Rubus spectabilis	FAC+	5

Herbaceous Stratum (40%)	Status	% Cover
*Carex obnupta**	OBL	50
*Maianthemum dilatatum**	FAC	25
Juncus tenuis	FACW-	15
Lysichiton americanum	OBL	5
Ranunculus repens	FACW	5

Woody Vine Stratum (0%)	Status	% Cover

***Percent of dominant species FAC, FACW, or OBL:** 80% **Criteria Met: Yes**

Comments:

Determination: Wetland

Wetland Determination Data Form
Routine Onsite Method

Pacific Habitat Services, Inc.

Project:	**Depoe Bay LWI**	Number:	**2853**	Sample Site	**WC-PW-18**
Applicant:	**City of Depoe Bay**	County:	**Lincoln**	Date:	**10/10/2003**
Investigators:	**SE/ME**	Township:	**9S** Range: **11W**	Section:	**8**

Do Normal Circumstances exist on this site? **Yes** Is the area a potential Problem Area? **No**

Is this an Atypical Situation? **No**

HYDROLOGY

			Primary Indicators	Secondary Indicators
			Inundated	**Ox. rhizospheres**
			Sat. in Upper 12"	**H20-stained leaves**
Depth of Surf. H2O		**Inches**	**Water Marks**	**Local Soil Survey**
Depth to Free H20	**>12**	**Inches**	**Drift Lines**	**FAC Neutral Test**
Depth to Saturation	**>12**	**Inches**	**Sediment Deposits**	**Other** _____
			Drainage patterns **Yes**	**Criteria Met: Yes**

SOILS **Mapped Series:** Nelscott loam **Hydric Soil?:** No

Classification: Typic Haplorthods **Drainage Class:** moderately well drained

Depth (Inches)	Matrix Color	Soil Texture*	Redox Concentrations Color	Redox Concentrations abundance/size/contrast	Other Hydric Soil Field Indicators	Comments
0-12	10YR 2/1	L				

*SD=Sand, SDL=Sandy Loam, L=Loam, SDCL=Sandy Clay Loam, S=Silt, SL=Silt Loam, SCL=Silty Clay Loam, CL=Clay Loam, C=Clay

Criteria Met: Yes

VEGETATION

Tree Stratum (0%)	Status	% Cover

Shrub Stratum (5%)	Status	% Cover
*Lonicera involucrata**	FAC+	100

Herbaceous Stratum (90%)	Status	% Cover
*Carex obnupta**	OBL	60
*Potentilla gracilis**	FAC	20
Juncus tenuis	FACW-	10
Equisetum arvense	FAC	7
Epilobium watsonii	FACW-	3

Woody Vine Stratum (5%)	Status	% Cover
*Rubus discolor**	FACU	100

***Percent of dominant species FAC, FACW, or OBL:** 75% **Criteria Met: Yes**

Comments:

Determination: Wetland

Wetland Determination Data Form
Routine Onsite Method

Pacific Habitat Services, Inc.

Project:	Depoe Bay LWI	Number:	2853	Sample Site	WC-PW-19
Applicant:	City of Depoe Bay	County:	Lincoln	Date:	10/10/2003
Investigators:	SE/ME	Township:	9S	Range: 11W	Section: 8

Do Normal Circumstances exist on this site? **Yes** Is the area a potential Problem Area? **No**

Is this an Atypical Situation? **No**

HYDROLOGY

Depth of Surf. H2O		**Inches**
Depth to Free H20	**>18**	**Inches**
Depth to Saturation	**>18**	**Inches**

Primary Indicators	**Secondary Indicators**
Inundated	**Ox. rhizospheres**
Sat. in Upper 12"	**H20-stained leaves**
Water Marks	**Local Soil Survey**
Drift Lines	**FAC Neutral Test**
Sediment Deposits	**Other** _____
Drainage patterns	**Criteria Met: No**

SOILS **Mapped Series:** Nelscott loam **Hydric Soil?:** No

Classification: Typic Haplorthods **Drainage Class:** moderately well drained

Depth (Inches)	Matrix Color	Soil Texture*	Redox Concentrations Color	Redox Concentrations abundance/size/contrast	Other Hydric Soil Field Indicators	Comments
0-18	7.5Y 2.5/1	SCL				

*SD=Sand, SDL=Sandy Loam, L=Loam, SDCL=Sandy Clay Loam, S=Silt, SL=Silt Loam, SCL=Silty Clay Loam, CL=Clay Loam, C=Clay

Criteria Met: Yes

VEGETATION

Tree Stratum (0%)	Status	% Cover

Shrub Stratum (5%)	Status	% Cover
*Rubus parviflorus**	FAC-	100

Herbaceous Stratum (90%)	Status	% Cover
*Epilobium angustifolium**	FACU+	33
*Carex leporina**	FACW	25
Equisetum arvense	FAC	15
Tellima grandiflora	UPL	15
Senecio jacobaea	FACU	5
Epilobium watsonii	FACW-	5
Polystichum munitum	FACU	2

Woody Vine Stratum (5%)	Status	% Cover
*Rubus ursinus**	FACU	50
*Rubus discolor**	FACU	50

***Percent of dominant species FAC, FACW, or OBL:** 20% **Criteria Met: No**

Comments:

Determination: Upland

Wetland Determination Data Form
Routine Onsite Method

Pacific Habitat Services, Inc.

Project:	Depoe Bay LWI	Number:	2853	Sample Site	WC-PW-20
Applicant:	City of Depoe Bay	County:	Lincoln	Date:	10/16/2003
Investigators:	JVS/FS	Township:	9S Range: 11W	Section:	17

Do Normal Circumstances exist on this site? **Yes** Is the area a potential Problem Area? **No**

Is this an Atypical Situation? **No**

HYDROLOGY

Depth of Surf. H2O		**Inches**
Depth to Free H20	**>15**	**Inches**
Depth to Saturation	**>15**	**Inches**

Primary Indicators	**Secondary Indicators**
Inundated	**Ox. rhizospheres**
Sat. in Upper 12"	**H20-stained leaves**
Water Marks	**Local Soil Survey**
Drift Lines	**FAC Neutral Test**
Sediment Deposits	**Other** _____
Drainage patterns	**Criteria Met: No**

SOILS **Mapped Series:** Fendall-Templeton silt loam **Hydric Soil?:** No

Classification: Andic Humitropepts **Drainage Class:** well drained

Depth (Inches)	Matrix Color	Soil Texture*	Redox Concentrations Color	Redox Concentrations abundance/size/contrast	Other Hydric Soil Field Indicators	Comments
0-2		Duff				
2-15	10YR 2/2	SL				

*SD=Sand, SDL=Sandy Loam, L=Loam, SDCL=Sandy Clay Loam, S=Silt, SL=Silt Loam, SCL=Silty Clay Loam, CL=Clay Loam, C=Clay

Criteria Met: No

VEGETATION

Tree Stratum (40%)	Status	% Cover
*Picea sitchensis**	FAC	100

Shrub Stratum (40%)	Status	% Cover
*Rubus spectabilis**	FAC+	100

Herbaceous Stratum (20%)	Status	% Cover
*Polystichum munitum**	FACU	100

Woody Vine Stratum (0%)	Status	% Cover

***Percent of dominant species FAC, FACW, or OBL:** 67% **Criteria Met: Yes**

Comments:

Determination: Upland

Wetland Determination Data Form
Routine Onsite Method

Pacific Habitat Services, Inc.

Project:	Depoe Bay LWI	Number:	2853	Sample Site	WC-PW-21
Applicant:	City of Depoe Bay	County:	Lincoln	Date:	10/16/2003
Investigators:	JVS/FS	Township:	9S Range: 11W	Section:	17

Do Normal Circumstances exist on this site? **Yes** Is the area a potential Problem Area? **No**

Is this an Atypical Situation? **No**

HYDROLOGY

			Primary Indicators		Secondary Indicators
			Inundated	Yes	Ox. rhizospheres
			Sat. in Upper 12"	Yes	H20-stained leaves
Depth of Surf. H2O	1.5	Inches	Water Marks		Local Soil Survey
Depth to Free H20	0	Inches	Drift Lines		FAC Neutral Test
Depth to Saturation	0	Inches	Sediment Deposits		Other _____
			Drainage patterns	Yes	Criteria Met: Yes

SOILS **Mapped Series:** Fendall-Templeton silt loam **Hydric Soil?:** No

Classification: Andic Humitropepts **Drainage Class:** well drained

Depth (Inches)	Matrix Color	Soil Texture*	Redox Concentrations Color	Redox Concentrations abundance/size/contrast	Other Hydric Soil Field Indicators	Comments
0-16	10YR 2/2	Peaty Muck				Few sand grains

*SD=Sand, SDL=Sandy Loam, L=Loam, SDCL=Sandy Clay Loam, S=Silt, SL=Silt Loam, SCL=Silty Clay Loam, CL=Clay Loam, C=Clay

Criteria Met: Yes

VEGETATION

Tree Stratum (15%)	Status	% Cover
*Alnus rubra**	FAC	100

Shrub Stratum (25%)	Status	% Cover
*Rubus spectabilis**	FAC+	60
*Gaultheria shallon**	FACU	40

Herbaceous Stratum (50%)	Status	% Cover
*Athyrium filix-femina**	FAC	30
*Chrysosplenium glechomifolium**	OBL	30
Equisetum arvense	FAC	15
Polystichum munitum	FACU	15
Erechtites minima	UPL	5
Epilobium watsonii	FACW-	3
Blechnum spicant	FAC+	2

Woody Vine Stratum (10%)	Status	% Cover
*Hedera helix**	UPL	100

***Percent of dominant species FAC, FACW, or OBL:** 67% Criteria Met: Yes

Comments:

Determination: Wetland

Wetland Determination Data Form
Routine Onsite Method

Pacific Habitat Services, Inc.

Project:	Depoe Bay LWI	Number:	2853	Sample Site	WC-PW-22
Applicant:	City of Depoe Bay	County:	Lincoln	Date:	10/10/2003
Investigators:	SE/ME	Township:	9S	Range: 11W	Section: 17

Do Normal Circumstances exist on this site? **Yes** Is the area a potential Problem Area? **No**

Is this an Atypical Situation? **No**

HYDROLOGY

			Primary Indicators		Secondary Indicators	
			Inundated		Ox. rhizospheres	Yes
			Sat. in Upper 12"	Yes	H20-stained leaves	
Depth of Surf. H2O		Inches	Water Marks		Local Soil Survey	
Depth to Free H20	>12	Inches	Drift Lines		FAC Neutral Test	
Depth to Saturation	0	Inches	Sediment Deposits		Other	
			Drainage patterns	Yes	Criteria Met:	Yes

SOILS **Mapped Series:** Depoe loam **Hydric Soil?:** Yes

Classification: Typic Duraquods **Drainage Class:** poorly drained

Depth (Inches)	Matrix Color	Soil Texture*	Redox Concentrations Color	Redox Concentrations abundance/size/contrast	Other Hydric Soil Field Indicators	Comments
0-2		Duff				
2-16	7.5Y 2.5/1	SC			H_2S odor	

*SD=Sand, SDL=Sandy Loam, L=Loam, SDCL=Sandy Clay Loam, S=Silt, SL=Silt Loam, SCL=Silty Clay Loam, CL=Clay Loam, C=Clay

Criteria Met: Yes

VEGETATION

Tree Stratum (15%)	Status	% Cover
*Tsuga heterophylla**	FACU-	100

Shrub Stratum (40%)	Status	% Cover
*Rubus spectabilis**	FAC+	75
Rhamnus purshiana	FAC-	15
Lonicera involucrata	FAC+	5
Rubus parviflorus	FAC-	5

Herbaceous Stratum (40%)	Status	% Cover
*Carex obnupta**	OBL	75
Pteridium aquilinum	FACU	15
Lysichiton americanum	OBL	10

Woody Vine Stratum (5%)	Status	% Cover
Hedera helix	100	UPL

***Percent of dominant species FAC, FACW, or OBL:** 67% Criteria Met: Yes

Comments: *Hedera helix* discounted as a dominant due to its low percentage of total cover and the fact that the vines were predominantly rooted outside of the wetland boundary. **Determination:** Wetland

Wetland Determination Data Form
Routine Onsite Method

Pacific Habitat Services, Inc.

Project:	Depoe Bay LWI	Number:	2853	Sample Site	WC-PW-23
Applicant:	City of Depoe Bay	County:	Lincoln	Date:	10/10/2003
Investigators:	SE/ME	Township:	9S Range: 11W	Section:	17

Do Normal Circumstances exist on this site? **Yes** Is the area a potential Problem Area? **No**

Is this an Atypical Situation? **No**

HYDROLOGY

Depth of Surf. H2O		**Inches**
Depth to Free H20	**>15**	**Inches**
Depth to Saturation	**>15**	**Inches**

Primary Indicators	**Secondary Indicators**
Inundated	**Ox. rhizospheres**
Sat. in Upper 12"	**H20-stained leaves**
Water Marks	**Local Soil Survey**
Drift Lines	**FAC Neutral Test**
Sediment Deposits	**Other** _____
Drainage patterns	**Criteria Met: No**

SOILS **Mapped Series:** Depoe loam **Hydric Soil?:** Yes

Classification: Typic Duraquods **Drainage Class:** poorly drained

Depth (Inches)	Matrix Color	Soil Texture*	Redox Concentrations Color	Redox Concentrations abundance/size/contrast	Other Hydric Soil Field Indicators	Comments
0-10		Duff				
10-15	10YR 2.5/1	SL				

*SD=Sand, SDL=Sandy Loam, L=Loam, SDCL=Sandy Clay Loam, S=Silt, SL=Silt Loam, SCL=Silty Clay Loam, CL=Clay Loam, C=Clay

Criteria Met: Yes

VEGETATION

Tree Stratum (15%)	Status	% Cover
*Tsuga heterophylla**	FACU-	100

Shrub Stratum (70%)	Status	% Cover
*Gaultheria shallon**	FACU	75
*Vaccinium ovatum**	UPL	25

Herbaceous Stratum (3%)	Status	% Cover
*Pteridium aquilinum**	FACU	100

Woody Vine Stratum (12%)	Status	% Cover
*Hedera helix**	UPL	50
*Rubus ursinus**	FACU	50

***Percent of dominant species FAC, FACW, or OBL: 0%** **Criteria Met: No**

Comments:

Determination: Upland

Wetland Determination Data Form
Routine Onsite Method

Pacific Habitat Services, Inc.

Project:	Depoe Bay LWI		Number: 2853	Sample Site	WC-4-24
Applicant:	City of Depoe Bay	County:	Lincoln	Date:	10/2/2003
Investigators:	SE/ME	Township:	9S Range: 11W	Section:	17

Do Normal Circumstances exist on this site? **Yes** Is the area a potential Problem Area? **No**

Is this an Atypical Situation? **No**

HYDROLOGY

Depth of Surf. H2O		Inches
Depth to Free H20	12	Inches
Depth to Saturation	0	Inches

Primary Indicators		Secondary Indicators
Inundated		Ox. rhizospheres
Sat. in Upper 12"		H20-stained leaves
Water Marks		Local Soil Survey
Drift Lines		FAC Neutral Test
Sediment Deposits		Other
Drainage patterns	Yes	Criteria Met: Yes

SOILS **Mapped Series:** Depoe loam **Hydric Soil?:** Yes

Classification: Typic Duraquods **Drainage Class:** poorly drained

Depth (Inches)	Matrix Color	Soil Texture*	Redox Concentrations Color	Redox Concentrations abundance/size/contrast	Other Hydric Soil Field Indicators	Comments
0-16	10YR 2/1	Sandy Muck			H_2S odor	

*SD=Sand, SDL=Sandy Loam, L=Loam, SDCL=Sandy Clay Loam, S=Silt, SL=Silt Loam, SCL=Silty Clay Loam, CL=Clay Loam, C=Clay

Criteria Met: Yes

VEGETATION

Tree Stratum (0%)	Status	% Cover

Shrub Stratum (10%)	Status	% Cover
*Rubus spectabilis**	FAC+	100

Herbaceous Stratum (65%)	Status	% Cover
*Lysichiton americanum**	OBL	70
*Carex obnupta**	OBL	25
Equisetum arvense	FAC	5

Woody Vine Stratum (10%)	Status	% Cover
*Hedera helix**	UPL	100

***Percent of dominant species FAC, FACW, or OBL:** 75% Criteria Met: Yes

Comments:

Determination: Wetland

Wetland Determination Data Form
Routine Onsite Method

Pacific Habitat Services, Inc.

Project:	Depoe Bay LWI	Number:	2853	Sample Site	WC-4-25
Applicant:	City of Depoe Bay	County:	Lincoln	Date:	10/2/2003
Investigators:	SE/ME	Township:	9S Range: 11W	Section:	17

Do Normal Circumstances exist on this site? **Yes** Is the area a potential Problem Area? **No**

Is this an Atypical Situation? **No**

HYDROLOGY

Depth of Surf. H2O		**Inches**
Depth to Free H20	**>12**	**Inches**
Depth to Saturation	**>12**	**Inches**

Primary Indicators	**Secondary Indicators**
Inundated	**Ox. rhizospheres**
Sat. in Upper 12"	**H20-stained leaves**
Water Marks	**Local Soil Survey**
Drift Lines	**FAC Neutral Test**
Sediment Deposits	**Other** _____
Drainage patterns	**Criteria Met: No**

SOILS **Mapped Series:** Depoe loam **Hydric Soil?:** Yes

Classification: Typic Duraquods **Drainage Class:** poorly drained

Depth (Inches)	Matrix Color	Soil Texture*	Redox Concentrations Color	Redox Concentrations abundance/size/contrast	Other Hydric Soil Field Indicators	Comments
0-12	10YR 2/2	SDL				

*SD=Sand, SDL=Sandy Loam, L=Loam, SDCL=Sandy Clay Loam, S=Silt, SL=Silt Loam, SCL=Silty Clay Loam, CL=Clay Loam, C=Clay

Criteria Met: No

VEGETATION

Tree Stratum (50%)	Status	% Cover
*Tsuga heterophylla**	FACU-	100

Shrub Stratum (45%)	Status	% Cover
*Gaultheria shallon**	FACU	65
*Vaccinium ovatum**	UPL	25
Rubus spectabilis	FAC+	5
Ilex aquifolium	UPL	5

Herbaceous Stratum (0%)	Status	% Cover

Woody Vine Stratum (5%)	Status	% Cover
*Hedera helix**	UPL	50
*Rubus ursinus**	FACU	50

***Percent of dominant species FAC, FACW, or OBL:** 0% **Criteria Met: No**

Comments:

Determination: Upland

Wetland Determination Data Form
Routine Onsite Method

Pacific Habitat Services, Inc.

Project:	Depoe Bay LWI		Number: 2853	Sample Site	WC-7-26
Applicant:	City of Depoe Bay	County:	Lincoln	Date:	10/10/2003
Investigators:	SE/ME	Township:	9S Range: 11W	Section:	18

Do Normal Circumstances exist on this site? **Yes** Is the area a potential Problem Area? **No**

Is this an Atypical Situation? **No**

HYDROLOGY

			Primary Indicators	Secondary Indicators
			Inundated	Ox. rhizospheres
			Sat. in Upper 12"	H20-stained leaves
Depth of Surf. H2O		Inches	Water Marks	Local Soil Survey
Depth to Free H20	>12	Inches	Drift Lines	FAC Neutral Test
Depth to Saturation	>12	Inches	Sediment Deposits	Other _____
			Drainage patterns Yes	Criteria Met: Yes

SOILS **Mapped Series:** Nelscott loam **Hydric Soil?:** No

Classification: Typic Haplorthods **Drainage Class:** moderately well drained

Depth (Inches)	Matrix Color	Soil Texture*	Redox Concentrations Color	Redox Concentrations abundance/size/contrast	Other Hydric Soil Field Indicators	Comments
0-14	2.5Y 2.5/1	SCL				

*SD=Sand, SDL=Sandy Loam, L=Loam, SDCL=Sandy Clay Loam, S=Silt, SL=Silt Loam, SCL=Silty Clay Loam, CL=Clay Loam, C=Clay

Criteria Met: Yes

VEGETATION

Tree Stratum (15%)	Status	% Cover	Herbaceous Stratum (40%)	Status	% Cover
*Picea sitchensis**	FAC	100	*Carex obnupta**	OBL	100
Shrub Stratum (45%)	**Status**	**% Cover**			
*Lonicera involucrata**	FAC+	100			
			Woody Vine Stratum (0%)	**Status**	**% Cover**

***Percent of dominant species FAC, FACW, or OBL:** 100% Criteria Met: Yes

Comments:

Determination: Wetland

Wetland Determination Data Form
Routine Onsite Method

Pacific Habitat Services, Inc.

Project:	Depoe Bay LWI	Number:	2853	Sample Site	WC-7-27
Applicant:	City of Depoe Bay	County:	Lincoln	Date:	10/10/2003
Investigators:	SE/ME	Township:	9S Range: 11W	Section:	18

Do Normal Circumstances exist on this site? **Yes** Is the area a potential Problem Area? **No**

Is this an Atypical Situation? **No**

HYDROLOGY

			Primary Indicators	Secondary Indicators
			Inundated	Ox. rhizospheres
			Sat. in Upper 12"	H20-stained leaves
Depth of Surf. H2O		Inches	Water Marks	Local Soil Survey
Depth to Free H20	>12	Inches	Drift Lines	FAC Neutral Test
Depth to Saturation	>12	Inches	Sediment Deposits	Other _____
			Drainage patterns	Criteria Met: No

SOILS **Mapped Series:** Nelscott loam **Hydric Soil?:** No

Classification: Typic Haplorthods **Drainage Class:** moderately well drained

Depth (Inches)	Matrix Color	Soil Texture*	Redox Concentrations Color	Redox Concentrations abundance/size/contrast	Other Hydric Soil Field Indicators	Comments
0-15	10YR 2/1	SDL				

*SD=Sand, SDL=Sandy Loam, L=Loam, SDCL=Sandy Clay Loam, S=Silt, SL=Silt Loam, SCL=Silty Clay Loam, CL=Clay Loam, C=Clay

Criteria Met: Yes

VEGETATION

Tree Stratum (10%)	Status	% Cover
*Picea sitchensis**	FAC	100

Shrub Stratum (75%)	Status	% Cover
*Gaultheria shallon**	FACU	35
*Vaccinium ovatum**	UPL	35
Lonicera involucrata	FAC+	15
Myrica californica	FACW	5
Rubus spectabilis	FAC+	10

Herbaceous Stratum (10%)	Status	% Cover
*Carex obnupta**	OBL	90
Polystichum munitum	FACU	10

Woody Vine Stratum (5%)	Status	% Cover
*Rubus ursinus**	FACU	65
*Hedera helix**	UPL	35

***Percent of dominant species FAC, FACW, or OBL:** 33% Criteria Met: No

Comments:

Determination: Upland

Wetland Determination Data Form
Routine Onsite Method

Pacific Habitat Services, Inc.

Project:	Depoe Bay LWI	Number:	2853	Sample Site	WC-7-28
Applicant:	City of Depoe Bay	County:	Lincoln	Date:	10/2/2003
Investigators:	SE/ME	Township:	9S Range: 11W	Section:	18

Do Normal Circumstances exist on this site? **Yes** Is the area a potential Problem Area? **No**

Is this an Atypical Situation? **No**

HYDROLOGY

Depth of Surf. H2O		**Inches**
Depth to Free H20	**>12**	**Inches**
Depth to Saturation	**>12**	**Inches**

Primary Indicators	**Secondary Indicators**
Inundated	**Ox. rhizospheres**
Sat. in Upper 12"	**H20-stained leaves**
Water Marks	**Local Soil Survey**
Drift Lines	**FAC Neutral Test**
Sediment Deposits	**Other** _____
Drainage patterns Yes	**Criteria Met: Yes**

SOILS **Mapped Series:** Nelscott loam **Hydric Soil?:** No

Classification: Typic Haplorthods **Drainage Class:** moderately well drained

Depth (Inches)	Matrix Color	Soil Texture*	Redox Concentrations Color	Redox Concentrations abundance/size/contrast	Other Hydric Soil Field Indicators	Comments
0-4	10YR 2/1	SL				Mixed organics
4-15	10YR 3/1	SCL				

*SD=Sand, SDL=Sandy Loam, L=Loam, SDCL=Sandy Clay Loam, S=Silt, SL=Silt Loam, SCL=Silty Clay Loam, CL=Clay Loam, C=Clay

Criteria Met: Yes

VEGETATION

Tree Stratum (20%)	Status	% Cover
*Picea sitchensis**	FAC	100

Shrub Stratum (40%)	Status	% Cover
*Gaultheria shallon**	FACU	50
*Lonicera involucrata**	FAC+	50

Herbaceous Stratum (40%)	Status	% Cover
*Carex obnupta**	OBL	45
*Lysichiton americanum**	OBL	30
*Oenanthe sarmentosa**	OBL	25

Woody Vine Stratum (0%)	Status	% Cover

***Percent of dominant species FAC, FACW, or OBL:** 83% **Criteria Met: Yes**

Comments:

Determination: Wetland

Wetland Determination Data Form
Routine Onsite Method

Pacific Habitat Services, Inc.

Project:	Depoe Bay LWI	Number:	2853	Sample Site	WC-7-29
Applicant:	City of Depoe Bay	County:	Lincoln	Date:	10/2/2003
Investigators:	SE/ME	Township:	9S Range: 11W	Section:	18

Do Normal Circumstances exist on this site? **Yes** Is the area a potential Problem Area? **No**

Is this an Atypical Situation? **No**

HYDROLOGY

			Primary Indicators	Secondary Indicators
			Inundated	Ox. rhizospheres
			Sat. in Upper 12"	H20-stained leaves
Depth of Surf. H2O		Inches	Water Marks	Local Soil Survey
Depth to Free H20	>14	Inches	Drift Lines	FAC Neutral Test
Depth to Saturation	>14	Inches	Sediment Deposits	Other _____
			Drainage patterns	Criteria Met: No

SOILS **Mapped Series:** Nelscott loam **Hydric Soil?:** No

Classification: Typic Haplorthods **Drainage Class:** moderately well drained

Depth (Inches)	Matrix Color	Soil Texture*	Redox Concentrations Color	Redox Concentrations abundance/size/contrast	Other Hydric Soil Field Indicators	Comments
0-7	10YR 2/2	Duff/peat				Mixed organics
7-14	10YR 2/1	SCL				

*SD=Sand, SDL=Sandy Loam, L=Loam, SDCL=Sandy Clay Loam, S=Silt, SL=Silt Loam, SCL=Silty Clay Loam, CL=Clay Loam, C=Clay

Criteria Met: Yes

VEGETATION

Tree Stratum (25%)	Status	% Cover
*Picea sitchensis**	FAC	100

Shrub Stratum (70%)	Status	% Cover
*Gaultheria shallon**	FACU	100

Herbaceous Stratum (40%)	Status	% Cover
*Maianthemum dilatatum**	FAC	50
*Equisetum arvense**	FAC	50

Woody Vine Stratum (0%)	Status	% Cover

***Percent of dominant species FAC, FACW, or OBL:** 75% Criteria Met: Yes

Comments:

Determination: Upland

Wetland Determination Data Form
Routine Onsite Method

Pacific Habitat Services, Inc.

Project:	Depoe Bay LWI	Number:	2853	Sample Site	WC-7-30
Applicant:	City of Depoe Bay	County:	Lincoln	Date:	10/2/2003
Investigators:	SE/ME	Township:	9S Range: 11W	Section:	18

Do Normal Circumstances exist on this site? **Yes** Is the area a potential Problem Area? **No**

Is this an Atypical Situation? **No**

HYDROLOGY

Depth of Surf. H2O		**Inches**
Depth to Free H20	**>16**	**Inches**
Depth to Saturation	**>16**	**Inches**

Primary Indicators	**Secondary Indicators**
Inundated	**Ox. rhizospheres**
Sat. in Upper 12"	**H20-stained leaves**
Water Marks	**Local Soil Survey**
Drift Lines	**FAC Neutral Test**
Sediment Deposits	**Other** _____
Drainage patterns	**Criteria Met: No**

SOILS **Mapped Series:** Nelscott loam **Hydric Soil?:** No

Classification: Typic Haplorthods **Drainage Class:** moderately well drained

Depth (Inches)	Matrix Color	Soil Texture*	Redox Concentrations Color	Redox Concentrations abundance/size/contrast	Other Hydric Soil Field Indicators	Comments
0-16	10YR 2/2	SDL				

*SD=Sand, SDL=Sandy Loam, L=Loam, SDCL=Sandy Clay Loam, S=Silt, SL=Silt Loam, SCL=Silty Clay Loam, CL=Clay Loam, C=Clay

Criteria Met: No

VEGETATION

Tree Stratum (15%)	Status	% Cover
*Alnus rubra**	FAC	100

Shrub Stratum (55%)	Status	% Cover
*Lonicera involucrata**	FAC+	50
*Rubus parviflorus**	FAC-	20
*Gaultheria shallon**	FACU	20
Sambucus racemosa	FACU	10

Herbaceous Stratum (30%)	Status	% Cover
*Carex obnupta**	OBL	50
*Polystichum munitum**	FACU	35
Pteridium aquilinum	FACU	10
Equisetum arvense	FAC	5

Woody Vine Stratum (0%)	Status	% Cover

***Percent of dominant species FAC, FACW, or OBL:** 50% **Criteria Met: No**

Comments:

Determination: Upland

Wetland Determination Data Form
Routine Onsite Method

Pacific Habitat Services, Inc.

Project:	Depoe Bay LWI	Number:	2853	Sample Site	WC-7-31
Applicant:	City of Depoe Bay	County:	Lincoln	Date:	10/2/2003
Investigators:	SE/ME	Township:	9S Range: 11W	Section:	18

Do Normal Circumstances exist on this site? **Yes** Is the area a potential Problem Area? **No**

Is this an Atypical Situation? **No**

HYDROLOGY

Depth of Surf. H2O		Inches
Depth to Free H20	>16	Inches
Depth to Saturation	>16	Inches

Primary Indicators		Secondary Indicators
Inundated		Ox. rhizospheres
Sat. in Upper 12"		H20-stained leaves
Water Marks		Local Soil Survey
Drift Lines		FAC Neutral Test
Sediment Deposits		Other
Drainage patterns	Yes	**Criteria Met:** Yes

SOILS **Mapped Series:** Nelscott loam **Hydric Soil?:** No

Classification: Typic Haplorthods **Drainage Class:** moderately well drained

Depth (Inches)	Matrix Color	Soil Texture*	Redox Concentrations Color	Redox Concentrations abundance/size/contrast	Other Hydric Soil Field Indicators	Comments
0-16	7.5Y 2.5/1	SCL			H_2S odor	

*SD=Sand, SDL=Sandy Loam, L=Loam, SDCL=Sandy Clay Loam, S=Silt, SL=Silt Loam, SCL=Silty Clay Loam, CL=Clay Loam, C=Clay

Criteria Met: Yes

VEGETATION

Tree Stratum (0%)	Status	% Cover

Shrub Stratum (35%)	Status	% Cover
*Lonicera involucrata**	FAC+	70
*Rubus spectabilis**	FAC+	20
Gaultheria shallon	FACU	10

Herbaceous Stratum (3%)	Status	% Cover
*Carex obnupta**	OBL	85
Lysichiton americanum	OBL	15

Woody Vine Stratum (0%)	Status	% Cover

***Percent of dominant species FAC, FACW, or OBL:** 100% **Criteria Met:** Yes

Comments:

Determination: Wetland

Wetland Determination Data Form
Routine Onsite Method

Pacific Habitat Services, Inc.

Project:	Depoe Bay LWI	Number:	2853	Sample Site	WC-5-32
Applicant:	City of Depoe Bay	County:	Lincoln	Date:	9/16/2003
Investigators:	JVS/ME	Township:	9S Range: 11W	Section:	17

Do Normal Circumstances exist on this site? **Yes** Is the area a potential Problem Area? **No**

Is this an Atypical Situation? **No**

HYDROLOGY

Depth of Surf. H2O		**Inches**
Depth to Free H20	**>16**	**Inches**
Depth to Saturation	**>16**	**Inches**

Primary Indicators	**Secondary Indicators**
Inundated	**Ox. rhizospheres**
Sat. in Upper 12"	**H20-stained leaves**
Water Marks	**Local Soil Survey**
Drift Lines	**FAC Neutral Test**
Sediment Deposits	**Other** _____
Drainage patterns	**Criteria Met: No**

SOILS **Mapped Series:** Bandon fine sandy loam **Hydric Soil?:** No

Classification: Typic Haplorthods **Drainage Class:** well drained

Depth (Inches)	Matrix Color	Soil Texture*	Redox Concentrations Color	Redox Concentrations abundance/size/contrast	Other Hydric Soil Field Indicators	Comments
0-2		Duff				
2-18	10YR 2/2	L				

*SD=Sand, SDL=Sandy Loam, L=Loam, SDCL=Sandy Clay Loam, S=Silt, SL=Silt Loam, SCL=Silty Clay Loam, CL=Clay Loam, C=Clay

Criteria Met: No

VEGETATION

Tree Stratum (20%)	Status	% Cover
*Picea sitchensis**	FAC	100

Shrub Stratum (40%)	Status	% Cover
*Lonicera involucrata**	FAC+	60
*Gaultheria shallon**	FACU	40

Herbaceous Stratum (40%)	Status	% Cover
*Maianthemum dilatatum**	FAC	20
*Polystichum munitum**	FACU	60
*Equisetum hyemale**	FACW	20

Woody Vine Stratum (0%)	Status	% Cover

***Percent of dominant species FAC, FACW, or OBL:** 67% **Criteria Met: Yes**

Comments:

Determination: Upland

Wetland Determination Data Form
Routine Onsite Method

Pacific Habitat Services, Inc.

Project:	Depoe Bay LWI	Number:	2853	Sample Site	WC-5-33
Applicant:	City of Depoe Bay	County:	Lincoln	Date:	9/16/2003
Investigators:	JVS/ME	Township:	9S Range: 11W	Section:	17

Do Normal Circumstances exist on this site? **Yes** Is the area a potential Problem Area? **No**

Is this an Atypical Situation? **No**

HYDROLOGY

			Primary Indicators		Secondary Indicators	
			Inundated		Ox. rhizospheres	Yes
			Sat. in Upper 12"	Yes	H20-stained leaves	
Depth of Surf. H2O		Inches	Water Marks		Local Soil Survey	
Depth to Free H20	6	Inches	Drift Lines		FAC Neutral Test	
Depth to Saturation	0	Inches	Sediment Deposits		Other	
			Drainage patterns		Criteria Met:	Yes

SOILS **Mapped Series:** Bandon fine sandy loam **Hydric Soil?:** No

Classification: Typic Haplorthods **Drainage Class:** well drained

Depth (Inches)	Matrix Color	Soil Texture*	Redox Concentrations Color	Redox Concentrations abundance/size/contrast	Other Hydric Soil Field Indicators	Comments
0-16	10YR 2.5/1	Peat			H_2S odor	

*SD=Sand, SDL=Sandy Loam, L=Loam, SDCL=Sandy Clay Loam, S=Silt, SL=Silt Loam, SCL=Silty Clay Loam, CL=Clay Loam, C=Clay

Criteria Met: Yes

VEGETATION

Tree Stratum (3%)	Status	% Cover
*Alnus rubra**	FAC	100

Shrub Stratum (45%)	Status	% Cover
*Lonicera involucrata**	FAC+	70
*Salix hookeriana**	FACW-	30

Herbaceous Stratum (52%)	Status	% Cover
*Oenanthe sarmentosa**	OBL	80
Lysichiton americanum	OBL	10
Equisetum arvense	FAC	5
Carex obnupta	OBL	3
Agrostis exarata	FACW	2

Woody Vine Stratum (0%)	Status	% Cover

***Percent of dominant species FAC, FACW, or OBL:** 100% Criteria Met: Yes

Comments:

Determination: Wetland

Appendix D

OFWAM Data and Summary Sheets



Oregon Freshwater Wetland Assessment Methodology

(Revised Edition, April 1996)

Wetland Assessment Summary Sheet

Pacific Habitat Services, Inc.

Project Name:	Depoe Bay Local Wetlands Inventory	**Wetland:**	**NDB-1**
Project Location:	Lincoln County, Oregon	**Wetland Type(s):**	PSS, PEM

Date(s) of field work:	9/24/2003	**Approx. Area (acres):**	1.97
Onsite Assessment?:	No	**Investigator(s):**	JVS
Wetland Location:	East of Highway 101, just south of UGB		

Function and Condition Assessment Answers:

Wildlife Habitat		Fish Habitat		Water Quality		Hydrologic Control		Sensitivity to Impact	
Q	**A**	**Q**	**A**	**Q**	**A**	**Q**	**A**	**Q**	**A**
Q-1	**A**	Q-1		Q-1	**C**	Q-1	**B**	Q-1	**A**
Q-2	**C**	Q-2		Q-2	**C**	Q-2	**C**	Q-2	**B**
Q-3	**C**	Q-3		Q-3	**A**	Q-3	**B**	Q-3	**C**
Q-4	**C**	Q-4		Q-4	**B**	Q-4	**C**	Q-4	**C**
Q-5	**B**	Q-5		Q-5	**C**	Q-5	**C**	Q-5	**A**
Q-6	**B**	Q-6		Q-6	**C**	Q-6	**A**	Q-6	**C**
Q-7	**A**					Q-7	**C**		
Q-8	**A**								
Q-9A									
Q-9B	**A**								

Results:

Wildlife Habitat	Wetland provides habitat for some wildlife species
Fish Habitat	Fish habitat was not assessed for this wetland
Water Quality	Wetland's water-quality function is lost or not present
Hydrologic Control	Wetland's hydrologic control function is lost or not present
Sensitivity to Impact	Wetland is potentially sensitive to future impacts

Function and Condition Assessment Answers:

Enhancement Potential		Education		Recreation		Aesthetic Quality	
Q	**A**	**Q**	**A**	**Q**	**A**	**Q**	**A**
Q-1	**B**	Q-1	**C**	Q-1	**B**	Q-1	**B**
Q-2	**B**	Q-2	**A**	Q-2	**C**	Q-2	**A**
Q-3		Q-3	**B**	Q-3	**C**	Q-3	**A**
Q-4	**B**	Q-4	**B**	Q-4	**B**	Q-4	**A**
Q-5B	**A**	Q-5	**B**	Q-5	**B**	Q-5	**B**
Q-6	**B**	Q-6	**B**	Q-6	**B**	Q-6	**B**

Results:

Enhancement Potential	Wetland has moderate potential for enhancement
Education	Wetland site is not appropriate for educational use
Recreation	Wetland has the potential to provide recreational activities
Aesthetic Quality	Wetland is considered to be pleasing

Oregon Freshwater Wetland Assessment Methodology
Functions and Conditions Summary Sheet

Project:	Depoe Bay Local Wetlands Inventory	**Wetland:**	**NDB-1**
Location:	Lincoln County, Oregon	**Approx. Area (acres):**	1.97
Date:	9/24/2003	**Wetland Types(s):**	PSS, PEM

Result:	**Wetland provides habitat for some wildlife species**	
Rationale:	More than one Cowardin class	No adjacent Water Quality limited streams
	Herbaceous vegetation, no ponding	Adjacent land is primarily open space
	Less than 0.5 acres of open water	Wetland buffer is greater than 40%
Result:	**Fish habitat was not assessed for this wetland**	
Rationale:		
Result:	**Wetland's water-quality function is lost or not present**	
Rationale:	Primary water source is groundwater	Wetland is between 0.5 and 5 acres
	Wetland does not flood or pond	Adjacent land is primarily open space
	High wetland vegetation cover	No adjacent Water Quality Limited streams
Result:	**Wetland's hydrologic control function is lost or not present**	
Rationale:	Wetland is not within 100 year floodplain	Herbaceous vegetation, no ponding
	Wetland does not flood or pond	Development downslope of wetland
	Water has unrestricted flow out of wetland	Open space upslope of wetland
Result:	**Wetland is potentially sensitive to future impacts**	
Rationale:	Stream modified or isolated wetland	Adjacent land is primarily open space
	Water not taken out	Adjacent zoning is primarily development
	No adjacent Water Quality Limited streams	Herbaceous vegetation, no ponding
Result:	**Wetland has moderate potential for enhancement**	
Rationale:	One or more functions lost/not present	Wetland is between 0.5 and 5 acres
	Primary water source is groundwater	Wetland buffer is greater than 40%
		Potentially sensitive to future impacts
Result:	**Wetland site is not appropriate for educational use**	
Rationale:	No access allowed to wetland	Unmaintained public access within 250 feet
	No visible hazards to public	Wetland is not limited mobility accessible
	Other habitats can be observed not accessed	
Result:	**Wetland has the potential to provide recreational activities**	
Rationale:	Unmaintained public access within 250 feet	Wetland provides habitat for some wildlife
	No boat launching can be developed	No fishing is allowed
	No trails or viewing areas exist	No hunting is allowed
Result:	**Wetland is considered to be pleasing**	
Rationale:	Two Cowardin classes visible	Wetland surrounded by natural areas
	>50% of wetland can be seen	Unpleasant odors are present sometimes
	No visual detractors are present	Continuous traffic and natural noises occur

Oregon Freshwater Wetland Assessment Methodology

(Revised Edition, April 1996)

Wetland Assessment Summary Sheet

Pacific Habitat Services, Inc.

Project Name:	Depoe Bay Local Wetlands Inventory	**Wetland:**	**NDB-2**
Project Location:	Lincoln County, Oregon	**Wetland Type(s):**	PFO

Date(s) of field work:	9/30/2003	**Approx. Area (acres):**	2.19
Onsite Assessment?:	Partial	**Investigator(s):**	JVS/CR
Wetland Location:	Along the eastern UGB, North Depoe Bay Creek (incl. the reservoir)		

Function and Condition Assessment Answers:

Wildlife Habitat		Fish Habitat		Water Quality		Hydrologic Control		Sensitivity to Impact	
Q	A	Q	A	Q	A	Q	A	Q	A
Q-1	A	Q-1	A	Q-1	A	Q-1	B	Q-1	A
Q-2	A	Q-2	B	Q-2	A	Q-2	A	Q-2	B
Q-3	B	Q-3	A	Q-3	A	Q-3	B	Q-3	C
Q-4	C	Q-4	A	Q-4	B	Q-4	B	Q-4	C
Q-5	A	Q-5	A	Q-5	C	Q-5	A	Q-5	C
Q-6	A	Q-6	A	Q-6	C	Q-6	C	Q-6	A
Q-7	A					Q-7	C		
Q-8	A								
Q-9A									
Q-9B	A								

Results:

Wildlife Habitat	Wetland provides diverse wildlife habitat
Fish Habitat	Wetland's fish habitat function is intact
Water Quality	Wetland's water-quality function is intact
Hydrologic Control	Wetland's hydrologic control is impacted or degraded
Sensitivity to Impact	Wetland is potentially sensitive to future impacts

Function and Condition Assessment Answers:

Enhancement Potential		Education		Recreation		Aesthetic Quality	
Q	A	Q	A	Q	A	Q	A
Q-1		Q-1	C	Q-1	C	Q-1	A
Q-2		Q-2	A	Q-2	C	Q-2	C
Q-3		Q-3	A	Q-3	C	Q-3	C
Q-4		Q-4	B	Q-4	A	Q-4	A
Q-5B		Q-5	C	Q-5	B	Q-5	A
Q-6		Q-6	B	Q-6	B	Q-6	A

Results:

Enhancement Potential	Due to diverse wildlife habitat, this wetland cannot be enhanced
Education	Wetland site is not appropriate for educational use
Recreation	Wetland is not appropriate or does not provide rec. opportunities
Aesthetic Quality	Wetland is not aesthetically pleasing

Oregon Freshwater Wetland Assessment Methodology
Functions and Conditions Summary Sheet

Project:	Depoe Bay Local Wetlands Inventory	**Wetland:**	**NDB-2**
Location:	Lincoln County, Oregon	**Approx. Area (acres):**	2.19
Date:	9/30/2003	**Wetland Types(s):**	PFO

Result:	**Wetland provides diverse wildlife habitat**	
Rationale:	More than one Cowardin class	No adjacent Water Quality limited streams
	Dominated by woody vegetation	Adjacent land is primarily open space
	Less than 0.5 acres of open water	Wetland buffer is greater than 40%
Result:	**Wetland's fish habitat function is intact**	
Rationale:	50% or more of stream is shaded	No adjacent Water Quality Limited streams
	Only portions of stream are modified	Adjacent land is primarily open space
	>25% of stream has instream structures	Salmon and/or trout present in stream
Result:	**Wetland's water-quality function is intact**	
Rationale:	Primary water source is surface flow	Wetland is between 0.5 and 5 acres
	Wetland floods/ponds in growing season	Adjacent land is primarily open space
	High wetland vegetation cover	No adjacent Water Quality Limited streams
Result:	**Wetland's hydrologic control is impacted or degraded**	
Rationale:	Wetland is not within 100 year floodplain	Dominated by woody vegetation
	Wetland floods/ponds in growing season	Open space downslope of development
	Minor restrictions slow down the water	Open space upslope of wetland
Result:	**Wetland is potentially sensitive to future impacts**	
Rationale:	Stream modified or isolated wetland	Adjacent land is primarily open space
	Water not taken out	Adjacent zoning is mostly open space
	No adjacent Water Quality Limited streams	Dominated by woody vegetation
Result:	**Due to diverse wildlife habitat, this wetland cannot be enhanced**	
Rationale:		
Result:	**Wetland site is not appropriate for educational use**	
Rationale:	No access allowed to wetland	No access point to wetland exists
	No visible hazards to public	Wetland is not limited mobility accessible
	Other habitats can be observed not accessed	
Result:	***Wetland is not appropriate or does not provide rec. opportunities***	
Rationale:	No access point to wetland exists	Wetland provides diverse wildlife habitat
	No boat launching can be developed	No fishing is allowed
	No trails or viewing areas exist	No hunting is allowed
Result:	**Wetland is not aesthetically pleasing**	
Rationale:	More than two Cowardin classes are visible	Wetland surrounded by natural areas
	Less than 25% of wetland can be seen	Natural odors present at wetland
	Visual detractors present, can't be removed	Some traffic and natural noises are present

Oregon Freshwater Wetland Assessment Methodology

(Revised Edition, April 1996)

Wetland Assessment Summary Sheet

Pacific Habitat Services, Inc.

Project Name:	Depoe Bay Local Wetlands Inventory	**Wetland:**	**NDB-3**
Project Location:	Lincoln County, Oregon	**Wetland Type(s):**	PFO, PEM

Date(s) of field work:	9/24/2003	**Approx. Area (acres):**	1.23
Onsite Assessment?:	Yes	**Investigator(s):**	JVS/FS
Wetland Location:	Collins Road, at edge of drainageway		

Function and Condition Assessment Answers:

Wildlife Habitat		Fish Habitat		Water Quality		Hydrologic Control		Sensitivity to Impact	
Q	**A**	**Q**	**A**	**Q**	**A**	**Q**	**A**	**Q**	**A**
Q-1	**A**	Q-1	**A**	Q-1	**C**	Q-1	**B**	Q-1	**B**
Q-2	**A**	Q-2	**B**	Q-2	**A**	Q-2	**A**	Q-2	**B**
Q-3	**B**	Q-3	**A**	Q-3	**A**	Q-3	**B**	Q-3	**C**
Q-4	**C**	Q-4	**A**	Q-4	**B**	Q-4	**B**	Q-4	**A**
Q-5	**A**	Q-5	**C**	Q-5	**A**	Q-5	**A**	Q-5	**A**
Q-6	**A**	Q-6	**B**	Q-6	**C**	Q-6	**A**	Q-6	**A**
Q-7	**A**					Q-7	**C**		
Q-8	**C**								
Q-9A									
Q-9B	**A**								

Results:

Wildlife Habitat	Wetland provides habitat for some wildlife species
Fish Habitat	Wetland's fish habitat function is intact
Water Quality	Wetland's water-quality function is impacted or degraded
Hydrologic Control	Wetland's hydrologic control is impacted or degraded
Sensitivity to Impact	Wetland is potentially sensitive to future impacts

Function and Condition Assessment Answers:

Enhancement Potential		Education		Recreation		Aesthetic Quality	
Q	**A**	**Q**	**A**	**Q**	**A**	**Q**	**A**
Q-1	**A**	Q-1	**C**	Q-1	**C**	Q-1	**B**
Q-2	**B**	Q-2	**A**	Q-2	**C**	Q-2	**C**
Q-3		Q-3	**A**	Q-3	**C**	Q-3	**B**
Q-4	**B**	Q-4	**A**	Q-4	**B**	Q-4	**B**
Q-5B	**A**	Q-5	**C**	Q-5	**B**	Q-5	**A**
Q-6	**B**	Q-6	**A**	Q-6	**B**	Q-6	**A**

Results:

Enhancement Potential	Wetland has high enhancement potential
Education	Wetland site is not appropriate for educational use
Recreation	Wetland is not appropriate or does not provide rec. opportunities
Aesthetic Quality	Wetland is considered to be moderately pleasing

Oregon Freshwater Wetland Assessment Methodology
Functions and Conditions Summary Sheet

Project:	Depoe Bay Local Wetlands Inventory	**Wetland:**	**NDB-3**
Location:	Lincoln County, Oregon	**Approx. Area (acres):**	1.23
Date:	9/24/2003	**Wetland Types(s):**	PFO, PEM

Result:	**Wetland provides habitat for some wildlife species**	
Rationale:	More than one Cowardin class	No adjacent Water Quality limited streams
	Dominated by woody vegetation	Adjacent land is mostly developed
	Less than 0.5 acres of open water	Wetland buffer is greater than 40%
Result:	**Wetland's fish habitat function is intact**	
Rationale:	50% or more of stream is shaded	No adjacent Water Quality Limited streams
	Only portions of stream are modified	Adjacent land is mostly developed
	>25% of stream has instream structures	Warmwater fish present in stream
Result:	**Wetland's water-quality function is impacted or degraded**	
Rationale:	Primary water source is groundwater	Wetland is between 0.5 and 5 acres
	Wetland floods/ponds in growing season	Adjacent land is mostly developed
	High wetland vegetation cover	No adjacent Water Quality Limited streams
Result:	**Wetland's hydrologic control is impacted or degraded**	
Rationale:	Wetland is not within 100 year floodplain	Dominated by woody vegetation
	Wetland floods/ponds in growing season	Development downslope of wetland
	Minor restrictions slow down the water	Open space upslope of wetland
Result:	**Wetland is potentially sensitive to future impacts**	
Rationale:	Stream not modified	Adjacent land is mostly developed
	Water not taken out	Adjacent zoning is primarily development
	No adjacent Water Quality Limited streams	Dominated by woody vegetation
Result:	**Wetland has high enhancement potential**	
Rationale:	Wetland functions are impacted or degraded	Wetland is between 0.5 and 5 acres
	Primary water source is groundwater	Wetland buffer is greater than 40%
		Potentially sensitive to future impacts
Result:	**Wetland site is not appropriate for educational use**	
Rationale:	No access allowed to wetland	No access point to wetland exists
	No visible hazards to public	Wetland is limited mobility accessible
	Public access to other habitats exist	
Result:	**Wetland is not appropriate or does not provide rec. opportunities**	
Rationale:	No access point to wetland exists	Wetland provides habitat for some wildlife
	No boat launching can be developed	No fishing is allowed
	No trails or viewing areas exist	No hunting is allowed
Result:	**Wetland is considered to be moderately pleasing**	
Rationale:	Two Cowardin classes visible	Wetland surrounded by landscaped areas
	Less than 25% of wetland can be seen	Natural odors present at wetland
	Visual detractors present, can be removed	Some traffic and natural noises are present

Oregon Freshwater Wetland Assessment Methodology

(Revised Edition, April 1996)

Wetland Assessment Summary Sheet

Pacific Habitat Services, Inc.

Project Name:	Depoe Bay Local Wetlands Inventory	**Wetland:**	**SDB-1**
Project Location:	Lincoln County, Oregon	**Wetland Type(s):**	PFO, PEM

Date(s) of field work:	9/24/2003	**Approx. Area (acres):**	1.60
Onsite Assessment?:	Yes	**Investigator(s):**	JVS/FS
Wetland Location:	Depoe Bay Creek and unnamed tributary; east of Winchell Street		

Function and Condition Assessment Answers:

Wildlife Habitat		Fish Habitat		Water Quality		Hydrologic Control		Sensitivity to Impact	
Q	A	Q	A	Q	A	Q	A	Q	A
Q-1	A	Q-1	B	Q-1	A	Q-1	B	Q-1	B
Q-2	A	Q-2	A	Q-2	A	Q-2	A	Q-2	B
Q-3	C	Q-3	A	Q-3	A	Q-3	C	Q-3	C
Q-4	C	Q-4	A	Q-4	B	Q-4	C	Q-4	C
Q-5	A	Q-5	A	Q-5	C	Q-5	A	Q-5	C
Q-6	A	Q-6	C	Q-6	C	Q-6	C	Q-6	A
Q-7	A					Q-7	C		
Q-8	A								
Q-9A									
Q-9B	A								

Results:

Wildlife Habitat	Wetland provides habitat for some wildlife species
Fish Habitat	Wetland's fish habitat function is intact
Water Quality	Wetland's water-quality function is intact
Hydrologic Control	Wetland's hydrologic control function is lost or not present
Sensitivity to Impact	Wetland is potentially sensitive to future impacts

Function and Condition Assessment Answers:

Enhancement Potential		Education		Recreation		Aesthetic Quality	
Q	A	Q	A	Q	A	Q	A
Q-1	A	Q-1	C	Q-1	C	Q-1	B
Q-2	A	Q-2	A	Q-2	C	Q-2	C
Q-3	A	Q-3	A	Q-3	A	Q-3	A
Q-4	C	Q-4	B	Q-4	B	Q-4	A
Q-5B	A	Q-5	C	Q-5	B	Q-5	A
Q-6	B	Q-6	B	Q-6	B	Q-6	C

Results:

Enhancement Potential	Wetland has high enhancement potential
Education	Wetland site is not appropriate for educational use
Recreation	Wetland is not appropriate or does not provide rec. opportunities
Aesthetic Quality	Wetland is not aesthetically pleasing

Oregon Freshwater Wetland Assessment Methodology
Functions and Conditions Summary Sheet

Project:	Depoe Bay Local Wetlands Inventory	**Wetland:**	**SDB-1**
Location:	Lincoln County, Oregon	**Approx. Area (acres):**	1.60
Date:	9/24/2003	**Wetland Types(s):**	PFO, PEM

Result:	**Wetland provides habitat for some wildlife species**	
Rationale:	More than one Cowardin class	No adjacent Water Quality limited streams
	Dominated by woody vegetation	Adjacent land is primarily open space
	Less than 0.5 acres of open water	Wetland buffer is greater than 40%
Result:	**Wetland's fish habitat function is intact**	
Rationale:	25-50% of stream is shaded	No adjacent Water Quality Limited streams
	Stream is in a natural channel	Adjacent land is primarily open space
	>25% of stream has instream structures	Stream does not contain fish
Result:	**Wetland's water-quality function is intact**	
Rationale:	Primary water source is surface flow	Surface water connection to other wetlands
	Wetland floods/ponds in growing season	Adjacent land is primarily open space
	High wetland vegetation cover	No adjacent Water Quality Limited streams
Result:	**Wetland's hydrologic control function is lost or not present**	
Rationale:	Wetland is not within 100 year floodplain	Dominated by woody vegetation
	Wetland floods/ponds in growing season	Open space downslope of development
	Water has unrestricted flow out of wetland	Open space upslope of wetland
Result:	**Wetland is potentially sensitive to future impacts**	
Rationale:	Stream not modified	Adjacent land is primarily open space
	Water not taken out	Adjacent zoning is mostly open space
	No adjacent Water Quality Limited streams	Dominated by woody vegetation
Result:	**Wetland has high enhancement potential**	
Rationale:	Wetland functions are impacted or degraded	Wetland is less than 0.5 acres
	Primary water source is surface flow	Wetland buffer is greater than 40%
	Flow into wetland is not restricted	Potentially sensitive to future impacts
Result:	**Wetland site is not appropriate for educational use**	
Rationale:	No access allowed to wetland	No access point to wetland exists
	No visible hazards to public	Wetland is not limited mobility accessible
	Other habitats can be observed not accessed	
Result:	**Wetland is not appropriate or does not provide rec. opportunities**	
Rationale:	No access point to wetland exists	Wetland provides habitat for some wildlife
	No boat launching can be developed	No fishing is allowed
	Maintained trails, viewing areas exist	No hunting is allowed
Result:	**Wetland is not aesthetically pleasing**	
Rationale:	Two Cowardin classes visible	Wetland surrounded by natural areas
	Less than 25% of wetland can be seen	Natural odors present at wetland
	No visual detractors are present	Traffic noise and no natural noises

Oregon Freshwater Wetland Assessment Methodology

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Wetland Assessment Summary Sheet

Pacific Habitat Services, Inc.

Project Name:	Depoe Bay Local Wetlands Inventory	**Wetland:**	**SDB-2**
Project Location:	Lincoln County, Oregon	**Wetland Type(s):**	PFO

Date(s) of field work:	9/30/2003	**Approx. Area (acres):**	1.90
Onsite Assessment?:	Yes	**Investigator(s):**	JVS/CR
Wetland Location:	Southern tributaries of South Depoe Bay Creek; Shell Ln south to UGB		

Function and Condition Assessment Answers:

Wildlife Habitat		Fish Habitat		Water Quality		Hydrologic Control		Sensitivity to Impact	
Q	A	Q	A	Q	A	Q	A	Q	A
Q-1	A	Q-1	A	Q-1	C	Q-1	B	Q-1	B
Q-2	A	Q-2	A	Q-2	A	Q-2	A	Q-2	B
Q-3	B	Q-3	A	Q-3	A	Q-3	A	Q-3	C
Q-4	C	Q-4	A	Q-4	A	Q-4	C	Q-4	C
Q-5	A	Q-5	A	Q-5	C	Q-5	A	Q-5	A
Q-6	A	Q-6	A	Q-6	C	Q-6	A	Q-6	A
Q-7	A					Q-7	C		
Q-8	A								
Q-9A									
Q-9B	A								

Results:

Wildlife Habitat	Wetland provides diverse wildlife habitat
Fish Habitat	Wetland's fish habitat function is intact
Water Quality	Wetland's water-quality function is impacted or degraded
Hydrologic Control	Wetland's hydrologic control function is intact
Sensitivity to Impact	Wetland is potentially sensitive to future impacts

Function and Condition Assessment Answers:

Enhancement Potential		Education		Recreation		Aesthetic Quality	
Q	A	Q	A	Q	A	Q	A
Q-1		Q-1	B	Q-1	A	Q-1	B
Q-2		Q-2	A	Q-2	C	Q-2	C
Q-3		Q-3	A	Q-3	A	Q-3	A
Q-4		Q-4	A	Q-4	A	Q-4	A
Q-5B		Q-5	A	Q-5	B	Q-5	A
Q-6		Q-6	B	Q-6	B	Q-6	A

Results:

Enhancement Potential	Due to diverse wildlife habitat, this wetland cannot be enhanced
Education	Wetland has potential for educational use
Recreation	Wetland provides recreational opportunities
Aesthetic Quality	Wetland is considered to be moderately pleasing

Oregon Freshwater Wetland Assessment Methodology
Functions and Conditions Summary Sheet

Project:	Depoe Bay Local Wetlands Inventory	**Wetland:**	**SDB-2**
Location:	Lincoln County, Oregon	**Approx. Area (acres):**	1.90
Date:	9/30/2003	**Wetland Types(s):**	PFO

Result:	**Wetland provides diverse wildlife habitat**	
Rationale:	More than one Cowardin class	No adjacent Water Quality limited streams
	Dominated by woody vegetation	Adjacent land is primarily open space
	Less than 0.5 acres of open water	Wetland buffer is greater than 40%
Result:	**Wetland's fish habitat function is intact**	
Rationale:	50% or more of stream is shaded	No adjacent Water Quality Limited streams
	Stream is in a natural channel	Adjacent land is primarily open space
	>25% of stream has instream structures	Salmon and/or trout present in stream
Result:	**Wetland's water-quality function is impacted or degraded**	
Rationale:	Primary water source is groundwater	Wetland is between 0.5 and 5 acres
	Wetland floods/ponds in growing season	Adjacent land is primarily open space
	High wetland vegetation cover	No adjacent Water Quality Limited streams
Result:	**Wetland's hydrologic control function is intact**	
Rationale:	Wetland is not within 100 year floodplain	Dominated by woody vegetation
	Wetland floods/ponds in growing season	Development downslope of wetland
	Water has unrestricted flow out of wetland	Open space upslope of wetland
Result:	**Wetland is potentially sensitive to future impacts**	
Rationale:	Stream not modified	Adjacent land is primarily open space
	Water not taken out	Adjacent zoning is primarily development
	No adjacent Water Quality Limited streams	Dominated by woody vegetation
Result:	**Due to diverse wildlife habitat, this wetland cannot be enhanced**	
Rationale:		
Result:	**Wetland has potential for educational use**	
Rationale:	Wetland access by landowner permission	Maintained public access within 250 feet
	No visible hazards to public	Wetland is not limited mobility accessible
	Public access to other habitats exist	
Result:	**Wetland provides recreational opportunities**	
Rationale:	Maintained public access within 250 feet	Wetland provides diverse wildlife habitat
	No boat launching can be developed	No fishing is allowed
	Maintained trails, viewing areas exist	No hunting is allowed
Result:	**Wetland is considered to be moderately pleasing**	
Rationale:	Two Cowardin classes visible	Wetland surrounded by natural areas
	Less than 25% of wetland can be seen	Natural odors present at wetland
	No visual detractors are present	Some traffic and natural noises are present

Oregon Freshwater Wetland Assessment Methodology

(Revised Edition, April 1996)

Wetland Assessment Summary Sheet

Pacific Habitat Services, Inc.

Project Name:	Depoe Bay Local Wetlands Inventory	**Wetland:**	**WC-1A**
Project Location:	Lincoln County, Oregon	**Wetland Type(s):**	PSS, PFO, PEM

Date(s) of field work:	10/10 & 10/23/2003	**Approx. Area (acres):**	7.90
Onsite Assessment?:	No	**Investigator(s):**	ME/SE/JVS/CR
Wetland Location:	South Point Street south to Singing Tree Street.		

Function and Condition Assessment Answers:

Wildlife Habitat		Fish Habitat		Water Quality		Hydrologic Control		Sensitivity to Impact	
Q	A	Q	A	Q	A	Q	A	Q	A
Q-1	A	Q-1		Q-1	C	Q-1	B	Q-1	B
Q-2	A	Q-2		Q-2	A	Q-2	A	Q-2	B
Q-3	B	Q-3		Q-3	A	Q-3	A	Q-3	C
Q-4	C	Q-4		Q-4	A	Q-4	A	Q-4	A
Q-5	A	Q-5		Q-5	A	Q-5	A	Q-5	A
Q-6	A	Q-6		Q-6	C	Q-6	A	Q-6	A
Q-7	A					Q-7	A		
Q-8	C								
Q-9A									
Q-9B	B								

Results:

Wildlife Habitat	Wetland provides habitat for some wildlife species
Fish Habitat	Fish habitat was not assessed for this wetland
Water Quality	Wetland's water-quality function is impacted or degraded
Hydrologic Control	Wetland's hydrologic control function is intact
Sensitivity to Impact	Wetland is potentially sensitive to future impacts

Function and Condition Assessment Answers:

Enhancement Potential		Education		Recreation		Aesthetic Quality	
Q	A	Q	A	Q	A	Q	A
Q-1	B	Q-1	B	Q-1	C	Q-1	A
Q-2	B	Q-2	A	Q-2	C	Q-2	A
Q-3		Q-3	B	Q-3	C	Q-3	C
Q-4	A	Q-4	B	Q-4	B	Q-4	C
Q-5B	B	Q-5	C	Q-5	B	Q-5	A
Q-6	B	Q-6	B	Q-6	B	Q-6	B

Results:

Enhancement Potential	Wetland has moderate potential for enhancement
Education	Wetland has potential for educational use
Recreation	Wetland is not appropriate or does not provide rec. opportunities
Aesthetic Quality	Wetland is not aesthetically pleasing

Oregon Freshwater Wetland Assessment Methodology
Functions and Conditions Summary Sheet

Project:	Depoe Bay Local Wetlands Inventory	**Wetland:**	**WC-1A**
Location:	Lincoln County, Oregon	**Approx. Area (acres):**	7.90
Date:	10/10 & 10/23/2003	**Wetland Types(s):**	PSS, PFO, PEM

Result:	**Wetland provides habitat for some wildlife species**	
Rationale:	More than one Cowardin class	No adjacent Water Quality limited streams
	Dominated by woody vegetation	Adjacent land is mostly developed
	Less than 0.5 acres of open water	Wetland buffer is between 10% and 40%
Result:	**Fish habitat was not assessed for this wetland**	
Rationale:		
Result:	**Wetland's water-quality function is impacted or degraded**	
Rationale:	Primary water source is groundwater	Wetland is greater than 5 acres
	Wetland floods/ponds in growing season	Adjacent land is mostly developed
	High wetland vegetation cover	No adjacent Water Quality Limited streams
Result:	**Wetland's hydrologic control function is intact**	
Rationale:	Wetland is not within 100 year floodplain	Dominated by woody vegetation
	Wetland floods/ponds in growing season	Development downslope of wetland
	Flow out of wetland is restricted	Development upslope of wetland
Result:	**Wetland is potentially sensitive to future impacts**	
Rationale:	Stream not modified	Adjacent land is mostly developed
	Water not taken out	Adjacent zoning is primarily development
	No adjacent Water Quality Limited streams	Dominated by woody vegetation
Result:	**Wetland has moderate potential for enhancement**	
Rationale:	One or more functions lost/not present	Wetland is greater than 5 acres
	Primary water source is groundwater	Wetland buffer is between 10% and 40%
		Potentially sensitive to future impacts
Result:	**Wetland has potential for educational use**	
Rationale:	Wetland access by landowner permission	No access point to wetland exists
	No visible hazards to public	Wetland is not limited mobility accessible
	Other habitats can be observed not accessed	
Result:	**Wetland is not appropriate or does not provide rec. opportunities**	
Rationale:	No access point to wetland exists	Wetland provides habitat for some wildlife
	No boat launching can be developed	No fishing is allowed
	No trails or viewing areas exist	No hunting is allowed
Result:	**Wetland is not aesthetically pleasing**	
Rationale:	More than two Cowardin classes are visible	Wetland surrounded by development
	>50% of wetland can be seen	Natural odors present at wetland
	Visual detractors present, can't be removed	Continuous traffic and natural noises occur

Oregon Freshwater Wetland Assessment Methodology

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Wetland Assessment Summary Sheet

Pacific Habitat Services, Inc.

Project Name:	Depoe Bay Local Wetlands Inventory	**Wetland:**	**WC-1B**
Project Location:	Lincoln County, Oregon	**Wetland Type(s):**	PSS, PEM, PFO

Date(s) of field work:	10/2/03, 10/16/03	**Approx. Area (acres):**	0.3 (approximate)
Onsite Assessment?:	No	**Investigator(s):**	JVS/FS, SE/ME
Wetland Location:	Northeast of Meadow Ln., northwest of Singing tree St.		

Function and Condition Assessment Answers:

Wildlife Habitat		Fish Habitat		Water Quality		Hydrologic Control		Sensitivity to Impact	
Q	A	Q	A	Q	A	Q	A	Q	A
Q-1	A	Q-1		Q-1	C	Q-1	B	Q-1	B
Q-2	C	Q-2		Q-2	B	Q-2	B	Q-2	B
Q-3	B	Q-3		Q-3	A	Q-3	A	Q-3	C
Q-4	C	Q-4		Q-4	A	Q-4	C	Q-4	C
Q-5	B	Q-5		Q-5	C	Q-5	C	Q-5	A
Q-6	B	Q-6		Q-6	C	Q-6	C	Q-6	C
Q-7	A					Q-7	A		
Q-8	A								
Q-9A									
Q-9B	A								

Results:

Wildlife Habitat	Wetland provides habitat for some wildlife species
Fish Habitat	Fish habitat was not assessed for this wetland
Water Quality	Wetland's water-quality function is impacted or degraded
Hydrologic Control	Wetland's hydrologic control is impacted or degraded
Sensitivity to Impact	Wetland is potentially sensitive to future impacts

Function and Condition Assessment Answers:

Enhancement Potential		Education		Recreation		Aesthetic Quality	
Q	A	Q	A	Q	A	Q	A
Q-1	B	Q-1	B	Q-1	B	Q-1	A
Q-2	B	Q-2	A	Q-2	C	Q-2	A
Q-3		Q-3	B	Q-3	C	Q-3	A
Q-4	A	Q-4	A	Q-4	B	Q-4	A
Q-5B	A	Q-5	B	Q-5	B	Q-5	A
Q-6	B	Q-6	B	Q-6	B	Q-6	A

Results:

Enhancement Potential	Wetland has moderate potential for enhancement
Education	Wetland has potential for educational use
Recreation	Wetland has the potential to provide recreational activities
Aesthetic Quality	Wetland is considered to be pleasing

Oregon Freshwater Wetland Assessment Methodology
Functions and Conditions Summary Sheet

Project:	Depoe Bay Local Wetlands Inventory	**Wetland:**	**WC-1B**
Location:	Lincoln County, Oregon	**Approx. Area (acres):**	0.3 (approximate)
Date:	10/2/03, 10/16/03	**Wetland Types(s):**	PSS, PEM, PFO

Result:	**Wetland provides habitat for some wildlife species**	
Rationale:	More than one Cowardin class	No adjacent Water Quality limited streams
	Herbaceous vegetation, no ponding	Adjacent land is primarily open space
	Less than 0.5 acres of open water	Wetland buffer is greater than 40%
Result:	**Fish habitat was not assessed for this wetland**	
Rationale:		
Result:	**Wetland's water-quality function is impacted or degraded**	
Rationale:	Primary water source is groundwater	Wetland is between 0.5 and 5 acres
	Can't determine if wetland floods or ponds	Adjacent land is primarily open space
	High wetland vegetation cover	No adjacent Water Quality Limited streams
Result:	**Wetland's hydrologic control is impacted or degraded**	
Rationale:	Wetland is not within 100 year floodplain	Herbaceous vegetation, no ponding
	Can't determine if wetland floods or ponds	Open space downslope of development
	Water has unrestricted flow out of wetland	Development upslope of wetland
Result:	**Wetland is potentially sensitive to future impacts**	
Rationale:	Stream not modified	Adjacent land is primarily open space
	Water not taken out	Adjacent zoning is primarily development
	No adjacent Water Quality Limited streams	Herbaceous vegetation, no ponding
Result:	**Wetland has moderate potential for enhancement**	
Rationale:	One or more functions lost/not present	Wetland is greater than 5 acres
	Primary water source is groundwater	Wetland buffer is greater than 40%
		Potentially sensitive to future impacts
Result:	**Wetland has potential for educational use**	
Rationale:	Wetland access by landowner permission	Unmaintained public access within 250 feet
	No visible hazards to public	Wetland is not limited mobility accessible
	Public access to other habitats exist	
Result:	**Wetland has the potential to provide recreational activities**	
Rationale:	Unmaintained public access within 250 feet	Wetland provides habitat for some wildlife
	No boat launching can be developed	No fishing is allowed
	No trails or viewing areas exist	No hunting is allowed
Result:	**Wetland is considered to be pleasing**	
Rationale:	More than two Cowardin classes are visible	Wetland surrounded by natural areas
	>50% of wetland can be seen	Natural odors present at wetland
	No visual detractors are present	Some traffic and natural noises are present

Oregon Freshwater Wetland Assessment Methodology

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Wetland Assessment Summary Sheet

Pacific Habitat Services, Inc.

Project Name:	Depoe Bay Local Wetlands Inventory	**Wetland:**	**WC-2**
Project Location:	Lincoln County, Oregon	**Wetland Type(s):**	PSS

Date(s) of field work:	11/29/03	**Approx. Area (acres):**	0.36
Onsite Assessment?:	Partial	**Investigator(s):**	SE/ME/JVS
Wetland Location:	South of treament plant, south of South Point Street		

Function and Condition Assessment Answers:

Wildlife Habitat		Fish Habitat		Water Quality		Hydrologic Control		Sensitivity to Impact	
Q	A	Q	A	Q	A	Q	A	Q	A
Q-1	B	Q-1		Q-1	C	Q-1	B	Q-1	B
Q-2	A	Q-2		Q-2	B	Q-2	B	Q-2	B
Q-3	C	Q-3		Q-3	A	Q-3	C	Q-3	C
Q-4	C	Q-4		Q-4	B	Q-4	C	Q-4	C
Q-5	A	Q-5		Q-5	C	Q-5	A	Q-5	A
Q-6	A	Q-6		Q-6	C	Q-6	A	Q-6	A
Q-7	A					Q-7	C		
Q-8	A								
Q-9A									
Q-9B	A								

Results:

Wildlife Habitat	Wetland provides habitat for some wildlife species
Fish Habitat	Fish habitat was not assessed for this wetland
Water Quality	Wetland's water-quality function is impacted or degraded
Hydrologic Control	Wetland's hydrologic control is impacted or degraded
Sensitivity to Impact	Wetland is potentially sensitive to future impacts

Function and Condition Assessment Answers:

Enhancement Potential		Education		Recreation		Aesthetic Quality	
Q	A	Q	A	Q	A	Q	A
Q-1	B	Q-1	C	Q-1	C	Q-1	C
Q-2	B	Q-2	A	Q-2	C	Q-2	C
Q-3		Q-3	B	Q-3	C	Q-3	A
Q-4	C	Q-4	B	Q-4	B	Q-4	A
Q-5B	A	Q-5	C	Q-5	B	Q-5	A
Q-6	B	Q-6	B	Q-6	B	Q-6	B

Results:

Enhancement Potential	Wetland has moderate potential for enhancement
Education	Wetland site is not appropriate for educational use
Recreation	Wetland is not appropriate or does not provide rec. opportunities
Aesthetic Quality	Wetland is not aesthetically pleasing

Oregon Freshwater Wetland Assessment Methodology
Functions and Conditions Summary Sheet

Project:	Depoe Bay Local Wetlands Inventory	**Wetland:**	**WC-2**
Location:	Lincoln County, Oregon	**Approx. Area (acres):**	0.36
Date:	11/29/03	**Wetland Types(s):**	PSS

Result:	**Wetland provides habitat for some wildlife species**	
Rationale:	One Cowardin class with > 5 species	No adjacent Water Quality limited streams
	Dominated by woody vegetation	Adjacent land is primarily open space
	Less than 0.5 acres of open water	Wetland buffer is greater than 40%
Result:	**Fish habitat was not assessed for this wetland**	
Rationale:		
Result:	**Wetland's water-quality function is impacted or degraded**	
Rationale:	Primary water source is groundwater	Surface water connection to other wetlands
	Can't determine if wetland floods or ponds	Adjacent land is primarily open space
	High wetland vegetation cover	No adjacent Water Quality Limited streams
Result:	**Wetland's hydrologic control is impacted or degraded**	
Rationale:	Wetland is not within 100 year floodplain	Dominated by woody vegetation
	Can't determine if wetland floods or ponds	Development downslope of wetland
	Water has unrestricted flow out of wetland	Open space upslope of wetland
Result:	**Wetland is potentially sensitive to future impacts**	
Rationale:	Stream not modified	Adjacent land is primarily open space
	Water not taken out	Adjacent zoning is primarily development
	No adjacent Water Quality Limited streams	Dominated by woody vegetation
Result:	**Wetland has moderate potential for enhancement**	
Rationale:	One or more functions lost/not present	Wetland is less than 0.5 acres
	Primary water source is groundwater	Wetland buffer is greater than 40%
		Potentially sensitive to future impacts
Result:	**Wetland site is not appropriate for educational use**	
Rationale:	No access allowed to wetland	No access point to wetland exists
	No visible hazards to public	Wetland is not limited mobility accessible
	Other habitats can be observed not accessed	
Result:	**Wetland is not appropriate or does not provide rec. opportunities**	
Rationale:	No access point to wetland exists	Wetland provides habitat for some wildlife
	No boat launching can be developed	No fishing is allowed
	No trails or viewing areas exist	No hunting is allowed
Result:	**Wetland is not aesthetically pleasing**	
Rationale:	One Cowardin class is visible	Wetland surrounded by natural areas
	Less than 25% of wetland can be seen	Natural odors present at wetland
	No visual detractors are present	Continuous traffic and natural noises occur

Oregon Freshwater Wetland Assessment Methodology

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Wetland Assessment Summary Sheet

Pacific Habitat Services, Inc.

Project Name:	Depoe Bay Local Wetlands Inventory	**Wetland:**	**WC-3**
Project Location:	Lincoln County, Oregon	**Wetland Type(s):**	PSS, PEM

Date(s) of field work:	10/2/2003	**Approx. Area (acres):**	0.79
Onsite Assessment?:	No	**Investigator(s):**	ME/SE
Wetland Location:	South and east of Cardinal St., north of Edgewater		

Function and Condition Assessment Answers:

Wildlife Habitat		Fish Habitat		Water Quality		Hydrologic Control		Sensitivity to Impact	
Q	A	Q	A	Q	A	Q	A	Q	A
Q-1	A	Q-1		Q-1	B	Q-1	B	Q-1	B
Q-2	A	Q-2		Q-2	A	Q-2	A	Q-2	B
Q-3	C	Q-3		Q-3	A	Q-3	B	Q-3	C
Q-4	C	Q-4		Q-4	B	Q-4	C	Q-4	A
Q-5	A	Q-5		Q-5	A	Q-5	A	Q-5	A
Q-6	A	Q-6		Q-6	C	Q-6	A	Q-6	A
Q-7	A					Q-7	A		
Q-8	C								
Q-9A									
Q-9B	B								

Results:

Wildlife Habitat	Wetland provides habitat for some wildlife species
Fish Habitat	Fish habitat was not assessed for this wetland
Water Quality	Wetland's water-quality function is intact
Hydrologic Control	Wetland's hydrologic control function is intact
Sensitivity to Impact	Wetland is potentially sensitive to future impacts

Function and Condition Assessment Answers:

Enhancement Potential		Education		Recreation		Aesthetic Quality	
Q	A	Q	A	Q	A	Q	A
Q-1	B	Q-1	C	Q-1	A	Q-1	B
Q-2	C	Q-2	A	Q-2	C	Q-2	B
Q-3		Q-3	B	Q-3	C	Q-3	A
Q-4	B	Q-4	A	Q-4	B	Q-4	C
Q-5B	B	Q-5	A	Q-5	B	Q-5	A
Q-6	B	Q-6	A	Q-6	B	Q-6	A

Results:

Enhancement Potential	Wetland has moderate potential for enhancement
Education	Wetland site is not appropriate for educational use
Recreation	Wetland has the potential to provide recreational activities
Aesthetic Quality	Wetland is considered to be moderately pleasing

Oregon Freshwater Wetland Assessment Methodology
Functions and Conditions Summary Sheet

Project:	Depoe Bay Local Wetlands Inventory	**Wetland:**	**WC-3**
Location:	Lincoln County, Oregon	**Approx. Area (acres):**	0.79
Date:	10/2/2003	**Wetland Types(s):**	PSS, PEM

Result:	**Wetland provides habitat for some wildlife species**	
Rationale:	More than one Cowardin class	No adjacent Water Quality limited streams
	Dominated by woody vegetation	Adjacent land is mostly developed
	Less than 0.5 acres of open water	Wetland buffer is between 10% and 40%
Result:	**Fish habitat was not assessed for this wetland**	
Rationale:		
Result:	**Wetland's water-quality function is intact**	
Rationale:	Primary water source is precipitation	Wetland is between 0.5 and 5 acres
	Wetland floods/ponds in growing season	Adjacent land is mostly developed
	High wetland vegetation cover	No adjacent Water Quality Limited streams
Result:	**Wetland's hydrologic control function is intact**	
Rationale:	Wetland is not within 100 year floodplain	Dominated by woody vegetation
	Wetland floods/ponds in growing season	Development downslope of wetland
	Water has unrestricted flow out of wetland	Development upslope of wetland
Result:	**Wetland is potentially sensitive to future impacts**	
Rationale:	Stream not modified	Adjacent land is mostly developed
	Water not taken out	Adjacent zoning is primarily development
	No adjacent Water Quality Limited streams	Dominated by woody vegetation
Result:	**Wetland has moderate potential for enhancement**	
Rationale:	One or more functions lost/not present	Wetland is between 0.5 and 5 acres
	Primary water source is precipitation	Wetland buffer is between 10% and 40%
		Potentially sensitive to future impacts
Result:	**Wetland site is not appropriate for educational use**	
Rationale:	No access allowed to wetland	Maintained public access within 250 feet
	No visible hazards to public	Wetland is limited mobility accessible
	Public access to other habitats exist	
Result:	**Wetland has the potential to provide recreational activities**	
Rationale:	Maintained public access within 250 feet	Wetland provides habitat for some wildlife
	No boat launching can be developed	No fishing is allowed
	No trails or viewing areas exist	No hunting is allowed
Result:	**Wetland is considered to be moderately pleasing**	
Rationale:	Two Cowardin classes visible	Wetland surrounded by development
	25 - 50% of wetland can be seen	Natural odors present at wetland
	No visual detractors are present	Some traffic and natural noises are present

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Wetland Assessment Summary Sheet

Pacific Habitat Services, Inc.

Project Name:	Depoe Bay Local Wetlands Inventory	**Wetland:**	**WC-4**
Project Location:	Lincoln County, Oregon	**Wetland Type(s):**	PEM, PSS

Date(s) of field work:	10/2/2003	**Approx. Area (acres):**	0.40
Onsite Assessment?:	Yes	**Investigator(s):**	JVS
Wetland Location:	North of Hidden Reach and Gull Station Streets in Little Whale Cove		

Function and Condition Assessment Answers:

Wildlife Habitat		Fish Habitat		Water Quality		Hydrologic Control		Sensitivity to Impact	
Q	**A**	**Q**	**A**	**Q**	**A**	**Q**	**A**	**Q**	**A**
Q-1	**A**	Q-1	**B**	Q-1	**A**	Q-1	**B**	Q-1	**B**
Q-2	**A**	Q-2	**B**	Q-2	**A**	Q-2	**A**	Q-2	**B**
Q-3	**B**	Q-3	**C**	Q-3	**A**	Q-3	**C**	Q-3	**C**
Q-4	**A**	Q-4	**A**	Q-4	**B**	Q-4	**C**	Q-4	**A**
Q-5	**A**	Q-5	**C**	Q-5	**A**	Q-5	**A**	Q-5	**A**
Q-6	**A**	Q-6	**C**	Q-6	**C**	Q-6	**A**	Q-6	**A**
Q-7	**A**					Q-7	**A**		
Q-8	**C**								
Q-9A									
Q-9B	**C**								

Results:

Wildlife Habitat	Wetland provides habitat for some wildlife species
Fish Habitat	Wetland's fish habitat function is impacted or degraded
Water Quality	Wetland's water-quality function is intact
Hydrologic Control	Wetland's hydrologic control function is intact
Sensitivity to Impact	Wetland is potentially sensitive to future impacts

Function and Condition Assessment Answers:

Enhancement Potential		Education		Recreation		Aesthetic Quality	
Q	**A**	**Q**	**A**	**Q**	**A**	**Q**	**A**
Q-1	**A**	Q-1	**C**	Q-1	**A**	Q-1	**B**
Q-2	**A**	Q-2	**A**	Q-2	**A**	Q-2	**C**
Q-3	**A**	Q-3	**B**	Q-3	**A**	Q-3	**A**
Q-4	**C**	Q-4	**A**	Q-4	**B**	Q-4	**C**
Q-5B	**C**	Q-5	**A**	Q-5	**B**	Q-5	**A**
Q-6	**B**	Q-6	**A**	Q-6	**B**	Q-6	**A**

Results:

Enhancement Potential	Wetland has moderate potential for enhancement
Education	Wetland site is not appropriate for educational use
Recreation	Wetland provides recreational opportunities
Aesthetic Quality	Wetland is not aesthetically pleasing

Oregon Freshwater Wetland Assessment Methodology
Functions and Conditions Summary Sheet

Project:	Depoe Bay Local Wetlands Inventory	**Wetland:**	**WC-4**
Location:	Lincoln County, Oregon	**Approx. Area (acres):**	0.40
Date:	10/2/2003	**Wetland Types(s):**	PEM, PSS

Result:	**Wetland provides habitat for some wildlife species**	
Rationale:	More than one Cowardin class	No adjacent Water Quality limited streams
	Dominated by woody vegetation	Adjacent land is mostly developed
	Greater than 1 acre of open water	Wetland buffer is less than 10%
Result:	**Wetland's fish habitat function is impacted or degraded**	
Rationale:	25-50% of stream is shaded	No adjacent Water Quality Limited streams
	Only portions of stream are modified	Adjacent land is mostly developed
	<10% of stream has instream structures	Stream does not contain fish
Result:	**Wetland's water-quality function is intact**	
Rationale:	Primary water source is surface flow	Surface water connection to other wetlands
	Wetland floods/ponds in growing season	Adjacent land is mostly developed
	High wetland vegetation cover	No adjacent Water Quality Limited streams
Result:	**Wetland's hydrologic control function is intact**	
Rationale:	Wetland is not within 100 year floodplain	Dominated by woody vegetation
	Wetland floods/ponds in growing season	Development downslope of wetland
	Water has unrestricted flow out of wetland	Development upslope of wetland
Result:	**Wetland is potentially sensitive to future impacts**	
Rationale:	Stream not modified	Adjacent land is mostly developed
	Water not taken out	Adjacent zoning is primarily development
	No adjacent Water Quality Limited streams	Dominated by woody vegetation
Result:	**Wetland has moderate potential for enhancement**	
Rationale:	Wetland functions are impacted or degraded	Wetland is less than 0.5 acres
	Primary water source is surface flow	Wetland buffer is less than 10%
	Flow into wetland is not restricted	Potentially sensitive to future impacts
Result:	**Wetland site is not appropriate for educational use**	
Rationale:	No access allowed to wetland	Maintained public access within 250 feet
	No visible hazards to public	Wetland is limited mobility accessible
	Public access to other habitats exist	
Result:	**Wetland provides recreational opportunities**	
Rationale:	Maintained public access within 250 feet	Wetland provides habitat for some wildlife
	Boat launching within 1/2 mile	No fishing is allowed
	Maintained trails, viewing areas exist	No hunting is allowed
Result:	**Wetland is not aesthetically pleasing**	
Rationale:	Two Cowardin classes visible	Wetland surrounded by development
	Less than 25% of wetland can be seen	Natural odors present at wetland
	No visual detractors are present	Some traffic and natural noises are present

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Wetland Assessment Summary Sheet

Pacific Habitat Services, Inc.

Project Name:	Depoe Bay Local Wetlands Inventory	**Wetland:**	**WC-5**
Project Location:	Lincoln County, Oregon	**Wetland Type(s):**	PEM, PSS, R, PFO

Date(s) of field work:	9/16/2003	**Approx. Area (acres):**	0.70
Onsite Assessment?:	Yes	**Investigator(s):**	JVS/ME
Wetland Location:	South of Hidden Reach and Cormorant Streets in Little Whale Cove		

Function and Condition Assessment Answers:

Wildlife Habitat		Fish Habitat		Water Quality		Hydrologic Control		Sensitivity to Impact	
Q	A	Q	A	Q	A	Q	A	Q	A
Q-1	A	Q-1	A	Q-1	C	Q-1	B	Q-1	B
Q-2	A	Q-2	A	Q-2	A	Q-2	A	Q-2	B
Q-3	A	Q-3	C	Q-3	A	Q-3	B	Q-3	C
Q-4	C	Q-4	A	Q-4	B	Q-4	C	Q-4	C
Q-5	A	Q-5	A	Q-5	C	Q-5	A	Q-5	A
Q-6	A	Q-6	C	Q-6	C	Q-6	A	Q-6	A
Q-7	A					Q-7	A		
Q-8	A								
Q-9A									
Q-9B	A								

Results:

Wildlife Habitat	Wetland provides diverse wildlife habitat
Fish Habitat	Wetland's fish habitat function is impacted or degraded
Water Quality	Wetland's water-quality function is impacted or degraded
Hydrologic Control	Wetland's hydrologic control function is intact
Sensitivity to Impact	Wetland is potentially sensitive to future impacts

Function and Condition Assessment Answers:

Enhancement Potential		Education		Recreation		Aesthetic Quality	
Q	A	Q	A	Q	A	Q	A
Q-1		Q-1	B	Q-1	A	Q-1	A
Q-2		Q-2	A	Q-2	C	Q-2	A
Q-3		Q-3	A	Q-3	A	Q-3	A
Q-4		Q-4	A	Q-4	A	Q-4	A
Q-5B		Q-5	A	Q-5	B	Q-5	A
Q-6		Q-6	A	Q-6	B	Q-6	A

Results:

Enhancement Potential	Due to diverse wildlife habitat, this wetland cannot be enhanced
Education	Wetland has potential for educational use
Recreation	Wetland provides recreational opportunities
Aesthetic Quality	Wetland is considered to be pleasing

Oregon Freshwater Wetland Assessment Methodology
Functions and Conditions Summary Sheet

Project:	Depoe Bay Local Wetlands Inventory	**Wetland:**	**WC-5**
Location:	Lincoln County, Oregon	**Approx. Area (acres):**	0.70
Date:	9/16/2003	**Wetland Types(s):**	PEM, PSS, R, PFO

Result:	**Wetland provides diverse wildlife habitat**	
Rationale:	More than one Cowardin class	No adjacent Water Quality limited streams
	Dominated by woody vegetation	Adjacent land is primarily open space
	Less than 0.5 acres of open water	Wetland buffer is greater than 40%
Result:	**Wetland's fish habitat function is impacted or degraded**	
Rationale:	50% or more of stream is shaded	No adjacent Water Quality Limited streams
	Stream is in a natural channel	Adjacent land is primarily open space
	<10% of stream has instream structures	Stream does not contain fish
Result:	**Wetland's water-quality function is impacted or degraded**	
Rationale:	Primary water source is groundwater	Wetland is between 0.5 and 5 acres
	Wetland floods/ponds in growing season	Adjacent land is primarily open space
	High wetland vegetation cover	No adjacent Water Quality Limited streams
Result:	**Wetland's hydrologic control function is intact**	
Rationale:	Wetland is not within 100 year floodplain	Dominated by woody vegetation
	Wetland floods/ponds in growing season	Development downslope of wetland
	Water has unrestricted flow out of wetland	Development upslope of wetland
Result:	**Wetland is potentially sensitive to future impacts**	
Rationale:	Stream not modified	Adjacent land is primarily open space
	Water not taken out	Adjacent zoning is primarily development
	No adjacent Water Quality Limited streams	Dominated by woody vegetation
Result:	**Due to diverse wildlife habitat, this wetland cannot be enhanced**	
Rationale:		
Result:	**Wetland has potential for educational use**	
Rationale:	Wetland access by landowner permission	Maintained public access within 250 feet
	No visible hazards to public	Wetland is limited mobility accessible
	Public access to other habitats exist	
Result:	**Wetland provides recreational opportunities**	
Rationale:	Maintained public access within 250 feet	Wetland provides diverse wildlife habitat
	No boat launching can be developed	No fishing is allowed
	Maintained trails, viewing areas exist	No hunting is allowed
Result:	**Wetland is considered to be pleasing**	
Rationale:	More than two Cowardin classes are visible	Wetland surrounded by natural areas
	>50% of wetland can be seen	Natural odors present at wetland
	No visual detractors are present	Some traffic and natural noises are present

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Wetland Assessment Summary Sheet

Pacific Habitat Services, Inc.

Project Name:	Depoe Bay Local Wetlands Inventory	**Wetland:**	**WC-6A**
Project Location:	Lincoln County, Oregon	**Wetland Type(s):**	PSS, PFO

Date(s) of field work:	11/21/2003	**Approx. Area (acres):**	0.36
Onsite Assessment?:	No	**Investigator(s):**	HA
Wetland Location:	Whale Cove; south of McDonald, west of Interstate 5		

Function and Condition Assessment Answers:

Wildlife Habitat		Fish Habitat		Water Quality		Hydrologic Control		Sensitivity to Impact	
Q	A	Q	A	Q	A	Q	A	Q	A
Q-1	B	Q-1	A	Q-1	C	Q-1	B	Q-1	B
Q-2	A	Q-2	A	Q-2	B	Q-2	B	Q-2	B
Q-3	C	Q-3	A	Q-3	A	Q-3	C	Q-3	C
Q-4	C	Q-4	A	Q-4	C	Q-4	C	Q-4	C
Q-5	A	Q-5	A	Q-5	C	Q-5	A	Q-5	A
Q-6	B	Q-6	C	Q-6	C	Q-6	C	Q-6	A
Q-7	A					Q-7	C		
Q-8	A								
Q-9A									
Q-9B	A								

Results:

Wildlife Habitat	Wetland provides habitat for some wildlife species
Fish Habitat	Wetland's fish habitat function is intact
Water Quality	Wetland's water-quality function is lost or not present
Hydrologic Control	Wetland's hydrologic control function is lost or not present
Sensitivity to Impact	Wetland is potentially sensitive to future impacts

Function and Condition Assessment Answers:

Enhancement Potential		Education		Recreation		Aesthetic Quality	
Q	A	Q	A	Q	A	Q	A
Q-1	B	Q-1	C	Q-1	C	Q-1	B
Q-2	B	Q-2	A	Q-2	C	Q-2	B
Q-3		Q-3	A	Q-3	C	Q-3	A
Q-4	C	Q-4	C	Q-4	B	Q-4	A
Q-5B	A	Q-5	C	Q-5	B	Q-5	A
Q-6	B	Q-6	B	Q-6	B	Q-6	A

Results:

Enhancement Potential	Wetland has moderate potential for enhancement
Education	Wetland site is not appropriate for educational use
Recreation	Wetland is not appropriate or does not provide rec. opportunities
Aesthetic Quality	Wetland is considered to be moderately pleasing

Oregon Freshwater Wetland Assessment Methodology
Functions and Conditions Summary Sheet

Project:	Depoe Bay Local Wetlands Inventory	**Wetland:**	**WC-6A**
Location:	Lincoln County, Oregon	**Approx. Area (acres):**	0.36
Date:	11/21/2003	**Wetland Types(s):**	PSS, PFO

Result:	**Wetland provides habitat for some wildlife species**	
Rationale:	One Cowardin class with > 5 species	No adjacent Water Quality limited streams
	Dominated by woody vegetation	Adjacent land is primarily open space
	Less than 0.5 acres of open water	Wetland buffer is greater than 40%
Result:	**Wetland's fish habitat function is intact**	
Rationale:	50% or more of stream is shaded	No adjacent Water Quality Limited streams
	Stream is in a natural channel	Adjacent land is primarily open space
	>25% of stream has instream structures	Stream does not contain fish
Result:	**Wetland's water-quality function is lost or not present**	
Rationale:	Primary water source is groundwater	Isolated from other wetlands
	Can't determine if wetland floods or ponds	Adjacent land is primarily open space
	High wetland vegetation cover	No adjacent Water Quality Limited streams
Result:	**Wetland's hydrologic control function is lost or not present**	
Rationale:	Wetland is not within 100 year floodplain	Dominated by woody vegetation
	Can't determine if wetland floods or ponds	Open space downslope of development
	Water has unrestricted flow out of wetland	Open space upslope of wetland
Result:	**Wetland is potentially sensitive to future impacts**	
Rationale:	Stream not modified	Adjacent land is primarily open space
	Water not taken out	Adjacent zoning is primarily development
	No adjacent Water Quality Limited streams	Dominated by woody vegetation
Result:	**Wetland has moderate potential for enhancement**	
Rationale:	One or more functions lost/not present	Wetland is less than 0.5 acres
	Primary water source is groundwater	Wetland buffer is greater than 40%
		Potentially sensitive to future impacts
Result:	**Wetland site is not appropriate for educational use**	
Rationale:	No access allowed to wetland	No access point to wetland exists
	No visible hazards to public	Wetland is not limited mobility accessible
	No access or observation of other habitats	
Result:	**Wetland is not appropriate or does not provide rec. opportunities**	
Rationale:	No access point to wetland exists	Wetland provides habitat for some wildlife
	No boat launching can be developed	No fishing is allowed
	No trails or viewing areas exist	No hunting is allowed
Result:	**Wetland is considered to be moderately pleasing**	
Rationale:	Two Cowardin classes visible	Wetland surrounded by natural areas
	25 - 50% of wetland can be seen	Natural odors present at wetland
	No visual detractors are present	Some traffic and natural noises are present

Oregon Freshwater Wetland Assessment Methodology

(Revised Edition, April 1996)

Wetland Assessment Summary Sheet

Pacific Habitat Services, Inc.

Project Name:	Depoe Bay Local Wetlands Inventory	**Wetland:**	**WC-6B**
Project Location:	Lincoln County, Oregon	**Wetland Type(s):**	PFO

Date(s) of field work:	11/21/2003	**Approx. Area (acres):**	0.54
Onsite Assessment?:	No	**Investigator(s):**	HA
Wetland Location:	South tip of Whale Cove; south of McDonald, west of Interstate 5		

Function and Condition Assessment Answers:

Wildlife Habitat		Fish Habitat		Water Quality		Hydrologic Control		Sensitivity to Impact	
Q	A	Q	A	Q	A	Q	A	Q	A
Q-1	B	Q-1	A	Q-1	C	Q-1	B	Q-1	B
Q-2	A	Q-2	A	Q-2	B	Q-2	B	Q-2	B
Q-3	C	Q-3	A	Q-3	A	Q-3	B	Q-3	C
Q-4	C	Q-4	A	Q-4	B	Q-4	C	Q-4	C
Q-5	A	Q-5	A	Q-5	C	Q-5	A	Q-5	A
Q-6	B	Q-6	C	Q-6	C	Q-6	C	Q-6	A
Q-7	A					Q-7	C		
Q-8	A								
Q-9A									
Q-9B	A								

Results:

Wildlife Habitat	Wetland provides habitat for some wildlife species
Fish Habitat	Wetland's fish habitat function is intact
Water Quality	Wetland's water-quality function is impacted or degraded
Hydrologic Control	Wetland's hydrologic control is impacted or degraded
Sensitivity to Impact	Wetland is potentially sensitive to future impacts

Function and Condition Assessment Answers:

Enhancement Potential		Education		Recreation		Aesthetic Quality	
Q	A	Q	A	Q	A	Q	A
Q-1	B	Q-1	C	Q-1	C	Q-1	B
Q-2	B	Q-2	A	Q-2	C	Q-2	B
Q-3		Q-3	A	Q-3	C	Q-3	A
Q-4	B	Q-4	C	Q-4	B	Q-4	A
Q-5B	A	Q-5	C	Q-5	B	Q-5	A
Q-6	B	Q-6	B	Q-6	B	Q-6	A

Results:

Enhancement Potential	Wetland has moderate potential for enhancement
Education	Wetland site is not appropriate for educational use
Recreation	Wetland is not appropriate or does not provide rec. opportunities
Aesthetic Quality	Wetland is considered to be moderately pleasing

Oregon Freshwater Wetland Assessment Methodology
Functions and Conditions Summary Sheet

Project:	Depoe Bay Local Wetlands Inventory	**Wetland:**	**WC-6B**
Location:	Lincoln County, Oregon	**Approx. Area (acres):**	0.54
Date:	11/21/2003	**Wetland Types(s):**	PFO

Result:	**Wetland provides habitat for some wildlife species**	
Rationale:	One Cowardin class with > 5 species	No adjacent Water Quality limited streams
	Dominated by woody vegetation	Adjacent land is primarily open space
	Less than 0.5 acres of open water	Wetland buffer is greater than 40%
Result:	**Wetland's fish habitat function is intact**	
Rationale:	50% or more of stream is shaded	No adjacent Water Quality Limited streams
	Stream is in a natural channel	Adjacent land is primarily open space
	>25% of stream has instream structures	Stream does not contain fish
Result:	**Wetland's water-quality function is impacted or degraded**	
Rationale:	Primary water source is groundwater	Wetland is between 0.5 and 5 acres
	Can't determine if wetland floods or ponds	Adjacent land is primarily open space
	High wetland vegetation cover	No adjacent Water Quality Limited streams
Result:	**Wetland's hydrologic control is impacted or degraded**	
Rationale:	Wetland is not within 100 year floodplain	Dominated by woody vegetation
	Can't determine if wetland floods or ponds	Open space downslope of development
	Water has unrestricted flow out of wetland	Open space upslope of wetland
Result:	**Wetland is potentially sensitive to future impacts**	
Rationale:	Stream not modified	Adjacent land is primarily open space
	Water not taken out	Adjacent zoning is primarily development
	No adjacent Water Quality Limited streams	Dominated by woody vegetation
Result:	**Wetland has moderate potential for enhancement**	
Rationale:	One or more functions lost/not present	Wetland is between 0.5 and 5 acres
	Primary water source is groundwater	Wetland buffer is greater than 40%
		Potentially sensitive to future impacts
Result:	**Wetland site is not appropriate for educational use**	
Rationale:	No access allowed to wetland	No access point to wetland exists
	No visible hazards to public	Wetland is not limited mobility accessible
	No access or observation of other habitats	
Result:	**Wetland is not appropriate or does not provide rec. opportunities**	
Rationale:	No access point to wetland exists	Wetland provides habitat for some wildlife
	No boat launching can be developed	No fishing is allowed
	No trails or viewing areas exist	No hunting is allowed
Result:	**Wetland is considered to be moderately pleasing**	
Rationale:	Two Cowardin classes visible	Wetland surrounded by natural areas
	25 - 50% of wetland can be seen	Natural odors present at wetland
	No visual detractors are present	Some traffic and natural noises are present

Oregon Freshwater Wetland Assessment Methodology

(Revised Edition, April 1996)

Wetland Assessment Summary Sheet

Pacific Habitat Services, Inc.

Project Name:	Depoe Bay Local Wetlands Inventory	**Wetland:**	**WC-7**
Project Location:	Lincoln County, Oregon	**Wetland Type(s):**	PSS, PEM

Date(s) of field work:	10/10/2003	**Approx. Area (acres):**	0.27
Onsite Assessment?:	Yes	**Investigator(s):**	ME/SE
Wetland Location:	West of Walking Wood Street at Scarp Street		

Function and Condition Assessment Answers:

Wildlife Habitat		Fish Habitat		Water Quality		Hydrologic Control		Sensitivity to Impact	
Q	A	Q	A	Q	A	Q	A	Q	A
Q-1	A	Q-1		Q-1	B	Q-1	B	Q-1	A
Q-2	A	Q-2		Q-2	C	Q-2	C	Q-2	A
Q-3	B	Q-3		Q-3	A	Q-3	C	Q-3	C
Q-4	C	Q-4		Q-4	C	Q-4	A	Q-4	A
Q-5	B	Q-5		Q-5	A	Q-5	A	Q-5	A
Q-6	B	Q-6		Q-6	C	Q-6	A	Q-6	A
Q-7	A					Q-7	A		
Q-8	C								
Q-9A									
Q-9B	A								

Results:

Wildlife Habitat	Wetland provides habitat for some wildlife species
Fish Habitat	Fish habitat was not assessed for this wetland
Water Quality	Wetland's water-quality function is impacted or degraded
Hydrologic Control	Wetland's hydrologic control function is intact
Sensitivity to Impact	Wetland is potentially sensitive to future impacts

Function and Condition Assessment Answers:

Enhancement Potential		Education		Recreation		Aesthetic Quality	
Q	A	Q	A	Q	A	Q	A
Q-1	B	Q-1	B	Q-1	A	Q-1	A
Q-2	C	Q-2	A	Q-2	C	Q-2	A
Q-3		Q-3	B	Q-3	A	Q-3	A
Q-4	C	Q-4	A	Q-4	B	Q-4	A
Q-5B	A	Q-5	A	Q-5	B	Q-5	A
Q-6	B	Q-6	B	Q-6	B	Q-6	A

Results:

Enhancement Potential	Wetland has little enhancement potential
Education	Wetland has potential for educational use
Recreation	Wetland provides recreational opportunities
Aesthetic Quality	Wetland is considered to be pleasing

Oregon Freshwater Wetland Assessment Methodology
Functions and Conditions Summary Sheet

Project:	Depoe Bay Local Wetlands Inventory	**Wetland:**	**WC-7**
Location:	Lincoln County, Oregon	**Approx. Area (acres):**	0.27
Date:	10/10/2003	**Wetland Types(s):**	PSS, PEM

Result:	**Wetland provides habitat for some wildlife species**	
Rationale:	More than one Cowardin class	No adjacent Water Quality limited streams
	Dominated by woody vegetation	Adjacent land is mostly developed
	Less than 0.5 acres of open water	Wetland buffer is greater than 40%
Result:	**Fish habitat was not assessed for this wetland**	
Rationale:		
Result:	**Wetland's water-quality function is impacted or degraded**	
Rationale:	Primary water source is precipitation	Isolated from other wetlands
	Wetland does not flood or pond	Adjacent land is mostly developed
	High wetland vegetation cover	No adjacent Water Quality Limited streams
Result:	**Wetland's hydrologic control function is intact**	
Rationale:	Wetland is not within 100 year floodplain	Dominated by woody vegetation
	Wetland does not flood or pond	Development downslope of wetland
	Flow out of wetland is restricted	Development upslope of wetland
Result:	**Wetland is potentially sensitive to future impacts**	
Rationale:	Stream modified or isolated wetland	Adjacent land is mostly developed
	Water is taken out or isolated wetland	Adjacent zoning is primarily development
	No adjacent Water Quality Limited streams	Dominated by woody vegetation
Result:	**Wetland has little enhancement potential**	
Rationale:	One or more functions lost/not present	Wetland is less than 0.5 acres
	Primary water source is precipitation	Wetland buffer is greater than 40%
		Potentially sensitive to future impacts
Result:	**Wetland has potential for educational use**	
Rationale:	Wetland access by landowner permission	Maintained public access within 250 feet
	No visible hazards to public	Wetland is not limited mobility accessible
	Public access to other habitats exist	
Result:	**Wetland provides recreational opportunities**	
Rationale:	Maintained public access within 250 feet	Wetland provides habitat for some wildlife
	No boat launching can be developed	No fishing is allowed
	Maintained trails, viewing areas exist	No hunting is allowed
Result:	**Wetland is considered to be pleasing**	
Rationale:	More than two Cowardin classes are visible	Wetland surrounded by natural areas
	>50% of wetland can be seen	Natural odors present at wetland
	No visual detractors are present	Some traffic and natural noises are present

Appendix E

Significant Wetland Determination Sheets

Locally Significant Wetlands Criteria

ORS 197.279 (3)(b)

Project Name:	Depoe Bay Local Wetlands Inventory	**Wetland:**	**NDB-1**
Project Location:	Lincoln County, Oregon	**Approx. Area (acres):**	1.97
Date:	9/24/2003	**Wetland Types(s):**	PSS, PEM

Exclusions : **This wetland cannot be designated as significant if the answer to any of the criteria below is "Yes".**		
1 Is this wetland artificially created entirely from upland and:		
a. created for the purpose of controlling, storing, or maintaining stormwater		No
b. is used for active surface mining or as a log pond		No
c. is a ditch without a free and open connection to natural waters of the state		No
d. is less than 1 acre and created unintentionally from irrigation or construction		No
e. created for the purpose of wastewater treatment, cranberry production, farm watering, sediment settling, cooling industrial water, or a golf hazard		No
2 Is the wetland or portion of the wetland contaminated by hazardous substances, materials or wastes as per the conditions of ORS 141-86-350 1(b)		No
Exclusion criteria satisfied?		**No**

Mandatory Locally Significant Wetland Criteria : **This wetland is locally significant if "Yes" is the answer to any of the criteria below.**		
1 Does the wetland provide *diverse wildlife habitat* ?		No
2 Is the wetland's *fish habitat function intact* ?		No
3 Is the wetland's *water quality function intact* ?		No
4 Is the wetland's *hydrologic control function intact* ?		No
5 Is the wetland less than 1/4 mile from a water body listed by DEQ as a water quality limited water body (303(d) list) and is the wetland's *water quality function intact, or impacted or degraded* ?		No
6 Does the wetland contain a rare plant community?		No
7 Is the wetland inhabited by any species listed federally as threatened or endangered, or state listed as sensitive, threatened or endangered?		No
8 Does the wetland have a direct surface water connection to a stream segment mapped by ODFW as habitat for indigenous anadromous salmonids and is the wetland's *fish habitat function intact, or impacted or degraded* ?		No
Mandatory Locally Significant Wetland criteria satisfied ?		**No**

Optional Locally Significant Wetland Criteria : **local governments may identify a wetland as significant if "Yes" is the answer to the criteria below**		
1 Does the wetland represent a locally unique native plant community and provides *diverse wildlife habitat or habitat for some species* or has a *intact, or impacted or degraded fish habitat function* or has a *intact, or impacted or degraded water quality function* or has a *intact, or impacted or degraded hydrologic control function* .		No
2 Is the wetland publicly owned and used by a school or organization and does the wetland provide *educational uses* ?		No
Optional Locally Significant Wetland criteria satisfied ?		**No**

Does not satisfy the criteria, Not a Locally Significant Wetland

Locally Significant Wetlands Criteria

ORS 197.279 (3)(b)

Project Name:	Depoe Bay Local Wetlands Inventory	**Wetland:**	**NDB-2**
Project Location:	Lincoln County, Oregon	**Approx. Area (acres):**	2.19
Date:	9/30/2003	**Wetland Types(s):**	PFO

Exclusions **: This wetland cannot be designated as significant if the answer to any of the criteria below is "Yes".**		
1 Is this wetland artificially created entirely from upland and:		
a. created for the purpose of controlling, storing, or maintaining stormwater		No
b. is used for active surface mining or as a log pond		No
c. is a ditch without a free and open connection to natural waters of the state		No
d. is less than 1 acre and created unintentionally from irrigation or construction		No
e. created for the purpose of wastewater treatment, cranberry production, farm watering, sediment settling, cooling industrial water, or a golf hazard		No
2 Is the wetland or portion of the wetland contaminated by hazardous substances, materials or wastes as per the conditions of ORS 141-86-350 1(b)		No
Exclusion criteria satisfied?		**No**

Mandatory Locally Significant Wetland Criteria **: This wetland is locally significant if "Yes" is the answer to any of the criteria below.**		
1 Does the wetland provide *diverse wildlife habitat*?	Yes	
2 Is the wetland's *fish habitat function intact*?	Yes	
3 Is the wetland's *water quality function intact*?	Yes	
4 Is the wetland's *hydrologic control function intact*?		No
5 Is the wetland less than 1/4 mile from a water body listed by DEQ as a water quality limited water body (303(d) list) and is the wetland's *water quality function intact, or impacted or degraded*?		No
6 Does the wetland contain a rare plant community?		No
7 Is the wetland inhabited by any species listed federally as threatened or endangered, or state listed as sensitive, threatened or endangered?		No
8 Does the wetland have a direct surface water connection to a stream segment mapped by ODFW as habitat for indigenous anadromous salmonids and is the wetland's *fish habitat function intact, or impacted or degraded*?		No
Mandatory Locally Significant Wetland criteria satisfied ?	**Yes**	

Optional Locally Significant Wetland Criteria **: local governments may identify a wetland as significant if "Yes" is the answer to the criteria below**		
1 Does the wetland represent a locally unique native plant community and provides *diverse wildlife habitat or habitat for some species* or has a *intact, or impacted or degraded fish habitat function* or has a *intact, or impacted or degraded water quality function* or has a *intact, or impacted or degraded hydrologic control function*.		No
2 Is the wetland publicly owned and used by a school or organization and does the wetland provide *educational uses*?		No
Optional Locally Significant Wetland criteria satisfied ?		**No**

Locally Significant Wetland

Locally Significant Wetlands Criteria

ORS 197.279 (3)(b)

Project Name:	Depoe Bay Local Wetlands Inventory	**Wetland:**	**NDB-3**
Project Location:	Lincoln County, Oregon	**Approx. Area (acres):**	1.23
Date:	9/24/2003	**Wetland Types(s):**	PFO, PEM

Exclusions **: This wetland cannot be designated as significant if the answer to any of the criteria below is "Yes".**		
1 Is this wetland artificially created entirely from upland and:		
a. created for the purpose of controlling, storing, or maintaining stormwater		No
b. is used for active surface mining or as a log pond		No
c. is a ditch without a free and open connection to natural waters of the state		No
d. is less than 1 acre and created unintentionally from irrigation or construction		No
e. created for the purpose of wastewater treatment, cranberry production, farm watering, sediment settling, cooling industrial water, or a golf hazard		No
2 Is the wetland or portion of the wetland contaminated by hazardous substances, materials or wastes as per the conditions of ORS 141-86-350 1(b)		No
Exclusion criteria satisfied?		**No**

Mandatory Locally Significant Wetland Criteria **: This wetland is locally significant if "Yes" is the answer to any of the criteria below.**		
1 Does the wetland provide *diverse wildlife habitat* ?		No
2 Is the wetland's *fish habitat function intact* ?	Yes	
3 Is the wetland's *water quality function intact* ?		No
4 Is the wetland's *hydrologic control function intact* ?		No
5 Is the wetland less than 1/4 mile from a water body listed by DEQ as a water quality limited water body (303(d) list) and is the wetland's *water quality function intact, or impacted or degraded* ?		No
6 Does the wetland contain a rare plant community?		No
7 Is the wetland inhabited by any species listed federally as threatened or endangered, or state listed as sensitive, threatened or endangered?		No
8 Does the wetland have a direct surface water connection to a stream segment mapped by ODFW as habitat for indigenous anadromous salmonids and is the wetland's *fish habitat function intact, or impacted or degraded* ?		No
Mandatory Locally Significant Wetland criteria satisfied ?	**Yes**	

Optional Locally Significant Wetland Criteria **: local governments may identify a wetland as significant if "Yes" is the answer to the criteria below**		
1 Does the wetland represent a locally unique native plant community and provides *diverse wildlife habitat or habitat for some species* or has a *intact, or impacted or degraded fish habitat function* or has a *intact, or impacted or degraded water quality function* or has a *intact, or impacted or degraded hydrologic control function* .		No
2 Is the wetland publicly owned and used by a school or organization and does the wetland provide *educational uses* ?		No
Optional Locally Significant Wetland criteria satisfied ?		**No**

Locally Significant Wetland

Locally Significant Wetlands Criteria

ORS 197.279 (3)(b)

Project Name:	Depoe Bay Local Wetlands Inventory	**Wetland:**	**SDB-1**
Project Location:	Lincoln County, Oregon	**Approx. Area (acres):**	1.6
Date:	9/24/2003	**Wetland Types(s):**	PFO, PEM

***Exclusions*: This wetland cannot be designated as significant if the answer to any of the criteria below is "Yes".**		
1 Is this wetland artificially created entirely from upland and:		
a. created for the purpose of controlling, storing, or maintaining stormwater		No
b. is used for active surface mining or as a log pond		No
c. is a ditch without a free and open connection to natural waters of the state		No
d. is less than 1 acre and created unintentionally from irrigation or construction		No
e. created for the purpose of wastewater treatment, cranberry production, farm watering, sediment settling, cooling industrial water, or a golf hazard		No
2 Is the wetland or portion of the wetland contaminated by hazardous substances, materials or wastes as per the conditions of ORS 141-86-350 1(b)		No
Exclusion criteria satisfied?		**No**

***Mandatory Locally Significant Wetland Criteria*: This wetland is locally significant if "Yes" is the answer to any of the criteria below.**		
1 Does the wetland provide *diverse wildlife habitat*?		No
2 Is the wetland's *fish habitat function intact*?	Yes	
3 Is the wetland's *water quality function intact*?	Yes	
4 Is the wetland's *hydrologic control function intact*?		No
5 Is the wetland less than 1/4 mile from a water body listed by DEQ as a water quality limited water body (303(d) list) and is the wetland's *water quality function intact, or impacted or degraded*?		No
6 Does the wetland contain a rare plant community?		No
7 Is the wetland inhabited by any species listed federally as threatened or endangered, or state listed as sensitive, threatened or endangered?		No
8 Does the wetland have a direct surface water connection to a stream segment mapped by ODFW as habitat for indigenous anadromous salmonids and is the wetland's *fish habitat function intact, or impacted or degraded*?		No
Mandatory Locally Significant Wetland criteria satisfied ?	**Yes**	

***Optional Locally Significant Wetland Criteria*: local governments may identify a wetland as significant if "Yes" is the answer to the criteria below**		
1 Does the wetland represent a locally unique native plant community and provides *diverse wildlife habitat or habitat for some species* or has a *intact, or impacted or degraded fish habitat function* or has a *intact, or impacted or degraded water quality function* or has a *intact, or impacted or degraded hydrologic control function*.		No
2 Is the wetland publicly owned and used by a school or organization and does the wetland provide *educational uses*?		No
Optional Locally Significant Wetland criteria satisfied ?		**No**

Locally Significant Wetland

Locally Significant Wetlands Criteria

ORS 197.279 (3)(b)

Project Name:	Depoe Bay Local Wetlands Inventory	**Wetland:**	**SDB-2**
Project Location:	Lincoln County, Oregon	**Approx. Area (acres):**	1.9
Date:	9/30/2003	**Wetland Types(s):**	PFO

Exclusions **: This wetland cannot be designated as significant if the answer to any of the criteria below is "Yes".**		
1 Is this wetland artificially created entirely from upland and:		
a. created for the purpose of controlling, storing, or maintaining stormwater		No
b. is used for active surface mining or as a log pond		No
c. is a ditch without a free and open connection to natural waters of the state		No
d. is less than 1 acre and created unintentionally from irrigation or construction		No
e. created for the purpose of wastewater treatment, cranberry production, farm watering, sediment settling, cooling industrial water, or a golf hazard		No
2 Is the wetland or portion of the wetland contaminated by hazardous substances, materials or wastes as per the conditions of ORS 141-86-350 1(b)		No
Exclusion criteria satisfied?		**No**

Mandatory Locally Significant Wetland Criteria **: This wetland is locally significant if "Yes" is the answer to any of the criteria below.**		
1 Does the wetland provide *diverse wildlife habitat*?	Yes	
2 Is the wetland's *fish habitat function intact*?	Yes	
3 Is the wetland's *water quality function intact*?		No
4 Is the wetland's *hydrologic control function intact*?	Yes	
5 Is the wetland less than 1/4 mile from a water body listed by DEQ as a water quality limited water body (303(d) list) and is the wetland's *water quality function intact, or impacted or degraded*?		No
6 Does the wetland contain a rare plant community?		No
7 Is the wetland inhabited by any species listed federally as threatened or endangered, or state listed as sensitive, threatened or endangered?		No
8 Does the wetland have a direct surface water connection to a stream segment mapped by ODFW as habitat for indigenous anadromous salmonids and is the wetland's *fish habitat function intact, or impacted or degraded*?	Yes	
Mandatory Locally Significant Wetland criteria satisfied ?	**Yes**	

Optional Locally Significant Wetland Criteria **: local governments may identify a wetland as significant if "Yes" is the answer to the criteria below**		
1 Does the wetland represent a locally unique native plant community and provides *diverse wildlife habitat or habitat for some species* or has a *intact, or impacted or degraded fish habitat function* or has a *intact, or impacted or degraded water quality function* or has a *intact, or impacted or degraded hydrologic control function*.		No
2 Is the wetland publicly owned and used by a school or organization and does the wetland provide *educational uses*?		No
Optional Locally Significant Wetland criteria satisfied ?		**No**

Locally Significant Wetland

Locally Significant Wetlands Criteria

ORS 197.279 (3)(b)

Project Name:	Depoe Bay Local Wetlands Inventory	**Wetland:**	**WC-1A**
Project Location:	Lincoln County, Oregon	**Approx. Area (acres):**	7.9
Date:	10/10 & 10/23/2003	**Wetland Types(s):**	PSS, PFO, PEM

***Exclusions*: This wetland cannot be designated as significant if the answer to any of the criteria below is "Yes".**		
1 Is this wetland artificially created entirely from upland and:		
a. created for the purpose of controlling, storing, or maintaining stormwater		No
b. is used for active surface mining or as a log pond		No
c. is a ditch without a free and open connection to natural waters of the state		No
d. is less than 1 acre and created unintentionally from irrigation or construction		No
e. created for the purpose of wastewater treatment, cranberry production, farm watering, sediment settling, cooling industrial water, or a golf hazard		No
2 Is the wetland or portion of the wetland contaminated by hazardous substances, materials or wastes as per the conditions of ORS 141-86-350 1(b)		No
Exclusion criteria satisfied?		**No**

***Mandatory Locally Significant Wetland Criteria*: This wetland is locally significant if "Yes" is the answer to any of the criteria below.**		
1 Does the wetland provide *diverse wildlife habitat*?		No
2 Is the wetland's *fish habitat function intact*?		No
3 Is the wetland's *water quality function intact*?		No
4 Is the wetland's *hydrologic control function intact*?	Yes	
5 Is the wetland less than 1/4 mile from a water body listed by DEQ as a water quality limited water body (303(d) list) and is the wetland's *water quality function intact, or impacted or degraded*?		No
6 Does the wetland contain a rare plant community?		No
7 Is the wetland inhabited by any species listed federally as threatened or endangered, or state listed as sensitive, threatened or endangered?		No
8 Does the wetland have a direct surface water connection to a stream segment mapped by ODFW as habitat for indigenous anadromous salmonids and is the wetland's *fish habitat function intact, or impacted or degraded*?		No
Mandatory Locally Significant Wetland criteria satisfied ?	**Yes**	

***Optional Locally Significant Wetland Criteria*: local governments may identify a wetland as significant if "Yes" is the answer to the criteria below**		
1 Does the wetland represent a locally unique native plant community and provides *diverse wildlife habitat or habitat for some species* or has a *intact, or impacted or degraded fish habitat function* or has a *intact, or impacted or degraded water quality function* or has a *intact, or impacted or degraded hydrologic control function*.		No
2 Is the wetland publicly owned and used by a school or organization and does the wetland provide *educational uses*?		No
Optional Locally Significant Wetland criteria satisfied ?		**No**

Locally Significant Wetland

Locally Significant Wetlands Criteria

ORS 197.279 (3)(b)

Project Name:	Depoe Bay Local Wetlands Inventory	**Wetland:**	**WC-1B**
Project Location:	Lincoln County, Oregon	**Approx. Area (acres):**	0.3 (approximate)
Date:	10/2/03, 10/16/03	**Wetland Types(s):**	PSS, PEM, PFO

***Exclusions*: This wetland cannot be designated as significant if the answer to any of the criteria below is "Yes".**		
1 Is this wetland artificially created entirely from upland and:		
a. created for the purpose of controlling, storing, or maintaining stormwater		No
b. is used for active surface mining or as a log pond		No
c. is a ditch without a free and open connection to natural waters of the state		No
d. is less than 1 acre and created unintentionally from irrigation or construction		No
e. created for the purpose of wastewater treatment, cranberry production, farm watering, sediment settling, cooling industrial water, or a golf hazard		No
2 Is the wetland or portion of the wetland contaminated by hazardous substances, materials or wastes as per the conditions of ORS 141-86-350 1(b)		No
Exclusion criteria satisfied?		**No**

***Mandatory Locally Significant Wetland Criteria*: This wetland is locally significant if "Yes" is the answer to any of the criteria below.**		
1 Does the wetland provide *diverse wildlife habitat*?		No
2 Is the wetland's *fish habitat function intact*?		No
3 Is the wetland's *water quality function intact*?		No
4 Is the wetland's *hydrologic control function intact*?		No
5 Is the wetland less than 1/4 mile from a water body listed by DEQ as a water quality limited water body (303(d) list) and is the wetland's *water quality function intact, or impacted or degraded*?		No
6 Does the wetland contain a rare plant community?		No
7 Is the wetland inhabited by any species listed federally as threatened or endangered, or state listed as sensitive, threatened or endangered?		No
8 Does the wetland have a direct surface water connection to a stream segment mapped by ODFW as habitat for indigenous anadromous salmonids and is the wetland's *fish habitat function intact, or impacted or degraded*?		No
Mandatory Locally Significant Wetland criteria satisfied ?		**No**

***Optional Locally Significant Wetland Criteria*: local governments may identify a wetland as significant if "Yes" is the answer to the criteria below**		
1 Does the wetland represent a locally unique native plant community and provides *diverse wildlife habitat or habitat for some species* or has a *intact, or impacted or degraded fish habitat function* or has a *intact, or impacted or degraded water quality function* or has a *intact, or impacted or degraded hydrologic control function*.		No
2 Is the wetland publicly owned and used by a school or organization and does the wetland provide *educational uses*?		No
Optional Locally Significant Wetland criteria satisfied ?		**No**

Does not satisfy the criteria, Not a Locally Significant Wetland

Locally Significant Wetlands Criteria

ORS 197.279 (3)(b)

Project Name:	Depoe Bay Local Wetlands Inventory	**Wetland:**	**WC-2**
Project Location:	Lincoln County, Oregon	**Approx. Area (acres):**	0.36
Date:	11/29/2003	**Wetland Types(s):**	PSS

Exclusions **: This wetland cannot be designated as significant if the answer to any of the criteria below is "Yes".**		
1 Is this wetland artificially created entirely from upland and:		
a. created for the purpose of controlling, storing, or maintaining stormwater		No
b. is used for active surface mining or as a log pond		No
c. is a ditch without a free and open connection to natural waters of the state		No
d. is less than 1 acre and created unintentionally from irrigation or construction		No
e. created for the purpose of wastewater treatment, cranberry production, farm watering, sediment settling, cooling industrial water, or a golf hazard		No
2 Is the wetland or portion of the wetland contaminated by hazardous substances, materials or wastes as per the conditions of ORS 141-86-350 1(b)		No
Exclusion criteria satisfied?		**No**

Mandatory Locally Significant Wetland Criteria **: This wetland is locally significant if "Yes" is the answer to any of the criteria below.**		
1 Does the wetland provide *diverse wildlife habitat*?		No
2 Is the wetland's *fish habitat function intact*?		No
3 Is the wetland's *water quality function intact*?		No
4 Is the wetland's *hydrologic control function intact*?		No
5 Is the wetland less than 1/4 mile from a water body listed by DEQ as a water quality limited water body (303(d) list) and is the wetland's *water quality function intact, or impacted or degraded*?		No
6 Does the wetland contain a rare plant community?		No
7 Is the wetland inhabited by any species listed federally as threatened or endangered, or state listed as sensitive, threatened or endangered?		No
8 Does the wetland have a direct surface water connection to a stream segment mapped by ODFW as habitat for indigenous anadromous salmonids and is the wetland's *fish habitat function intact, or impacted or degraded*?		No
Mandatory Locally Significant Wetland criteria satisfied ?		**No**

Optional Locally Significant Wetland Criteria **: local governments may identify a wetland as significant if "Yes" is the answer to the criteria below**		
1 Does the wetland represent a locally unique native plant community and provides *diverse wildlife habitat or habitat for some species* or has a *intact, or impacted or degraded fish habitat function* or has a *intact, or impacted or degraded water quality function* or has a *intact, or impacted or degraded hydrologic control function*.		No
2 Is the wetland publicly owned and used by a school or organization and does the wetland provide *educational uses*?		No
Optional Locally Significant Wetland criteria satisfied ?		**No**

Does not satisfy the criteria, Not a Locally Significant Wetland

Locally Significant Wetlands Criteria

ORS 197.279 (3)(b)

Project Name:	Depoe Bay Local Wetlands Inventory	**Wetland:**	**WC-3**
Project Location:	Lincoln County, Oregon	**Approx. Area (acres):**	0.79
Date:	10/2/2003	**Wetland Types(s):**	PSS, PEM

Exclusions **: This wetland cannot be designated as significant if the answer to any of the criteria below is "Yes".**		
1 Is this wetland artificially created entirely from upland and:		
a. created for the purpose of controlling, storing, or maintaining stormwater		No
b. is used for active surface mining or as a log pond		No
c. is a ditch without a free and open connection to natural waters of the state		No
d. is less than 1 acre and created unintentionally from irrigation or construction		No
e. created for the purpose of wastewater treatment, cranberry production, farm watering, sediment settling, cooling industrial water, or a golf hazard		No
2 Is the wetland or portion of the wetland contaminated by hazardous substances, materials or wastes as per the conditions of ORS 141-86-350 1(b)		No
Exclusion criteria satisfied?		**No**

Mandatory Locally Significant Wetland Criteria **: This wetland is locally significant if "Yes" is the answer to any of the criteria below.**		
1 Does the wetland provide *diverse wildlife habitat*?		No
2 Is the wetland's *fish habitat function intact*?		No
3 Is the wetland's *water quality function intact*?	Yes	
4 Is the wetland's *hydrologic control function intact*?	Yes	
5 Is the wetland less than 1/4 mile from a water body listed by DEQ as a water quality limited water body (303(d) list) and is the wetland's *water quality function intact, or impacted or degraded*?		No
6 Does the wetland contain a rare plant community?		No
7 Is the wetland inhabited by any species listed federally as threatened or endangered, or state listed as sensitive, threatened or endangered?		No
8 Does the wetland have a direct surface water connection to a stream segment mapped by ODFW as habitat for indigenous anadromous salmonids and is the wetland's *fish habitat function intact, or impacted or degraded*?		No
Mandatory Locally Significant Wetland criteria satisfied ?	**Yes**	

Optional Locally Significant Wetland Criteria **: local governments may identify a wetland as significant if "Yes" is the answer to the criteria below**		
1 Does the wetland represent a locally unique native plant community and provides *diverse wildlife habitat or habitat for some species* or has a *intact, or impacted or degraded fish habitat function* or has a *intact, or impacted or degraded water quality function* or has a *intact, or impacted or degraded hydrologic control function*.		No
2 Is the wetland publicly owned and used by a school or organization and does the wetland provide *educational uses*?		No
Optional Locally Significant Wetland criteria satisfied ?		**No**

Locally Significant Wetland

Locally Significant Wetlands Criteria

ORS 197.279 (3)(b)

Project Name:	Depoe Bay Local Wetlands Inventory	**Wetland:**	**WC-4**
Project Location:	Lincoln County, Oregon	**Approx. Area (acres):**	0.4
Date:	10/2/2003	**Wetland Types(s):**	PEM, PSS

Exclusions : **This wetland cannot be designated as significant if the answer to any of the criteria below is "Yes".**		
1 Is this wetland artificially created entirely from upland and:		
a. created for the purpose of controlling, storing, or maintaining stormwater		No
b. is used for active surface mining or as a log pond		No
c. is a ditch without a free and open connection to natural waters of the state		No
d. is less than 1 acre and created unintentionally from irrigation or construction		No
e. created for the purpose of wastewater treatment, cranberry production, farm watering, sediment settling, cooling industrial water, or a golf hazard		No
2 Is the wetland or portion of the wetland contaminated by hazardous substances, materials or wastes as per the conditions of ORS 141-86-350 1(b)		No
Exclusion criteria satisfied?		**No**

Mandatory Locally Significant Wetland Criteria : **This wetland is locally significant if "Yes" is the answer to any of the criteria below.**		
1 Does the wetland provide *diverse wildlife habitat* ?		No
2 Is the wetland's *fish habitat function intact* ?		No
3 Is the wetland's *water quality function intact* ?	Yes	
4 Is the wetland's *hydrologic control function intact* ?	Yes	
5 Is the wetland less than 1/4 mile from a water body listed by DEQ as a water quality limited water body (303(d) list) and is the wetland's *water quality function intact, or impacted or degraded* ?		No
6 Does the wetland contain a rare plant community?		No
7 Is the wetland inhabited by any species listed federally as threatened or endangered, or state listed as sensitive, threatened or endangered?		No
8 Does the wetland have a direct surface water connection to a stream segment mapped by ODFW as habitat for indigenous anadromous salmonids and is the wetland's *fish habitat function intact, or impacted or degraded* ?		No
Mandatory Locally Significant Wetland criteria satisfied ?	**Yes**	

Optional Locally Significant Wetland Criteria : **local governments may identify a wetland as significant if "Yes" is the answer to the criteria below**		
1 Does the wetland represent a locally unique native plant community and provides *diverse wildlife habitat or habitat for some species* or has a *intact, or impacted or degraded fish habitat function* or has a *intact, or impacted or degraded water quality function* or has a *intact, or impacted or degraded hydrologic control function* .		No
2 Is the wetland publicly owned and used by a school or organization and does the wetland provide *educational uses* ?		No
Optional Locally Significant Wetland criteria satisfied ?		**No**

Locally Significant Wetland

Locally Significant Wetlands Criteria

ORS 197.279 (3)(b)

Project Name:	Depoe Bay Local Wetlands Inventory	**Wetland:**	**WC-5**
Project Location:	Lincoln County, Oregon	**Approx. Area (acres):**	0.7
Date:	9/16/2003	**Wetland Types(s):**	PEM, PSS, R, PFO

Exclusions **: This wetland cannot be designated as significant if the answer to any of the criteria below is "Yes".**		
1 Is this wetland artificially created entirely from upland and:		
a. created for the purpose of controlling, storing, or maintaining stormwater		No
b. is used for active surface mining or as a log pond		No
c. is a ditch without a free and open connection to natural waters of the state		No
d. is less than 1 acre and created unintentionally from irrigation or construction		No
e. created for the purpose of wastewater treatment, cranberry production, farm watering, sediment settling, cooling industrial water, or a golf hazard		No
2 Is the wetland or portion of the wetland contaminated by hazardous substances, materials or wastes as per the conditions of ORS 141-86-350 1(b)		No
Exclusion criteria satisfied?		**No**

Mandatory Locally Significant Wetland Criteria **: This wetland is locally significant if "Yes" is the answer to any of the criteria below.**		
1 Does the wetland provide *diverse wildlife habitat*?	Yes	
2 Is the wetland's *fish habitat function intact*?		No
3 Is the wetland's *water quality function intact*?		No
4 Is the wetland's *hydrologic control function intact*?	Yes	
5 Is the wetland less than 1/4 mile from a water body listed by DEQ as a water quality limited water body (303(d) list) and is the wetland's *water quality function intact, or impacted or degraded*?		No
6 Does the wetland contain a rare plant community?		No
7 Is the wetland inhabited by any species listed federally as threatened or endangered, or state listed as sensitive, threatened or endangered?		No
8 Does the wetland have a direct surface water connection to a stream segment mapped by ODFW as habitat for indigenous anadromous salmonids and is the wetland's *fish habitat function intact, or impacted or degraded*?		No
Mandatory Locally Significant Wetland criteria satisfied ?	**Yes**	

Optional Locally Significant Wetland Criteria **: local governments may identify a wetland as significant if "Yes" is the answer to the criteria below**		
1 Does the wetland represent a locally unique native plant community and provides *diverse wildlife habitat or habitat for some species* or has a *intact, or impacted or degraded fish habitat function* or has a *intact, or impacted or degraded water quality function* or has a *intact, or impacted or degraded hydrologic control function*.		No
2 Is the wetland publicly owned and used by a school or organization and does the wetland provide *educational uses*?		No
Optional Locally Significant Wetland criteria satisfied ?		**No**

Locally Significant Wetland

Locally Significant Wetlands Criteria

ORS 197.279 (3)(b)

Project Name:	Depoe Bay Local Wetlands Inventory	**Wetland:**	**WC-6A**
Project Location:	Lincoln County, Oregon	**Approx. Area (acres):**	0.36
Date:	11/21/2003	**Wetland Types(s):**	PSS, PFO

Exclusions **: This wetland cannot be designated as significant if the answer to any of the criteria below is "Yes".**		
1 Is this wetland artificially created entirely from upland and:		
a. created for the purpose of controlling, storing, or maintaining stormwater		No
b. is used for active surface mining or as a log pond		No
c. is a ditch without a free and open connection to natural waters of the state		No
d. is less than 1 acre and created unintentionally from irrigation or construction		No
e. created for the purpose of wastewater treatment, cranberry production, farm watering, sediment settling, cooling industrial water, or a golf hazard		No
2 Is the wetland or portion of the wetland contaminated by hazardous substances, materials or wastes as per the conditions of ORS 141-86-350 1(b)		No
Exclusion criteria satisfied?		**No**

Mandatory Locally Significant Wetland Criteria **: This wetland is locally significant if "Yes" is the answer to any of the criteria below.**		
1 Does the wetland provide *diverse wildlife habitat* ?		No
2 Is the wetland's *fish habitat function intact* ?	Yes	
3 Is the wetland's *water quality function intact* ?		No
4 Is the wetland's *hydrologic control function intact* ?		No
5 Is the wetland less than 1/4 mile from a water body listed by DEQ as a water quality limited water body (303(d) list) and is the wetland's *water quality function intact, or impacted or degraded* ?		No
6 Does the wetland contain a rare plant community?		No
7 Is the wetland inhabited by any species listed federally as threatened or endangered, or state listed as sensitive, threatened or endangered?		No
8 Does the wetland have a direct surface water connection to a stream segment mapped by ODFW as habitat for indigenous anadromous salmonids and is the wetland's *fish habitat function intact, or impacted or degraded* ?		No
Mandatory Locally Significant Wetland criteria satisfied ?	**Yes**	

Optional Locally Significant Wetland Criteria **: local governments may identify a wetland as significant if "Yes" is the answer to the criteria below**		
1 Does the wetland represent a locally unique native plant community and provides *diverse wildlife habitat or habitat for some species* or has a *intact, or impacted or degraded fish habitat function* or has a *intact, or impacted or degraded water quality function* or has a *intact, or impacted or degraded hydrologic control function* .		No
2 Is the wetland publicly owned and used by a school or organization and does the wetland provide *educational uses* ?		No
Optional Locally Significant Wetland criteria satisfied ?		**No**

Locally Significant Wetland

Locally Significant Wetlands Criteria

ORS 197.279 (3)(b)

Project Name:	Depoe Bay Local Wetlands Inventory	Wetland:	WC-6B
Project Location:	Lincoln County, Oregon	Approx. Area (acres):	0.54
Date:	11/21/2003	Wetland Types(s):	PFO

Exclusions : **This wetland cannot be designated as significant if the answer to any of the criteria below is "Yes".**		
1 Is this wetland artificially created entirely from upland and:		
a. created for the purpose of controlling, storing, or maintaining stormwater		No
b. is used for active surface mining or as a log pond		No
c. is a ditch without a free and open connection to natural waters of the state		No
d. is less than 1 acre and created unintentionally from irrigation or construction		No
e. created for the purpose of wastewater treatment, cranberry production, farm watering, sediment settling, cooling industrial water, or a golf hazard		No
2 Is the wetland or portion of the wetland contaminated by hazardous substances, materials or wastes as per the conditions of ORS 141-86-350 1(b)		No
Exclusion criteria satisfied?		**No**

Mandatory Locally Significant Wetland Criteria : **This wetland is locally significant if "Yes" is the answer to any of the criteria below.**		
1 Does the wetland provide *diverse wildlife habitat* ?		No
2 Is the wetland's *fish habitat function intact* ?	Yes	
3 Is the wetland's *water quality function intact* ?		No
4 Is the wetland's *hydrologic control function intact* ?		No
5 Is the wetland less than 1/4 mile from a water body listed by DEQ as a water quality limited water body (303(d) list) and is the wetland's *water quality function intact, or impacted or degraded* ?		No
6 Does the wetland contain a rare plant community?		No
7 Is the wetland inhabited by any species listed federally as threatened or endangered, or state listed as sensitive, threatened or endangered?		No
8 Does the wetland have a direct surface water connection to a stream segment mapped by ODFW as habitat for indigenous anadromous salmonids and is the wetland's *fish habitat function intact, or impacted or degraded* ?		No
Mandatory Locally Significant Wetland criteria satisfied ?	**Yes**	

Optional Locally Significant Wetland Criteria : **local governments may identify a wetland as significant if "Yes" is the answer to the criteria below**		
1 Does the wetland represent a locally unique native plant community and provides *diverse wildlife habitat or habitat for some species* or has a *intact, or impacted or degraded fish habitat function* or has a *intact, or impacted or degraded water quality function* or has a *intact, or impacted or degraded hydrologic control function* .		No
2 Is the wetland publicly owned and used by a school or organization and does the wetland provide *educational uses* ?		No
Optional Locally Significant Wetland criteria satisfied ?		**No**

Locally Significant Wetland

Locally Significant Wetlands Criteria

ORS 197.279 (3)(b)

Project Name:	Depoe Bay Local Wetlands Inventory	**Wetland:**	**WC-7**
Project Location:	Lincoln County, Oregon	**Approx. Area (acres):**	0.27
Date:	10/10/2003	**Wetland Types(s):**	PSS, PEM

***Exclusions*: This wetland cannot be designated as significant if the answer to any of the criteria below is "Yes".**		
1 Is this wetland artificially created entirely from upland and:		
a. created for the purpose of controlling, storing, or maintaining stormwater		No
b. is used for active surface mining or as a log pond		No
c. is a ditch without a free and open connection to natural waters of the state		No
d. is less than 1 acre and created unintentionally from irrigation or construction		No
e. created for the purpose of wastewater treatment, cranberry production, farm watering, sediment settling, cooling industrial water, or a golf hazard		No
2 Is the wetland or portion of the wetland contaminated by hazardous substances, materials or wastes as per the conditions of ORS 141-86-350 1(b)		No
Exclusion criteria satisfied?		**No**

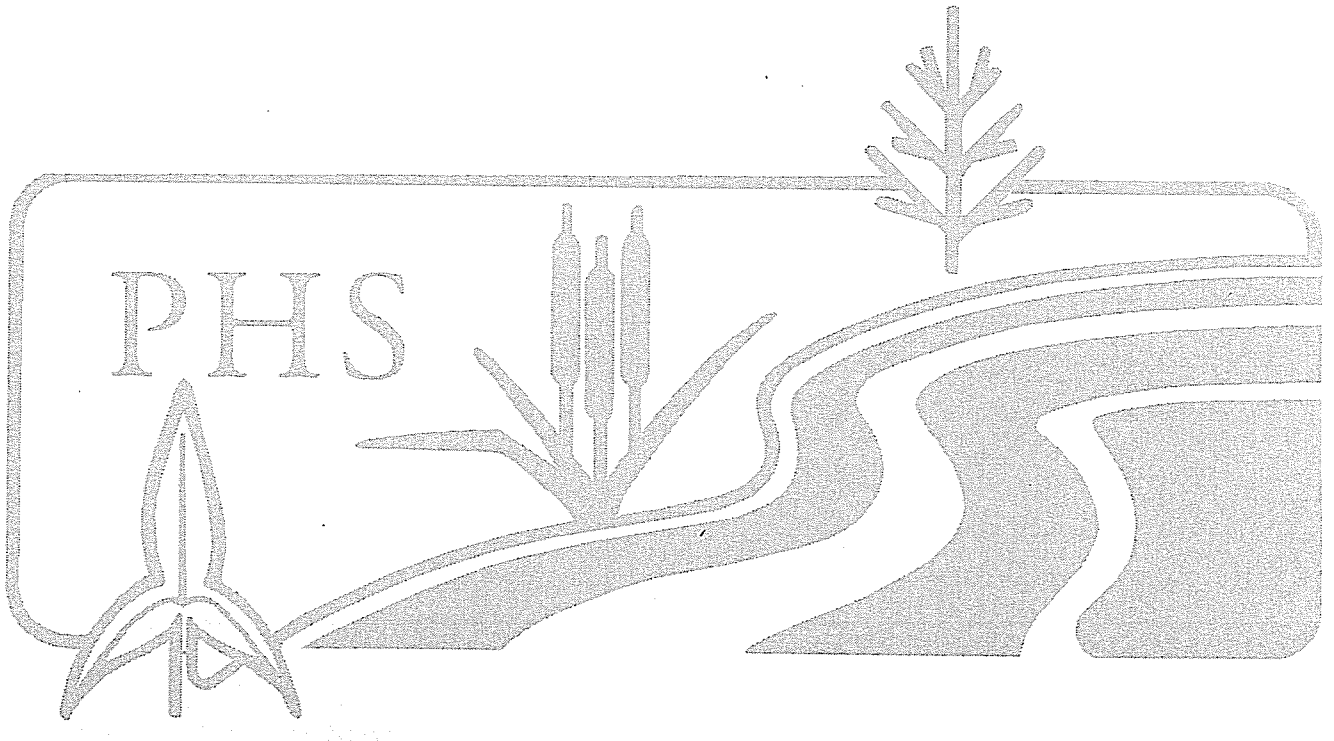
***Mandatory Locally Significant Wetland Criteria*: This wetland is locally significant if "Yes" is the answer to any of the criteria below.**		
1 Does the wetland provide *diverse wildlife habitat*?		No
2 Is the wetland's *fish habitat function intact*?		No
3 Is the wetland's *water quality function intact*?		No
4 Is the wetland's *hydrologic control function intact*?	Yes	
5 Is the wetland less than 1/4 mile from a water body listed by DEQ as a water quality limited water body (303(d) list) and is the wetland's *water quality function intact, or impacted or degraded*?		No
6 Does the wetland contain a rare plant community?		No
7 Is the wetland inhabited by any species listed federally as threatened or endangered, or state listed as sensitive, threatened or endangered?		No
8 Does the wetland have a direct surface water connection to a stream segment mapped by ODFW as habitat for indigenous anadromous salmonids and is the wetland's *fish habitat function intact, or impacted or degraded*?		No
Mandatory Locally Significant Wetland criteria satisfied ?	**Yes**	

***Optional Locally Significant Wetland Criteria*: local governments may identify a wetland as significant if "Yes" is the answer to the criteria below**		
1 Does the wetland represent a locally unique native plant community and provides *diverse wildlife habitat or habitat for some species* or has a *intact, or impacted or degraded fish habitat function* or has a *intact, or impacted or degraded water quality function* or has a *intact, or impacted or degraded hydrologic control function*.		No
2 Is the wetland publicly owned and used by a school or organization and does the wetland provide *educational uses*?		No
Optional Locally Significant Wetland criteria satisfied ?		**No**

Locally Significant Wetland

Appendix F

Riparian Data Forms



Depoe Bay Tax Lots with Riparian Corridors

RiparianCode(s)	Location	Tax Lot(s)
R-NDB-1	09-11-05	200
	09-11-05-B	1112, 1113, 1114, 1115, 1117, 1119, 1121, 1123
R-NDB-2	09-11-05	200
	09-11-05-DC	6900
	09-11-05-DD	100, 105, 300, 301, 1900
	09-11-08-AA	300, 302, 401, 403, 409, 410, 411, 1501, 2400, 2500
	09-11-08-AB	100, 101, 400, 4600, 6100, 6200
R-NDB-3	9-11-05-DC	200, 900, 1000, 1100, 1101, 1102, 1200, 1300, 1400, 1500, 1600, 1700, 1800, 1900, 2200, 2300, 4000, 4100
R-NDB-4	9-11-08-AB	1800, 3800, 4000, 4600, 4700, 4800, 4900, 5000, 5200, 5300, 5400, 5500, 5600, 5700, 5800, 6000, 6100, 6200, 7600, 7700, 7900
R-SDB-1	09-11-05-DD	1100
	09-11-08	101
	09-11-08-AA	1401, 1900, 2000, 2001, 2800, 2900, 3000
	09-11-08-AC	942
R-SDB-2	09-11-08-AB	600
	09-11-08-AC	101, 200, 201, 942
R-SDB-3	09-11-08	400
	09-11-08-CA	2900, 3000, 3200, 3300, 3400, 3401, 7300, 8300, 8400
	09-11-17-DB	1200
R-WC-1	09-11-08-CA	4200, 4201, 4500, 4600, 4700, 4800, 5000, 5100, 5700, 5900, 6000
	09-11-08-CC	103, 104, 107, 108, 115, 128, 608, 90000, 90008, 90009, 90010, 90011, 90012
	09-11-08-CD	100, 200, 300, 301
	09-11-17-BB	107, 115
R-WC-2	09-11-08-CC	90000, 90001, 90002, 90003, 90003, 90004, 90005, 90006, 90007, 90012, 90013, 90014
	09-11-17-BB	116, 1000, 1100, 1200, 1600, 1700, 1800, 1900, 2000, 2200, 2300, 2400, 2500, 2600, 2800, 2900, 3000, 3100, 3200, 3300, 4100
	09-11-17-BC	3000, 3100, 3200, 3201, 3300, 3400, 3500, 3600, 3700, 3800, 3900, 4000, 4100, 4200, 4300, 7600
	09-11-18-AD	500, 600, 700, 800
R-WC-3	09-11-17-BC	2300, 2400, 4400, 4500, 4600, 4700, 4800, 4900, 5000, 5100, 5200, 200, 6300, 6400, 6500, 6600, 6700, 7300, 7400
	09-11-18-AD	800
WC-4a	09-11-17-CB	300, 400
WC-4b	09-11-17-CB	400

Riparian Characterization Form

Depoe Bay Riparian Inventory

GENERAL INFORMATION

Date: 10/23/2003 **Riparian Code:** R-NDB-1

On-site: ☐ **Off-Site:** ☒ **Reach Length:** 1800'

Investigators: JVS/CR **Hydrologic Basin:** North Depoe Bay Creek

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:**	x	**Width:** 5	feet
	Lake/Pond:		**Width:**	feet
	Wetland:		**Width:**	feet

LWI Wetland Code:

Water present year-round: **Yes** ☒ **No** ☐

Are salmonids present in the adjacent water resource? **Yes** ☐ **No** ☒

Is the water resource listed for temperature on DEQ's 303(d) list: **Yes** ☐ **No** ☒

Within FEMA-mapped 100-year floodplain: **Yes** ☐ **No** ☒

Mapped soil series: Neskowin-Salander silt loam, 35-60% slopes

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☒
Commercial/Indus.:	☐	**Undeveloped:**	☐
Residential:	☒	**Forestry:**	☒

Woody vegetation (trees, shrubs, vines >1 meter)	**Herbaceous vegetation** (include trees, shrubs, vines <1 meter)
Alnus rubra	*Dactylis glomerata*
Picea sitchensis	*Tanacetum vulgare*
Gaultheria shallon	*Polystichum munitum*
Abies grandis	*Equisetum arvense*
Rubus discolor	

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☒ >5:1 (20%) ☐

Extent of impervious surface within the riparian area. (Question 4)

<10% ☒ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☒

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☒ No ☐

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☒ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☒ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☐ No ☒

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☒ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☒ 25% - 75% ☐ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☐ high, very high, severe ☒

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☒ Herbaceous vegetation ☐ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☐ No ☒

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☒

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☒ 2 layers ☐ 1 layer or unvegetated ☐

Riparian Width Determination

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-NDB-1

Date: 10/23/2003 **Investigators:** JVS/CR

Dominant tree species: *Picea sitchensis* (see other side for list of species)

Potential tree height (PTH)/Actual Width of riparian area : 120 / _____ **feet**

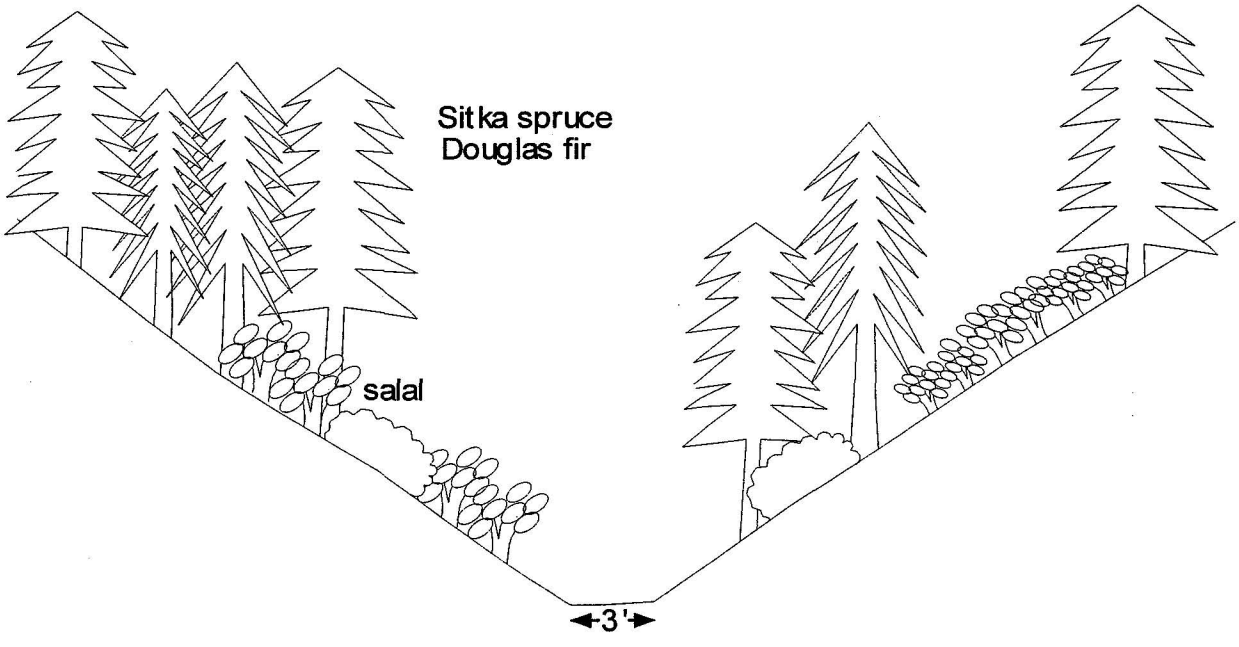
(Width measured horizontally from edge of water resource)

PTH determined by:

On-site vegetation ☒ **Reference site** ☐ **Code** _____

Comments: An unnamed tributary to the Pacific Ocean that flows from the adjacent slopes, draining into Pirate Cove (Research Reserve). Inaccessible to the public, accessible from the ocean only.

Typical Cross Section:



Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-NDB-1

WATER QUALITY

		Score
1. What is the average slope in the riparian area?		
a. Less than 10:1 (10%)	3 pts	
b. Between 10:1 (10%) and 5:1 (20%)	2 pts	2
c. Greater than 5:1 (20%)	1 pt	
2. What is the dominant vegetation cover in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	3
c. Bare ground	1 pt	
3. What is the dominant vegetation at the top of bank (if defined) or edge of water resource?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	3
c. Bare ground	1 pt	
4. What is the extent of impervious surfaces within the riparian area?		
a. Less than 10%	3 pts	
b. Between 10% and 25%	2 pts	3
c. Greater than 25%	1 pt	
5. How does the Natural Resources Conservation Service (formerly Soil Conservation Service) soil survey rank the water erosion hazard of the dominant mapped unit in the riparian area? Select the highest water erosion hazard description if more than one is listed.		
a. Low, slight, moderate	2 pts	1
b. High, severe, very high	1 pts	

Total Points: 12

Function: **High (12-14 pts)** **Medium (8-11 pts)** **Low (5-7 pts)**

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-NDB-1

FLOOD MANAGEMENT

		Score
6. Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource?		
a. Yes	3 pts	1
b. No	1 pt	
7. Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?		
a. Yes	3 pts	1
b. No or no flood prone area present	1 pt	
8. Is the stream or water resource constricted by man-made features (e.g. channelization, riprap, concrete wall)?		
a. No	3 pts	3
b. Yes	1 pts	

Total Points: 5

Function: **High (8-9 pts)** **Medium (5-7 pts)** **Low (3-4 pts)**

FUNCTION IS: **MEDIUM**

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-NDB-1

THERMAL REGULATION

		Score
9. Does the aspect or orientation of the riparian area allow for shading of water at midday in the summer?		
a. Yes	3 pts	**3**
b. No	1 pt	
10. What is the dominant vegetation layer in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	**3**
c. Bare ground	1 pt	
11. Does woody vegetation hang over the edge of the water?		
a. Yes	2 pts	**2**
b. No	1 pts	

Total Points: **8**

Function: **High (7-8 pts)** **Medium (5-6 pts)** **Low (3-4 pts)**

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-NDB-1

WILDLIFE HABITAT

			Score
12. How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?			
a. More than 2 layers		3 pts	
b. 2 layers		2 pts	3
c. 1 layer, or unvegetated		1 pt	
13. What is the dominant vegetation layer in the riparian area?			
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high		3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high		2 pts	3
c. Bare ground		1 pt	
14. Does woody vegetation hang over the edge of the water?			
a. Yes		2 pts	2
b. No		1 pt	
15. Is large woody debris present within the riparian area?			
a. Yes		3 pts	1
b. No		1 pt	
16. What percent of the water resource edge is bordered by a vegetated riparian area at least 30 feet wide?			
a. Greater than 40%		3 pts	
b. Between 10% and 40%		2 pts	3
c. Less than 10%		1 pt	

Questions continued on next page

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-NDB-1

WILDLIFE HABITAT (continued)

			Score
17. Is surface water present throughout the year?			
a. Yes		3 pts	
b. No		1 pt	3
18. Is there more than one type of water resource (e.g. stream, wetland, lake/pond) within or immediately adjacent to the riparian reach?			
a. Yes		3 pts	1
b. No		1 pt	
19. What is the degree of development or human-caused disturbance (e.g. buildings, impervious surfaces, lawns, agriculture, trash) in the riparian area?			
a. Less than 25%		3 pts	
b. Between 25% and 75%		2 pts	3
c. Greater than 75%		1 pt	
Total Points:			19

Function: High (19-23 pts) Medium (13-18 pts) Low (8-12 pts)

FUNCTION IS: HIGH

Riparian Characterization Form

Depoe Bay Riparian Inventory

GENERAL INFORMATION

Date: 9/30/2003 **Riparian Code:** R-NDB-2

On-site: ☒ **Off-Site:** ☐ **Reach Length:** 10,560'

Investigators: JVS/CR **Hydrologic Basin:** North Depoe Bay Creek

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:**	x	**Width:** 6-10	feet
	Lake/Pond:		**Width:**	feet
	Wetland:		**Width:**	feet

LWI Wetland Code: NDB-2

Water present year-round: **Yes** ☒ **No** ☐

Are salmonids present in the adjacent water resource? **Yes** ☒ **No** ☐

Is the water resource listed for temperature on DEQ's 303(d) list: **Yes** ☐ **No** ☒

Within FEMA-mapped 100-year floodplain: **Yes** ☒ **No** ☐

Mapped soil series: Fendall-Templeton silt loam, 35-60% slopes

Adjacent Land Uses? (Check as many as needed)

Agriculture: ☐	**Roads:** ☒
Commercial/Indus.: ☒	**Undeveloped:** ☒
Residential: ☐	**Forestry:** ☐

Woody vegetation (trees, shrubs, vines >1 meter)	**Herbaceous vegetation** (include trees, shrubs, vines <1 meter)
Alnus rubra	*Gaultheria shallon*
Picea sitchensis	*Rubus discolor*
Thuja plicata	*Polystichum munitum*
Tsuga heterophylla	*Rubus spectabilis*
Rubus discolor	*Ranunculus repens*
Sambucus racemosa	*Athyrium filix-femina*
Rubus spectabilis	

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☒ >5:1 (20%) ☐

Extent of impervious surface within the riparian area. (Question 4)

<10% ☒ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☒ No ☐

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☒ No ☐

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☒ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☒ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☒ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☒ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☒ 25% - 75% ☐ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☐ high, very high, severe ☒

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☒ Herbaceous vegetation ☐ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☐ No ☒

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☒

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☒ 2 layers ☐ 1 layer or unvegetated ☐

Riparian Width Determination

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-NDB-2

Date: 9/30/2003 **Investigators:** JVS/CR

Dominant tree species: *Picea sitchensis* (see other side for list of species)

Potential tree height (PTH)/Actual Width of riparian area : 120 / ____ **feet**

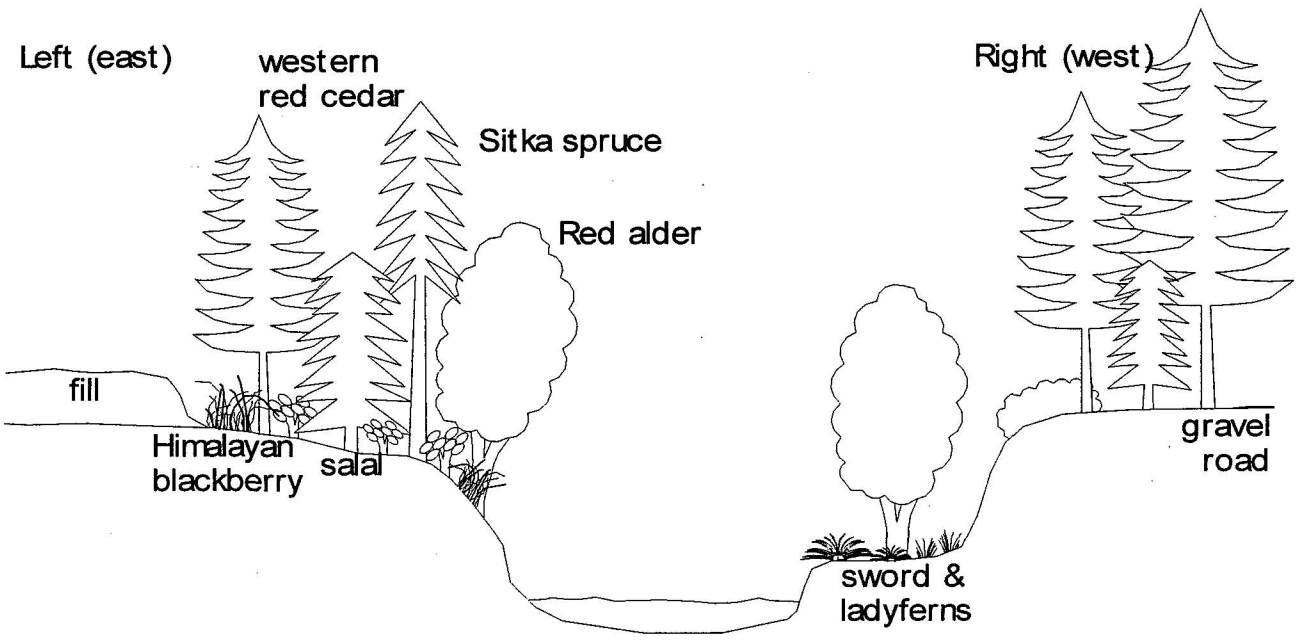
(Width measured horizontally from edge of water resource)

PTH determined by:

On-site vegetation ☒ **Reference site** ☐ **Code** ____

Comments: Gravel road associated with water treatment plant along west side of stream on lower end of White property. Newly graded area "road" and fill along east bank of stream.

Typical Cross Section:



Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-NDB-2

WATER QUALITY

		Score
1. What is the average slope in the riparian area?		
a. Less than 10:1 (10%)	3 pts	
b. Between 10:1 (10%) and 5:1 (20%)	2 pts	**2**
c. Greater than 5:1 (20%)	1 pt	
2. What is the dominant vegetation cover in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	**3**
c. Bare ground	1 pt	
3. What is the dominant vegetation at the top of bank (if defined) or edge of water resource?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	**3**
c. Bare ground	1 pt	
4. What is the extent of impervious surfaces within the riparian area?		
a. Less than 10%	3 pts	
b. Between 10% and 25%	2 pts	**3**
c. Greater than 25%	1 pt	
5. How does the Natural Resources Conservation Service (formerly Soil Conservation Service) soil survey rank the water erosion hazard of the dominant mapped unit in the riparian area? Select the highest water erosion hazard description if more than one is listed.		
a. Low, slight, moderate	2 pts	**1**
b. High, severe, very high	1 pts	
Total Points:		**12**

Function: **High (12-14 pts)** **Medium (8-11 pts)** **Low (5-7 pts)**

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-NDB-2

FLOOD MANAGEMENT

		Score
6. Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource?		
a. Yes	3 pts	1
b. No	1 pt	
7. Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?		
a. Yes	3 pts	1
b. No or no flood prone area present	1 pt	
8. Is the stream or water resource constricted by man-made features (e.g. channelization, riprap, concrete wall)?		
a. No	3 pts	1
b. Yes	1 pts	

Total Points: 3

Function: **High (8-9 pts)** **Medium (5-7 pts)** **Low (3-4 pts)**

FUNCTION IS: LOW

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-NDB-2

THERMAL REGULATION

			Score
9. Does the aspect or orientation of the riparian area allow for shading of water at midday in the summer?			
a. Yes		3 pts	3
b. No		1 pt	
10. What is the dominant vegetation layer in the riparian area?			
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high		3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high		2 pts	3
c. Bare ground		1 pt	
11. Does woody vegetation hang over the edge of the water?			
a. Yes		2 pts	2
b. No		1 pts	

Total Points: 8

Function: **High (7-8 pts)** **Medium (5-6 pts)** **Low (3-4 pts)**

FUNCTION IS: HIGH

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-NDB-2

WILDLIFE HABITAT

			Score
12. How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?			
a. More than 2 layers		3 pts	
b. 2 layers		2 pts	3
c. 1 layer, or unvegetated		1 pt	
13. What is the dominant vegetation layer in the riparian area?			
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high		3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high		2 pts	3
c. Bare ground		1 pt	
14. Does woody vegetation hang over the edge of the water?			
a. Yes		2 pts	2
b. No		1 pt	
15. Is large woody debris present within the riparian area?			
a. Yes		3 pts	3
b. No		1 pt	
16. What percent of the water resource edge is bordered by a vegetated riparian area at least 30 feet wide?			
a. Greater than 40%		3 pts	
b. Between 10% and 40%		2 pts	3
c. Less than 10%		1 pt	

Questions continued on next page

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-NDB-2

WILDLIFE HABITAT (continued)

			Score
17. Is surface water present throughout the year?			
a. Yes		3 pts	
b. No		1 pt	3
18. Is there more than one type of water resource (e.g. stream, wetland, lake/pond) within or immediately adjacent to the riparian reach?			
a. Yes		3 pts	1
b. No		1 pt	
19. What is the degree of development or human-caused disturbance (e.g. buildings, impervious surfaces, lawns, agriculture, trash) in the riparian area?			
a. Less than 25%		3 pts	
b. Between 25% and 75%		2 pts	3
c. Greater than 75%		1 pt	
Total Points:			21

Function: High (19-23 pts) Medium (13-18 pts) Low (8-12 pts)

FUNCTION IS: HIGH

Riparian Characterization Form

Depoe Bay Riparian Inventory

GENERAL INFORMATION

Date: 9/24/2003 **Riparian Code:** R-NDB-3

On-site: ☒ **Off-Site:** ☐ **Reach Length:** 500'

Investigators: JVS/FS **Hydrologic Basin:** North Depoe Bay Creek

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:**	x	**Width:** 40	feet
	Lake/Pond:		**Width:**	feet
	Wetland:	x	**Width:**	feet

LWI Wetland Code: NDB-3

Water present year-round: **Yes** ☒ **No** ☐

Are salmonids present in the adjacent water resource? **Yes** ☐ **No** ☒

Is the water resource listed for temperature on DEQ's 303(d) list: **Yes** ☐ **No** ☒

Within FEMA-mapped 100-year floodplain: **Yes** ☐ **No** ☒

Mapped soil series: Nelscott loam, 3-12% slopes

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☒
Commercial/Indus.:	☒	**Undeveloped:**	☒
Residential:	☐	**Forestry:**	☐

Woody vegetation (trees, shrubs, vines >1 meter)	**Herbaceous vegetation** (include trees, shrubs, vines <1 meter)
Alnus rubra	*Heracleum lanatum*
Picea sitchensis	*Ranunculus repens*
Gaultheria shallon	*Equisetum sp.*
Rubus spectabilis	*Sparganium emersum*
Rubus discolor	*Scirpus microcarpus*

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☒ >5:1 (20%) ☐

Extent of impervious surface within the riparian area. (Question 4)

<10% ☒ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☒ No ☐

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☒ No ☐

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☒ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☒ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☒ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☒ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☒ 25% - 75% ☐ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☒ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☒ Herbaceous vegetation ☐ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☐ No ☒

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☒

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☒ 2 layers ☐ 1 layer or unvegetated ☐

Riparian Width Determination

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-NDB-3

Date: 9/24/2003 **Investigators:** JVS/FS

Dominant tree species: *Alnus rubra* (see other side for list of species)

Potential tree height (PTH)/Actual Width of riparian area : 65 / _____ **feet**

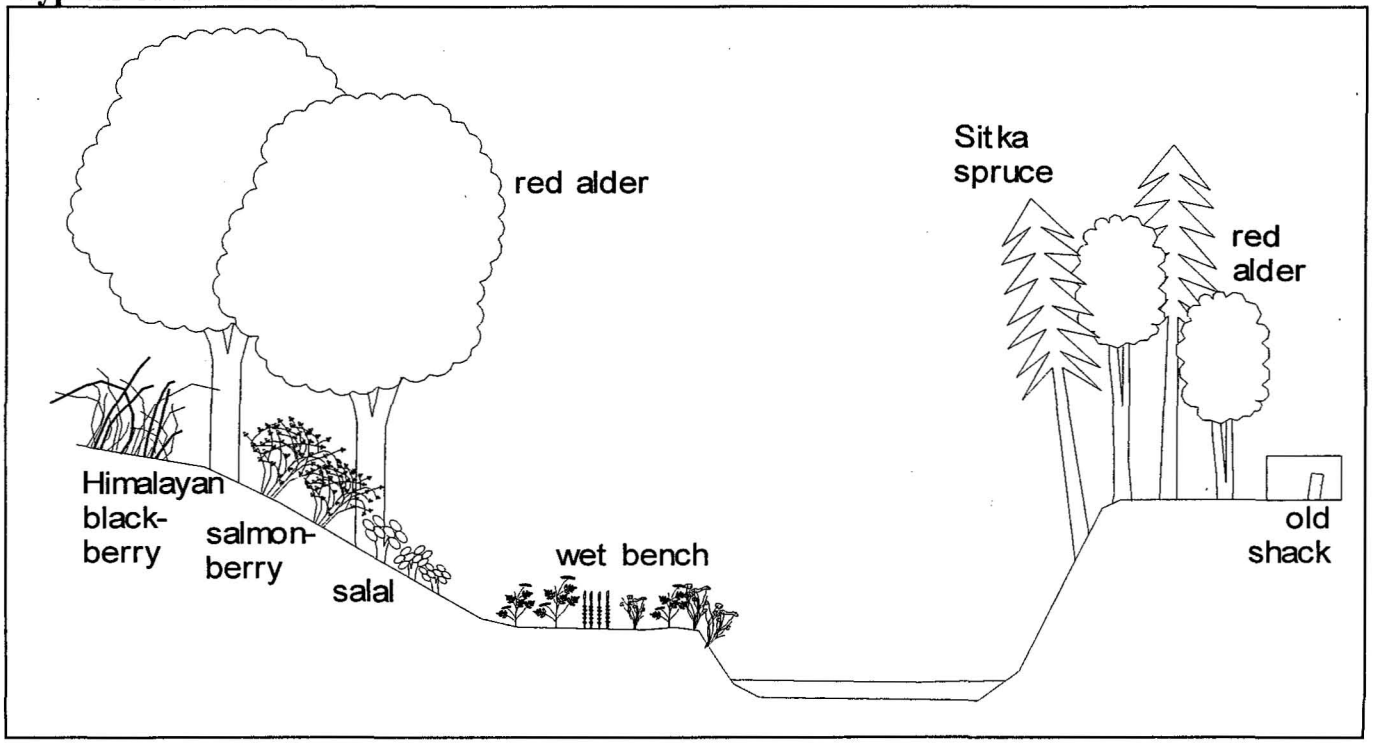
(Width measured horizontally from edge of water resource)

PTH determined by:

On-site vegetation ☒ **Reference site** ☐ **Code** _____

Comments: Riparian wetland in forested ravine behind Childer's property, north of Collins Road. Forest logged upslope, within this stretch is palustrine, forested mosaic wetland within interwoven streams and islands of old *Picea sitchensis* stumps.

Typical Cross Section:



Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-NDB-3

WATER QUALITY

		Score
1. What is the average slope in the riparian area?		
a. Less than 10:1 (10%)	3 pts	
b. Between 10:1 (10%) and 5:1 (20%)	2 pts	2
c. Greater than 5:1 (20%)	1 pt	
2. What is the dominant vegetation cover in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	3
c. Bare ground	1 pt	
3. What is the dominant vegetation at the top of bank (if defined) or edge of water resource?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	3
c. Bare ground	1 pt	
4. What is the extent of impervious surfaces within the riparian area?		
a. Less than 10%	3 pts	
b. Between 10% and 25%	2 pts	3
c. Greater than 25%	1 pt	
5. How does the Natural Resources Conservation Service (formerly Soil Conservation Service) soil survey rank the water erosion hazard of the dominant mapped unit in the riparian area? Select the highest water erosion hazard description if more than one is listed.		
a. Low, slight, moderate	2 pts	2
b. High, severe, very high	1 pts	
Total Points:		**13**

Function: **High (12-14 pts)** **Medium (8-11 pts)** **Low (5-7 pts)**

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-NDB-3

FLOOD MANAGEMENT

		Score
6. Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource?		
a. Yes	3 pts	1
b. No	1 pt	
7. Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?		
a. Yes	3 pts	1
b. No or no flood prone area present	1 pt	
8. Is the stream or water resource constricted by man-made features (e.g. channelization, riprap, concrete wall)?		
a. No	3 pts	1
b. Yes	1 pts	

Total Points: 3

Function: **High (8-9 pts)** **Medium (5-7 pts)** **Low (3-4 pts)**

FUNCTION IS: **LOW**

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-NDB-3

THERMAL REGULATION

		Score
9. Does the aspect or orientation of the riparian area allow for shading of water at midday in the summer?		
a. Yes	3 pts	3
b. No	1 pt	
10. What is the dominant vegetation layer in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	3
c. Bare ground	1 pt	
11. Does woody vegetation hang over the edge of the water?		
a. Yes	2 pts	2
b. No	1 pts	

Total Points: 8

Function: **High (7-8 pts)** **Medium (5-6 pts)** **Low (3-4 pts)**

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-NDB-3

WILDLIFE HABITAT

		Score
12. How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?		
a. More than 2 layers	3 pts	
b. 2 layers	2 pts	3
c. 1 layer, or unvegetated	1 pt	
13. What is the dominant vegetation layer in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	3
c. Bare ground	1 pt	
14. Does woody vegetation hang over the edge of the water?		
a. Yes	2 pts	2
b. No	1 pt	
15. Is large woody debris present within the riparian area?		
a. Yes	3 pts	3
b. No	1 pt	
16. What percent of the water resource edge is bordered by a vegetated riparian area at least 30 feet wide?		
a. Greater than 40%	3 pts	
b. Between 10% and 40%	2 pts	3
c. Less than 10%	1 pt	

Questions continued on next page

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-NDB-3

WILDLIFE HABITAT (continued)

		Score
17. Is surface water present throughout the year?		
a. Yes	3 pts	
b. No	1 pt	3
18. Is there more than one type of water resource (e.g. stream, wetland, lake/pond) within or immediately adjacent to the riparian reach?		
a. Yes	3 pts	3
b. No	1 pt	
19. What is the degree of development or human-caused disturbance (e.g. buildings, impervious surfaces, lawns, agriculture, trash) in the riparian area?		
a. Less than 25%	3 pts	
b. Between 25% and 75%	2 pts	3
c. Greater than 75%	1 pt	
Total Points:		**23**

Function: High (19-23 pts) Medium (13-18 pts) Low (8-12 pts)

FUNCTION IS: **HIGH**

Riparian Characterization Form

Depoe Bay Riparian Inventory

GENERAL INFORMATION

Date: 9/24/2003 **Riparian Code:** R-NDB-4

On-site: ☒ **Off-Site:** ☐ **Reach Length:** 600'

Investigators: JVS/FS **Hydrologic Basin:** North Depoe Bay Creek

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:**	x	**Width:** 15	feet
	Lake/Pond:		**Width:**	feet
	Wetland:		**Width:**	feet

LWI Wetland Code: NDB-3

Water present year-round: **Yes** ☒ **No** ☐

Are salmonids present in the adjacent water resource? **Yes** ☐ **No** ☒

Is the water resource listed for temperature on DEQ's 303(d) list: **Yes** ☐ **No** ☒

Within FEMA-mapped 100-year floodplain: **Yes** ☐ **No** ☒

Mapped soil series: Nelscott loam, 3-12% slopes

Adjacent Land Uses? (Check as many as needed)

Agriculture: ☐	**Roads:** ☐
Commercial/Indus.: ☒	**Undeveloped:** ☒
Residential: ☐	**Forestry:** ☐

Woody vegetation (trees, shrubs, vines >1 meter)	**Herbaceous vegetation** (include trees, shrubs, vines <1 meter)
Alnus rubra	*Polystichum munitum*
Sambucus racemosa	*Polygonum pachystachyum*
Gaultheria shallon	
Rubus spectabilis	
Rubus discolor	

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☐ >5:1 (20%) ☒

Extent of impervious surface within the riparian area. (Question 4)

<10% ☒ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☒

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☒ No ☐

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☒ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☒ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☒ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☒ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☒ 25% - 75% ☐ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☒ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☒ Herbaceous vegetation ☐ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☐ No ☒

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☒

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☒ 2 layers ☐ 1 layer or unvegetated ☐

Riparian Width Determination

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-NDB-4

Date: 9/24/2003 **Investigators:** JVS/FS

Dominant tree species: *Alnus rubra* (see other side for list of species)

Potential tree height (PTH)/Actual Width of riparian area : 65 / ____ **feet**

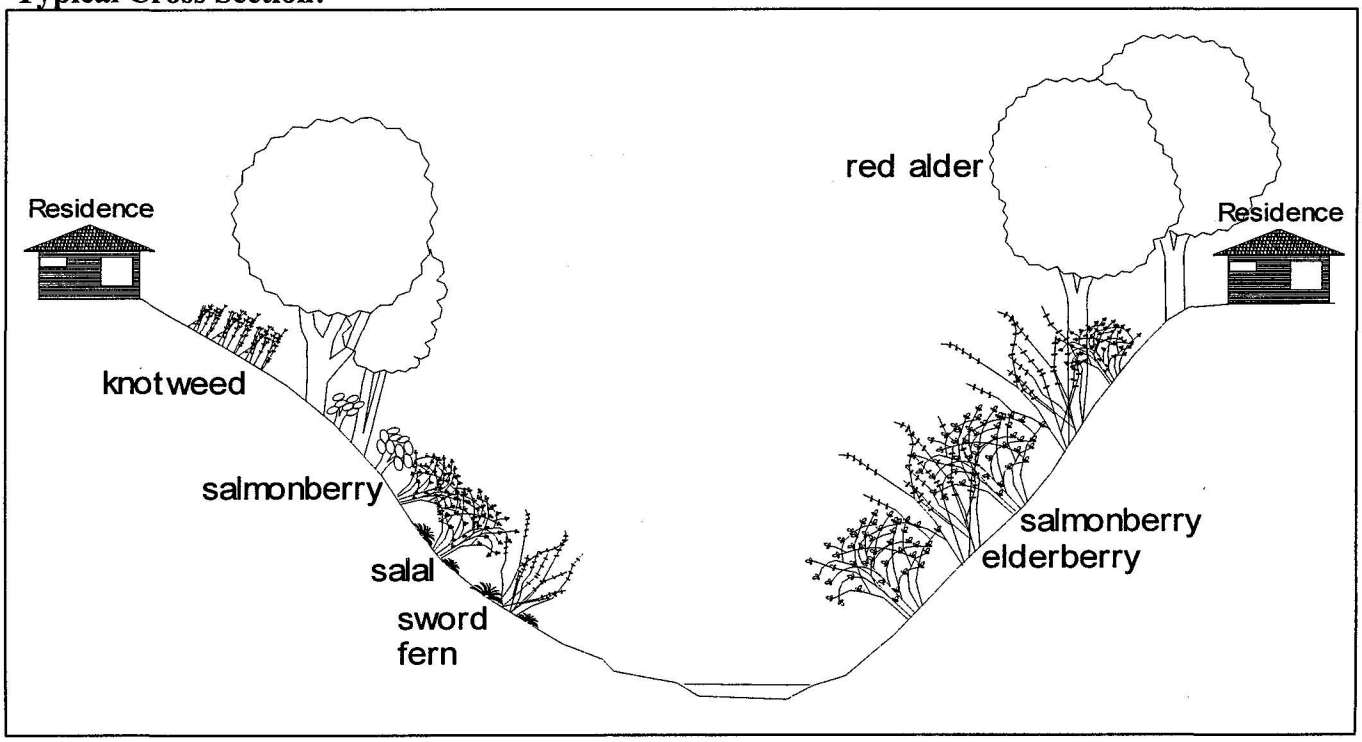
(Width measured horizontally from edge of water resource)

PTH determined by:

On-site vegetation ☒ **Reference site** ☐ **Code** ____

Comments: "U"-shaped drainage/wetland connected to wetland on Childer's property (see R-NDB-3). Many invertebrates in stream, raccoons and nutria observed by adjacent property owner. Drainage is much narrowerthan R-NDB-3, with steeper banks than on north side of road. Looking south from data points NDB-3-5 and NDB-3-6.

Typical Cross Section:



Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-NDB-4

WATER QUALITY

		Score
1. What is the average slope in the riparian area?		
a. Less than 10:1 (10%)	3 pts	
b. Between 10:1 (10%) and 5:1 (20%)	2 pts	1
c. Greater than 5:1 (20%)	1 pt	
2. What is the dominant vegetation cover in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	3
c. Bare ground	1 pt	
3. What is the dominant vegetation at the top of bank (if defined) or edge of water resource?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	3
c. Bare ground	1 pt	
4. What is the extent of impervious surfaces within the riparian area?		
a. Less than 10%	3 pts	
b. Between 10% and 25%	2 pts	3
c. Greater than 25%	1 pt	
5. How does the Natural Resources Conservation Service (formerly Soil Conservation Service) soil survey rank the water erosion hazard of the dominant mapped unit in the riparian area? Select the highest water erosion hazard description if more than one is listed.		
a. Low, slight, moderate	2 pts	2
b. High, severe, very high	1 pts	
Total Points:		12

Function: **High (12-14 pts)** **Medium (8-11 pts)** **Low (5-7 pts)**

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-NDB-4

FLOOD MANAGEMENT

		Score
6. Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource?		
a. Yes	3 pts	1
b. No	1 pt	
7. Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?		
a. Yes	3 pts	1
b. No or no flood prone area present	1 pt	
8. Is the stream or water resource constricted by man-made features (e.g. channelization, riprap, concrete wall)?		
a. No	3 pts	3
b. Yes	1 pts	

Total Points: 5

Function: **High (8-9 pts)** **Medium (5-7 pts)** **Low (3-4 pts)**

FUNCTION IS: **MEDIUM**

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-NDB-4

THERMAL REGULATION

			Score
9. Does the aspect or orientation of the riparian area allow for shading of water at midday in the summer?			
a. Yes		3 pts	**3**
b. No		1 pt	
10. What is the dominant vegetation layer in the riparian area?			
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high		3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high		2 pts	**3**
c. Bare ground		1 pt	
11. Does woody vegetation hang over the edge of the water?			
a. Yes		2 pts	**2**
b. No		1 pts	

Total Points: **8**

Function: **High (7-8 pts)** **Medium (5-6 pts)** **Low (3-4 pts)**

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-NDB-4

WILDLIFE HABITAT

			Score
12. How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?			
a. More than 2 layers		3 pts	
b. 2 layers		2 pts	3
c. 1 layer, or unvegetated		1 pt	
13. What is the dominant vegetation layer in the riparian area?			
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high		3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high		2 pts	3
c. Bare ground		1 pt	
14. Does woody vegetation hang over the edge of the water?			
a. Yes		2 pts	2
b. No		1 pt	
15. Is large woody debris present within the riparian area?			
a. Yes		3 pts	3
b. No		1 pt	
16. What percent of the water resource edge is bordered by a vegetated riparian area at least 30 feet wide?			
a. Greater than 40%		3 pts	
b. Between 10% and 40%		2 pts	3
c. Less than 10%		1 pt	

Questions continued on next page

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-NDB-4

WILDLIFE HABITAT (continued)

			Score
17. Is surface water present throughout the year?			
a. Yes	_____	3 pts	
b. No	_____	1 pt	3
18. Is there more than one type of water resource (e.g. stream, wetland, lake/pond) within or immediately adjacent to the riparian reach?			
a. Yes	_____	3 pts	1
b. No	_____	1 pt	
19. What is the degree of development or human-caused disturbance (e.g. buildings, impervious surfaces, lawns, agriculture, trash) in the riparian area?			
a. Less than 25%	_____	3 pts	
b. Between 25% and 75%	_____	2 pts	3
c. Greater than 75%	_____	1 pt	
Total Points:			21

Function: High (19-23 pts) Medium (13-18 pts) Low (8-12 pts)

FUNCTION IS: HIGH

Riparian Characterization Form

Depoe Bay Riparian Inventory

GENERAL INFORMATION

Date: 9/24/2003 **Riparian Code:** R-SDB-1

On-site: ☒ **Off-Site:** ☐ **Reach Length:** 2000'

Investigators: JVS/FS **Hydrologic Basin:** South Depoe Bay Creek

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:**	x	**Width:** 3-8	feet
	Lake/Pond:		**Width:**	feet
	Wetland:	x	**Width:** 2-3	feet

LWI Wetland Code: SDB-1

Water present year-round: **Yes** ☐ **No** ☒

Are salmonids present in the adjacent water resource? **Yes** ☐ **No** ☒

Is the water resource listed for temperature on DEQ's 303(d) list: **Yes** ☐ **No** ☒

Within FEMA-mapped 100-year floodplain: **Yes** ☐ **No** ☒

Mapped soil series: Glenedon silty clay loam, 2-12% slopes

Adjacent Land Uses? (Check as many as needed)

Agriculture: ☐	**Roads:** ☐
Commercial/Indus.: ☐	**Undeveloped:** ☐
Residential: ☐	**Forestry:** ☒

Woody vegetation (trees, shrubs, vines >1 meter)	**Herbaceous vegetation** (include trees, shrubs, vines <1 meter)
Alnus rubra	*Blechnum spicant*
Pseudotsuga menziesii	*Lysichiton americanum*
Gaultheria shallon	
Vaccinium parviflorum	

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☒ >5:1 (20%) ☐

Extent of impervious surface within the riparian area. (Question 4)

<10% ☒ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☒

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☒ No ☐

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☒ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☒ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☐ No ☒

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☒ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☒ 25% - 75% ☒ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☒ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☒ Herbaceous vegetation ☐ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☒ No ☐

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☒

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☒ 2 layers ☐ 1 layer or unvegetated ☐

Riparian Width Determination

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-SDB-1

Date: 9/24/2003 **Investigators:** JVS/FS

Dominant tree species: *Pseudotsuga menziesii* (see other side for list of species)

Potential tree height (PTH)/Actual Width of riparian area : 120 / **feet**

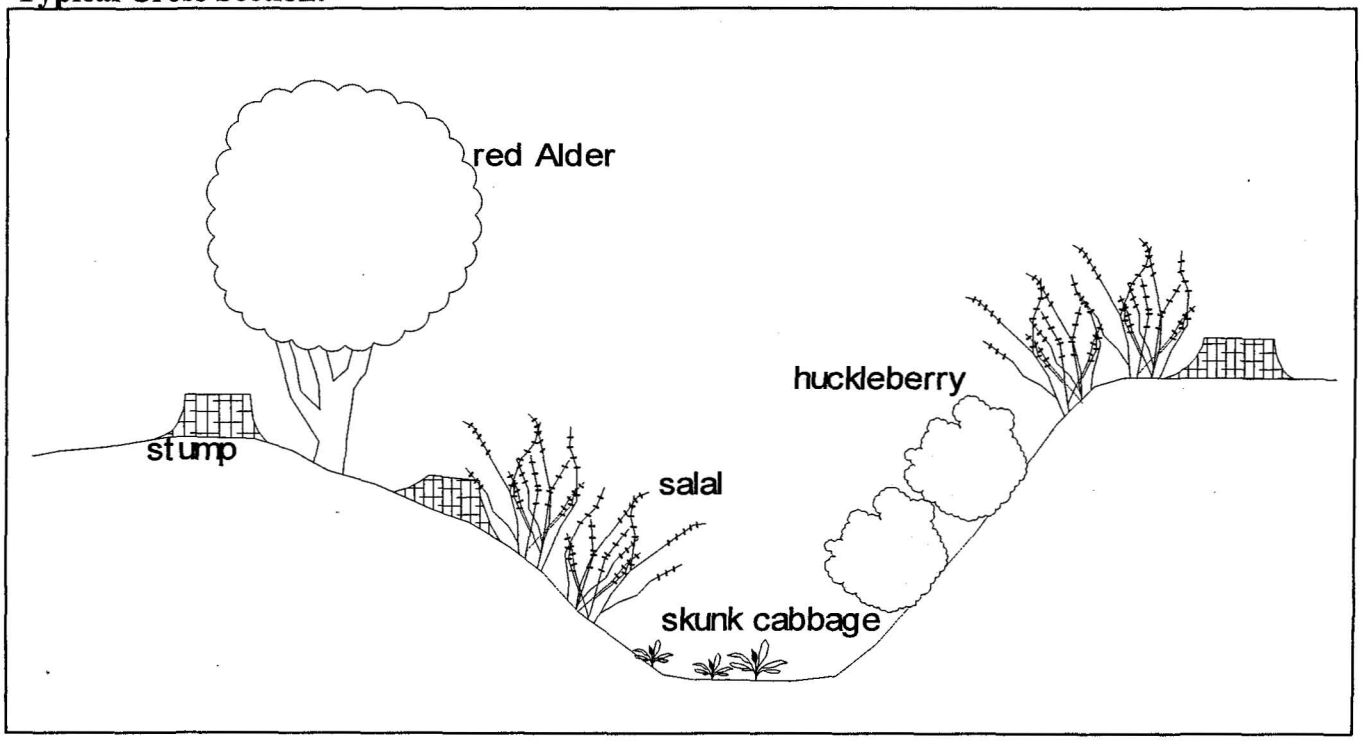
(Width measured horizontally from edge of water resource)

PTH determined by:

On-site vegetation ☒ **Reference site** ☐ **Code** _____

Comments: Actively managed timber area owned by Boise Cascade. Stumps at top of bank.

Typical Cross Section:



Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-SDB-1

WATER QUALITY

		Score
1. What is the average slope in the riparian area?		
a. Less than 10:1 (10%)	3 pts	
b. Between 10:1 (10%) and 5:1 (20%)	2 pts	**2**
c. Greater than 5:1 (20%)	1 pt	
2. What is the dominant vegetation cover in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	**3**
c. Bare ground	1 pt	
3. What is the dominant vegetation at the top of bank (if defined) or edge of water resource?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	**3**
c. Bare ground	1 pt	
4. What is the extent of impervious surfaces within the riparian area?		
a. Less than 10%	3 pts	
b. Between 10% and 25%	2 pts	**3**
c. Greater than 25%	1 pt	
5. How does the Natural Resources Conservation Service (formerly Soil Conservation Service) soil survey rank the water erosion hazard of the dominant mapped unit in the riparian area? Select the highest water erosion hazard description if more than one is listed.		
a. Low, slight, moderate	2 pts	**2**
b. High, severe, very high	1 pts	
Total Points:		**13**

Function: **High (12-14 pts)** **Medium (8-11 pts)** **Low (5-7 pts)**

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-SDB-1

FLOOD MANAGEMENT

		Score
6. Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource?		
a. Yes	3 pts	3
b. No	1 pt	
7. Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?		
a. Yes	3 pts	1
b. No or no flood prone area present	1 pt	
8. Is the stream or water resource constricted by man-made features (e.g. channelization, riprap, concrete wall)?		
a. No	3 pts	3
b. Yes	1 pts	

Total Points: 7

Function: **High (8-9 pts)** **Medium (5-7 pts)** **Low (3-4 pts)**

FUNCTION IS: **MEDIUM**

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-SDB-1

THERMAL REGULATION

			Score
9. Does the aspect or orientation of the riparian area allow for shading of water at midday in the summer?			
a. Yes		3 pts	3
b. No		1 pt	
10. What is the dominant vegetation layer in the riparian area?			
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high		3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high		2 pts	3
c. Bare ground		1 pt	
11. Does woody vegetation hang over the edge of the water?			
a. Yes		2 pts	2
b. No		1 pts	

Total Points: 8

Function: **High (7-8 pts)** **Medium (5-6 pts)** **Low (3-4 pts)**

FUNCTION IS: HIGH

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-SDB-1

WILDLIFE HABITAT

			Score
12. How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?			
a. More than 2 layers		3 pts	
b. 2 layers		2 pts	3
c. 1 layer, or unvegetated		1 pt	
13. What is the dominant vegetation layer in the riparian area?			
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high		3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high		2 pts	3
c. Bare ground		1 pt	
14. Does woody vegetation hang over the edge of the water?			
a. Yes		2 pts	2
b. No		1 pt	
15. Is large woody debris present within the riparian area?			
a. Yes		3 pts	1
b. No		1 pt	
16. What percent of the water resource edge is bordered by a vegetated riparian area at least 30 feet wide?			
a. Greater than 40%		3 pts	
b. Between 10% and 40%		2 pts	3
c. Less than 10%		1 pt	

Questions continued on next page

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-SDB-1

WILDLIFE HABITAT (continued)

			Score
17. Is surface water present throughout the year?			
a. Yes	_____	3 pts	
b. No	_____	1 pt	1
18. Is there more than one type of water resource (e.g. stream, wetland, lake/pond) within or immediately adjacent to the riparian reach?			
a. Yes	_____	3 pts	3
b. No	_____	1 pt	
19. What is the degree of development or human-caused disturbance (e.g. buildings, impervious surfaces, lawns, agriculture, trash) in the riparian area?			
a. Less than 25%	_____	3 pts	
b. Between 25% and 75%	_____	2 pts	3
c. Greater than 75%	_____	1 pt	

Total Points: 19

Function: **High (19-23 pts)** **Medium (13-18 pts)** **Low (8-12 pts)**

FUNCTION IS: **HIGH**

Riparian Characterization Form

Depoe Bay Riparian Inventory

GENERAL INFORMATION

Date: 9/30/2003 **Riparian Code:** R-SDB-2

On-site: ☒ **Off-Site:** ☐ **Reach Length:** 20,600'

Investigators: JVS/CR **Hydrologic Basin:** South Depoe Bay Creek

WATER RESOURCE INFORMATION

Water Resource:

Stream/River:	x	**Width:**	20-25 feet
Lake/Pond:		**Width:**	feet
Wetland:		**Width:**	feet

LWI Wetland Code: SDB-2

Water present year-round: **Yes** ☒ **No** ☐

Are salmonids present in the adjacent water resource? **Yes** ☒ **No** ☐

Is the water resource listed for temperature on DEQ's 303(d) list: **Yes** ☐ **No** ☒

Within FEMA-mapped 100-year floodplain: **Yes** ☐ **No** ☒

Mapped soil series: Nestucca silt loam, 0-2% slopes

Adjacent Land Uses? (Check as many as needed)

Agriculture: ☐ **Roads:** ☐
Commercial/Indus.: ☐ **Undeveloped:** ☒
Residential: ☒ **Forestry:** ☐

Woody vegetation (trees, shrubs, vines >1 meter)	**Herbaceous vegetation** (include trees, shrubs, vines <1 meter)
Alnus rubra	*Rubus spectabilis*
Picea sitchensis	*Athyrium filix-femina*
Sambucus racemosa	*Tolmiea menziesii*
	Oxalis oregana
	Oenanthe sarmentosa
	Lysichiton americanum

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☒ >5:1 (20%) ☐

Extent of impervious surface within the riparian area. (Question 4)

<10% ☒ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☒

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☒ No ☐

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☒ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☒ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☒ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☒ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☒ 25% - 75% ☒ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☒ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☒ Herbaceous vegetation ☐ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☒ No ☐

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☒ No or no flood prone area present ☐

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☒ 2 layers ☐ 1 layer or unvegetated ☐

Riparian Width Determination

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-SDB-2

Date: 9/30/2003 **Investigators:** JVS/CR

Dominant tree species: *Alnus rubra* (see other side for list of species)

Potential tree height (PTH)/Actual Width of riparian area : 65 / _____ **feet**

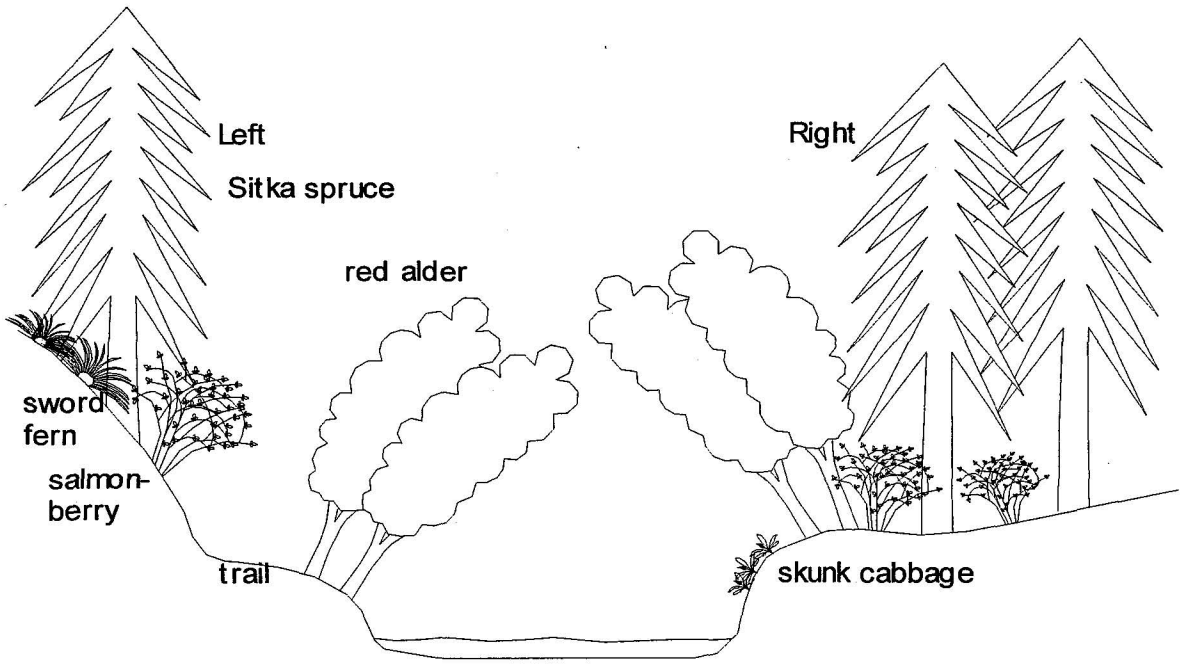
(Width measured horizontally from edge of water resource)

PTH determined by:

On-site vegetation ☒ **Reference site** ☐ **Code** _____

Comments: Quite a lot of downed woody debris. Natural meander of perennial stream. Several seasonal drainages flow into stream from hillslopes west of stream.

Typical Cross Section:



Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-SDB-2

WATER QUALITY

		Score
1. What is the average slope in the riparian area?		
a. Less than 10:1 (10%)	3 pts	
b. Between 10:1 (10%) and 5:1 (20%)	2 pts	**2**
c. Greater than 5:1 (20%)	1 pt	
2. What is the dominant vegetation cover in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	**3**
c. Bare ground	1 pt	
3. What is the dominant vegetation at the top of bank (if defined) or edge of water resource?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	**3**
c. Bare ground	1 pt	
4. What is the extent of impervious surfaces within the riparian area?		
a. Less than 10%	3 pts	
b. Between 10% and 25%	2 pts	**3**
c. Greater than 25%	1 pt	
5. How does the Natural Resources Conservation Service (formerly Soil Conservation Service) soil survey rank the water erosion hazard of the dominant mapped unit in the riparian area? Select the highest water erosion hazard description if more than one is listed.		
a. Low, slight, moderate	2 pts	**2**
b. High, severe, very high	1 pts	

Total Points: **13**

Function: **High (12-14 pts)** **Medium (8-11 pts)** **Low (5-7 pts)**

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-SDB-2

FLOOD MANAGEMENT

		Score
6. Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource?		
a. Yes	3 pts	3
b. No	1 pt	
7. Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?		
a. Yes	3 pts	3
b. No or no flood prone area present	1 pt	
8. Is the stream or water resource constricted by man-made features (e.g. channelization, riprap, concrete wall)?		
a. No	3 pts	3
b. Yes	1 pts	

Total Points: 9

Function: **High (8-9 pts)** **Medium (5-7 pts)** **Low (3-4 pts)**

FUNCTION IS: HIGH

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-SDB-2

THERMAL REGULATION

		Score
9. Does the aspect or orientation of the riparian area allow for shading of water at midday in the summer?		
a. Yes	3 pts	3
b. No	1 pt	
10. What is the dominant vegetation layer in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	3
c. Bare ground	1 pt	
11. Does woody vegetation hang over the edge of the water?		
a. Yes	2 pts	2
b. No	1 pts	

Total Points: 8

Function: **High (7-8 pts)** **Medium (5-6 pts)** **Low (3-4 pts)**

FUNCTION IS: HIGH

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-SDB-2

WILDLIFE HABITAT

			Score
12. How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?			
a. More than 2 layers		3 pts	
b. 2 layers		2 pts	3
c. 1 layer, or unvegetated		1 pt	
13. What is the dominant vegetation layer in the riparian area?			
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high		3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high		2 pts	3
c. Bare ground		1 pt	
14. Does woody vegetation hang over the edge of the water?			
a. Yes		2 pts	2
b. No		1 pt	
15. Is large woody debris present within the riparian area?			
a. Yes		3 pts	3
b. No		1 pt	
16. What percent of the water resource edge is bordered by a vegetated riparian area at least 30 feet wide?			
a. Greater than 40%		3 pts	
b. Between 10% and 40%		2 pts	3
c. Less than 10%		1 pt	

Questions continued on next page

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-SDB-2

WILDLIFE HABITAT (continued)

			Score
17. Is surface water present throughout the year?			
a. Yes		3 pts	
b. No		1 pt	**3**
18. Is there more than one type of water resource (e.g. stream, wetland, lake/pond) within or immediately adjacent to the riparian reach?			
a. Yes		3 pts	**1**
b. No		1 pt	
19. What is the degree of development or human-caused disturbance (e.g. buildings, impervious surfaces, lawns, agriculture, trash) in the riparian area?			
a. Less than 25%		3 pts	
b. Between 25% and 75%		2 pts	**3**
c. Greater than 75%		1 pt	

Total Points: **21**

Function: **High (19-23 pts) Medium (13-18 pts) Low (8-12 pts)**

FUNCTION IS: **HIGH**

Riparian Characterization Form

Depoe Bay Riparian Inventory

GENERAL INFORMATION

Date: 11/29/2003 **Riparian Code:** R-SDB-3

On-site: ☐ **Off-Site:** ☒ **Reach Length:** 1200'

Investigators: JVS **Hydrologic Basin:** South Depoe Bay Creek

WATER RESOURCE INFORMATION

Water Resource:				
	Stream/River:	x	**Width:** 3-5	feet
	Lake/Pond:		**Width:**	feet
	Wetland:	x	**Width:**	feet

LWI Wetland Code: None

Water present year-round: **Yes** ☐ **No** ☒

Are salmonids present in the adjacent water resource? **Yes** ☐ **No** ☒

Is the water resource listed for temperature on DEQ's 303(d) list: **Yes** ☐ **No** ☒

Within FEMA-mapped 100-year floodplain: **Yes** ☐ **No** ☒

Mapped soil series: Nelscott loam, 3-12% slopes

Adjacent Land Uses? (Check as many as needed)

Agriculture: ☐ **Roads:** ☐
Commercial/Indus.: ☐ **Undeveloped:** ☐
Residential: ☒ **Forestry:** ☒

Woody vegetation (trees, shrubs, vines >1 meter)	**Herbaceous vegetation** (include trees, shrubs, vines <1 meter)
Alnus rubra	*Polystichum munitum*
Gaultheria shallon	

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☒ >5:1 (20%) ☐

Extent of impervious surface within the riparian area. (Question 4)

<10% ☐ 10% - 25% ☒ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☒ No ☐

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☒ No ☐

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☒ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☒ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☐ No ☒

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☒ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☒ 25% - 75% ☒ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☒ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☒ Herbaceous vegetation ☐ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☐ No ☒

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☒

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☐ 2 layers ☒ 1 layer or unvegetated ☐

Riparian Width Determination

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-SDB-3

Date: 11/29/2003 **Investigators:** JVS

Dominant tree species: *Alnus rubra* (see other side for list of species)

Potential tree height (PTH)/Actual Width of riparian area : 65 / ____ **feet**

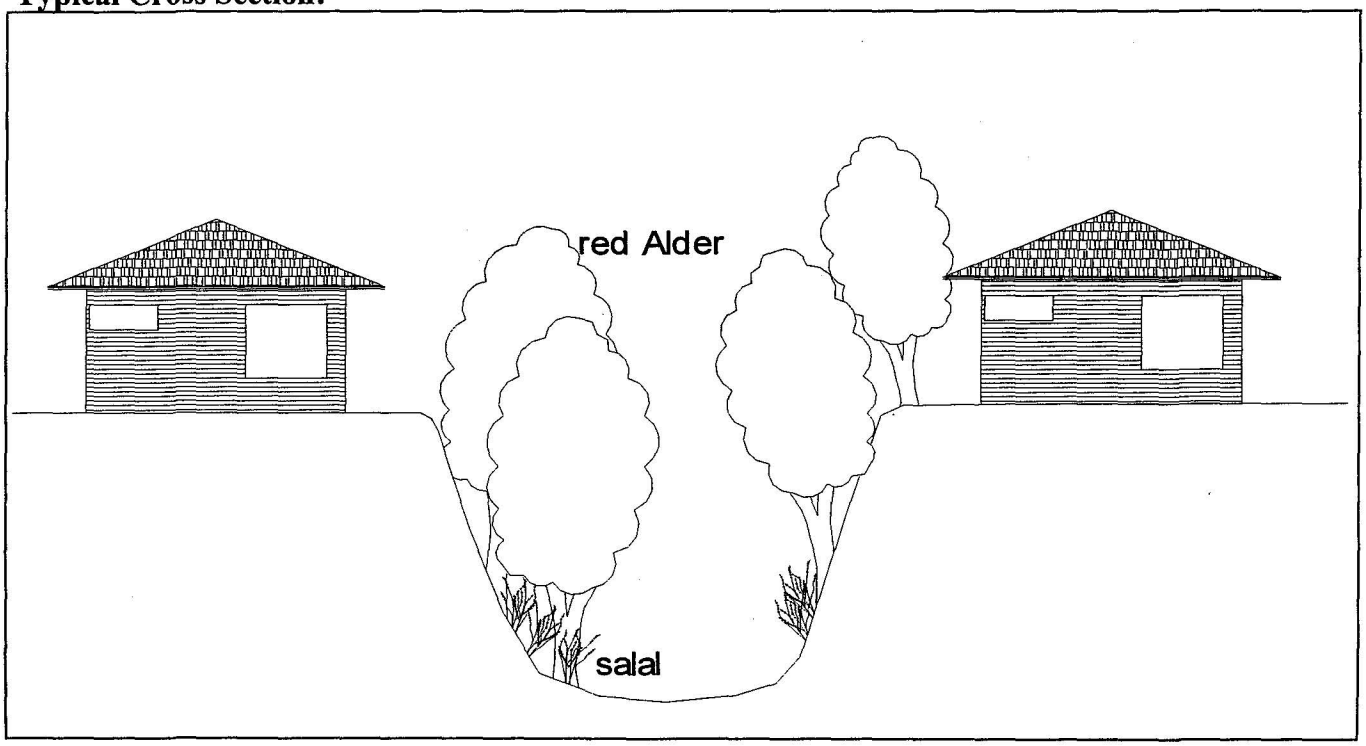
(Width measured horizontally from edge of water resource)

PTH determined by:

On-site vegetation ☒ **Reference site** ☐ **Code** ____

Comments: Williams Creek. Developed on both sides of channel-flows beneath Highway 101.

Typical Cross Section:



Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-SDB-3

WATER QUALITY

		Score
1. What is the average slope in the riparian area?		
a. Less than 10:1 (10%)	3 pts	
b. Between 10:1 (10%) and 5:1 (20%)	2 pts	**2**
c. Greater than 5:1 (20%)	1 pt	
2. What is the dominant vegetation cover in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	**3**
c. Bare ground	1 pt	
3. What is the dominant vegetation at the top of bank (if defined) or edge of water resource?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	**3**
c. Bare ground	1 pt	
4. What is the extent of impervious surfaces within the riparian area?		
a. Less than 10%	3 pts	
b. Between 10% and 25%	2 pts	**2**
c. Greater than 25%	1 pt	
5. How does the Natural Resources Conservation Service (formerly Soil Conservation Service) soil survey rank the water erosion hazard of the dominant mapped unit in the riparian area? Select the highest water erosion hazard description if more than one is listed.		
a. Low, slight, moderate	2 pts	**2**
b. High, severe, very high	1 pts	
Total Points:		**12**

Function: **High (12-14 pts)** **Medium (8-11 pts)** **Low (5-7 pts)**

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-SDB-3

FLOOD MANAGEMENT

		Score
6. Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource?		
a. Yes	3 pts	1
b. No	1 pt	
7. Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?		
a. Yes	3 pts	1
b. No or no flood prone area present	1 pt	
8. Is the stream or water resource constricted by man-made features (e.g. channelization, riprap, concrete wall)?		
a. No	3 pts	1
b. Yes	1 pts	

Total Points: 3

Function: **High (8-9 pts)** **Medium (5-7 pts)** **Low (3-4 pts)**

FUNCTION IS: LOW

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-SDB-3

THERMAL REGULATION

		Score
9. Does the aspect or orientation of the riparian area allow for shading of water at midday in the summer?		
a. Yes	3 pts	3
b. No	1 pt	
10. What is the dominant vegetation layer in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	3
c. Bare ground	1 pt	
11. Does woody vegetation hang over the edge of the water?		
a. Yes	2 pts	2
b. No	1 pts	
Total Points:		8

Function: **High (7-8 pts)** **Medium (5-6 pts)** **Low (3-4 pts)**

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-SDB-3

WILDLIFE HABITAT

			Score
12. How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?			
a. More than 2 layers		3 pts	
b. 2 layers		2 pts	**2**
c. 1 layer, or unvegetated		1 pt	
13. What is the dominant vegetation layer in the riparian area?			
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high		3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high		2 pts	**3**
c. Bare ground		1 pt	
14. Does woody vegetation hang over the edge of the water?			
a. Yes		2 pts	**2**
b. No		1 pt	
15. Is large woody debris present within the riparian area?			
a. Yes		3 pts	**1**
b. No		1 pt	
16. What percent of the water resource edge is bordered by a vegetated riparian area at least 30 feet wide?			
a. Greater than 40%		3 pts	
b. Between 10% and 40%		2 pts	**3**
c. Less than 10%		1 pt	

Questions continued on next page

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-SDB-3

WILDLIFE HABITAT (continued)

		Score
17. Is surface water present throughout the year?		
a. Yes	3 pts	
b. No	1 pt	1
18. Is there more than one type of water resource (e.g. stream, wetland, lake/pond) within or immediately adjacent to the riparian reach?		
a. Yes	3 pts	3
b. No	1 pt	
19. What is the degree of development or human-caused disturbance (e.g. buildings, impervious surfaces, lawns, agriculture, trash) in the riparian area?		
a. Less than 25%	3 pts	
b. Between 25% and 75%	2 pts	3
c. Greater than 75%	1 pt	
Total Points:		18

Function: High (19-23 pts) Medium (13-18 pts) Low (8-12 pts)

FUNCTION IS: MEDIUM

Riparian Characterization Form

Depoe Bay Riparian Inventory

GENERAL INFORMATION

Date: 11/29/2003 **Riparian Code:** R-WC-1

On-site: ☐ **Off-Site:** ☒ **Reach Length:** 1200'

Investigators: JVS **Hydrologic Basin:** Whale Cove

WATER RESOURCE INFORMATION

Water Resource:				
	Stream/River:	x	**Width:** 5-8	feet
	Lake/Pond:		**Width:**	feet
	Wetland:	x	**Width:**	feet

LWI Wetland Code: WC-1A, WC-1B

Water present year-round: **Yes** ☒ **No** ☐

Are salmonids present in the adjacent water resource? **Yes** ☐ **No** ☒

Is the water resource listed for temperature on DEQ's 303(d) list: **Yes** ☐ **No** ☒

Within FEMA-mapped 100-year floodplain: **Yes** ☐ **No** ☒

Mapped soil series: Depoe loam, 0-7% slopes

Adjacent Land Uses? (Check as many as needed)

Agriculture: ☐	**Roads:** ☐
Commercial/Indus.: ☒	**Undeveloped:** ☒
Residential: ☐	**Forestry:** ☐

Woody vegetation (trees, shrubs, vines >1 meter)	**Herbaceous vegetation** (include trees, shrubs, vines <1 meter)
Alnus rubra	*Lysichiton americanum*
Pseudotsuga menziesii	*Polystichum munitum*
Gaultheria shallon	*Athyrium filix-femina*
Tsuga heterophylla	
Rubus spectabilis	

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☒ Between 10:1 (10%) and 5:1 (20%) ☐ >5:1 (20%) ☐

Extent of impervious surface within the riparian area. (Question 4)

<10% ☒ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☒

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☐ No ☒

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☒ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☒ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☒ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☐ 10% - 40% ☒ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☒ 25% - 75% ☐ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☒ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☒ Herbaceous vegetation ☐ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☒ No ☐

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☒ No or no flood prone area present ☐

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☒ 2 layers ☐ 1 layer or unvegetated ☐

Riparian Width Determination

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-WC-1

Date: 11/29/2003 **Investigators:** JVS

Dominant tree species: *Tsuga heterophylla* (see other side for list of species)

Potential tree height (PTH)/Actual Width of riparian area : 120 / ____ **feet**

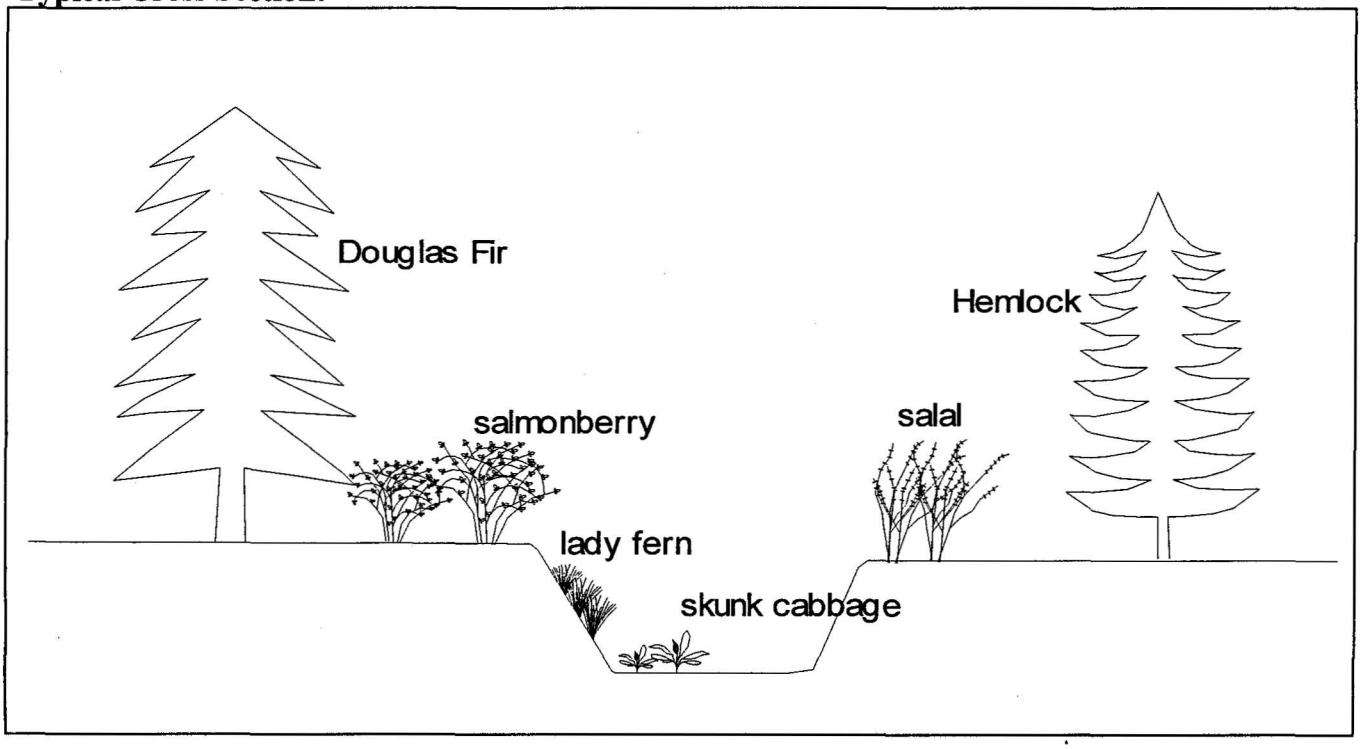
(Width measured horizontally from edge of water resource)

PTH determined by:

On-site vegetation ☒ **Reference site** ☐ **Code** ____

Comments: In northern portion of Little Whale Cove subdivision. Wetland mosaic-pockets of wetland beneath coniferous overstory.

Typical Cross Section:



Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-WC-1

WATER QUALITY

		Score
1. What is the average slope in the riparian area?		
a. Less than 10:1 (10%)	3 pts	
b. Between 10:1 (10%) and 5:1 (20%)	2 pts	3
c. Greater than 5:1 (20%)	1 pt	
2. What is the dominant vegetation cover in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	3
c. Bare ground	1 pt	
3. What is the dominant vegetation at the top of bank (if defined) or edge of water resource?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	3
c. Bare ground	1 pt	
4. What is the extent of impervious surfaces within the riparian area?		
a. Less than 10%	3 pts	
b. Between 10% and 25%	2 pts	3
c. Greater than 25%	1 pt	
5. How does the Natural Resources Conservation Service (formerly Soil Conservation Service) soil survey rank the water erosion hazard of the dominant mapped unit in the riparian area? Select the highest water erosion hazard description if more than one is listed.		
a. Low, slight, moderate	2 pts	2
b. High, severe, very high	1 pt	

Total Points: 14

Function: **High (12-14 pts)** **Medium (8-11 pts)** **Low (5-7 pts)**

FUNCTION IS: HIGH

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-WC-1

FLOOD MANAGEMENT

		Score
6. Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource?		
a. Yes	3 pts	3
b. No	1 pt	
7. Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?		
a. Yes	3 pts	3
b. No or no flood prone area present	1 pt	
8. Is the stream or water resource constricted by man-made features (e.g. channelization, riprap, concrete wall)?		
a. No	3 pts	3
b. Yes	1 pts	

Total Points: 9

Function: **High (8-9 pts)** **Medium (5-7 pts)** **Low (3-4 pts)**

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-WC-1

THERMAL REGULATION

		Score
9. Does the aspect or orientation of the riparian area allow for shading of water at midday in the summer?		
a. Yes	3 pts	1
b. No	1 pt	
10. What is the dominant vegetation layer in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	3
c. Bare ground	1 pt	
11. Does woody vegetation hang over the edge of the water?		
a. Yes	2 pts	2
b. No	1 pts	

Total Points: 6

Function: **High (7-8 pts)** **Medium (5-6 pts)** **Low (3-4 pts)**

FUNCTION IS: **MEDIUM**

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-WC-1

WILDLIFE HABITAT

		Score
12. How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?		
a. More than 2 layers	3 pts	
b. 2 layers	2 pts	3
c. 1 layer, or unvegetated	1 pt	
13. What is the dominant vegetation layer in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	3
c. Bare ground	1 pt	
14. Does woody vegetation hang over the edge of the water?		
a. Yes	2 pts	2
b. No	1 pt	
15. Is large woody debris present within the riparian area?		
a. Yes	3 pts	3
b. No	1 pt	
16. What percent of the water resource edge is bordered by a vegetated riparian area at least 30 feet wide?		
a. Greater than 40%	3 pts	
b. Between 10% and 40%	2 pts	2
c. Less than 10%	1 pt	

Questions continued on next page

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-WC-1

WILDLIFE HABITAT (continued)

		Score
17. Is surface water present throughout the year?		
a. Yes	3 pts	
b. No	1 pt	3
18. Is there more than one type of water resource (e.g. stream, wetland, lake/pond) within or immediately adjacent to the riparian reach?		
a. Yes	3 pts	3
b. No	1 pt	
19. What is the degree of development or human-caused disturbance (e.g. buildings, impervious surfaces, lawns, agriculture, trash) in the riparian area?		
a. Less than 25%	3 pts	
b. Between 25% and 75%	2 pts	3
c. Greater than 75%	1 pt	
Total Points:		**22**

Function: High (19-23 pts) Medium (13-18 pts) Low (8-12 pts)

FUNCTION IS: **HIGH**

Riparian Characterization Form

Depoe Bay Riparian Inventory

GENERAL INFORMATION

Date: 10/23/2003 **Riparian Code:** R-WC-2

On-site: ☐ **Off-Site:** ☒ **Reach Length:** 1300'

Investigators: JVS/CR **Hydrologic Basin:** Whale Cove

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:**	x	**Width:** 8	feet
	Lake/Pond:		**Width:**	feet
	Wetland:		**Width:**	feet

LWI Wetland Code: WC-4

Water present year-round: **Yes** ☒ **No** ☐

Are salmonids present in the adjacent water resource? **Yes** ☐ **No** ☒

Is the water resource listed for temperature on DEQ's 303(d) list: **Yes** ☐ **No** ☒

Within FEMA-mapped 100-year floodplain: **Yes** ☐ **No** ☒

Mapped soil series: Depoe loam, 0-7% slopes

Adjacent Land Uses? (Check as many as needed)

Agriculture: ☐	**Roads:** ☐
Commercial/Indus.: ☒	**Undeveloped:** ☐
Residential: ☐	**Forestry:** ☐

Woody vegetation (trees, shrubs, vines >1 meter)	**Herbaceous vegetation** (include trees, shrubs, vines <1 meter)
Alnus rubra	*Oenanthe sarmentosa*
Thuja plicata	*Polystichum munitum*
Gaultheria shallon	*Athyrium filix-femina*
Picea sitchensis	

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☐ >5:1 (20%) ☒

Extent of impervious surface within the riparian area. (Question 4)

<10% ☒ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☒ No ☐

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☒ No ☐

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☒ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☒ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☒ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% 10% - 40% ☒ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☒ 25% - 75% ☐ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☒ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☒ Herbaceous vegetation ☐ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☐ No ☒

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☒

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☒ 2 layers ☐ 1 layer or unvegetated ☐

Riparian Width Determination

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-WC-2

Date: 10/23/2003 **Investigators:** JVS/CR

Dominant tree species: *Picea sitchensis* (see other side for list of species)

Potential tree height (PTH)/Actual Width of riparian area : 120 / _____ **feet**

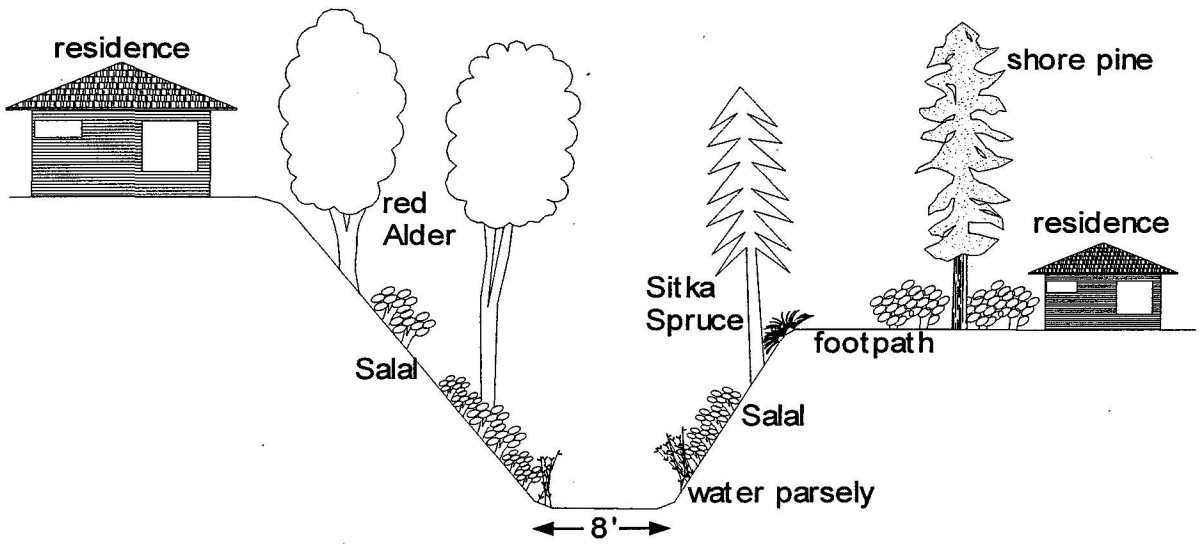
(Width measured horizontally from edge of water resource)

PTH determined by:

On-site vegetation ☒ **Reference site** ☐ **Code** _____

Comments: Narrow channel flowing through subdivision to Little Whale Cove. Though narrow, good cover adjacent to stream.

Typical Cross Section:



Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-WC-2

WATER QUALITY

		Score
1. What is the average slope in the riparian area?		
a. Less than 10:1 (10%)	3 pts	
b. Between 10:1 (10%) and 5:1 (20%)	2 pts	1
c. Greater than 5:1 (20%)	1 pt	
2. What is the dominant vegetation cover in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	3
c. Bare ground	1 pt	
3. What is the dominant vegetation at the top of bank (if defined) or edge of water resource?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	3
c. Bare ground	1 pt	
4. What is the extent of impervious surfaces within the riparian area?		
a. Less than 10%	3 pts	
b. Between 10% and 25%	2 pts	3
c. Greater than 25%	1 pt	
5. How does the Natural Resources Conservation Service (formerly Soil Conservation Service) soil survey rank the water erosion hazard of the dominant mapped unit in the riparian area? Select the highest water erosion hazard description if more than one is listed.		
a. Low, slight, moderate	2 pts	2
b. High, severe, very high	1 pts	

Total Points: 12

Function: **High (12-14 pts)** **Medium (8-11 pts)** **Low (5-7 pts)**

FUNCTION IS: HIGH

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-WC-2

FLOOD MANAGEMENT

		Score
6. Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource?		
a. Yes	3 pts	1
b. No	1 pt	
7. Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?		
a. Yes	3 pts	1
b. No or no flood prone area present	1 pt	
8. Is the stream or water resource constricted by man-made features (e.g. channelization, riprap, concrete wall)?		
a. No	3 pts	1
b. Yes	1 pts	

Total Points: 3

Function: **High (8-9 pts)** **Medium (5-7 pts)** **Low (3-4 pts)**

FUNCTION IS: LOW

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-WC-2

THERMAL REGULATION

		Score
9. Does the aspect or orientation of the riparian area allow for shading of water at midday in the summer?		
a. Yes	3 pts	3
b. No	1 pt	
10. What is the dominant vegetation layer in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	3
c. Bare ground	1 pt	
11. Does woody vegetation hang over the edge of the water?		
a. Yes	2 pts	2
b. No	1 pts	

Total Points: 8

Function: **High (7-8 pts)** **Medium (5-6 pts)** **Low (3-4 pts)**

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-WC-2

WILDLIFE HABITAT

			Score
12. How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?			
a. More than 2 layers		3 pts	
b. 2 layers		2 pts	**3**
c. 1 layer, or unvegetated		1 pt	
13. What is the dominant vegetation layer in the riparian area?			
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high		3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high		2 pts	**3**
c. Bare ground		1 pt	
14. Does woody vegetation hang over the edge of the water?			
a. Yes		2 pts	**2**
b. No		1 pt	
15. Is large woody debris present within the riparian area?			
a. Yes		3 pts	**3**
b. No		1 pt	
16. What percent of the water resource edge is bordered by a vegetated riparian area at least 30 feet wide?			
a. Greater than 40%		3 pts	
b. Between 10% and 40%		2 pts	**2**
c. Less than 10%		1 pt	

Questions continued on next page

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-WC-2

WILDLIFE HABITAT (continued)

			Score
17. Is surface water present throughout the year?			
a. Yes		3 pts	
b. No		1 pt	3
18. Is there more than one type of water resource (e.g. stream, wetland, lake/pond) within or immediately adjacent to the riparian reach?			
a. Yes		3 pts	1
b. No		1 pt	
19. What is the degree of development or human-caused disturbance (e.g. buildings, impervious surfaces, lawns, agriculture, trash) in the riparian area?			
a. Less than 25%		3 pts	
b. Between 25% and 75%		2 pts	3
c. Greater than 75%		1 pt	
Total Points:			20

Function: High (19-23 pts) Medium (13-18 pts) Low (8-12 pts)

FUNCTION IS: HIGH

Riparian Characterization Form

Depoe Bay Riparian Inventory

GENERAL INFORMATION

Date: 10/23/2003 **Riparian Code:** R-WC-3

On-site: ☐ **Off-Site:** ☒ **Reach Length:** 1300'

Investigators: JVS/CR **Hydrologic Basin:** Whale Cove

WATER RESOURCE INFORMATION

Water Resource:				
	Stream/River:	x	**Width:** 3	feet
	Lake/Pond:		**Width:**	feet
	Wetland:		**Width:**	feet

LWI Wetland Code: WC-5

Water present year-round: **Yes** ☒ **No** ☐

Are salmonids present in the adjacent water resource? **Yes** ☐ **No** ☒

Is the water resource listed for temperature on DEQ's 303(d) list: **Yes** ☐ **No** ☒

Within FEMA-mapped 100-year floodplain: **Yes** ☐ **No** ☒

Mapped soil series: Depoe loam, 0-7% slopes

Adjacent Land Uses? (Check as many as needed)

Agriculture: ☐ **Roads:** ☐
Commercial/Indus.: ☒ **Undeveloped:** ☒
Residential: ☐ **Forestry:** ☐

Woody vegetation (trees, shrubs, vines >1 meter)	**Herbaceous vegetation** (include trees, shrubs, vines <1 meter)
Alnus rubra	*Carex obnupta*
Thuja plicata	*Polystichum munitum*
Gaultheria shallon	*Athyrium filix-femina*
Picea sitchensis	*Rubus spectabilis*
Tsuga heterophylla	

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☒ >5:1 (20%) ☐

Extent of impervious surface within the riparian area. (Question 4)

<10% ☒ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☐ No ☒

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☒ No ☐

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☒ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☒ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☒ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☒ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☒ 25% - 75% ☐ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☒ high, very high, severe ☐

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☒ Herbaceous vegetation ☐ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☒ No ☐

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☒ No or no flood prone area present ☐

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☒ 2 layers ☐ 1 layer or unvegetated ☐

Riparian Width Determination

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-WC-3

Date: 10/23/2003 **Investigators:** JVS/CR

Dominant tree species: *Tsuga heterophylla* (see other side for list of species)

Potential tree height (PTH)/Actual Width of riparian area : 120 / ____ **feet**

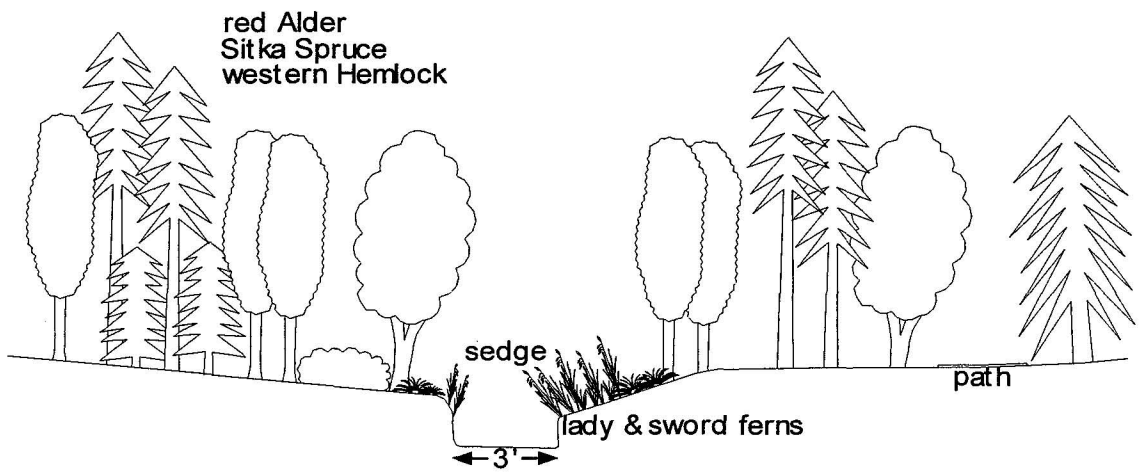
(Width measured horizontally from edge of water resource)

PTH determined by:

On-site vegetation ☒ **Reference site** ☐ **Code** ____

Comments: Narrow channel with no adjacent wetland higher up, but becoming wider with flood-prone areas above Little Whale Cove residential developments.

Typical Cross Section:



Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-WC-3

WATER QUALITY

		Score
1. What is the average slope in the riparian area?		
a. Less than 10:1 (10%)	3 pts	
b. Between 10:1 (10%) and 5:1 (20%)	2 pts	**2**
c. Greater than 5:1 (20%)	1 pt	
2. What is the dominant vegetation cover in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	**3**
c. Bare ground	1 pt	
3. What is the dominant vegetation at the top of bank (if defined) or edge of water resource?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	**3**
c. Bare ground	1 pt	
4. What is the extent of impervious surfaces within the riparian area?		
a. Less than 10%	3 pts	
b. Between 10% and 25%	2 pts	**3**
c. Greater than 25%	1 pt	
5. How does the Natural Resources Conservation Service (formerly Soil Conservation Service) soil survey rank the water erosion hazard of the dominant mapped unit in the riparian area? Select the highest water erosion hazard description if more than one is listed.		
a. Low, slight, moderate	2 pts	**2**
b. High, severe, very high	1 pts	
Total Points:		**13**

Function: **High (12-14 pts)** **Medium (8-11 pts)** **Low (5-7 pts)**

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-WC-3

FLOOD MANAGEMENT

		Score
6. Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource?		
a. Yes	3 pts	3
b. No	1 pt	
7. Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?		
a. Yes	3 pts	3
b. No or no flood prone area present	1 pt	
8. Is the stream or water resource constricted by man-made features (e.g. channelization, riprap, concrete wall)?		
a. No	3 pts	3
b. Yes	1 pts	

Total Points: 9

Function: **High (8-9 pts)** **Medium (5-7 pts)** **Low (3-4 pts)**

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-WC-3

THERMAL REGULATION

		Score
9. Does the aspect or orientation of the riparian area allow for shading of water at midday in the summer?		
a. Yes	3 pts	3
b. No	1 pt	
10. What is the dominant vegetation layer in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	3
c. Bare ground	1 pt	
11. Does woody vegetation hang over the edge of the water?		
a. Yes	2 pts	2
b. No	1 pts	

Total Points: 8

Function: **High (7-8 pts)** **Medium (5-6 pts)** **Low (3-4 pts)**

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-WC-3

WILDLIFE HABITAT

			Score
12. How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?			
a. More than 2 layers		3 pts	
b. 2 layers		2 pts	3
c. 1 layer, or unvegetated		1 pt	
13. What is the dominant vegetation layer in the riparian area?			
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high		3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high		2 pts	3
c. Bare ground		1 pt	
14. Does woody vegetation hang over the edge of the water?			
a. Yes		2 pts	2
b. No		1 pt	
15. Is large woody debris present within the riparian area?			
a. Yes		3 pts	3
b. No		1 pt	
16. What percent of the water resource edge is bordered by a vegetated riparian area at least 30 feet wide?			
a. Greater than 40%		3 pts	
b. Between 10% and 40%		2 pts	3
c. Less than 10%		1 pt	

Questions continued on next page

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-WC-3

WILDLIFE HABITAT (continued)

		Score
17. Is surface water present throughout the year?		
a. Yes	3 pts	
b. No	1 pt	3
18. Is there more than one type of water resource (e.g. stream, wetland, lake/pond) within or immediately adjacent to the riparian reach?		
a. Yes	3 pts	1
b. No	1 pt	
19. What is the degree of development or human-caused disturbance (e.g. buildings, impervious surfaces, lawns, agriculture, trash) in the riparian area?		
a. Less than 25%	3 pts	
b. Between 25% and 75%	2 pts	3
c. Greater than 75%	1 pt	
Total Points:		**21**

Function: High (19-23 pts) Medium (13-18 pts) Low (8-12 pts)

FUNCTION IS: **HIGH**

Riparian Characterization Form

Depoe Bay Riparian Inventory

GENERAL INFORMATION

Date: 11/21/2003 **Riparian Code:** R-WC-4A

On-site: ☐ **Off-Site:** ☒ **Reach Length:** 500'

Investigators: HA **Hydrologic Basin:** Whale Cove

WATER RESOURCE INFORMATION

Water Resource:	**Stream/River:**	x	**Width:** 10	feet
	Lake/Pond:		**Width:**	feet
	Wetland:		**Width:**	feet

LWI Wetland Code: WC-6A

Water present year-round: **Yes** ☐ **No** ☒

Are salmonids present in the adjacent water resource? **Yes** ☐ **No** ☒

Is the water resource listed for temperature on DEQ's 303(d) list: **Yes** ☐ **No** ☒

Within FEMA-mapped 100-year floodplain: **Yes** ☐ **No** ☒

Mapped soil series: Nelscott loam, 12-50% slopes

Adjacent Land Uses? (Check as many as needed)

Agriculture: ☐	**Roads:** ☒
Commercial/Indus.: ☒	**Undeveloped:** ☒
Residential: ☐	**Forestry:** ☐

Woody vegetation (trees, shrubs, vines >1 meter)	**Herbaceous vegetation** (include trees, shrubs, vines <1 meter)
Alnus rubra	*Carex obnupta*
Rubus spectabilis	*Blechnum spicant*
Gaultheria shallon	*Athyrium filix-femina*
Picea sitchensis	*Oenanthe sarmentosa*
Tsuga heterophylla	*Maianthemum dilatatum*
Pinus contorta	*Lysichiton americanum*
Vaccinium ovatum	*Polystichum munitum*

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☒ Between 10:1 (10%) and 5:1 (20%) ☐ >5:1 (20%) ☐

Extent of impervious surface within the riparian area. (Question 4)

<10% ☒ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☒ No ☐

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☒ No ☐

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☒ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☒ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☒ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☒ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☒ 25% - 75% ☐ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☐ high, very high, severe ☒

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☒ Herbaceous vegetation ☐ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☐ No ☒

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☒

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☒ 2 layers ☐ 1 layer or unvegetated ☐

Riparian Width Determination

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-WC-4A

Date: 11/21/2003 **Investigators:** HA

Dominant tree species: *Alnus rubra* (see other side for list of species)

Potential tree height (PTH)/Actual Width of riparian area : 65 / ____ **feet**

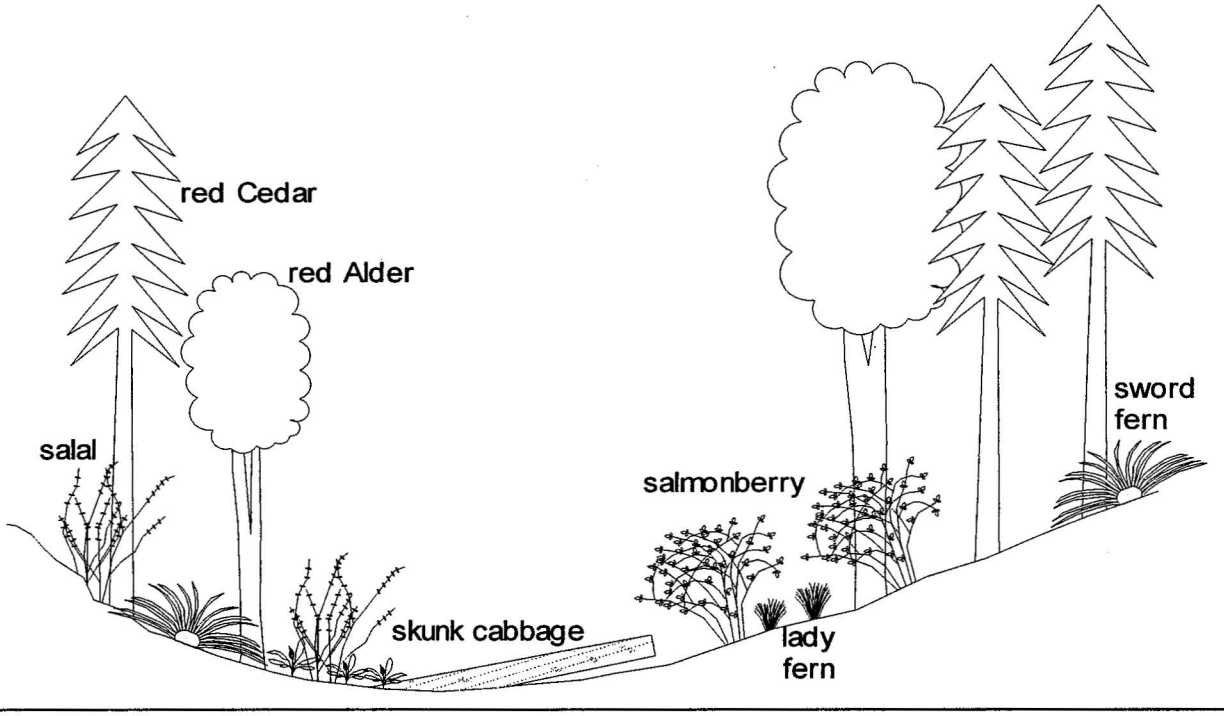
(Width measured horizontally from edge of water resource)

PTH determined by:

On-site vegetation ☒ **Reference site** ☐ **Code** ____

Comments: Drainage just north of Deadhorse Creek. Riparian data from previous delineation by WH Pacific (2001, "Wetland A").

Typical Cross Section:



Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-WC-4A

WATER QUALITY

		Score
1. What is the average slope in the riparian area?		
a. Less than 10:1 (10%)	3 pts	
b. Between 10:1 (10%) and 5:1 (20%)	2 pts	3
c. Greater than 5:1 (20%)	1 pt	
2. What is the dominant vegetation cover in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	3
c. Bare ground	1 pt	
3. What is the dominant vegetation at the top of bank (if defined) or edge of water resource?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	3
c. Bare ground	1 pt	
4. What is the extent of impervious surfaces within the riparian area?		
a. Less than 10%	3 pts	
b. Between 10% and 25%	2 pts	3
c. Greater than 25%	1 pt	
5. How does the Natural Resources Conservation Service (formerly Soil Conservation Service) soil survey rank the water erosion hazard of the dominant mapped unit in the riparian area? Select the highest water erosion hazard description if more than one is listed.		
a. Low, slight, moderate	2 pts	1
b. High, severe, very high	1 pts	

Total Points: 13

Function: **High (12-14 pts)** **Medium (8-11 pts)** **Low (5-7 pts)**

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-WC-4A

FLOOD MANAGEMENT

		Score
6. Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource?		
a. Yes	3 pts	1
b. No	1 pt	
7. Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?		
a. Yes	3 pts	1
b. No or no flood prone area present	1 pt	
8. Is the stream or water resource constricted by man-made features (e.g. channelization, riprap, concrete wall)?		
a. No	3 pts	1
b. Yes	1 pts	

Total Points: 3

Function: **High (8-9 pts)** **Medium (5-7 pts)** **Low (3-4 pts)**

FUNCTION IS: LOW

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-WC-4A

THERMAL REGULATION

			Score
9. Does the aspect or orientation of the riparian area allow for shading of water at midday in the summer?			
a. Yes		3 pts	3
b. No		1 pt	
10. What is the dominant vegetation layer in the riparian area?			
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high		3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high		2 pts	3
c. Bare ground		1 pt	
11. Does woody vegetation hang over the edge of the water?			
a. Yes		2 pts	2
b. No		1 pts	

Total Points: 8

Function: **High (7-8 pts)** **Medium (5-6 pts)** **Low (3-4 pts)**

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-WC-4A

WILDLIFE HABITAT

			Score
12. How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?			
a. More than 2 layers		3 pts	
b. 2 layers		2 pts	3
c. 1 layer, or unvegetated		1 pt	
13. What is the dominant vegetation layer in the riparian area?			
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high		3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high		2 pts	3
c. Bare ground		1 pt	
14. Does woody vegetation hang over the edge of the water?			
a. Yes		2 pts	2
b. No		1 pt	
15. Is large woody debris present within the riparian area?			
a. Yes		3 pts	3
b. No		1 pt	
16. What percent of the water resource edge is bordered by a vegetated riparian area at least 30 feet wide?			
a. Greater than 40%		3 pts	
b. Between 10% and 40%		2 pts	3
c. Less than 10%		1 pt	

Questions continued on next page

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-WC-4A

WILDLIFE HABITAT (continued)

			Score
17. Is surface water present throughout the year?			
a. Yes		3 pts	
b. No		1 pt	1
18. Is there more than one type of water resource (e.g. stream, wetland, lake/pond) within or immediately adjacent to the riparian reach?			
a. Yes		3 pts	1
b. No		1 pt	
19. What is the degree of development or human-caused disturbance (e.g. buildings, impervious surfaces, lawns, agriculture, trash) in the riparian area?			
a. Less than 25%		3 pts	
b. Between 25% and 75%		2 pts	3
c. Greater than 75%		1 pt	

Total Points: 19

Function: High (19-23 pts) Medium (13-18 pts) Low (8-12 pts)

FUNCTION IS: HIGH

Riparian Characterization Form

Depoe Bay Riparian Inventory

GENERAL INFORMATION

Date: 11/21/2003 **Riparian Code:** R-WC-4B

On-site: ☐ **Off-Site:** ☒ **Reach Length:** 500'

Investigators: HA **Hydrologic Basin:** Whale Cove

WATER RESOURCE INFORMATION

Water Resource:				
	Stream/River:	x	**Width:** 10	feet
	Lake/Pond:		**Width:**	feet
	Wetland:		**Width:**	feet

LWI Wetland Code: WC-6B

Water present year-round: **Yes** ☒ **No** ☐

Are salmonids present in the adjacent water resource? **Yes** ☐ **No** ☒

Is the water resource listed for temperature on DEQ's 303(d) list: **Yes** ☐ **No** ☒

Within FEMA-mapped 100-year floodplain: **Yes** ☐ **No** ☒

Mapped soil series: Nelscott loam, 12-50% slopes

Adjacent Land Uses? (Check as many as needed)

Agriculture:	☐	**Roads:**	☒
Commercial/Indus.:	☒	**Undeveloped:**	☒
Residential:	☐	**Forestry:**	☐

Woody vegetation (trees, shrubs, vines >1 meter)	**Herbaceous vegetation** (include trees, shrubs, vines <1 meter)
Alnus rubra	*Carex obnupta*
Thuja plicata	*Blechnum spicant*
Rubus spectabilis	*Athyrium filix-femina*
Picea sitchensis	*Oenanthe sarmentosa*
Tsuga heterophylla	*Maianthemum dilatatum*
Pinus contorta	*Lysichiton americanum*
Vaccinium ovatum	*Polystichum munitum*

1 meter = 3.2 feet

Average slope in the riparian area: (Question 1)

<10:1 (10%) ☐ Between 10:1 (10%) and 5:1 (20%) ☒ >5:1 (20%) ☐

Extent of impervious surface within the riparian area. (Question 4)

<10% ☒ 10% - 25% ☐ >25% ☐

Is the reach constricted by man-made features? (Question 8)

Yes ☒ No ☐

Does the orientation of the riparian area allow for shading of the water resource at midday in summer? (Question 9)

Yes ☒ No ☐

Dominant vegetation layer within riparian area? (Question 10)

Woody vegetation ☒ Herbaceous vegetation ☐ Bare ground ☐

Does woody vegetation hang over the edge of the water? (Questions 11 & 14)

Yes ☒ No ☐

Large woody debris in riparian area? (Question 15)

Yes ☒ No ☐

Percent of water resource bordered by vegetated riparian area at least 30 feet wide? (Question 16)

>40% ☒ 10% - 40% ☐ <10% ☐

Degree of development or human caused disturbance. (Question 19)

<25% ☒ 25% - 75% ☐ >75% ☐

How does the NRCS soil survey rank water erosion hazard of the dominant mapped unit in the Riparian Area? (Question 5)

low, slight moderate ☐ high, very high, severe ☒

What is the dominant vegetation at the top of bank (if defined) or edge of water resource? (Question 3)

Woody vegetation ☒ Herbaceous vegetation ☐ Bare ground ☐

Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource? (Question 6)

Yes ☐ No ☒

Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?

Yes ☐ No or no flood prone area present ☒

How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?

More than 2 ☒ 2 layers ☐ 1 layer or unvegetated ☐

Riparian Width Determination

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-WC-4B

Date: 11/21/2003 **Investigators:** HA

Dominant tree species: *Alnus rubra* (see other side for list of species)

Potential tree height (PTH)/Actual Width of riparian area : 65 / _____ **feet**

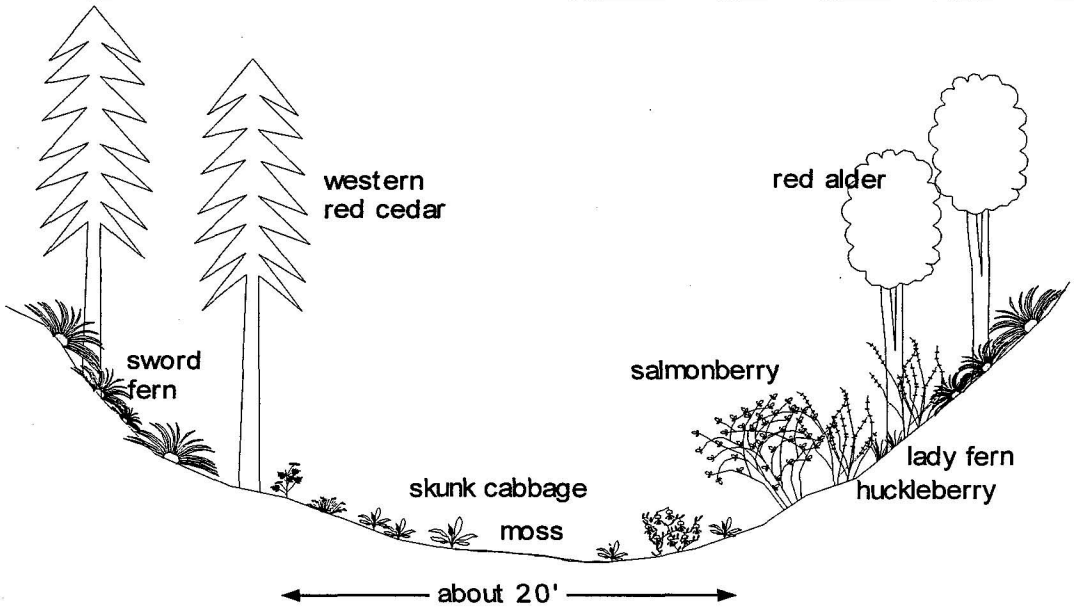
(Width measured horizontally from edge of water resource)

PTH determined by:

On-site vegetation ☒ **Reference site** ☐ **Code** _____

Comments: Deadhorse Creek. Riparian data from previous delineation by WH Pacific (2001, "Wetland A").

Typical Cross Section:



Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-WC-4B

WATER QUALITY

		Score
1. What is the average slope in the riparian area?		
a. Less than 10:1 (10%)	3 pts	
b. Between 10:1 (10%) and 5:1 (20%)	2 pts	**2**
c. Greater than 5:1 (20%)	1 pt	
2. What is the dominant vegetation cover in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	**3**
c. Bare ground	1 pt	
3. What is the dominant vegetation at the top of bank (if defined) or edge of water resource?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	**3**
c. Bare ground	1 pt	
4. What is the extent of impervious surfaces within the riparian area?		
a. Less than 10%	3 pts	
b. Between 10% and 25%	2 pts	**3**
c. Greater than 25%	1 pt	
5. How does the Natural Resources Conservation Service (formerly Soil Conservation Service) soil survey rank the water erosion hazard of the dominant mapped unit in the riparian area? Select the highest water erosion hazard description if more than one is listed.		
a. Low, slight, moderate	2 pts	**1**
b. High, severe, very high	1 pts	

Total Points: **12**

Function: **High (12-14 pts)** **Medium (8-11 pts)** **Low (5-7 pts)**

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-WC-4B

FLOOD MANAGEMENT

		Score
6. Are there flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain, etc.) beyond the top of bank or edge of the water resource?		
a. Yes	3 pts	1
b. No	1 pt	
7. Is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high dominant in the flood prone riparian area?		
a. Yes	3 pts	1
b. No or no flood prone area present	1 pt	
8. Is the stream or water resource constricted by man-made features (e.g. channelization, riprap, concrete wall)?		
a. No	3 pts	1
b. Yes	1 pts	

Total Points: 3

Function: **High (8-9 pts)** **Medium (5-7 pts)** **Low (3-4 pts)**

FUNCTION IS: LOW

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-WC-4B

THERMAL REGULATION

		Score
9. Does the aspect or orientation of the riparian area allow for shading of water at midday in the summer?		
a. Yes	3 pts	3
b. No	1 pt	
10. What is the dominant vegetation layer in the riparian area?		
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high	3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high	2 pts	3
c. Bare ground	1 pt	
11. Does woody vegetation hang over the edge of the water?		
a. Yes	2 pts	2
b. No	1 pts	

Total Points: 8

Function: **High (7-8 pts)** **Medium (5-6 pts)** **Low (3-4 pts)**

FUNCTION IS: **HIGH**

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-WC-4B

WILDLIFE HABITAT

			Score
12. How many vegetation layers (i.e. canopy, mid-story, groundcover) are present?			
a. More than 2 layers		3 pts	
b. 2 layers		2 pts	3
c. 1 layer, or unvegetated		1 pt	
13. What is the dominant vegetation layer in the riparian area?			
a. Woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high		3 pts	
b. Herbaceous vegetation or woody vegetation less than 1 meter (3.2 feet) high		2 pts	3
c. Bare ground		1 pt	
14. Does woody vegetation hang over the edge of the water?			
a. Yes		2 pts	2
b. No		1 pt	
15. Is large woody debris present within the riparian area?			
a. Yes		3 pts	3
b. No		1 pt	
16. What percent of the water resource edge is bordered by a vegetated riparian area at least 30 feet wide?			
a. Greater than 40%		3 pts	
b. Between 10% and 40%		2 pts	3
c. Less than 10%		1 pt	

Questions continued on next page

Riparian Functional Assessment Answer Sheet

Depoe Bay Riparian Inventory

RIPARIAN CODE

R-WC-4B

WILDLIFE HABITAT (continued)

			Score
17. Is surface water present throughout the year?			
a. Yes		3 pts	
b. No		1 pt	3
18. Is there more than one type of water resource (e.g. stream, wetland, lake/pond) within or immediately adjacent to the riparian reach?			
a. Yes		3 pts	1
b. No		1 pt	
19. What is the degree of development or human-caused disturbance (e.g. buildings, impervious surfaces, lawns, agriculture, trash) in the riparian area?			
a. Less than 25%		3 pts	
b. Between 25% and 75%		2 pts	3
c. Greater than 75%		1 pt	
Total Points:			21

Function: High (19-23 pts) Medium (13-18 pts) Low (8-12 pts)

FUNCTION IS: HIGH

Appendix G

Wildlife Habitat Assessment Forms



Wildlife Habitat Assessment

City of Depoe Bay

SITE NUMBER	WHA-1	Total Habitat Score:	58	% of total possible:	50%	TOTAL ACRES	
SITE LOCATION	R-NDB-2, intermittent stream at the north end of the study area			FIELD DATES	9/28/2003	FIELD OBSERVERS	JVS/FS

GENERAL COMMENTS	This is an intermittent stream that flows through resdiential areas and beneath Highway 101 before flowing into the Pacific Ocean. There is disturbance near the highway, but better cover upstream where it is still forested

	HABITAT COMPONENT	DEGREE PRESENT			SCORE EXISTING	SPECIFIC COMMENTS
WATER	QUANTITY & SEASONALITY	NONE 0	SEASONAL 4	PERENNIAL 8	6	
	QUALITY FLUSHING REQUENCY	STAGNANT 0	SEASONAL 3	CONTINUOUS 6	5	
	PROXIMITY TO COVER	NONE 0	NEARBY 4	ADJACENT 8	6	
	DIVERSITY STREAM, PONDS, ETC	ONE 2	TWO 4	THREE 8	2	
FOOD	VARIETY	LOW 0	MEDIUM 4	HIGH 8	4	
	QUALITY & SEASONALITY	NONE 0	LIMITED 5	YEAR ROUND 8	6	
	PROXIMITY TO COVER	NONE 0	NEARBY 4	ADJACENT 8	5	
COVER	STRUTURAL DIVERSITY	LOW 0	MEDIUM 4	HIGH 8	4	
	VARIETY	LOW 0	MEDIUM 4	HIGH 8	4	
	NESTING DENNING, ETC	LOW 0	MEDIUM 2	HIGH 4	2	
	ESCAPE	LOW 0	MEDIUM 2	HIGH 4	2	
	SEASONALITY	ONE 0	LIMITED 2	YEAR ROUND 4	3	
OTHER VALUES	PHYSICAL DISTURBANCE	PERMANENT 0	MEDIUM 2	NONE 4	1	
	HUMAN DISTURBANCE	HIGH 0	MEDIUM 2	LOW 4	2	
	INTERSPERSION	LOW 0	MEDIUM 3	HIGH 6	3	
UNIQUE FEATURES	HABITAT TYPE	0	-	4	2	
	FLORA	0	-	4	1	
	FAUNA	0	-	4	0	
	SCENIC	0	-	4	0	
	EDUCATIONAL USES	0	-	4	0	

Wildlife Habitat Assessment

City of Depoe Bay

SITE NUMBER	WHA-2	Total Habitat Score:	99	% of total possible:	85%	TOTAL ACRES	
SITE LOCATION	R-NDB-3, North Depoe Bay Creek			FIELD DATES	9/30/2003	FIELD OBSERVERS	JVS/CSR

GENERAL COMMENTS	North Depoe Bay Creek flows from forested, relatively undisturbed areas, into the pond about the City-maintained dam and downstream through residential areas before flowing into the bay. Good cover upstream, but disturbed as it passes through the urban areas.

	HABITAT COMPONENT	DEGREE PRESENT			SCORE EXISTING	SPECIFIC COMMENTS
WATER	QUANTITY & SEASONALITY	NONE 0	SEASONAL 4	PERENNIAL 8	8	
	QUALITY FLUSHING REQUENCY	STAGNANT 0	SEASONAL 3	CONTINUOUS 6	6	
	PROXIMITY TO COVER	NONE 0	NEARBY 4	ADJACENT 8	7	
	DIVERSITY STREAM, PONDS, WETLANDS,ETC	ONE 2	TWO 4	THREE 8	8	
FOOD	VARIETY	LOW 0	MEDIUM 4	HIGH 8	8	
	QUALITY & SEASONALITY	NONE 0	LIMITED 5	YEAR ROUND 8	8	
	PROXIMITY TO COVER	NONE 0	NEARBY 4	ADJACENT 8	7	
COVER	STRUTURAL DIVERSITY	LOW 0	MEDIUM 4	HIGH 8	7	
	VARIETY	LOW 0	MEDIUM 4	HIGH 8	6	
	NESTING DENNING, ETC	LOW 0	MEDIUM 2	HIGH 4	4	
	ESCAPE	LOW 0	MEDIUM 2	HIGH 4	3	
	SEASONALITY	ONE 0	LIMITED 2	YEAR ROUND 4	4	
OTHER VALUES	PHYSICAL DISTURBANCE	PERMANENT 0	MEDIUM 2	NONE 4	3	
	HUMAN DISTURBANCE	HIGH 0	MEDIUM 2	LOW 4	3	
	INTERSPERSION	LOW 0	MEDIUM 3	HIGH 6	3	
UNIQUE FEATURES	HABITAT TYPE	0	-	4	3	
	FLORA	0	-	4	2	
	FAUNA	0	-	4	3	
	SCENIC	0	-	4	3	
	EDUCATIONAL USES	0	-	4	3	

Wildlife Habitat Assessment

City of Depoe Bay

SITE NUMBER	WHA-3	Total Habitat Score: 90	% of total possible: 78%	TOTAL ACRES
SITE LOCATION	R-NDB-4, ponded area north of Collins	FIELD DATES 9/30/2003	FIELD OBSERVERS	JVS/FES

GENERAL COMMENTS	This includes the ponded area north of Collins Street, the stream and wetland complex above the pond and the portion of the stream below Collins before it flows into North Depoe Bay Creek

	HABITAT COMPONENT	DEGREE PRESENT			SCORE EXISTING	SPECIFIC COMMENTS
WATER	QUANTITY & SEASONALITY	NONE 0	SEASONAL 4	PERENNIAL 8	8	
	QUALITY FLUSHING REQUENCY	STAGNANT 0	SEASONAL 3	CONTINUOUS 6	6	
	PROXIMITY TO COVER	NONE 0	NEARBY 4	ADJACENT 8	7	
	DIVERSITY STREAM, PONDS, WETLANDS,ETC	ONE 2	TWO 4	THREE 8	8	
FOOD	VARIETY	LOW 0	MEDIUM 4	HIGH 8	6	
	QUALITY & SEASONALITY	NONE 0	LIMITED 5	YEAR ROUND 8	8	
	PROXIMITY TO COVER	NONE 0	NEARBY 4	ADJACENT 8	7	
COVER	STRUTURAL DIVERSITY	LOW 0	MEDIUM 4	HIGH 8	6	
	VARIETY	LOW 0	MEDIUM 4	HIGH 8	6	
	NESTING DENNING, ETC	LOW 0	MEDIUM 2	HIGH 4	3	
	ESCAPE	LOW 0	MEDIUM 2	HIGH 4	3	
	SEASONALITY	ONE 0	LIMITED 2	YEAR ROUND 4	3	
OTHER VALUES	PHYSICAL DISTURBANCE	PERMANENT 0	MEDIUM 2	NONE 4	2	
	HUMAN DISTURBANCE	HIGH 0	MEDIUM 2	LOW 4	2	
	INTERSPERSION	LOW 0	MEDIUM 3	HIGH 6	3	
UNIQUE FEATURES	HABITAT TYPE	0	-	4	3	
	FLORA	0	-	4	3	
	FAUNA	0	-	4	2	
	SCENIC	0	-	4	2	
	EDUCATIONAL USES	0	-	4	2	

Wildlife Habitat Assessment

City of Depoe Bay

SITE NUMBER	WHA-4	Total Habitat Score:	67	% of total possible:	58%	TOTAL ACRES	
SITE LOCATION	R-SDB-1, Two tributaries to South Depoe Bay Creek			FIELD DATES	9/30/2003	FIELD OBSERVERS	JVS/FES

GENERAL COMMENTS	This includes two tributaries to South Depoe Bay Creek. The northern one has been recently logged, but is growing back. This area contains wetland areas associated with the creek

	HABITAT COMPONENT	DEGREE PRESENT			SCORE EXISTING	SPECIFIC COMMENTS
WATER	QUANTITY & SEASONALITY	NONE 0	SEASONAL 4	PERENNIAL 8	6	
	QUALITY FLUSHING REQUENCY	STAGNANT 0	SEASONAL 3	CONTINUOUS 6	4	
	PROXIMITY TO COVER	NONE 0	NEARBY 4	ADJACENT 8	5	
	DIVERSITY STREAM, PONDS, WETLANDS,ETC	ONE 2	TWO 4	THREE 8	4	
FOOD	VARIETY	LOW 0	MEDIUM 4	HIGH 8	4	
	QUALITY & SEASONALITY	NONE 0	LIMITED 5	YEAR ROUND 8	6	
	PROXIMITY TO COVER	NONE 0	NEARBY 4	ADJACENT 8	5	
COVER	STRUTURAL DIVERSITY	LOW 0	MEDIUM 4	HIGH 8	4	
	VARIETY	LOW 0	MEDIUM 4	HIGH 8	4	
	NESTING DENNING, ETC	LOW 0	MEDIUM 2	HIGH 4	2	
	ESCAPE	LOW 0	MEDIUM 2	HIGH 4	2	
	SEASONALITY	ONE 0	LIMITED 2	YEAR ROUND 4	4	
OTHER VALUES	PHYSICAL DISTURBANCE	PERMANENT 0	MEDIUM 2	NONE 4	2	
	HUMAN DISTURBANCE	HIGH 0	MEDIUM 2	LOW 4	2	
	INTERSPERSION	LOW 0	MEDIUM 3	HIGH 6	3	
UNIQUE FEATURES	HABITAT TYPE	0	-	4	2	
	FLORA	0	-	4	2	
	FAUNA	0	-	4	2	
	SCENIC	0	-	4	2	
	EDUCATIONAL USES	0	-	4	2	

Wildlife Habitat Assessment

City of Depoe Bay

SITE NUMBER	WHA-5	Total Habitat Score:	100	% of total possible:	86%	TOTAL ACRES	
SITE LOCATION	R-SDB-2, South Depoe Bay Creek			FIELD DATES	9/30/2003	FIELD OBSERVERS	JVS/CSR

GENERAL COMMENTS	South Depoe Bay Creek flows from forested areas with good cover through the City Park and into the bay. The stream has large woody debris in the creek and good cover.

	HABITAT COMPONENT	DEGREE PRESENT			SCORE EXISTING	SPECIFIC COMMENTS
WATER	QUANTITY & SEASONALITY	NONE 0	SEASONAL 4	PERENNIAL 8	8	
	QUALITY FLUSHING REQUENCY	STAGNANT 0	SEASONAL 3	CONTINUOUS 6	6	
	PROXIMITY TO COVER	NONE 0	NEARBY 4	ADJACENT 8	8	
	DIVERSITY STREAM, PONDS, WETLANDS,ETC	ONE 2	TWO 4	THREE 8	4	
FOOD	VARIETY	LOW 0	MEDIUM 4	HIGH 8	7	
	QUALITY & SEASONALITY	NONE 0	LIMITED 5	YEAR ROUND 8	7	
	PROXIMITY TO COVER	NONE 0	NEARBY 4	ADJACENT 8	8	
COVER	STRUTURAL DIVERSITY	LOW 0	MEDIUM 4	HIGH 8	7	
	VARIETY	LOW 0	MEDIUM 4	HIGH 8	7	
	NESTING DENNING, ETC	LOW 0	MEDIUM 2	HIGH 4	4	
	ESCAPE	LOW 0	MEDIUM 2	HIGH 4	4	
	SEASONALITY	ONE 0	LIMITED 2	YEAR ROUND 4	4	
OTHER VALUES	PHYSICAL DISTURBANCE	PERMANENT 0	MEDIUM 2	NONE 4	3	
	HUMAN DISTURBANCE	HIGH 0	MEDIUM 2	LOW 4	4	
	INTERSPERSION	LOW 0	MEDIUM 3	HIGH 6	4	
UNIQUE FEATURES	HABITAT TYPE	0	-	4	3	
	FLORA	0	-	4	3	
	FAUNA	0	-	4	3	
	SCENIC	0	-	4	3	
	EDUCATIONAL USES	0	-	4	3	

Wildlife Habitat Assessment

City of Depoe Bay

SITE NUMBER	WHA-6	Total Habitat Score:	49	% of total possible:	42%	TOTAL ACRES	
SITE LOCATION	R-SDB-3, Collins Creek			FIELD DATES	9/30/2003	FIELD OBSERVERS	JVS/CSR

GENERAL COMMENTS	Collins Creek, which flows from recently logged area beneath Highway 101, through residential area and into the Pacific Ocean

	HABITAT COMPONENT	DEGREE PRESENT			SCORE EXISTING	SPECIFIC COMMENTS
WATER	QUANTITY & SEASONALITY	NONE 0	SEASONAL 4	PERENNIAL 8	4	
	QUALITY FLUSHING REQUENCY	STAGNANT 0	SEASONAL 3	CONTINUOUS 6	3	
	PROXIMITY TO COVER	NONE 0	NEARBY 4	ADJACENT 8	4	
	DIVERSITY STREAM, PONDS, WETLANDS,ETC	ONE 2	TWO 4	THREE 8	2	
FOOD	VARIETY	LOW 0	MEDIUM 4	HIGH 8	4	
	QUALITY & SEASONALITY	NONE 0	LIMITED 5	YEAR ROUND 8	4	
	PROXIMITY TO COVER	NONE 0	NEARBY 4	ADJACENT 8	4	
COVER	STRUTURAL DIVERSITY	LOW 0	MEDIUM 4	HIGH 8	4	
	VARIETY	LOW 0	MEDIUM 4	HIGH 8	4	
	NESTING DENNING, ETC	LOW 0	MEDIUM 2	HIGH 4	2	
	ESCAPE	LOW 0	MEDIUM 2	HIGH 4	2	
	SEASONALITY	ONE 0	LIMITED 2	YEAR ROUND 4	2	
OTHER VALUES	PHYSICAL DISTURBANCE	PERMANENT 0	MEDIUM 2	NONE 4	2	
	HUMAN DISTURBANCE	HIGH 0	MEDIUM 2	LOW 4	1	
	INTERSPERSION	LOW 0	MEDIUM 3	HIGH 6	2	
UNIQUE FEATURES	HABITAT TYPE	0	-	4	1	
	FLORA	0	-	4	1	
	FAUNA	0	-	4	1	
	SCENIC	0	-	4	1	
	EDUCATIONAL USES	0	-	4	1	

Wildlife Habitat Assessment

City of Depoe Bay

SITE NUMBER	WHA-7	Total Habitat Score: 97	% of total possible: 84%	TOTAL ACRES
SITE LOCATION	R-WC-1, stream and wetland complex, north part of Little Whale Cove	FIELD DATES 9/30/2003	FIELD OBSERVERS	JVS/CSR

GENERAL COMMENTS	Stream and wetland complex within the northern portion of Little Whale Cove

	HABITAT COMPONENT	DEGREE PRESENT			SCORE EXISTING	SPECIFIC COMMENTS
WATER	QUANTITY & SEASONALITY	NONE 0	SEASONAL 4	PERENNIAL 8	8	
	QUALITY FLUSHING REQUENCY	STAGNANT 0	SEASONAL 3	CONTINUOUS 6	6	
	PROXIMITY TO COVER	NONE 0	NEARBY 4	ADJACENT 8	8	
	DIVERSITY STREAM, PONDS, WETLANDS,ETC	ONE 2	TWO 4	THREE 8	4	
FOOD	VARIETY	LOW 0	MEDIUM 4	HIGH 8	6	
	QUALITY & SEASONALITY	NONE 0	LIMITED 5	YEAR ROUND 8	7	
	PROXIMITY TO COVER	NONE 0	NEARBY 4	ADJACENT 8	8	
COVER	STRUTURAL DIVERSITY	LOW 0	MEDIUM 4	HIGH 8	7	
	VARIETY	LOW 0	MEDIUM 4	HIGH 8	7	
	NESTING DENNING, ETC	LOW 0	MEDIUM 2	HIGH 4	3	
	ESCAPE	LOW 0	MEDIUM 2	HIGH 4	3	
	SEASONALITY	ONE 0	LIMITED 2	YEAR ROUND 4	4	
OTHER VALUES	PHYSICAL DISTURBANCE	PERMANENT 0	MEDIUM 2	NONE 4	3	
	HUMAN DISTURBANCE	HIGH 0	MEDIUM 2	LOW 4	3	
	INTERSPERSION	LOW 0	MEDIUM 3	HIGH 6	5	
UNIQUE FEATURES	HABITAT TYPE	0	-	4	3	
	FLORA	0	-	4	3	
	FAUNA	0	-	4	3	
	SCENIC	0	-	4	3	
	EDUCATIONAL USES	0	-	4	3	

Wildlife Habitat Assessment

City of Depoe Bay

SITE NUMBER	WHA-8	Total Habitat Score:	79	% of total possible:	68%	TOTAL ACRES	
SITE LOCATION	WC-1b, wetland complex, north part of Little Whale Cove			FIELD DATES	9/30/2003	FIELD OBSERVERS	JVS/CSR

GENERAL COMMENTS	Wetland complex within the northern portion of Little Whale Cove, without a stream

	HABITAT COMPONENT	DEGREE PRESENT			SCORE EXISTING	SPECIFIC COMMENTS
WATER	QUANTITY & SEASONALITY	NONE 0	SEASONAL 4	PERENNIAL 8	4	
	QUALITY FLUSHING REQUENCY	STAGNANT 0	SEASONAL 3	CONTINUOUS 6	3	
	PROXIMITY TO COVER	NONE 0	NEARBY 4	ADJACENT 8	6	
	DIVERSITY STREAM, PONDS, WETLANDS,ETC	ONE 2	TWO 4	THREE 8	2	
FOOD	VARIETY	LOW 0	MEDIUM 4	HIGH 8	4	
	QUALITY & SEASONALITY	NONE 0	LIMITED 5	YEAR ROUND 8	7	
	PROXIMITY TO COVER	NONE 0	NEARBY 4	ADJACENT 8	6	
COVER	STRUTURAL DIVERSITY	LOW 0	MEDIUM 4	HIGH 8	6	
	VARIETY	LOW 0	MEDIUM 4	HIGH 8	6	
	NESTING *DENNING, ETC*	LOW 0	MEDIUM 2	HIGH 4	3	
	ESCAPE	LOW 0	MEDIUM 2	HIGH 4	3	
	SEASONALITY	ONE 0	LIMITED 2	YEAR ROUND 4	4	
OTHER VALUES	PHYSICAL DISTURBANCE	PERMANENT 0	MEDIUM 2	NONE 4	3	
	HUMAN DISTURBANCE	HIGH 0	MEDIUM 2	LOW 4	3	
	INTERSPERSION	LOW 0	MEDIUM 3	HIGH 6	4	
UNIQUE FEATURES	HABITAT TYPE	0	-	4	3	
	FLORA	0	-	4	3	
	FAUNA	0	-	4	3	
	SCENIC	0	-	4	3	
	EDUCATIONAL USES	0	-	4	3	

Wildlife Habitat Assessment

City of Depoe Bay

SITE NUMBER	WHA-9	Total Habitat Score:	54	% of total possible:	47%	TOTAL ACRES	
SITE LOCATION	R-WC-5, streams through Little Whale Cove			FIELD DATES	9/30/2003	FIELD OBSERVERS	JVS/CSR

GENERAL COMMENTS	Streams through Little Whale Cove subdivision and flowing past the residential areas and into Little Whale Cove

	HABITAT COMPONENT	DEGREE PRESENT			SCORE EXISTING	SPECIFIC COMMENTS
WATER	QUANTITY & SEASONALITY	NONE 0	SEASONAL 4	PERENNIAL 8	4	
	QUALITY FLUSHING REQUENCY	STAGNANT 0	SEASONAL 3	CONTINUOUS 6	4	
	PROXIMITY TO COVER	NONE 0	NEARBY 4	ADJACENT 8	4	
	DIVERSITY STREAM, PONDS, WETLANDS,ETC	ONE 2	TWO 4	THREE 8	2	
FOOD	VARIETY	LOW 0	MEDIUM 4	HIGH 8	4	
	QUALITY & SEASONALITY	NONE 0	LIMITED 5	YEAR ROUND 8	4	
	PROXIMITY TO COVER	NONE 0	NEARBY 4	ADJACENT 8	4	
COVER	STRUTURAL DIVERSITY	LOW 0	MEDIUM 4	HIGH 8	4	
	VARIETY	LOW 0	MEDIUM 4	HIGH 8	4	
	NESTING DENNING, ETC	LOW 0	MEDIUM 2	HIGH 4	2	
	ESCAPE	LOW 0	MEDIUM 2	HIGH 4	1	
	SEASONALITY	ONE 0	LIMITED 2	YEAR ROUND 4	2	
OTHER VALUES	PHYSICAL DISTURBANCE	PERMANENT 0	MEDIUM 2	NONE 4	1	
	HUMAN DISTURBANCE	HIGH 0	MEDIUM 2	LOW 4	1	
	INTERSPERSION	LOW 0	MEDIUM 3	HIGH 6	1	
UNIQUE FEATURES	HABITAT TYPE	0	-	4	2	
	FLORA	0	-	4	2	
	FAUNA	0	-	4	2	
	SCENIC	0	-	4	3	
	EDUCATIONAL USES	0	-	4	3	

Wildlife Habitat Assessment

City of Depoe Bay

SITE NUMBER	WHA-10	Total Habitat Score:	81	% of total possible:	70%	TOTAL ACRES	
SITE LOCATION	R-WC-6, southern stream and wetland through Little Whale Cove			FIELD DATES	9/30/2003	FIELD OBSERVERS	JVS/CSR

GENERAL COMMENTS	The southern stream and wetland through Little Whale Cove subdivision flowing past the residential areas and into Little Whale Cove

	HABITAT COMPONENT	DEGREE PRESENT			SCORE EXISTING	SPECIFIC COMMENTS
WATER	QUANTITY & SEASONALITY	NONE 0	SEASONAL 4	PERENNIAL 8	8	
	QUALITY FLUSHING REQUENCY	STAGNANT 0	SEASONAL 3	CONTINUOUS 6	6	
	PROXIMITY TO COVER	NONE 0	NEARBY 4	ADJACENT 8	6	
	DIVERSITY STREAM, PONDS, WETLANDS,ETC	ONE 2	TWO 4	THREE 8	4	
FOOD	VARIETY	LOW 0	MEDIUM 4	HIGH 8	5	
	QUALITY & SEASONALITY	NONE 0	LIMITED 5	YEAR ROUND 8	6	
	PROXIMITY TO COVER	NONE 0	NEARBY 4	ADJACENT 8	6	
COVER	STRUTURAL DIVERSITY	LOW 0	MEDIUM 4	HIGH 8	6	
	VARIETY	LOW 0	MEDIUM 4	HIGH 8	5	
	NESTING DENNING, ETC	LOW 0	MEDIUM 2	HIGH 4	2	
	ESCAPE	LOW 0	MEDIUM 2	HIGH 4	2	
	SEASONALITY	ONE 0	LIMITED 2	YEAR ROUND 4	3	
OTHER VALUES	PHYSICAL DISTURBANCE	PERMANENT 0	MEDIUM 2	NONE 4	2	
	HUMAN DISTURBANCE	HIGH 0	MEDIUM 2	LOW 4	2	
	INTERSPERSION	LOW 0	MEDIUM 3	HIGH 6	3	
UNIQUE FEATURES	HABITAT TYPE	0	-	4	3	
	FLORA	0	-	4	3	
	FAUNA	0	-	4	3	Pacific giant salamander
	SCENIC	0	-	4	3	
	EDUCATIONAL USES	0	-	4	3	

Wildlife Habitat Assessment

City of Depoe Bay				
SITE NUMBER	WHA-11	Total Habitat Score: 74	% of total possible: 64%	TOTAL ACRES
SITE LOCATION	R-WC-7a		FIELD DATES Off-site	FIELD OBSERVERS

GENERAL COMMENTS	

	HABITAT COMPONENT	DEGREE PRESENT			SCORE EXISTING	SPECIFIC COMMENTS
WATER	QUANTITY & SEASONALITY	NONE 0	SEASONAL 4	PERENNIAL 8	4	
	QUALITY FLUSHING REQUENCY	STAGNANT 0	SEASONAL 3	CONTINUOUS 6	3	
	PROXIMITY TO COVER	NONE 0	NEARBY 4	ADJACENT 8	5	
	DIVERSITY STREAM, PONDS, WETLANDS,ETC	ONE 2	TWO 4	THREE 8	4	
FOOD	VARIETY	LOW 0	MEDIUM 4	HIGH 8	5	
	QUALITY & SEASONALITY	NONE 0	LIMITED 5	YEAR ROUND 8	5	
	PROXIMITY TO COVER	NONE 0	NEARBY 4	ADJACENT 8	6	
COVER	STRUTURAL DIVERSITY	LOW 0	MEDIUM 4	HIGH 8	6	
	VARIETY	LOW 0	MEDIUM 4	HIGH 8	5	
	NESTING DENNING, ETC	LOW 0	MEDIUM 2	HIGH 4	2	
	ESCAPE	LOW 0	MEDIUM 2	HIGH 4	3	
	SEASONALITY	ONE 0	LIMITED 2	YEAR ROUND 4	3	
OTHER VALUES	PHYSICAL DISTURBANCE	PERMANENT 0	MEDIUM 2	NONE 4	3	
	HUMAN DISTURBANCE	HIGH 0	MEDIUM 2	LOW 4	2	
	INTERSPERSION	LOW 0	MEDIUM 3	HIGH 6	3	
UNIQUE FEATURES	HABITAT TYPE	0	-	4	3	
	FLORA	0	-	4	3	
	FAUNA	0	-	4	3	
	SCENIC	0	-	4	3	
	EDUCATIONAL USES	0	-	4	3	

Wildlife Habitat Assessment

City of Depoe Bay				
SITE NUMBER	**WHA-12**	**Total Habitat Score: 74**	**% of total possible: 64%**	TOTAL ACRES
SITE LOCATION	**R-WC-7b**		FIELD DATES **Off-site**	FIELD OBSERVERS

GENERAL COMMENTS	

	HABITAT COMPONENT	DEGREE PRESENT			SCORE EXISTING	SPECIFIC COMMENTS
WATER	QUANTITY & SEASONALITY	NONE 0	SEASONAL 4	PERENNIAL 8	4	
	QUALITY FLUSHING REQUENCY	STAGNANT 0	SEASONAL 3	CONTINUOUS 6	3	
	PROXIMITY TO COVER	NONE 0	NEARBY 4	ADJACENT 8	5	
	DIVERSITY STREAM, PONDS, WETLANDS,ETC	ONE 2	TWO 4	THREE 8	4	
FOOD	VARIETY	LOW 0	MEDIUM 4	HIGH 8	5	
	QUALITY & SEASONALITY	NONE 0	LIMITED 5	YEAR ROUND 8	5	
	PROXIMITY TO COVER	NONE 0	NEARBY 4	ADJACENT 8	6	
COVER	STRUTURAL DIVERSITY	LOW 0	MEDIUM 4	HIGH 8	6	
	VARIETY	LOW 0	MEDIUM 4	HIGH 8	5	
	NESTING DENNING, ETC	LOW 0	MEDIUM 2	HIGH 4	2	
	ESCAPE	LOW 0	MEDIUM 2	HIGH 4	3	
	SEASONALITY	ONE 0	LIMITED 2	YEAR ROUND 4	3	
OTHER VALUES	PHYSICAL DISTURBANCE	PERMANENT 0	MEDIUM 2	NONE 4	3	
	HUMAN DISTURBANCE	HIGH 0	MEDIUM 2	LOW 4	2	
	INTERSPERSION	LOW 0	MEDIUM 3	HIGH 6	3	
UNIQUE FEATURES	HABITAT TYPE	0	-	4	3	
	FLORA	0	-	4	3	
	FAUNA	0	-	4	3	
	SCENIC	0	-	4	3	
	EDUCATIONAL USES	0	-	4	3	

Appendix H

Plant List



APPENDIX H

Plant species observed or expected within the City of Depoe Bay Local Wetlands and Riparian Inventory Study Area

Scientific Name	Common Name	R9-Ind.
TREES		
Abies grandis	Grand fir	FACU-
Acer macrophyllum	big leaf maple	FACU
Alnus rubra	red alder	FAC
Arbutus menziesii	Pacific madrone	UPL
Calocedrus decurrens	incense cedar	UPL
Chamecyparis lawsoniana	Port Orford cedar	FACU+
Fraxinus latifolia	Oregon ash	FACW
Myrica californica	Pacific wax-myrtle	FACW
Pseudotsuga menziesii	Douglas-fir	UPL
Picea sitchensis	Sitka spruce	FAC
Pinus contorta	shore pine	FACU-
Populus trichocarpa	black cottonwood	FAC
Salix hookeriana	Hooker willow	FACW-
Thuja plicata	western redcedar	FAC
Tsuga heterophylla	western hemlock	FACU-
Umbellularia californica	California laurel	FAC-
SHRUBS		
Acer circinatum	vine maple	FAC-
Amelanchier alnifolia	Pacific serviceberry	FACU
Baccharis pilularis	chaparral broom	UPL
Berberis aquifolium	tall Oregon-grape	UPL
Berberis nervosa	dwarf Oregon -rape	UPL
Buddleia davidii	common butterfly bush	NI
Ceanothus thyrsiflorus	blue stem ceanothus	NI
Cornus stolonifera	redosier dogwood	FACW
Corylus cornuta	beaked hazel-nut	FACU
Crataegus douglasii	Douglas' hawthorn	FAC
Crataegus monogyna	ornamental hawthorn	FACU+
Cytisus scoparius	Scot's broom	UPL
Gaultheria shallon	salal	FACU
Holodiscus discolor	ocean spray	UPL
Ilex aquifolium	English holly	UPL
Lithocarpus densiflorus	tanoak	NI

Scientific Name	Common Name	R9-Ind.
Lonicera involucrata	twinberry	FAC+
Myrica gale	sweetgale	OBL
Oemleria cerasiformis	Indian-plum	FACU
Philadelphus lewisii	mockorange	UPL
Physocarpus capitatus	Pacific ninebark	FAC
Prunus virginiana	chokecherry	FACU
Rhamnus purshiana	cascara buckthorn	FAC-
Rhododendron occidentale	western azalea	FAC
Rhus diversiloba	poison-oak	UPL
Ribes acerifolium	mapleleaf currant	NI
Ribes divaricatum	spreading gooseberry	FAC
Ribes sanguineum	red-flowering currant	UPL
Rosa eglanteria	sweetbriar rose	FACW
Rosa pisocarpa	clustered rose	FAC
Rubus discolor	Himalayan blackberry	FACU
Rubus laciniatus	evergreen blackberry	FACU+
Rubus leucodermis	black raspberry	UPL
Rubus parviflorus	western thimbleberry	FAC-
Rubus spectabilis	salmonberry	FAC+
Rubus ursinus	California dewberry	FACU
Sambucus racemosa	red elderberry	FACU
Spiraea douglasii	Douglas' spirea	FACW
Symphoricarpos albus	snowberry	FACU
Vaccinium ovatum	evergreen huckleberry	UPL
Vaccinium parvifolium	red huckleberry	UPL
GRAMINOIDS		
Agrostis exarata	spike bentgrass	FACW
Agrostis stolonifera	spreading bentgrass	FAC
Agrostis tenuis	colonial bentgrass	FAC
Aira caryophylla	silver hairgrass	UPL
Alopecurus geniculatus	water foxtail	OBL
Alopecurus pratensis	meadow foxtail	FACW
Ammophila arenaria	European beachgrass	FACU
Anthoxanthum odoratum	sweet vernal grass	FACU
Avena fatua	wild oats	UPL
Bromus brizaeformis	rattlesnake grass	NI
Bromus carinatus	brome	UPL
Bromus mollis	soft brome	UPL

Scientific Name	Common Name	R9-Ind.
Bromus rigidus	ripgut brome	UPL
Bromus tectorum	cheatgrass	UPL
Carex densa	dense sedge	OBL
Carex deweyana	short-scale sedge	FACU
Carex feta	green-sheath sedge	FACW
Carex lanuginosa	wooly sedge	OBL
Carex leporina	hare's foot sedge	FACW
Carex lyngbyei	Lyngbye's sedge	OBL
Carex obnupta	slough sedge	OBL
Carex pachystachya	thick-head sedge	FAC
Carex praticola	meadow sedge	FACW
Carex X stipata	stalk-grain sedge	OBL
Carex unilateralis	one-sided sedge	FACW
Cynosurus cristatus	crested dogtail	UPL
Cynosurus echinatus	hedgehog dogtail	UPL
Cyperus sp.	flatsedge	FACW
Dactylis glomerata	orchard grass	FACU
Danthonia californica	California oatgrass	FACU
Deschampsia cespitosa	tufted hairgrass	FACW
Echinochloa crus-galli	large barnyard grass	FACW
Eleocharis acicularis	needle spikerush	OBL
Eleocharis ovata	ovate spikerush	OBL
Eleocharis palustris	common spikerush	OBL
Elymus glaucus	blue wild-rye	FACU
Festuca arundinacea	Kentucky fescue	FAC-
Festuca megalura	foxtail fescue	UPL
Festuca rubra	red fescue	FAC
Glyceria elata	tall mannagrass	FACW+
Glyceria occidentalis	northwestern mannagrass	OBL
Holcus lanatus	common velvet grass	FAC
Hordeum brachyantherum	meadow barley	FACW-
Hordeum jubatum	foxtail barley	FAC
Juncus acuminatus	tapered rush	OBL
Juncus balticus	Baltic rush	FACW+
Juncus bolanderi	Bolander's rush	OBL
Juncus bufonius	toad rush	FACW
Juncus effusus	soft rush	FACW
Juncus ensifolius	three-stamen rush	FACW

Scientific Name	Common Name	R9-Ind.
Juncus patens	spreading rush	FACW-
Juncus tenuis	slender rush	FACW-
Lolium multiflorum	Italian ryegrass	UPL
Lolium perenne	perennial ryegrass	FACU
Luzula campestris	field woodrush	FACU
Panicum capillare	witchgrass	FACU+
Paspalum distichum	knotgrass	FACW
Phalaris arundinacea	reed canarygrass	FACW
Poa annua	annual bluegrass	FAC
Poa compressa	Canada bluegrass	FACU+
Poa pratensis	Kentucky bluegrass	FAC
Poa trivialis	rough bluegrass	FACW
Polypogon monspeliensis	rabbit's foot	FACW
Scirpus americanus	Olney's bulrush	OBL
Scirpus microcarpus	small-fruit bulrush	OBL
Scirpus validus	soft-term bulrush	OBL
Typha latifolia	broad-leaf cattail	OBL
Vulpia myuros	rat-tail fescue	FAC
FORBS		
Achillea millefolium	yarrow	FACU
Alisma gramineum	narrow-leaf water plaintain	OBL
Alisma plantago-aquatica	broadleaved water plantain	OBL
Allium amplectens	slim-leaf onion	NI
Allium vineale	garlic	NI
Anagallis arvensis	scarlet pimpernel	FAC
Anaphilis margaritacea	pearly everlasting	UPL
Anthemis cotula	mayweed	FACU
Aster chilensis ssp. hallii	Hall's aster	FAC
Athyrium filix-femina	lady fern	FAC
Bellis perennis	English daisy	UPL
Bidens frondosa	devil's beggar tick	FACW+
Blechnum spicant	deer fern	FAC+
Boisduvalia densiflora	dense spike-primrose	FACW-
Brassica campestris	field mustard	UPL
Brodiaea hyacinthina	hyacinth brodiaea	NI
Cakile maritima	European searocket	FACU
Callitriche stagnalis	water starwort	OBL
Camassia quamash	common camas	FACW

Scientific Name	Common Name	R9-Ind.
Camassia leichtlinii var. leichtlinii	Leichtlin's camas	FACW-
Cardamine angulata	seaside bittercress	FACW
Cardamine oligosperma	few-seed bittercress	FAC
Cardamine pulcherrima	slender toothwort	UPL
Centaurium umbellatum	common centaury	FAC
Centranthus ruber	Jupiter's beard	NI
Cerastium vulgatum	mouse-ear chickweed	FACU
Chrysanthemum leucanthemum	oxeye daisy	UPL
Chrysosplenium glechomifolium	spleenwort	OBL
Cichorium intybus	chickory	UPL
Cicuta douglasii	western water hemlock	OBL
Circaea alpina	enchanters nightshade	FAC+
Cirsium arvense	Canada thistle	FACU+
Cirsium vulgare	bull thistle	FACU
Cicuta maculata	spotted water hemlock	NI
Claytonia sibirica	Siberian spring beauty	FAC
Conium maculatum	poison hemlock	FAC+
Convolvulus arvense	field morning-glory	UPL
Cotula coronopifolia	brassbuttons	FACW+
Crepis setosa	hawksbeard	UPL
Cuscuta sp.	field dodder	UPL
Daucus carota	Queen Anne's lace	UPL
Digitalis purpurea	foxglove	FACU
Dipsacus sylvestris	teasel	FAC
Disporum hookerii	Hooker's fairy-bell	UPL
Dryopteris expansa	wood fern	FACW
Epilobium angustifolium	fireweed	FACU+
Epilobium watsonii [=E. ciliatum]	Watson's willow-herb	FACW-
Equisetum arvense	field horsetail	FAC
Equisetum hyemale	rough horsetail	FACW
Erechtites minima	coastal burnweed	UPL
Erodium cicutarium	storks-bill	UPL
Fragaria chiloensis	coastal strawberry	NI
Fragaria virginiana	Virginia strawberry	UPL
Galium aparine	catchweed bedstraw	FACU
Geranium carolinianum	Carolina geranium	UPL
Geranium dissectum	cutleaf geranium	UPL
Geranium molle	doves-foot geranium	UPL

Scientific Name	Common Name	R9-Ind.
Geum macrophyllum	large-leaved avens	FACW-
Gnaphalium palustre	western marsh cudweed	FAC+
Grindelia integrifolia	Willamette Valley gumweed	FACW
Gypsophila paniculata	baby's breath	NI
Hedera helix	English ivy	UPL
Hydrocotyle ranunculoides	floating penny-wort	OBL
Hypericum anagalloides	bog St. John's wort	OBL
Hypericum perforatum	common St. John's wort	UPL
Hypochaeris radicata	hairy cats-ear	UPL
Iris douglasiana	Douglas's iris	NI
Lamium purpureum	red dead nettle	UPL
Lactuca serriola	prickly lettuce	FACU
Lasthenia glaberrima	smooth goldfields	OBL
Lathyrus aphaca	yellow vetchling	UPL
Lathyrus latifolius	everlasting peavine	UPL
Lathyrus sphaericus	grass peavine	UPL
Lemna minor	duckweed	OBL
Leontodon nudicaulis	rough hawkbit	UPL
Lilaeopsis occidentalis	western lilaeopsis	OBL
Linum angustifolium	narrow-leaved flax	UPL
Lotus corniculatus	birds-foot trefoil	FAC
Lotus formosissimus	seaside lotus	FACW+
Lotus purshiana	Spanish-clover	UPL
Lupinus bicolor	two-color lupine	UPL
Lupinus sp.	lupine	FAC-->UPL
Lysichiton americanum	skunk cabbage	OBL
Lythrum hyssopifolia	hyssop loosestrife	OBL
Lythrum portula	spatula-leaf loosestrife	NI
Madia sativa	tarweed	UPL
Maianthemum dilatatum	false lily-of-the valley	FAC
Marah oreganus	coastal manroot	UPL
Marrubium vulgare	horehound	FACU+
Matricaria matricarioides	pineapple weed	FACU
Melilotus alba	white sweet-clover	FACU
Mentha arvensis	field mint	FACW-
Mentha pulegium	pennyroyal	OBL
Montia linearis	line-leaved montia	NI
Myosotis discolor	yellow and blue forget- me- not	FACW

Scientific Name	Common Name	R9-Ind.
Oenanthe sarmentosa	water-parsley	OBL
Osmorhiza chilensis	mountain sweet-cicely	NI
Oxalis oregana	Oregon oxalis	UPL
Parentucellia viscosa	yellow parentucellia	FAC-
Petasites frigidus	arctic sweet coltsfoot	FACW-
Plantago lanceolata	English plantain	FAC
Plantago major	common plantain	FACU+
Polygonum aviculare	prostrate knotweed	FACW-
Polygonum hydropiperoides	swamp smartweed	OBL
Polygonum persicaria	ladysthumb	FACW
Polypodium scouleri	leathery polypody	NI
Polystichum munitum	sword fern	FACU
Potamogeton natans	floating pondweed	OBL
Potentilla anserina	silverweed	OBL
Potentilla gracilis	slender-leaf cinquefoil	FAC
Prunella vulgaris	heal-all	FACU+
Pteridium aquilinum	bracken fern	FACU
Ranunculus acris	tall buttercup	FACW-
Ranunculus muricatus	spiny-fruit buttercup	FACW
Ranunculus occidentalis	western buttercup	FAC
Ranunculus orthorhynchus	straight beak buttercup	FACW
Ranunculus repens	creeping buttercup	FACW
Ranunculus sceleratus	celery-leaf buttercup	OBL
Ranunculus uncinatus	little buttercup	FAC-
Raphanus sativus	radish	NI
Rorippa curvisiliqua	curve-pod yellowcress	OBL
Rorippa nasturtium-aquatica	watercress	OBL
Rumex acetosella	sour dock	FACU+
Rumex crispus	curly dock	FAC+
Rumex salicifolius	willow-leaved dock	FACW
Sanicula crassicaulis	Pacific sanicle	UPL
Scrophularia californica	California figwort	FACW-
Senecio jacobaea	tansy ragwort	FACU
Senecio vulgaris	common groundsel	FACU
Silene gallica	small-flowered catchfly	NI
Sisyrinchium californicum	golden-eyed grass	FACW+
Sisyrinchium idahoense	Idaho blue-eyed grass	FACW
Smilacina racemosa	feather false-Solomon's seal	FAC-

Scientific Name	Common Name	R9-Ind.
Smilacina stellata	starry false-solomon's seal	FAC-
Solanum dulcamara	climbing nightshade	FAC+
Sonchus asper	prickly sowthistle	FAC-
Sparganium emersum	narrow-leaf burreed	OBL
Stachys cooleyae	Cooley's hedgenettle	FACW
Stellaria media	common chickweed	FACU
Taraxacum officinale	common dandelion	FACU
Tellima grandiflora	fringecup	UPL
Thalictrum polycarpum	tall western meadow-rue	UPL
Tolmiea menziesii	piggy-back plant	FAC
Trifolium dubium	hop clover	UPL
Trifolium pratense	red clover	FACU
Trifolium repens	white clover	FAC
Trifolium subterraneum	subterranean clover	-NI-
Trifolium wormskioldii	cow's clover	FACW+
Trillium ovatum	western trillium	NI
Urtica dioica	stinging nettle	FAC+
Verbascum blatteria	moth-mullein	UPL
Verbascum thapsus	mullein	UPL
Veronica americana	American speedwell	OBL
Veronica scutellata	marsh speedwell	OBL
Vicia cracca	Bird vetch	UPL
Vicia hirsuta	Tiny vetch	UPL
Vicia sativa	Common vetch	UPL
Vicia tetrasperma	Slender vetch	UPL
Viola sempervirens	evergreen violet	NI
Xanthium strumarium	rough cockle-bur	FAC

Appendix I

OFWAM Characterization Field Forms

Wetland Characterization -- Field Form

Project Name: Depoe Bay Local Wetland Inventory

Wetland Code: NDB-1

Watershed Setting: (Questions 1-14) See Attached Table

Wetland Structure and Relation to Surrounding Landscape		Wetland Habitat		Fisheries Habitat		Wetland Hydrology		Recreation	
Q	A	Q	A	Q	A	Q	A	Q	A
Q-15		Q-21		Q-29	C	Q-36	C	Q-47	C
1		1		**Streams connected to the Wetland**		Q-37	C	Q-48	C
2		2	b			Q-38	C	Q-49	B
3	C	3	c	Q	A	Q-39	—	Q-50	B
4	b	4		Q-30	NA	Q-40	A	**Asthetics**	
5		Q-22	A	Q-31	NA	**Public Access to Wetland Site**		Q	A
Q-16	A	Q-23	C	Q-32	NA			Q-51	N/A
Q-17	B	Q-24	C	**Lakes and Ponds**		Q	A	Q-52	A
Q-18	B	Q-25	N/A			Q-41	C	Q-53	A
Q-19	B	Q-26	A	Q	A	Q-42	A	Q-54	A
Q-20		Q-27	B	Q-33	N/A	Q-43	A	Q-55	B
1		Q-28	C	Q-34	N/A	Q-44	B	Q-56	B
2				Q-35	N/A	Q-45	B	Q-57	A
3						Q-46	B	Q-58	B
4	C								
5									

43 - Forested areas adjacent on north, east and south

Wetland Characterization -- Field Form

Project Name: Depoe Bay Local Wetland Inventory

Wetland Code: NDB-2

Watershed Setting: (Questions 1-14) See Attached Table

Wetland Structure and Relation to Surrounding Landscape		Wetland Habitat		Fisheries Habitat		Wetland Hydrology		Recreation	
Q	A	Q	A	Q	A	Q	A	Q	A
Q-15		Q-21		Q-29	A	Q-36	A	Q-47	C
1	C	1		Streams connected to the Wetland		Q-37	A	Q-48	C
2		2	d			Q-38	B	Q-49	B
3	C	3	C	Q	A	Q-39	C	Q-50	B
4		4	b	Q-30	B	Q-40	A	Asthetics	
5		Q-22	A	Q-31	A	Public Access to Wetland Site			
Q-16	C	Q-23	A	Q-32	A			Q	A
Q-17	B	Q-24	B	Lakes and Ponds		Q	A	Q-51	N/A
Q-18	A	Q-25	N/A			Q-41	C	Q-52	A
Q-19	B	Q-26	A	Q	A	Q-42	A	Q-53	C
Q-20		Q-27	A	Q-33	N/A	Q-43	A	Q-54	C
1		Q-28	C	Q-34	N/A	Q-44	B	Q-55	A
2				Q-35	N/A	Q-45	B	Q-56	A
3	C					Q-46	C	Q-57	C
4								Q-58	A
5									

43) Contiguous with North Depoe Bay Creek, surrounded on all sides by adjacent riparian corridor

Wetland Characterization -- Field Form

Project Name: Depoe Bay Local Wetland Inventory

Wetland Code: NDB-3

Watershed Setting: (Questions 1-14) See Attached Table

Wetland Structure and Relation to Surrounding Landscape		Wetland Habitat		Fisheries Habitat		Wetland Hydrology		Recreation	
Q	A	Q	A	Q	A	Q	A	Q	A
Q-15		Q-21		Q-29	B	Q-36	C	Q-47	C
1	a	1		Streams connected to the Wetland		Q-37	A	Q-48	C
2		2	d	Q	A	Q-38	B	Q-49	B
3	b	3		Q-30	B	Q-39	—	Q-50	B
4	b	4	a	Q-31	A	Q-40	B	Asthetics	
5		Q-22	A	Q-32	A	Public Access to Wetland Site		Q	A
Q-16	A	Q-23	A	Lakes and Ponds		Q	A	Q-51	N/A
Q-17	B	Q-24	B	Q	A	Q-41	C	Q-52	B
Q-18	A	Q-25	N/A	Q-33	A	Q-42	A	Q-53	B
Q-19	B	Q-26	A	Q-34	A	Q-43	A	Q-54	B
Q-20		Q-27	A	Q-35	B	Q-44	A	Q-55	A
1		Q-28	C			Q-45	A	Q-56	A
2						Q-46	C	Q-57	C
3								Q-58	B
4	C								
5									

43) Contiguous with forested area to the west. Area to north recently logged.

Wetland Characterization -- Field Form

Project Name: Depoe Bay Local Wetland Inventory

Wetland Code: SDB-1

Watershed Setting: (Questions 1-14) See Attached Table

Wetland Structure and Relation to Surrounding Landscape		Wetland Habitat		Fisheries Habitat		Wetland Hydrology		Recreation	
Q	A	Q	A	Q	A	Q	A	Q	A
Q-15		Q-21		Q-29	C	Q-36	A	Q-47	C
1		1		Streams connected to the Wetland		Q-37	A	Q-48	A
2		2	C			Q-38	C	Q-49	B
3	C	3		Q	A	Q-39	A	Q-50	B
4		4	a	Q-30	A	Q-40	B	Asthetics	
5		Q-22	B	Q-31	B	Public Access to Wetland Site		Q	A
Q-16	C	Q-23	A	Q-32	A			Q-51	N/A
Q-17	C	Q-24	C	Lakes and Ponds		Q	A	Q-52	A
Q-18	A	Q-25	N/A			Q-41	C	Q-53	A
Q-19	B	Q-26	A	Q	A	Q-42	A	Q-54	A
Q-20		Q-27	A	Q-33	B	Q-43	A	Q-55	A
1		Q-28	C	Q-34	A	Q-44	B	Q-56	C
2				Q-35	A	Q-45	B	Q-57	C
3	C					Q-46	C	Q-58	B
4									
5									

43) Adjacent land on all sides riparian, forested upland beyond that.

Wetland Characterization -- Field Form

Project Name: Depoe Bay Local Wetland Inventory

Wetland Code: SDB-2

Watershed Setting: (Questions 1-14) See Attached Table

Wetland Structure and Relation to Surrounding Landscape		Wetland Habitat		Fisheries Habitat		Wetland Hydrology		Recreation	
Q	A	Q	A	Q	A	Q	A	Q	A
Q-15		Q-21		Q-29	A	Q-36	C	Q-47	A
1	C	1		Streams connected to the Wetland		Q-37	A	Q-48	C
2		2				Q-38	C	Q-49	B
3	C	3		Q	A	Q-39	—	Q-50	B
4		4	a	Q-30	A	Q-40	B	Asthetics	
5		Q-22	A	Q-31	A	Public Access to Wetland Site		Q	A
Q-16	A	Q-23	A	Q-32	A			Q-51	N/A
Q-17	A	Q-24	B	Lakes and Ponds		Q	A		
Q-18	A	Q-25	N/A			Q-41	B	Q-52	A
Q-19	B	Q-26	A	Q	A	Q-42	A	Q-53	A
Q-20		Q-27	A	Q-33	A	Q-43	A	Q-54	A
1		Q-28	C	Q-34	A	Q-44	A	Q-55	A
2				Q-35	A	Q-45	B	Q-56	A
3						Q-46	B	Q-57	C
4	C							Q-58	B
5									

43) Surrounded on all sides by riparian corridor, and upland forest beyond that

Wetland Characterization -- Field Form

Project Name: Depoe Bay Local Wetland Inventory

Wetland Code: WC-1a

Watershed Setting: (Questions 1-14) See Attached Table

Wetland Structure and Relation to Surrounding Landscape		Wetland Habitat		Fisheries Habitat		Wetland Hydrology		Recreation	
Q	A	Q	A	Q	A	Q	A	Q	A
Q-15		Q-21		Q-29	C	Q-36	C	Q-47	C
1		1		Streams connected to the Wetland		Q-37	A	Q-48	C
2		2	C	Q	A	Q-38	A	Q-49	B
3		3	B	Q-30	C	Q-39	—	Q-50	B
4	C	4	C	Q-31	C	Q-40	B	Asthetics	
5		Q-22	A	Q-32	C	Public Access to Wetland Site		Q	A
Q-16	A	Q-23	A	Lakes and Ponds		Q	A	Q-51	N/A
Q-17	A	Q-24	A	Q	A	Q-41	B	Q-52	C
Q-18	A	Q-25	N/A	Q-33	C	Q-42	A	Q-53	C
Q-19	B	Q-26	B	Q-34	C	Q-43	A	Q-54	C
Q-20		Q-27	A	Q-35	C	Q-44	B	Q-55	A
1		Q-28	C			Q-45	B	Q-56	B
2						Q-46	C	Q-57	A
3								Q-58	A
4	C								
5									

43) Adjacent to / contiguous with forested areas on all sides. Intermittently interrupted by developed trails, residences.

Wetland Characterization -- Field Form

Project Name: Depoe Bay Local Wetland Inventory

Wetland Code: WC-1b

Watershed Setting: (Questions 1-14) See Attached Table

Wetland Structure and Relation to Surrounding Landscape		Wetland Habitat		Fisheries Habitat		Wetland Hydrology		Recreation	
Q	A	Q	A	Q	A	Q	A	Q	A
Q-15		Q-21		Q-29	C	Q-36	C	Q-47	C
1	b	1		Streams connected to the Wetland		Q-37	B	Q-48	C
2		2	b	Q	A	Q-38	C	Q-49	B
3		3	C	Q-30	C	Q-39	—	Q-50	B
4	b	4	d	Q-31	C	Q-40	B	Asthetics	
5		Q-22	A	Q-32	C	Public Access to Wetland Site		Q	A
Q-16	C	Q-23	C	Lakes and Ponds		Q	A	Q-51	N/A
Q-17	A	Q-24	B	Q	A	Q-41	B	Q-52	A
Q-18	B	Q-25	N/A	Q-33	C	Q-42	A	Q-53	A
Q-19	B	Q-26	A	Q-34	C	Q-43	A	Q-54	A
Q-20		Q-27	B	Q-35	C	Q-44	B	Q-55	A
1		Q-28	C			Q-45	B	Q-56	A
2						Q-46	B	Q-57	A
3								Q-58	A
4	C								
5									

43) Adjacent to / contiguous with forested areas on all sides. Intermittently interrupted by developed trails & residences.

Wetland Characterization -- Field Form

Project Name: Depoe Bay Local Wetland Inventory

Wetland Code: WC-2

Watershed Setting: (Questions 1-14) See Attached Table

Wetland Structure and Relation to Surrounding Landscape		Wetland Habitat		Fisheries Habitat		Wetland Hydrology		Recreation	
Q	A	Q	A	Q	A	Q	A	Q	A
Q-15		Q-21		Q-29	C	Q-36	C	Q-47	C
1	B	1		Streams connected to the Wetland		Q-37	B	Q-48	C
2		2		Q	A	Q-38	C	Q-49	B
3		3	A	Q-30	C	Q-39	–	Q-50	B
4	B	4		Q-31	C	Q-40	B	Asthetics	
5		Q-22	B	Q-32	C	Public Access to Wetland Site		Q	A
Q-16	A	Q-23	A	Lakes and Ponds		Q	A	Q-51	N/A
Q-17	C	Q-24	C	Q	A	Q-41	C	Q-52	A
Q-18	A	Q-25	N/A	Q-33	C	Q-42	A	Q-53	A
Q-19	B	Q-26	A	Q-34	C	Q-43	A	Q-54	A
Q-20		Q-27	A	Q-35	C	Q-44	B	Q-55	A
1		Q-28	C			Q-45	B	Q-56	B
2						Q-46	C	Q-57	C
3								Q-58	C
4	C								
5									

43- Contiguous with forested land to east, west and south. To the north is water treatment facility

Wetland Characterization -- Field Form

Project Name: Depoe Bay Local Wetland Inventory

Wetland Code: WC-3

Watershed Setting: (Questions 1-14) See Attached Table

Wetland Structure and Relation to Surrounding Landscape		Wetland Habitat		Fisheries Habitat		Wetland Hydrology		Recreation	
Q	A	Q	A	Q	A	Q	A	Q	A
Q-15		Q-21		Q-29	C	Q-36	B	Q-47	C
1		1		Streams connected to the Wetland		Q-37	A	Q-48	C
2		2	C			Q-38	C	Q-49	B
3		3	A	Q	A	Q-39	—	Q-50	B
4	C	4	B	Q-30	C	Q-40	B	Aesthetics	
5		Q-22	A	Q-31	C	Public Access to Wetland Site		Q	A
Q-16	A	Q-23	A	Q-32	C			Q-51	N/A
Q-17	B.	Q-24	C	Lakes and Ponds		Q	A	Q-52	C
Q-18	A	Q-25	N/A			Q-41	C	Q-53	A
Q-19	B.	Q-26	B	Q	A	Q-42	A	Q-54	A
Q-20		Q-27	A	Q-33	C	Q-43	B	Q-55	A
1		Q-28	C	Q-34	C	Q-44	A	Q-56	A
2				Q-35	C	Q-45	A	Q-57	B
3						Q-46	A	Q-58	B
4	C								
5									

Wetland Characterization -- Field Form

Project Name: Depoe Bay Local Wetland Inventory

Wetland Code: WC-4

Watershed Setting: (Questions 1-14) See Attached Table

Wetland Structure and Relation to Surrounding Landscape		Wetland Habitat		Fisheries Habitat		Wetland Hydrology		Recreation	
Q	A	Q	A	Q	A	Q	A	Q	A
Q-15		Q-21		Q-29	C	Q-36	A	Q-47	A
1	C	1		Streams connected to the Wetland		Q-37	A	Q-48	A
2		2	A	Q	A	Q-38	C	Q-49	B
3		3	D	Q-30	B	Q-39	A	Q-50	B
4	C	4		Q-31	B	Q-40	B	Asthetics	
5		Q-22	A	Q-32	C	Public Access to Wetland Site		Q	A
Q-16	A	Q-23	A	Lakes and Ponds		Q	A	Q-51	N/A
Q-17	C	Q-24	B	Q	A	Q-41	C	Q-52	C
Q-18	A	Q-25	N/A	Q-33	B	Q-42	A	Q-53	A
Q-19	B	Q-26	C	Q-34	C	Q-43	A	Q-54	A
Q-20		Q-27	A	Q-35	B	Q-44	A	Q-55	A
1		Q-28	A			Q-45	A	Q-56	A
2						Q-46	A	Q-57	C
3								Q-58	B
4	C								
5									

43) Adjacent to/contiguous with riparian corridor & forested areas beyond that.

Wetland Characterization -- Field Form

Project Name: Depoe Bay Local Wetland Inventory

Wetland Code: WC-5

Watershed Setting: (Questions 1-14) See Attached Table

Wetland Structure and Relation to Surrounding Landscape		Wetland Habitat		Fisheries Habitat		Wetland Hydrology		Recreation	
Q	A	Q	A	Q	A	Q	A	Q	A
Q-15		Q-21		Q-29	C	Q-36	C	Q-47	C
1	C	1		Streams connected to the Wetland		Q-37	A	Q-48	A
2		2	C	Q	A	Q-38	C	Q-49	B
3		3	C	Q-30	A	Q-39	-	Q-50	B
4	B	4		Q-31	A	Q-40	B	Asthetics	
5		Q-22	A	Q-32	C	Public Access to Wetland Site		Q	A
Q-16	A	Q-23	A	Lakes and Ponds		Q	A	Q-51	N/A
Q-17	B	Q-24	A	Q	A	Q-41	B	Q-52	A
Q-18	A	Q-25	N/A	Q-33	A	Q-42	A	Q-53	A
Q-19	B	Q-26	A	Q-34	C	Q-43	A	Q-54	A
Q-20		Q-27	A	Q-35	A	Q-44	A	Q-55	A
1		Q-28	C			Q-45	A	Q-56	A
2						Q-46	A	Q-57	A
3								Q-58	A
4	C								
5									

43) Adjacent to forested areas to the south. Other sides disturbed by proximity to residential developments (Little Whale Cove).

Wetland Characterization -- Field Form

Project Name: Depoe Bay Local Wetland Inventory

Wetland Code: WC-6a

Watershed Setting: (Questions 1-14) See Attached Table

Wetland Structure and Relation to Surrounding Landscape		Wetland Habitat		Fisheries Habitat		Wetland Hydrology		Recreation	
Q	A	Q	A	Q	A	Q	A	Q	A
Q-15		Q-21		Q-29	C	Q-36	C	Q-47	C
1		1		Streams connected to the Wetland		Q-37	B	Q-48	C
2		2		Q	A	Q-38	C	Q-49	B
3	C	3		Q-30	A	Q-39	—	Q-50	B
4		4	A	Q-31	A	Q-40	B	Asthetics	
5		Q-22	A	Q-32	A	Public Access to Wetland Site		Q	A
Q-16	C	Q-23	A	Lakes and Ponds		Q	A	Q-51	N/A
Q-17	C	Q-24	C	Q	A	Q-41	C	Q-52	A
Q-18	A	Q-25	N/A	Q-33	A	Q-42	A	Q-53	A
Q-19	B	Q-26	A	Q-34	A	Q-43	A	Q-54	A
Q-20		Q-27	B	Q-35	A	Q-44	C	Q-55	A
1		Q-28	C			Q-45	B	Q-56	A
2						Q-46	C	Q-57	B
3								Q-58	B
4	C								
5									

43) Surrounded on all sides by riparian corridor, and forested areas beyond that. To the west is ocean.

Wetland Characterization -- Field Form

Project Name: Depoe Bay Local Wetland Inventory

Wetland Code: WC-6b

Watershed Setting: (Questions 1-14) See Attached Table

Wetland Structure and Relation to Surrounding Landscape		Wetland Habitat		Fisheries Habitat		Wetland Hydrology		Recreation	
Q	A	Q	A	Q	A	Q	A	Q	A
Q-15		Q-21		Q-29	C	Q-36	C	Q-47	C
1		1		Streams connected to the Wetland		Q-37	B	Q-48	C
2		2		Q	A	Q-38	C	Q-49	B
3	C	3		Q-30	A	Q-39	–	Q-50	B
4		4	A	Q-31	A	Q-40	B	Asthetics	
5		Q-22	A	Q-32	A	Public Access to Wetland Site		Q	A
Q-16	C	Q-23	A	Lakes and Ponds		Q	A	Q-51	N/A
Q-17	B	Q-24	C	Q	A	Q-41	C	Q-52	A
Q-18	A	Q-25	N/A	Q-33	A	Q-42	A	Q-53	A
Q-19	B	Q-26	A	Q-34	A	Q-43	A	Q-54	A
Q-20		Q-27	B	Q-35	A	Q-44	C	Q-55	A
1		Q-28	C			Q-45	B	Q-56	A
2						Q-46	C	Q-57	B
3								Q-58	B
4	C								
5									

43) Surrounded on all sides by riparian corridor, and forested areas beyond that. To the west is ocean.

Wetland Characterization -- Field Form

Project Name: Depoe Bay Local Wetland Inventory

Wetland Code: WC-7

Watershed Setting: (Questions 1-14) See Attached Table

Wetland Structure and Relation to Surrounding Landscape		Wetland Habitat		Fisheries Habitat		Wetland Hydrology		Recreation	
Q	A	Q	A	Q	A	Q	A	Q	A
Q-15		Q-21		Q-29	C	Q-36	B	Q-47	C
1	A	1		Streams connected to the Wetland		Q-37	C	Q-48	A
2		2	C	Q	A	Q-38	A	Q-49	B
3		3	B	Q-30	C	Q-39	–	Q-50	B
4	C	4	D	Q-31	C	Q-40	A	Asthetics	
5		Q-22	A	Q-32	C	Public Access to Wetland Site		Q	A
Q-16	A	Q-23	A	Lakes and Ponds		Q	A	Q-51	N/A
Q-17	C	Q-24	B	Q	A	Q-41	B	Q-52	A
Q-18	B	Q-25	N/A	Q-33	C	Q-42	A	Q-53	A
Q-19	B	Q-26	A	Q-34	C	Q-43	A	Q-54	A
Q-20		Q-27	B	Q-35	C	Q-44	A	Q-55	A
1		Q-28	C			Q-45	B	Q-56	A
2						Q-46	A	Q-57	A
3								Q-58	A
4	C								
5									

43) Surrounded to east by forested area.
Rest of areas impacted by residential developments.

Name of Drainage Basin CENTRAL COAST

Watershed Name	Square Miles	Average Slope	Stream Flow Modified by Dams	Active Diking Upstream	Dominant Land Use (Upstream)	Streams/Water Quality Limited	Non-Point Sources	Fisheries	S T E Fish Species	Wildlife Species	S T E Plant or Wildlife Species	Natural Corridor /Fish & Wildlife	Landscape Features/ Both Ends Corridor
North Depoe Bay Creek	.85	15-20%	C	No	Forestry	B	A	A, C, D	Steelhead Trout/ *Oncorhynchus mykiss* Coho salmon/ *Oncorhynchus kisutch*	A, C	B	A	B
South Depoe Bay Creek	.51	5-10%	C	No	Forestry	B	A	A, C, D	Steelhead Trout/ *Oncorhynchus mykiss* Coho salmon/ *Oncorhynchus kisutch*	A, C	B	B	B
Whale Cove	.42	0-7%	C	No	Forestry	B	A	F	No	A, C	B	B	B