CITY OF LAKESIDE

LOCAL WETLANDS INVENTORY

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FES Project 98111

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APPROVED WETLANDS INVENTORY
Oregon Division of State Lands
Meets LWI standards
Date 6/28/99 Approved by A. LaIKa

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LWD File

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June 28, 1999

Ms. Julie Anderson
Mayor
City of Lakeside
915 North Lake Road
Lakeside, Oregon 97459

Re: Approval of the Lakeside Local Wetlands Inventory and Assessment

Dear Ms. Anderson:

I am pleased to notify you that the Division of State Lands has approved your Local Wetlands Inventory (LWI) and assessment. We appreciate your working so closely with our staff and the wetland consultant to ensure that the inventory meets state LWI standards (OAR 141-86-180 to 240) and the city's needs.

Approval by the Division means that the LWI becomes a part of the Statewide Wetlands Inventory. The LWI and functional assessment form the foundation for your wetland planning under Statewide Planning Goal 5. Also, the LWI must now be used by the city instead of the National Wetlands Inventory for the Wetland Land Use Notification Process (ORS 227.350). The final requirement for the inventory is for the city to notify property owners with wetlands mapped on their property within 120 days of this approval.

While considerable effort has been made to accurately identify all wetlands within the study area, the Division approval does not guarantee that all regulated wetlands have been mapped. Exact wetland boundaries have not been staked or surveyed, and there are inherent limitations in mapping accuracy (e.g., some small non-wetland areas may be encompassed within the mapped wetlands). The Division advises that persons proposing land alteration on parcels containing mapped wetlands first contact the Division, or obtain a wetland boundary delineation by a qualified consultant and submit it to the Division for approval, prior to the land alteration.

We are pleased that the City of Lakeside has conducted a thorough wetlands inventory and has made wetland planning a high priority. We look forward to working with you and your staff as you continue on the Goal 5 wetland planning effort.

Sincerely,

Paul R. Cleary
Director

cc: John Lilly, DSL
Mike McCabe, DSL
Mirth Walker, Fishman Environmental
Jeff Weber, DLCD
Dave Perry, DLCD
Diane Butts, DLCD
Yvonne Vallette, EPA
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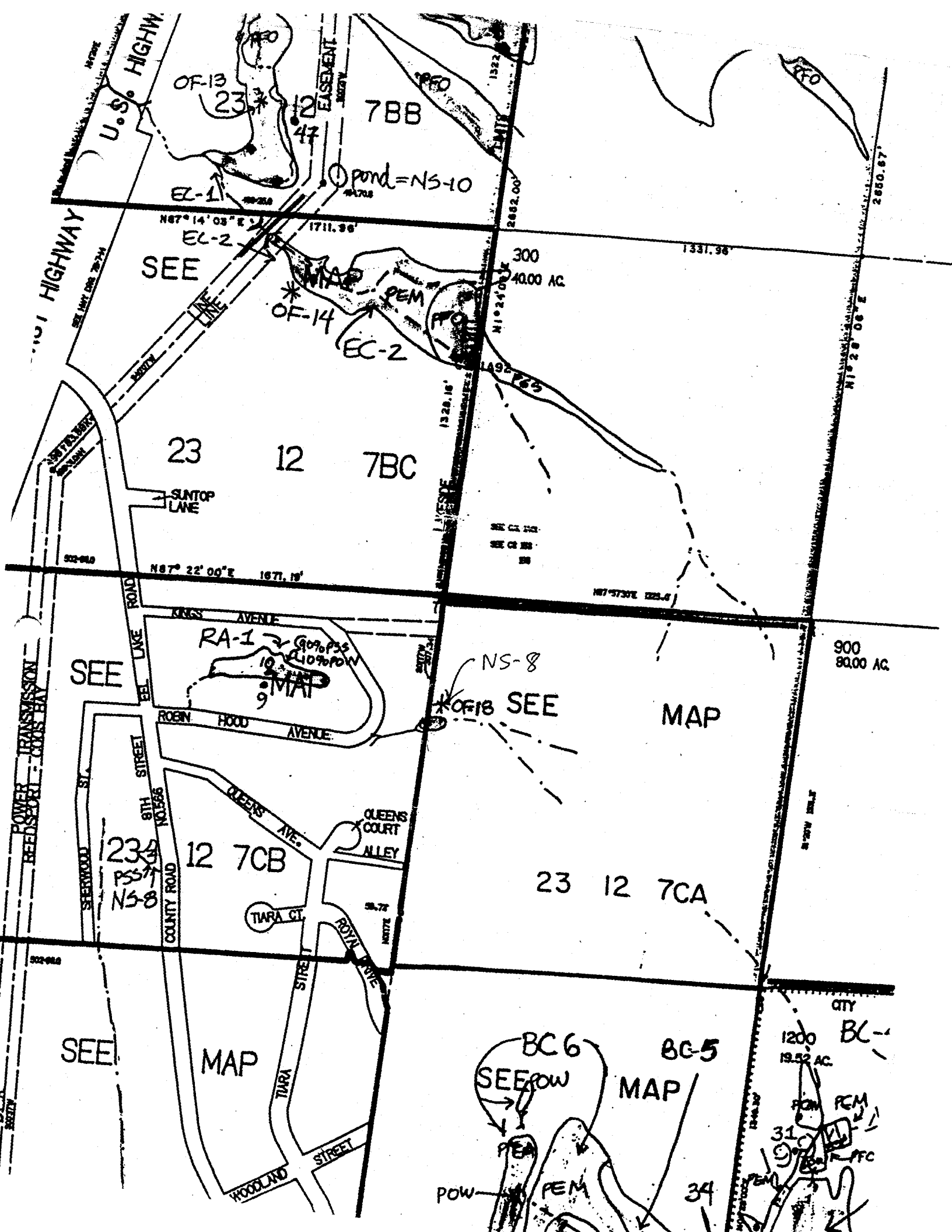
CITY OF LAKESIDE LOCAL WETLANDS INVENTORY TABLE OF NON-SIGNIFICANT WETLANDS (<0.50 ACRE)		
WETLAND	**APPROX. ACREAGE**	**LOCATION**
NS-1	0.24	North of TL-2 on County Park property (undeveloped portion, old mill site, part of old pond, Plot 20)
NS-2	0.08	West of TL-1 on County Park property (undeveloped portion, old mill site, part of an old pond)
NS-3	0.31	Northeast of CP-1 on County Park property (undeveloped portion, old mill site, per DSL review)
NS-4	0.03	North of TL-3, north of Park Avenue (school property, Plot 4)
NS-5	0.15	North of TL-4, north of Park Avenue (school property, road right-of-way, Plots 23 and 24)
NS-6	0.08	East of 11th St., north of North Lake Avenue, south of railroad, in residential area (Plot OF-3)
NS-7	0.14	Fringe along Tenmile Creek by Lakeshore Lodge Marina (Plot OF-10)
NS-8	0.08	North end of Airport landing, small scrub-shrub spirea wetland
NS-9	~~0.11~~	~~Pond above RA-1, to east, may drain north to EC-2 (per DSL review)~~
NS-10	0.06	Small isolated (stock-watering?) pond on property near EC-2 wetland

OMIT (does not exist)


U.S. HIGHWAY
OF-13
23
12
47
EASEMENT
7BB
PFO
Pond=NS-10
EC-1
EC-2
SEE
MAP
PEM
PFO
OF-14
EC-2
300
40.00 AC.
1331.96'
23
12
7BC
SUNTOP LANE
KINGS AVENUE
RA-1
60% PSS
10% POW
10%
MAP
9
NS-8
OF-18
SEE
MAP
900
80.00 AC.
ROBIN HOOD AVENUE
EEL LAKE ROAD
POWER TRANSMISSION
REEDSBURG - COOS BAY
8TH STREET
SHERWOOD
COUNTY ROAD
QUEENS AVE.
QUEENS COURT
ALLEY
23
12
7CB
PSS
NS-8
23
12
7CA
TIARA CT.
ROYAL AVENUE
TIARA STREET
WOODLAND STREET
SEE
MAP
BC 6
SEE POW
MAP
BC-5
POW
PEM
34
1200
19.52 AC.
PEM
PEM
PFO
PFC
31
9

4-15-94 B+W Photo

Aerial Photo and Vicinity Map

EXECUTIVE SUMMARY

An inventory of wetlands was conducted within the city limits, confluent with the urban growth boundary (UGB) of Lakeside, Oregon, as well as downstream areas of Tenmile Creek outside the UGB, and on the Coleman Arm of Tenmile Lake, outside the UGB.

A total of 37 wetlands were identified in the study area (21 wetlands within the city limits (5 of which were isolated), 4 wetlands in the Tenmile Creek study area boundary, with one wetland unit also counted within the UGB, and 13 wetlands in Coleman Arm on Tenmile Lake). Another 10 wetlands smaller than the minimum 0.5 acre size defined in the DSL rules for inclusion in an LWI were mapped in this study, but not assessed.

Approximately 337 acres of wetland were identified in this study: ~195 acres of wetland within the urban growth boundary; ~43 acres of wetland outside of the UGB within the Tenmile Creek Study Area Boundary; ~57 acres of wetland within the Coleman Arm Study Area Boundary (~37 acres of this is a large farmed wetland at the eastern end of Coleman Arm), and ~41 acres of wetland extending outside of the study areas (these connected wetlands outside the study area were mapped to meet the guidelines of the Oregon Freshwater Wetland Assessment Methodology).

Wetlands were combined where appropriate and assessed by OFWAM (25 assessments); all wetlands within the study area meeting the minimum LWI acreage requirement (0.5 acre or more) were determined to be significant, according to DSL guidelines. Each wetland unit had one or more of the following functions intact: wildlife habitat, fish habitat, water quality, or hydrologic control. Isolated wetlands less than 0.50 acre in size were not assessed and were assumed to be non-significant.

The results of this study are presented in the accompanying tables and appendices. Appendix 1 contains the wetland summary tables of acreage and habitat type, assessment results, non-significant wetland table, and list of affected tax lots. Appendix 2 contains the Wetland Summary Sheets with information about each wetland.

1 INTRODUCTION AND BACKGROUND INFORMATION

The City of Lakeside, Oregon contracted Fishman Environmental Services (FES) to conduct an on-site Local Wetlands Inventory (LWI) within the city limits / urban growth boundary (UGB) of Lakeside and an off-site LWI on a portion of Tenmile Creek downstream of the UGB and on the Coleman Arm of Tenmile Lake (Figure 1). This LWI fulfills the requirements of Oregon's Department of Land Conservation and Development (DLCD) Statewide Planning Goal 5.

Funding for this project was provided by a planning grant from the DLCD to the City of Lakeside for implementation of Goal 5, as part of the DLCD's Healthy Streams Grant Program. The purpose of these grants is to adopt programs to achieve Goal 5 as it relates to wetlands and riparian areas. Jurisdictions within areas subject to the *Oregon Plan for Salmon and Watersheds* were targeted for these grants, with highest priority given to areas subject to the coho salmon recovery plan. These funds may be used for tasks related to adoption of a program to achieve Goal 5 for riparian and/or wetland resources. In general, Goal 5 work involves at least: 1) a resource inventory; 2) an assessment of the resource; and 3) development and adoption of a local program to achieve Goal 5. The 1996 amendments to the Goal 5 rule include the option of adopting "safe harbor" regulations to protect riparian corridors; the safe harbor option highly simplifies the first two of these tasks (Weber 1998). The City of Lakeside provided in-kind services and staff support for this project.

The purpose of conducting a LWI is to evaluate the wetland resources within the study area and to aid the City and its citizens in making well-informed planning decisions. The inventory information will enable the City to complete the planning decisions required by Goal 5. Local wetland inventories also provide better information for land owners and the local jurisdiction than the National Wetlands Inventory maps, and local wetland inventories approved by the Division of State Lands (DSL) are incorporated into the statewide wetland inventory. Local wetland inventories are, however, not of sufficient detail for regulatory certainty under the State Removal-Fill Law (on-site wetland boundary delineations will need to be conducted on sites prior to alteration of wetlands through the state- and federally-regulated wetland fill permit process). This LWI was conducted according to the DSL LWI Standards and Guidelines (OAR 141-86-180 to 141-86-240, revised 12/15/94).

Field work for the LWI was conducted on November 20, 21, and 22, 1998 and March 2, 3, and 4, 1999 by Mirth Walker and Stacy Benjamin of Fishman Environmental Services. A public meeting to introduce the project was held on November 19, 1998. The aerial photographs with the clear plastic acetate overlay with draft wetland mapping and the draft OFWAM results were given to DSL on April 5, 1999 for use in the riparian inventory, and a complete set of draft LWI products were given to DSL on April 21, 1999. A second public meeting to present the draft results of the inventory and assessment was held May 13, 1999. DSL returned the draft products with review comments on May 27, 1999. The LWI products were finalized the week of June 1, 1999.

A riparian inventory was conducted independently of the LWI by the DSL and the Tenmile Lake Watershed Council. Riparian corridors generally include streams and stream-side vegetation, and riparian areas are defined as "the area adjacent to a river, lake, or stream, consisting of the area of transition from an aquatic ecosystem to a terrestrial ecosystem" (LCDC, 1996).

1.1 Wetland Definition and Identification

Wetlands are defined as 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 (Environmental Laboratory, 1987). In other words, wetlands typically display three wetland criteria: a predominance of hydrophytic (wetland) vegetation, the presence of hydric (wet) soils, and wetland hydrology (ponding or near-surface saturated soils for at least 5 percent of the growing season; typically just over two consecutive weeks anytime from January 29 to the following January 3 for the Lakeside area; USDA SCS 1989a).

Wetlands were identified based on the methodology contained in the 1987 *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory, 1987). Wetlands generally include swamps, marshes, bogs, and similar areas, but may also include seasonally wet meadows, farmed wetlands and other areas that may not appear "wet" year round. On-site sampling occurred within the City's UGB where permission to access the property was received. Where access was denied, off-site observations were made of vegetation, habitat type, drainage patterns, and current land use. Soils and subsurface hydrology data were not recorded in off-site sampling procedures.

Although every effort has been made to identify all wetland resources with the City's UGB, there is no guarantee that all wetlands have been mapped. Minimum wetland size identified under LWI rules is 0.5 acre; several smaller wetlands were noted within the city limits and were mapped, but not fully described.

1.2 Sample Plots

Numbered sample plot locations shown on the wetland inventory maps represent sampling locations in the field, where on-site vegetation, soils, and hydrology information were documented on wetland determination data sheets. Off-site data sheets were completed for areas outside the UGB and for areas within the UGB where access to properties was denied by the landowner. Off-site data sheets are identified with the prefix OF, and numbered consecutively. Areas were determined to be wetland or upland based on the 1987 Corps of Engineers Wetlands Delineation Manual methodology and subsequent guidance from DSL and the Corps. Wetland determination data sheets are included in Appendix 3.

1.3 Wetland Mapping

Wetlands were field-mapped on clear acetate overlays of color aerial photographs dated May 18, 1997, at a scale of 1 inch = 400 feet (BLM/WAC; The Coleman Arm aerials were flown on May 18 and June 19, 1997.). Wetland areas mapped on the aerial photograph were traced by hand, scanned and exported as bit-map files (.bmp), and digitized using Canvas™ Version 6.0 to calculate wetland acreage. The digitized files have not been rectified and incorporate the curvature error of the aerial photograph (the photographs were not ortho-rectified to correct for the curvature of the earth's surface, nor were they digitized).

Wetland boundaries and sample plot locations were then mapped by hand on tax lot maps by hand-warping the aerially mapped wetland on the tax lot index maps at the same scale as the aerial photographs (1 inch = 400 feet). The index map was then enlarged 200% on a photocopier and wetland boundaries were traced on the 1/4 section tax lot maps (A, B, C, and D), at a scale of 1 inch = 200 feet. These enlargements were then enlarged once again at 200% and the wetland boundaries were traced on the 1/4 of a 1/4 tax lot maps (AA, AB, AC, AD, BB, BA, BC, BD, CA, CB, CC, CD, DA, DB, DC, and DD) at 1 inch = 100 feet. (Note: not all sections have 1/4 tax lot maps; not all sections have 1/4 of a 1/4 tax lot maps). Mapping (and acreage calculation) is not exact, but should be within the tolerance limits of LWI standards.

No digitized parcel base map is currently available for the City of Lakeside. Bill Downing of the Lakeside Planning Commission has recently digitized the tax lot maps as graphics files (.gif) and as CorelDraw™ (.cdr) files. Combining the individual tax lot maps into one map (to make a base map) contains the challenge of piecing together maps at different scales, with some tax lot information contained on the Section index map, some on the 1/4 Section map, and some on the 1/4 of a 1/4 Section map.

The following charts may facilitate the use of the tax lot maps, which are based on the Township (south and north line), Range (east and west line), and Section location information of the Willamette Meridian. The bold Section numbers represent Sections included in the study area. Each Section is one square mile and comprises 640 acres.

T23S R13W SECTIONS						**T23S R12W SECTIONS**					
6	5	4	3	2	1	**6**	5	4	3	2	1
7	8	9	10	11	**12**	**7**	8	9	10	11	12
18	17	16	15	**14**	**13**	**18**	**17**	16	**15**	**14**	**13**
19	20	21	22	23	**24**	19	20	**21**	**22**	**23**	**24**
30	29	28	27	26	25	30	29	28	27	26	25
31	32	33	34	35	36	31	32	33	34	35	36

Tax lot maps divide the section into quarters based on a letter designation of A = NE; B = NW; C = SW; and D = SE.

NW	NE
SW	SE

=

B	A
C	D

Each quarter section is further divided into quarters:

NW	NE	NW	NE
SW	SE	SW	SE
NW	NE	NW	NE
SW	SW	SW	SE

=

B	A	B	A
C	D	C	D
B	A	B	A
C	D	C	D

As an example of this location system, a tax lot found in T23S, R13W, in the SE 1/4 of the NE 1/4 of Section 18 is located on tax lot map 23 12 18AD. The index map for the section is 23 12 18, and the index map for the 1/4 section is 23 12 18A.

1.4 Wetland Summary Sheets

Wetland summary sheets include a general description of the wetland site, street location, approximate wetland acreage (within the UGB or off-site study area only), Township, Range and Section, drainage basin, date of field work, tax lots, zoning, National Wetlands Inventory classification, hydrologic source, mapped and sampled soils, dominant vegetation, wetland boundary information, important wetland functions, and local significance (see Appendix 2).

1.5 Wetland Assessment

Wetlands were assessed using the *Oregon Freshwater Wetland Assessment Methodology* (OFWAM; Roth et al., 1993, revised 1996, and 1997 supplement), which evaluates wetland functions and values relative to other wetlands within the study area. A summary table of the results of the OFWAM assessment is included in Appendix 1. Oregon Freshwater Wetland Assessment Methodology summary sheets are included in Appendix 4; OFWAM assessment questions and characterization worksheets, including specific information about Lakeside are in Appendix 5; and supplemental OFWAM information regarding wetland functions and values is included in Appendix 6.

Assumptions made for applying OFWAM in this study include the following:

1) upslope logged forest areas were considered an agricultural land use.
2) wetlands on North Tenmile Lake (Unit BC-1 only), Tenmile Lake, and Coleman Arm had an open water / aquatic bed component, but the acreage of the lake was not included in calculating the type of habitat present within the wetland complex (Question 21 of the wetland characterization); the lake was counted as >3 acres open water present in Question 28 of the wetland characterization.
3) areas zoned as recreational residential (RR) were considered open space if no development was present (Question 20).
4) the airport was considered open space.

5) units which include wetland areas which extend outside the UGB, and units outside the UGB on Tenmile Creek, were treated as urban areas. Areas outside the UGB on Coleman Arm were treated as rural areas (used Questions 25 and 51).

1.6 Locally Significant Wetlands

After completing the OFWAM assessment, the DSL criteria for "Locally Significant Wetlands (LSWs)" were applied according to the DSL *Administrative Rules for Identifying Significant Wetlands* (OAR 141-86-300 to 141-86-350, effective January 1, 1997).

Assessed wetland functions determine significance. If the wetland provides diverse wildlife habitat, has intact fish habitat, intact water quality, or intact hydrologic control, then the wetland is significant according to the Locally Significant Wetland criteria developed by the Division of State Lands.

Wetlands can also be considered significant if they:

1) score in the second highest functional category for water quality (impacted or degraded), and they occur within ¼ mile of a water quality-limited stream listed by DEQ.

2) contain one or more rare/uncommon wetland plant communities in Oregon (most concise list is found as Appendix G in OFWAM), or optionally at the local jurisdiction's discretion that they represent a *locally* unique plant community. Note: Vegetation noted during this inventory is shown in Appendix 7.

3) are inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation with USFWS, NMFS, or ODFW deems the site not important for the maintenance of the species).

4) score in the second highest functional category for fish habitat (impacted or degraded), and have a surface water connection to a stream segment that is mapped by ODFW as habitat for "indigenous anadromous salmonids."

5) optionally at the local jurisdiction's discretion that they rate in the highest category for education potential (wetlands must be publicly owned to rank in the highest category in OFWAM) and there is documented use for educational purposes by a school or organization.

Wetlands that are automatically not significant include wetlands that were artificially created entirely from upland, and were created for the purpose of controlling, storing, or maintaining stormwater; for active surface mining or active log ponds; are ditches without free and open connection to a water of the State and without fish; are < 1 acre and unintentionally created from an irrigation leak or construction activity; or were created for the purpose of wastewater treatment, cranberry production, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard. Other automatically non-significant wetlands include those documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites").

2 STUDY AREA

The City of Lakeside is located approximately 11 miles north of Coos Bay / North Bend, approximately 15 miles south of Reedsport, and approximately 2 miles east of the ocean beaches and dunes (Oregon Dunes National Recreation Area) in Coos County, Oregon. The northern city boundary is contiguous with William M. Tugman State Park. North Tenmile and Tenmile lakes form the eastern boundary of the city limits and urban growth boundary. The lakes are joined by North Lake Canal. Tenmile Creek flows out of Tenmile Lake to the Pacific Ocean approximately four miles to the west.

The economy of Lakeside was historically based on the timber industry, and presently much of the activity in Lakeside centers around recreation. Many Lakeside residents commute to Coos Bay / North Bend for employment and the community has a growing retirement population. The current population of Lakeside is 1,754.

The City of Lakeside city limits / urban growth boundary encompasses approximately 2.4 square miles (1,540 acres, see Figure 1). It is estimated that approximately 300 acres of Tenmile Lake is located within the City's UGB. The two off-site study areas are the Tenmile Creek drainage downstream of the UGB to the Oregon Dunes National Recreation Area in the Suislaw National Forest, and approximately 1000 feet above the shoreline along the Coleman Arm of Tenmile Lake, including the wetland area at the eastern end of Coleman Arm.

The current zoning map for the City of Lakeside is shown in Figure 2.

2.1 Climate

Lakeside has a temperate marine climate with typically mild temperatures, wet winters, and dry summers. Average annual precipitation is approximately 70 inches (FEMA 1984a). Approximately 80 percent of the rainfall occurs between October and March. Daily records available from the City of Lakeside reveal that total rainfall in 1997 was 68.23 inches and total rainfall in 1998 was 82.1 inches.

The growing season is nearly year-round with 335 frost free days; the growing season is estimated by the freeze dates of 28°F on January 3rd in the fall and on January 29th in the spring, for the North Bend area (USDA SCS 1989a).

2.2 Waterbodies

The Tenmile Lakes system is naturally formed, by coastal submergence and advancing sand dunes cutting off the outflow through a series of geological events (Johnson et al. 1985). North Tenmile Lake is connected to Tenmile Lake via the Tenmile Lake Canal (also called the North Lake Canal). According to a document prepared for the Tenmile Lake Canal Dredging project in 1997 by Teresa Danovich of the Oregon State Marine Board (see DSL Det. #97-0093 and RF-12248), the original channel was a winding slough that drained North Tenmile Lake into the south lake. Anecdotal evidence suggests that the slough was straightened and dredged initially in 1911 by the US Post

Office to form the existing channel for use by boats. It was dredged every 10-15 years to maintain a minimum navigation channel. The channel provides access to North Tenmile Lake for recreational users as well as to residential properties (there is no road access to much of North Tenmile Lake). Tenmile Lake is drained by Tenmile Creek, which flows west to the Pacific Ocean, receiving the flows of Eel Creek and Saunders Creek.

Stream drainages within the study area include Bowron Creek (tributary to North Tenmile Lake), Eel Creek (tributary from Eel Lake to Tenmile Creek), Clear Creek (tributary to Eel Lake), and Benson Creek in the Coleman Arm of Tenmile Lake. Saunders Creek enters Tenmile Creek near the southwestern edge of the study area.

2.3 Subbasins and Drainage Area

There are four subbasins with the Tenmile Lakes system: Tenmile and North Tenmile Lakes, Tenmile Creek, Eel Creek, and Saunders Creek. Coleman Arm is part of Tenmile Lake. Figure 3 shows the watershed drainage basins within the study area boundary.

Tenmile Lake covers approximately 1,627 acres (Johnson et al. 1985), and has a drainage area of approximately 70.6 square miles (FEMA 1984a). North Tenmile Lake covers approximately 1,098 acres and drains a watershed of approximately 29.0 square miles. Tenmile Creek flows west for 5.1 river miles before entering the Pacific Ocean, with about 1.2 miles of creek within the city limits. Above the Wildwood Drive bridge and the confluence of Tenmile and Eel Creeks, Tenmile Creek drains approximately 71.2 square miles. Eel Lake, north of the city limits, covers 355 acres and drains an area of 10 square miles (Eel Lake is also the source of drinking water for the City of Lakeside). Eel Creek flows south out of Eel Lake and crosses Highway 101 several times before joining Tenmile Creek west of Highway 101 and Wildwood Drive in the southwest area of the UGB. Saunders Creek, located south of the city, drains a large area south of the city, and joins Tenmile Creek.

2.4 Topography and Floodplain

The central portion of the City is located on relatively level terrain, with steep slopes surrounding residentially-developed areas and the lakes' shoreline away from the downtown area. Some houses are currently being built on relatively steep slopes in the north central portion of the city. Slopes above and below 30% within the City are shown in Figure 4. The Lakeside, Oregon and Trail Butte, Oregon USGS topographic maps are shown in Figure 1.

Much of Lakeside is located within the 100 year floodplain, including most areas south of North Lake Avenue and the western and eastern portions of the city south of the railroad tracks. One area of 100 year floodplain extends north of the railroad tracks in the eastern part of the city (Bowron Creek area). The 100 year floodplain elevation has been determined to be at an elevation of 20.2 feet (NGVD 1929) above mean sea level for the majority of the city, with the elevation decreasing to 19.5 feet on Tenmile Creek west of the sewage treatment plan, west of 2nd Avenue (FEMA 1984a and b; see Figure 5). The floodway on Tenmile Creek is shown in Figure 6 (it should be noted that the floodway concept does not apply to lake systems (areas of lacustrine flooding), so the floodway along Tenmile Creek ends at the outlet of Tenmile Lake (FEMA 1984b).

2.5 National Wetland Inventory

The National Wetlands Inventory maps of the study area are shown in Figure 7. A previous study (Kelsey and Martin Resource Analysts 1990) reviewed the 19 wetlands mapped on the National Wetland Inventory maps, prepared maps of the wetlands, and identified associated tax lot maps. National Wetland Inventory maps are prepared by stereoscopic analysis of high altitude aerial photographs, often taken during the summer. Wetlands are identified on the photographs based on vegetation, visible hydrology, and geography, often representing conditions during the specific year and season when they were taken. Small wetlands and those obscured by dense forest cover may be missed, and agricultural wetlands are not usually mapped. Upland areas are sometimes indicated on the maps with the symbol Ʊ.

The National Wetlands Inventory classifies wetlands according to the Cowardin et al. (1979) system, which identifies systems of wetlands and deepwater habitats, and subsystems, classes, subclasses, and vegetation dominance types. Modifiers are then applied to describe water regime, water chemistry, and soils. Special modifiers describe wetlands and deepwater habitats that have been either created or highly modified by man or beavers.

Lakeside has three systems of wetlands and deepwater habitats: Riverine, Lacustrine, and Palustrine. Riverine (river) systems (R) include all wetlands and deepwater habitats contained within a channel, with two exceptions: 1) wetlands dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens, and 2) habitats with water containing ocean-derived salts in excess of 0.5‰. Riverine subsystems include tidal, lower perennial (the gradient is low and water velocity is slow), upper perennial (the gradient is high and water velocity is fast), and intermittent (the channel contains flowing water for only part of the year).

Lacustrine (lake) systems (L) include wetlands and deepwater habitats with all of the following characteristics: 1) situated in a topographic depression or a dammed river channel; 2) lacking trees, shrubs, persistent emergents, emergent mosses or lichens with greater than 30% areal coverage; and 3) total area exceeds 20 acres (8 hectares). Areas less than 20 acres are included if an active wave-formed or bedrock shoreline feature makes up all or part of the boundary, or if the water depth in the deepest part of the basin exceeds 6.6 feet (2 meters) at low water. Lacustrine subsystems include limnetic (deepwater habitats greater than 6.6 feet in depth) and littoral (wetlands to a depth of 6.6 feet below low water or to the maximum extent of nonpersistent emergents, if these grow at depths greater than 6.6 feet).

Palustrine systems (P) include all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5‰. It also includes wetlands lacking such vegetation, but with all of the following characteristics: 1) area less than 20 acres; 2) active wave-formed or bedrock shoreline features lacking; 3) water depth in the deepest part of basin is less than 6.6 feet at low water; and 4) salinity due to ocean-derived salts is less than 0.5‰. Palustrine wetlands may occur in the channel of riverine systems. The Palustrine system was developed to group the vegetated wetlands traditionally called by such names as marsh, swamp, bog, fen, and wet prairie, and it also includes the small, shallow, permanent or intermittent water bodies often called ponds. The Palustrine system has

no subsystems. Classes include Rock Bottom, Unconsolidated Bottom, Aquatic Bed (AB), Unconsolidated Shore, Moss-Lichen Wetland, Emergent Wetland (EM), Scrub-Shrub Wetland (SS), and Forested Wetland (FO).

The definition of the Palustrine wetland classes found in Lakeside include the following:

PFO = Forested: Dominated by woody vegetation 20 feet (6 meters) tall or taller.

PSS = Scrub-Shrub: Dominated by woody vegetation less than 20 feet (6 meters) tall.

PEM = Emergent: Dominated by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years, and is usually dominated by perennial plants.

PAB = Aquatic Bed: Dominated by plants that grow principally on or below the surface of the water for most of the growing season in most years. Plants are either attached to the substrate or float freely in the water above the bottom or on the surface.

POW = Open Water: Areas of open water where there are no emergent, submergent, or floating vegetation (OFWAM Appendix D); or areas of water less than 6.6 feet deep, where submerged or floating-leaved plants often inhabit the shallower portions along the edges of the body of water (OFWAM Glossary).

Open Water is not a Cowardin classification but is used on National Wetland Inventory maps and in OFWAM. For purposes of this inventory, the Aquatic Bed and Open Water classifications have been combined (POW/PAB).

Water Regime Modifiers are described as follows:

A = Temporarily Flooded: Surface water is present for brief periods during the growing season, but the water table usually lies well below the soil surface for most of the growing season. Plants that grow both in uplands and wetland are characteristic of the temporarily flooded regime.

B = Saturated: The substrate is saturated to the surface for extended periods during the growing season, but surface water is seldom present.

C = Seasonally Flooded: Surface water is present for extended periods, especially early in the growing season, but is absent by the end of the season in most years. When surface water is absent, the water table is often near the land surface.

F = Semipermanently Flooded: Surface water persists throughout the growing season in most years. When surface water is absent, the water table is usually at or very near the land surface.

H = Permanently Flooded: Water covers the land surface throughout the year in all years. Vegetation is composed of obligate hydrophytes.

K = Artificially Flooded: The amount and duration of flooding is controlled by means of pumps or siphons in combination with dikes or dams. The vegetation growing on these areas cannot be considered a reliable indicator of water regime. Examples of artificially flooded wetlands are some agricultural lands managed under a rice-soybean rotation, and wildlife management areas where forest, crops, or pioneer plants may be flooded or dewatered to attract wetland wildlife. Neither wetlands within or resulting from leakage from man-made impoundments, nor irrigated pasture lands supplied by diversion ditches or artesian well, are included under this modifier.

Special Modifiers include the following:

b = beaver: Beaver dam present in wetland or stream area.

d = partly drained: The water level has been artificially lowered, but the area is still classified as wetland because soil moisture is sufficient to support hydrophytes. Drained areas are not considered wetland if they can no longer support hydrophytes.

h = diked/impounded: Diked: Created or modified by a man-made barrier or dike designed to obstruct the inflow of water; Impounded: Created or modified by a barrier or dam which purposefully or unintentionally obstructs the outflow of water. Both man-made dams and beaver dams are included (this has been modified: "b" signifies beaver dam).

x = excavated: Lies within a basin or channel excavated by man. (This includes a linear channelization of a natural stream channel.)

f = farmed: The soil surface has been mechanically or physically altered for production of crops, but hydrophytes will become reestablished if farming is discontinued.

p = pasture: Planted to 1 species of grass

Lakeside has the following mapped wetland classifications:

R2ABH = Riverine Lower Perennial Aquatic Bed Permanently Flooded.
R2UBH = Riverine Lower Perennial Unconsolidated Bottom Permanently Flooded.
R4SBA and C = Riverine Intermittent Streambed Temporarily Flooded and Seasonally Flooded.
L1UBH = Lacustrine Limnetic Unconsolidated Bottom Permanently Flooded.
L2ABH = Lacustrine Littoral Aquatic Bed Permanently Flooded.
PFOA = Palustrine Forested Temporarily Flooded.
PSSA and C = Palustrine Scrub-Shrub Temporarily Flooded and Seasonally Flooded.
PEMC and F = Palustrine Emergent Seasonally Flooded and Semipermanently Flooded.
PEMCh = Palustrine Emergent Seasonally Flooded Diked/Impounded.
PUBHh = Palustrine Unconsolidated Bottom Permanently Flooded Diked/Impounded.

PUBHx and Kx = Palustrine Unconsolidated Bottom Permanently Flooded Excavated and Artificially Flooded Excavated.

In addition to these, Coleman Arm has:

L2USC = Lacustrine Littoral Unconsolidated Shore Seasonally Flooded.
PABFh = Palustrine Aquatic Bed Semipermanently Flooded Diked/Impounded.

2.6 Soils

Soils mapped in the Lakeside area by the USDA Soil Conservation Service, now known as the Natural Resources Conservation Service, include the following (USDA SCS 1989a, 1989b):

Hydric (Wet) Soils
Heceta fine sand (unit 28), poorly drained, hydric
Yaquina loamy fine sand (unit 64), somewhat poorly drained, hydric
Willanch fine sandy loam (unit 62), poorly drained, hydric
Nestucca-Willanch Complex (unit 42), hydric
Waldport-Heceta fine sands, 0-30% slopes (unit 61D), hydric

Non-Hydric Soils (some with hydric inclusions)
Nestucca silt loam (unit 41), somewhat poorly drained, with hydric inclusions of Langlois, Coquille and Chetco soils
Waldport fine sand, 0-30% and 30-70% slopes (unit 59D, E), excessively drained, with hydric inclusions of Heceta soils
Bullards sandy loam, 12-30% and 30-50% slopes (unit 8D and E), well drained; unit 8D has hydric inclusions of Blacklock soils
Salander silt loam, 2-30% and 30-50% slopes (unit 52D and E), well drained
Templeton silt loam, 7-30% and 30-50% slopes (unit 54D and E), well drained
Millicoma-Templeton Complex, 50-75% slopes (unit 39F)
Dune Land (unit 16), with hydric inclusions of Heceta soils

The majority of the soils mapped within the study area are hydric, and almost all of the other soils within the city limits that are not listed as hydric may have inclusions of hydric soils (see Figure 8). Several drainages into the Coleman Arm are hydric; the remainder of the surrounding soils are very steep, with slopes ranging from 30 to 75%. (Coleman Arm also has Nehalem silt loam (40) with Coquille and Langlois hydric inclusions, and Preacher-Bohannon Loams, 3-30% slopes (46D).) Appendix 8 shows typical profiles for the soils mapped in the study area.

2.7 Vegetation

Vegetation noted during the inventory is included in Appendix 7. This table lists the scientific and common name, wetland indicator status, and whether the plant was found in a wetland or an upland habitat.

No threatened or endangered plant species were noted during our study. However, there may be occurrences of the non-listed lichen (*Pseudocyphellaria mougeotiana*) on bristly manzanita (*Arctostaphylos columbiana*) near the western boundary of the UGB (no federal or state status could be determined for this plant; it was listed in the Oregon Natural Heritage Database report for the area). An earlier report also documents the Oregon Natural Heritage Program S1-listed (critically imperiled in Oregon) whorled marsh pennywort (*Hydrocotyle verticillata*) on arms of Tenmile Lake outside our study area (this plant has no state or federal status).

2.8 Fish and Wildlife

The City of Lakeside Comprehensive Plan (1995) lists the following species within the Tenmile Lakes system:

bluegill	resident rainbow trout
brown bullhead catfish	searun cutthroat trout
largemouth bass	coho salmon
winter steelhead	sculpin
threespine stickleback	Pacific lamprey

The Tenmile Lakes system is home to the threatened coastal runs of coho salmon (Tenmile Creek, Tenmile Lake, North Tenmile Lake, Benson Creek in Coleman Arm, Eel Creek, Clear Creek, and Saunders Creek). Coho were observed in Saunders Creek during our spring visit (12 or more adults). Candidate winter steelhead and candidate searun coastal cutthroat trout are also potentially found in Tenmile Creek, Tenmile Lake, North Tenmile Lake, Eel Creek, and Saunders Creek.

For a history of fishing in the Tenmile Lakes we refer the reader to Johnson et al. (1985).

Common mammals found in the area (City of Lakeside 1995) include:

Roosevelt elk	black tail deer	black bear
river otter	beaver	racoon
mink	weasel	skunk
porcupine		

Common waterfowl include mallard, coot, teal, and widgeon. Osprey and great blue heron are also common, and ospreys are reported to nest in living conifers near the water's edge.

Two threatened and endangered species potentially occur within the study area: the threatened bald eagle (*Haliaeetus leucocephalus*) in the Tenmile Lakes system, and the threatened western snowy plover (*Charadrius alexandrinus nivosus*), to the west of the study area in the Oregon Dunes National Recreation Area. The federal species of concern and the state sensitive-critical northwestern pond turtle (*Clemmys marmorata marmorata*) may occur in the Tenmile Creek system. The state sensitive-critical purple martin (*Progne subis*) may occur in the Tenmile Lakes system

A list of fish and wildlife noted during our study is included in Appendix 9.

2.9 Water Quality

Tenmile Lake and North Tenmile Lake have a history of water quality problems, mainly aquatic weeds and algae. South American waterweed (*Elodea densa*), a Class B noxious weed, has become a nuisance problem, and educational signs and brochures have been posted at the Lake and at City Hall. Signs are also posted for hydrilla (*Hydrilla verticillata*), a Class A noxious weed.

No other lakes or streams within the study area are listed as water quality limited (see DEQ references). Reviewing the non-point source pollution information, several areas have moderate water quality conditions of sedimentation (Tenmile Creek and Clear Creek), habitat modification (Benson Creek on Coleman Arm), nutrients, Dissolved Oxygen (DO), and aquatic weeds & algae (Tenmile Lake and North Tenmile Lake) and temperature (Tenmile Lake). No data is available for Eel Creek (it should be noted that Eel Lake has severe data for pH near the water intake structure for the City of Lakeside), Bowron Creek, or Saunders Creek.

2.10 Historical and Archaeological Characteristics

Lakeside has a limited number of buildings of historical significance and a few significant historical sites (City of Lakeside 1995), although no archaeological sites have been discovered in or near Lakeside. The Coos Indian Tribe had a seasonal camp site near the Lakeshore Lodge, near the mouth of Tenmile Creek on Tenmile Lake and a second camp was reported near the confluence of Tenmile Creek and Eel Creek.

The Soil Survey for Coos County (USDA SCS 1989a) tells of the Lower Umpqua Indians inhabiting the area north of Tenmile Lake. The Hanis Indians are reported to extend from Tenmile Lake to the vicinity of Empire, on Coos Bay.

Many tribe members, and early settlers of the area, are buried in the cemetery located east of Wildwood Drive in the southwestern portion of the city.

3 RESULTS

A total of 37 wetland units were identified in the study area (21 wetlands within the city limits (5 of which were isolated), 4 wetlands in the Tenmile Creek study area boundary, with one wetland unit also counted within the UGB, and 13 wetlands in Coleman Arm on Tenmile Lake). The following wetland units were identified within the study area (both inside and outside of the UGB):

BOWRON CREEK (BC) WETLANDS

- BC-1: Wetlands from North Tenmile Lake to Railroad track, east of Willow Creek RV Park (extends slightly outside UGB).
- BC-2: North of railroad tracks, disturbed by grazing (offsite).
- BC-3: North of BC-2, disturbed by grazing and soil removal and erosion (offsite).
- BC-4: North of Rugh Lane, small ponds with surrounding PSS/PFO wetlands, connected by narrow drainages.

BC-5: West of Rugh Lane, forested wetlands connected to BC-6.
BC-6: East of Fern Lane (and west of Rugh Lane), small ponds with surrounding PEM grazed/mowed wetlands (offsite); connected to BC-5. (Note: BC-5 and BC-6 combined on summary sheet after OFWAM completed.)

TENMILE LAKE (TL) WETLANDS

TL-1: Large size wetland area at Osprey Point RV Resort and North Lake Canal (offsite).
TL-2: Scrub-shrub fringe between Osprey Point RV Resort and Tenmile Lake County Park.
TL-3: Tenmile Lake County Park.
TL-4: Pier Condos (offsite) and Lakeshore Lodge property.
Note: TL-2, TL-3, and TL-4 were combined into one unit for assessment purposes; these are all small wetlands along Tenmile Lake with developed surrounding landuse.
TL-5: Wetland across Tenmile Lake, more rural, less developed surrounding landuse, with beaver pond above Devore Arm road (extends outside UGB).

TENMILE CREEK (TC) WETLANDS

TC-1: Wetlands on either side of creek near sewage treatment plant, also includes offsite wetland areas to the west that are outside of the UGB.
TC-2: North of railroad, west of airport. Separated from TC-1 because very disturbed, different habitat (offsite).
TC-3: Forked drainage below Hilltop Drive, connected to Tenmile Creek opposite the sewage treatment plant (extends outside UGB).
TC-4: Drainage crossing Highway 101 south of south entrance (offsite; outside UGB, extends outside study area boundary (SAB)).
TC-5: Saunders Creek (at Spinreel Campground; outside UGB, extends outside SAB).

EEL CREEK (EC) WETLANDS

EC-1: Wetland adjacent to Eel Creek (feeds out of Eel Lake), north of EC-2. Includes large area east of UGB.
EC-2: North and East of Bonneville Road (offsite; extends outside UGB).
EC-3: West of Highway 101, between south entrance to Lakeside and Wildwood Drive (offsite, outside UGB, extends outside of SAB).

CLEAR CREEK (CC) WETLAND

CC-1: Clear Creek wetland (swamp), outflow tributary feeds into Eel Lake (extends outside UGB).

COLEMAN ARM, TENMILE LAKE (CA) WETLANDS

CA-1 through CA-12: Steep drainages into Coleman Arm, grouped together (offsite; outside UGB).
CA-13: Large emergent mowed/grazed and ditched agricultural wetland at head; includes Benson Creek (offsite; outside UGB).

ISOLATED WETLANDS

BC-1A: West of BC-1 (Willow Creek RV Resort) on North Lake Resort property.

CP-1: County Park east of parking lot (not connected to Tenmile Lake).
CP-2: County Park west of Osprey Point RV Resort.
RA-1: Robinhood Avenue and Kings Avenue.
SP-1: Tugman State Park (extends outside UGB).

NON-SIGNIFICANT WETLANDS
Additional isolated wetlands exist within the study area but are smaller than the minimum 0.5 acre size defined in the DSL rules for inclusion in an LWI (NS-1 through NS-10; see table in Appendix 1). These smaller wetlands were mapped but not assessed nor included in the total number of wetlands identified within the study area boundary. Some of these wetlands have wetland determination data sheets (on and/or off-site) and some do not; a few were added per the DSL review of the draft LWI products.

3.1 Wetland Acreage

Approximately 337 acres of wetland were identified in this study: ~195 acres of wetland within the urban growth boundary; ~43 acres of wetland outside of the UGB within the Tenmile Creek Study Area Boundary; ~57 acres of wetland within the Coleman Arm Study Area Boundary (~37 acres of this is a large farmed wetland at the eastern end of Coleman Arm), and ~41 acres of wetland extending outside of the study areas (these connected wetlands outside the study area were mapped to meet the guidelines of the Oregon Freshwater Wetland Assessment Methodology).

The tables below show the types of wetland within the city limits and within the off-site study areas, the acreage, and the percent by habitat type. The open water / aquatic bed category does not include Tenmile Lake or North Tenmile Lake acreage within the city limits.

WETLANDS IN LAKESIDE CITY LIMITS / URBAN GROWTH BOUNDARY		
WETLAND TYPE	**APPROX. ACREAGE**	**PERCENT**
FORESTED	33.66	17
SCRUB-SHRUB	99.25	51
EMERGENT	51.29	26
OPEN WATER / AQUATIC BED	10.63	6
TOTAL	194.82	100

WETLANDS OUTSIDE LAKESIDE CITY LIMITS: TENMILE CREEK OFF-SITE STUDY AREA		
WETLAND TYPE	**APPROX. ACREAGE**	**PERCENT**
FORESTED	4.44	5
SCRUB-SHRUB	30.13	70
EMERGENT	6.69	15
OPEN WATER / AQUATIC BED	4.44	10
TOTAL	43.38	100

WETLANDS OUTSIDE LAKESIDE CITY LIMITS: COLEMAN ARM OFF-SITE STUDY AREA		
WETLAND TYPE	**APPROX. ACREAGE**	**PERCENT**
FORESTED	5.83	10
SCRUB-SHRUB	7.78	14
EMERGENT	42.24	74
OPEN WATER / AQUATIC BED	1.52	3
TOTAL	57.37	100

Wetland acreage and habitat type of individual wetland units are shown in the acreage classification and percent by habitat summary table in Appendix 1.

3.2 Wetland Assessment

A few wetland units were grouped together for OFWAM assessment (TL-2, TL-3 and TL-4; and CA-1 through CA-12). All other wetland units and the isolated wetlands were assessed separately. Units were defined based on association with named lakes and streams, connection to each other, similar surrounding and upslope land use practices, and disturbance. Units BC-5 and BC-6 were grouped together after assessment since they scored the same and are connected (they were originally separated due to different land use practices and disturbance levels). A total of 25 wetland units were assessed by OFWAM in this study. Results of the OFWAM assessment are shown in the OFWAM summary table in Appendix 1, and in Appendices 4 and 5.

3.3 Locally Significant Wetlands

All wetlands within the study area meeting the minimum LWI acreage requirement (0.5 acre or more) and assessed by OFWAM were determined to be significant, according to DSL guidelines. Each wetland unit had one or more of the following functions intact: wildlife habitat, fish habitat, water quality, or hydrologic control. Isolated wetlands less than 0.50 acre in size were not assessed and were assumed to be non-significant.

4 CONCLUSION

A local wetlands inventory was conducted within the city limits (urban growth boundary) as well as in areas outside the UGB on Tenmile Creek and on Coleman Arm of Tenmile Lake. Both on-site and off-site LWI procedures were used. A total of 37 wetland units were identified in the study area (21 wetlands within the city limits (5 of which were isolated), 4 wetlands in the Tenmile Creek study area boundary, with one wetland unit also counted within the UGB, and 13 wetlands in Coleman Arm on Tenmile Lake). Another 10 wetlands smaller than the minimum 0.5 acre size defined in the DSL rules for inclusion in an LWI were mapped in this study, but not assessed.

Approximately 337 acres of wetland were identified in this study: ~195 acres of wetland within the urban growth boundary; ~43 acres of wetland outside of the UGB within the Tenmile Creek Study Area Boundary; ~57 acres of wetland within the Coleman Arm Study Area Boundary (~37 acres of this is a large farmed wetland at the eastern end of Coleman Arm), and ~41 acres of wetland extending outside of the study areas (these connected wetlands outside the study area were mapped to meet the guidelines of the Oregon Freshwater Wetland Assessment Methodology).

OFWAM was used to assess wetland function and values on a total of 25 wetland units in this study. Locally Significant Wetlands were determined based on DSL criteria; all wetlands 0.50 acre and larger were determined to be significant due to the presence of at least one intact wetland function.

The results of this inventory and assessment are presented in the accompanying tables and appendices.

5 PROJECT STAFF QUALIFICATIONS

Fishman Environmental Services Staff

C. Mirth Walker, PWS, Wetlands Program Manager
B.A. Biology and Psychology, 1979
Professional Wetland Scientist (PWS) and certified Wetland Delineator. Specialties: wetland determination and delineation; wetland mitigation; permit coordination; northwest botany. Mirth Walker has an extensive background in biology and the natural sciences, and has conducted and managed numerous wetland projects, including wetland inventories throughout Oregon and Washington. Mirth is a certified Professional Wetland Scientist by the Society of Wetland Scientists and is certified as a Wetland Delineator by the U.S. Army Corps of Engineers Seattle District. Mirth has primary responsibility for coordinating, managing and conducting wetland delineation, mitigation, and permit projects at FES, as well as furthering the development of QA/QC standards and procedures. Mirth has provided training to staff personnel and volunteers, and has assisted with the Wetland Delineation Training courses offered through Portland State University. She also has experience with the National Food Security Act Manual for delineating wetlands on agricultural lands. Mirth has a strong track record of working with clients and regulatory agency representatives to reach mutually agreeable, obtainable sets of goals. Mirth has been with FES since May of 1994; she was previously the Wetlands Specialist at an environmental and geotechnical consulting firm in the Portland area.

Mirth has conducted Local Wetland Inventories for the Cities of Wilsonville and La Grande, and has assisted other FES staff members with conducting the Local Wetland Inventories for the Cities of Stayton, Tualatin, and Tigard, Oregon.

Stacy N. Benjamin, Wetland Ecologist
B.S. Biology, 1991
M.S. Ecology and Evolution, 1993
Specialties: wetland determination and delineation, wetland fill permit coordination, wetland monitoring, natural resource assessment, biological assessment, graphics support. Stacy Benjamin has recently completed training in the 1987 Wetlands Delineation Manual as well as a course on wetland plants of the Pacific Northwest. She completed a major portion of wetland delineations and mapping along the 132 mile route for the WorldCom Network Services, Inc. fiber optic cable project from Seattle, Washington to Portland, Oregon in 1996, and since that time has assisted extensively with wetland determinations and delineations for FES.

City of Lakeside Planning Staff

Tricia Quigley, City Planner
B.A. Political Science 1984
M.P.A.- Public Administration 1992
Tricia Quigley is responsible for overall planning activities for the City of Lakeside. She is responsible for comprehensive plan amendments and periodic review updates for the City. Tricia is responsible for ordinance writing pertaining to land use planning and development. She has recently completed protective ordinances regarding flood plain management, riparian buffers and development erosion/drainage plans. She is responsible for public notifications and holding public hearings for land use issues, and has been instrumental in coordinating the City's Local Wetlands Inventory, providing tax lot maps, zoning maps, aerial photographs and other background information, and coordinating site access and the public involvement for this project.

Thanks to **William "Bill" R. Downing**, City of Lakeside Planning Commissioner, for his assistance on this project both before and after Tricia Quigley left her position at the City.

6 REFERENCES

BLM/WAC, 1997. Bureau of Land Management and WAC Corporation color aerial photographs at 1 inch = 400 feet (BLM 12 0-97-CBD 3-21-56, 3-21-58, 19-20-72, 35-24B-45, 33-25-71), 5/18/97 (Coleman Arm aerials flown 6/19/97 and 6/20/97).

Branch Engineering, 1986. *City of Lakeside Storm Drainage Program.*

Brockman, C.F., 1968. *Trees of North America. A Field Guide to the Major Native and Introduced Species North of Mexico.* Zim, H.S., ed. Golden Press, New York. (For identification of myrtlewood.)

City of Lakeside, 1995. Comprehensive Plan Volume I, Plan Inventories, and Volume II, Goals and Policies.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T LaRoe, 1979. *Classification of Wetlands and Deepwater Habitats of the United States.* U.S. Fish and Wildlife Service. FWS/OBS-79/31.

Division of State Lands, 1994. *Local Wetlands Inventory Standards and Guidelines (*Administrative Rules OAR 141-86-180 to 141-86-240). Revised 12/15/94.

Division of State Lands, 1997. *Administrative Rules For Identifying Significant Wetlands* (OAR 141-86-300 to 141-86-350). Effective January 1, 1997.

Environmental Laboratory, 1987. *Corps of Engineers Wetlands Delineation Manual.* Technical Report Y-87-1. Vicksburg, Mississippi.

Federal Emergency Management Agency, 1984a. *Flood Insurance Study, City of Lakeside, Oregon, Coos County.* Community Number 410278. February 1, 1984.

Federal Emergency Management Agency, 1984b. Flood Insurance Rate Map (FIRM) and Flood Boundary and Floodway Map (with aerial photograph), City of Lakeside, Oregon, Coos County, Community-Panel Numbers 410278 0001 B. Effective date August 1, 1984.

Federal Emergency Management Agency, 1984c. Flood Insurance Rate Map (FIRM), Coos County, Oregon, Community-Panel Numbers 410042 0015 B. Effective date November 15, 1984. (For Tenmile Creek areas outside UGB.)

Federal Emergency Management Agency, 1984d. Flood Insurance Rate Map (FIRM), Coos County, Oregon, Community-Panel Numbers 410042 0025 B. Effective date November 15, 1984. (For Coleman Arm areas outside UGB.)

Hitchcock, C.L. and A. Cronquist, 1973. *Flora of the Pacific Northwest.* University of Washington Press, Seattle.

Johnson, D. M., R.R. Petersen, D.R. Lycan, J.W. Sweet, M.E. Neuhaus, and A.L. Schaedel, 1985. *Atlas of Oregon Lakes*. Portland State University in cooperation with A.L. Schaedel, Oregon Department of Environmental Quality. Oregon State University Press, Corvallis.

Kelsey and Martin Resource Analysts, 1990. *City of Lakeside Wetlands Planning Review*. Draft Copy for Limited Distribution. Prepared For City of Lakeside. Project # KMSC-9002C.

Kollmorgen Instrument Corporation, 1990 revised edition. *Munsell Soil Color Charts.* Baltimore.

McCune, B. and L. Geiser, 1997. *Macrolichens of the Pacific Northwest*. Oregon State University Press, Corvallis. A co-publication with the USDA Forest Service.

Oregon Department of Environmental Quality, 1988. *Oregon Statewide Assessment of Nonpoint Sources of Water Pollution.*

Oregon Department of Environmental Quality, 1996. *Water Quality Status Assessment Report. 305(b) Report.*

Oregon Department of Environmental Quality, 1996. *DEQ's 1994/1996* ***303(d) List*** *of Water Quality Limited Waterbodies & Oregon's Criteria Used For Listing Waterbodies.*

Oregon Department of Environmental Quality: http://waterquality.deq.state.or.us/WSL1996/SubBasinList98.asp.

Oregon Natural Heritage Database: www.heritage.tnc.org/nhp/us/or/tabintro.htm#code.

Pojar, J. and A. MacKinnon, Eds., 1994. *Plants of the Pacific Northwest Coast. Washington, Oregon, British Columbia and Alaska.* Lone Pine Press, Redmond, Washington.

Reed, P.B., Jr., 1988. *National List of Plant Species that Occur in Wetlands: Northwest (Region 9).* U.S. Fish and Wildlife Service Biological Report No. 88 (26.9).

Reed, P.B., Jr., et al, 1993. *Supplement to List of Plant Species That Occur in Wetlands: Northwest (Region 9).*

Roth, E.M., R.D. Olsen, P.L. Snow, and R.R. Sumner, revised edition 1996. *Oregon Freshwater Wetland Assessment Methodology.* Ed. by S.G. McCannell. Oregon Division of State Lands, Salem, Oregon. (And supplement dated July, 1997.)

USDA SCS, 1989a. *Soil Survey of Coos County, Oregon.* United States Department of Agriculture Soil Conservation Service in cooperation with Oregon Agricultural Experiment Station.

USDA SCS, 1989b. *Hydric Soils in Coos County Area, Oregon.*

USDI Fish and Wildlife Service, 1989a. Lakeside, Oregon National Wetlands Inventory map (CIR 9/82 at a scale of 1:58,000)

USDI Fish and Wildlife Service, 1989b. Trail Butte, Oregon National Wetlands Inventory map (CIR 8/82 at a scale of 1:58,000).

USGS, 1985a. Lakeside, Oregon 7.5' topographic quadrangle.

USGS, 1985b.Trail Butte, Oregon 7.5' topographic quadrangle.

WAC, 1994. Black and white aerial photographs at 1 inch = 400 feet, dated April 15, 1994.

Weber, Jeffrey, 1998. *DLCD Healthy Streams Partnership Grant Application.* Letter to Cities, Counties, and COGs in Salmon Recovery Areas dated April 13, 1998.

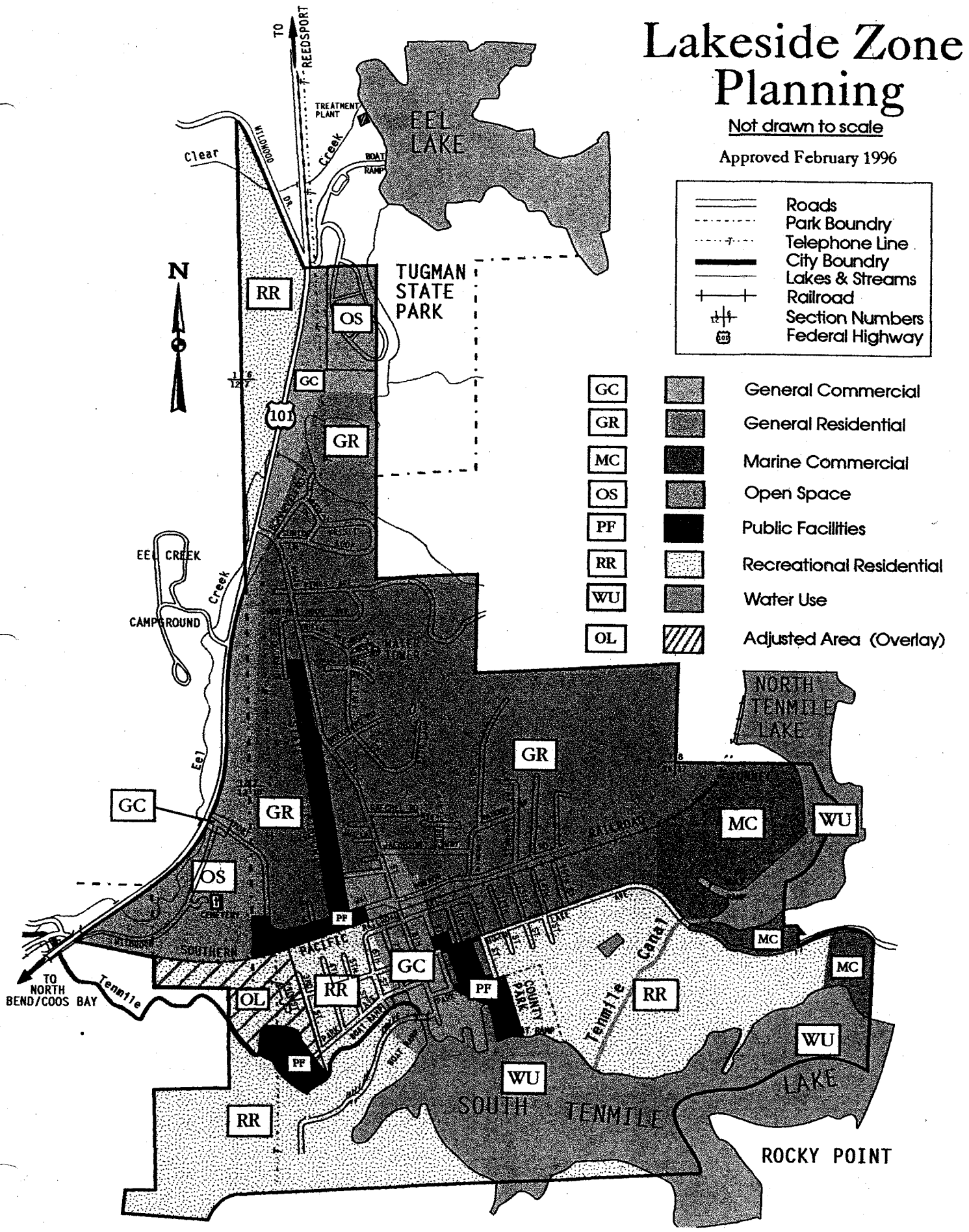


Figure 2. Zoning Map

Tenmile Creek Study Area

City of Lakeside

Coleman Arm Study Area

INSET A

SEE INSET A

Lakeside

North Eel Campground

Middle Eel Campground

South Eel Campground

Sunreel Campground

Trailer Park

Substation

Landing Field

Rocky Point

School Land Bay

Willow Point

Hall Lake

Boat Ramp

Picnic Area

Sand Dunes

Benson Creek

Blacks Arm

Devore Arm

Landross Arm

Coleman Arm

Saunders Creek

TENMILE LAKE

NORTH TENMILE LAKE

WL 6T

WL 9T

WL 13T

LEGEND

Urban Growth Boundary

Study Area Boundary

Source: USGS, 1985. Lakeside and Trail Butte, Oregon 7.5' topographic maps.

Consultants in ecology and natural resource management

Fishman Environmental Services
434 NW Sixth Avenue • Suite 304
Portland, Oregon 97209-3600
(503)224-0333

DRAWN:	S. Benjamin
APPROVED:	M. Walker
DATE:	April 1999
SCALE:	1 inch = 2,000 feet

City of Lakeside Local Wetlands Inventory

STUDY AREA BOUNDARY MAP

Figure # 1 | Project # 98111

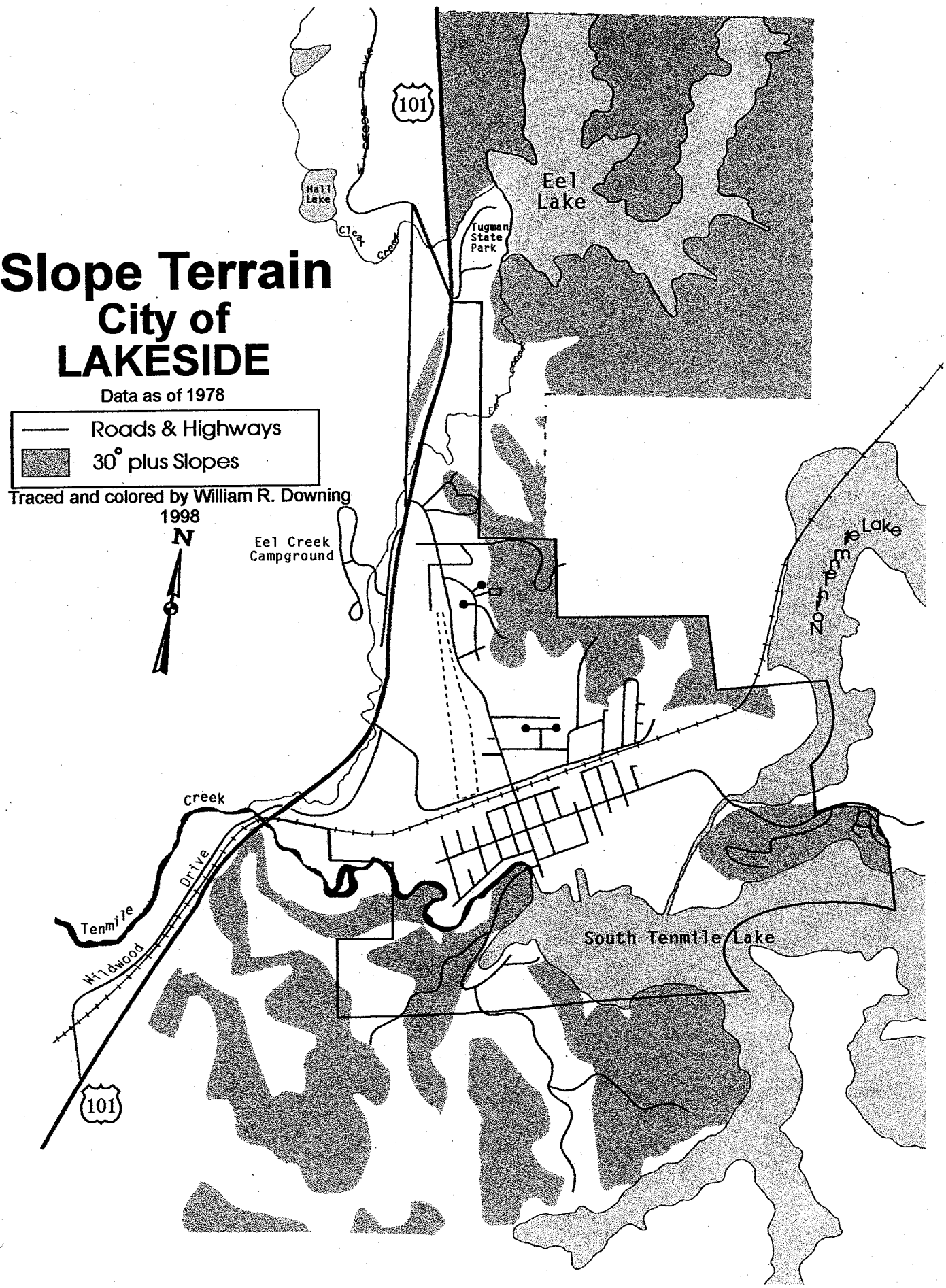


Figure 4. Map of Slopes

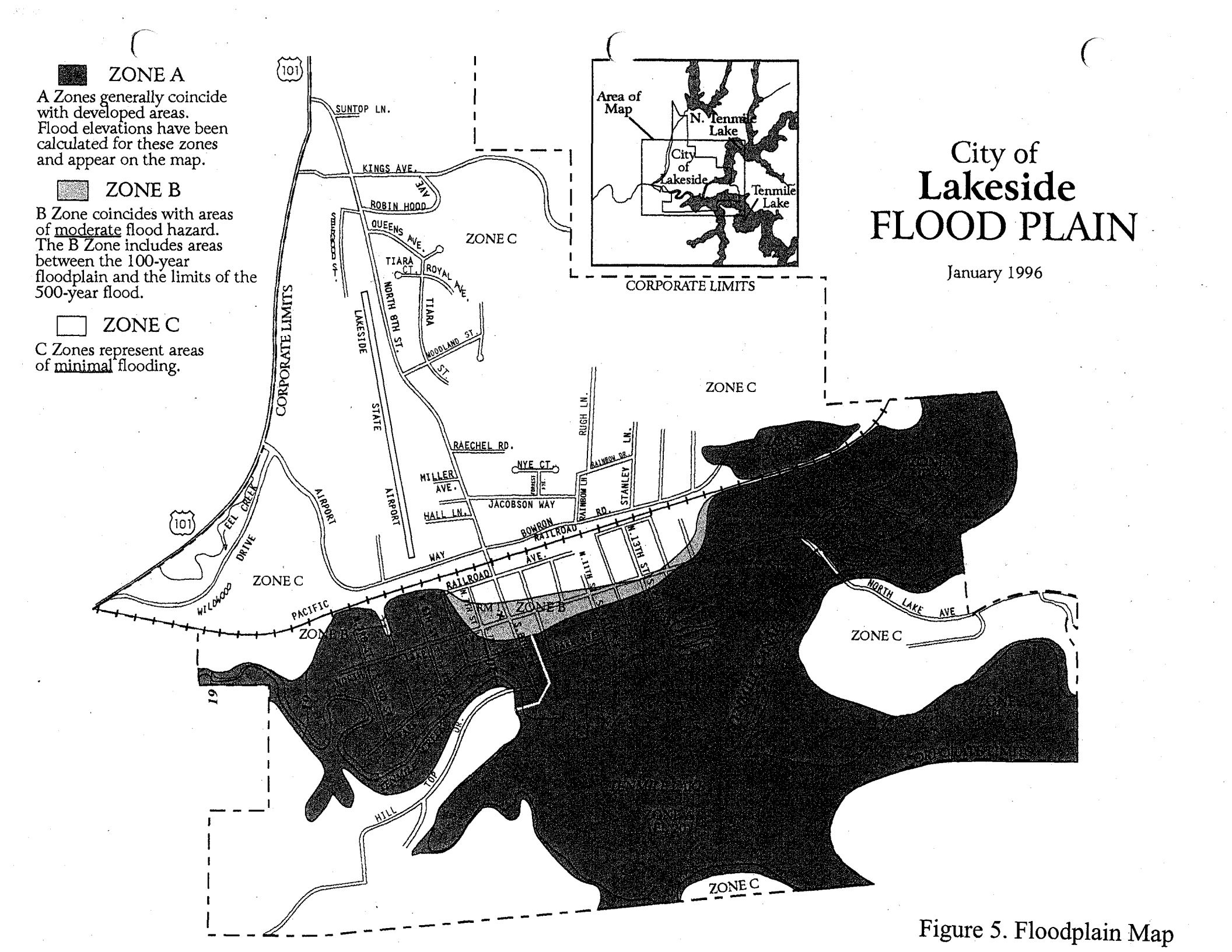


Figure 5. Floodplain Map

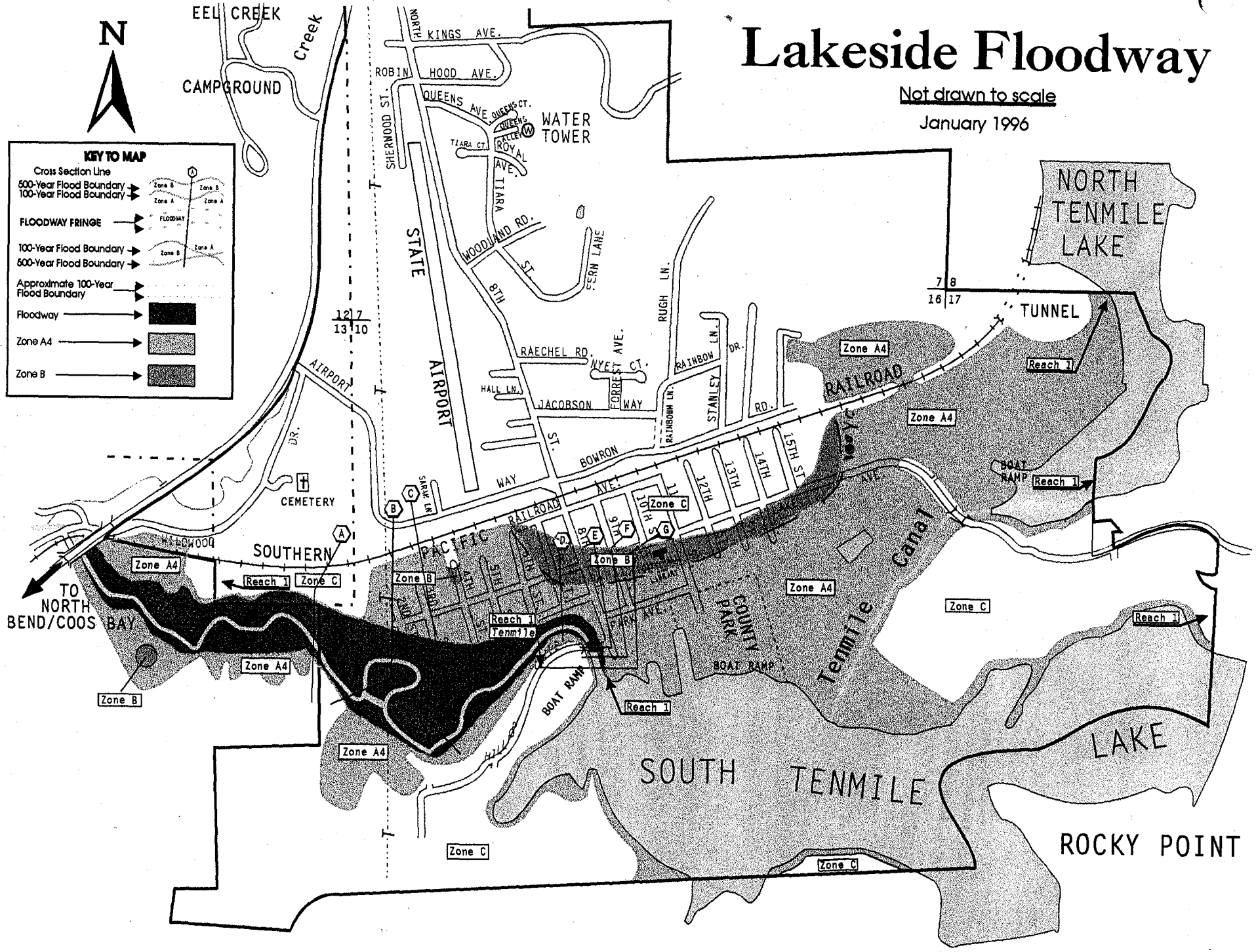


Figure 6. Floodway Map

LAKESIDE FRONTAL WATERSHED, SUBUNIT OF USGS HUC#17100304

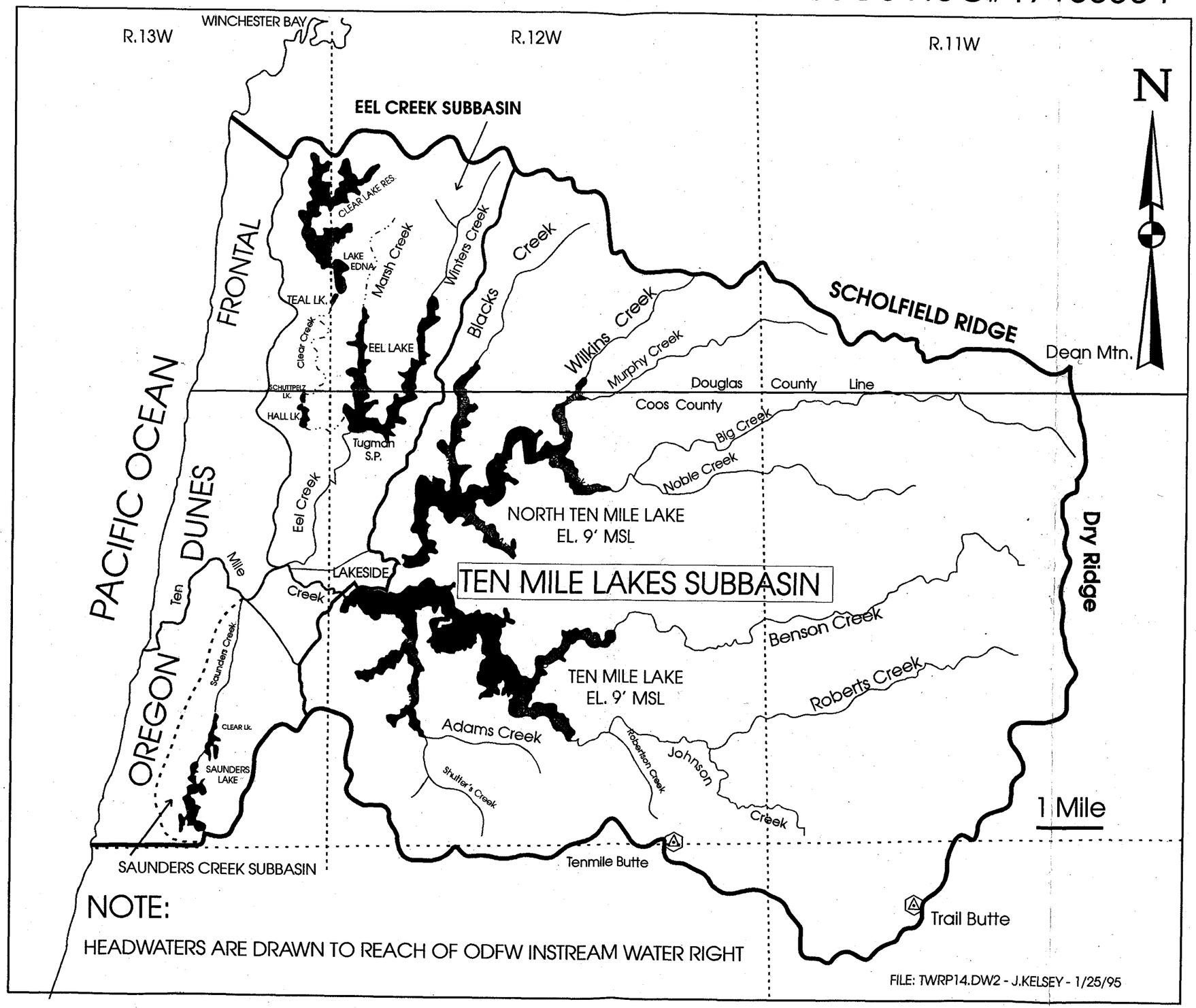
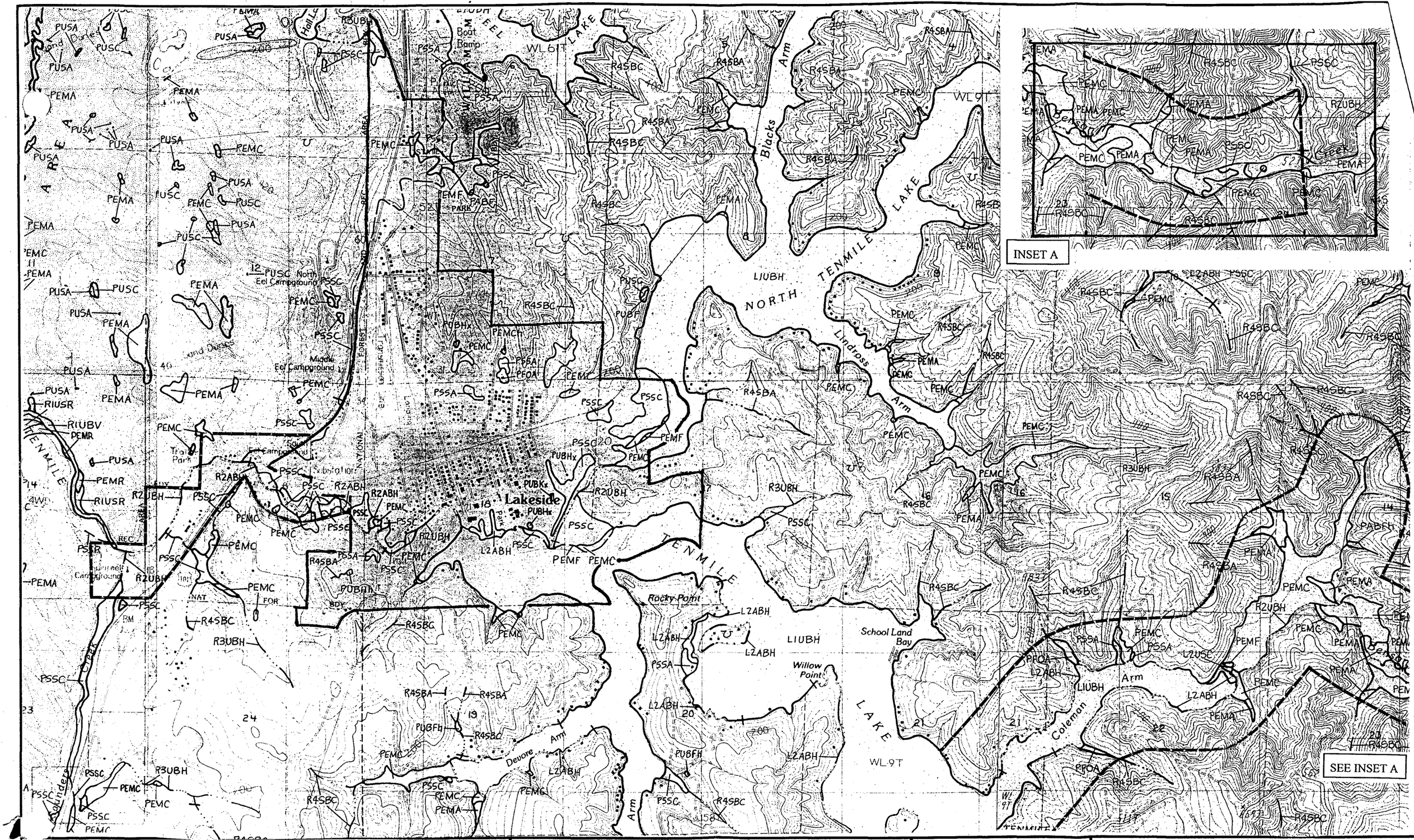


Figure 3. Watershed Drainage Basin Map



LEGEND

Urban Growth Boundary

Study Area Boundary

Source: USDI Fish and Wildlife Service, 1989. Lakeside and Trail Butte, Oregon National Wetland Inventory maps.

Consultants in ecology and natural resource management

FISHMAN

Fishman Environmental Services
434 NW Sixth Avenue • Suite 304
Portland, Oregon 97209-3600
(503)224-0333

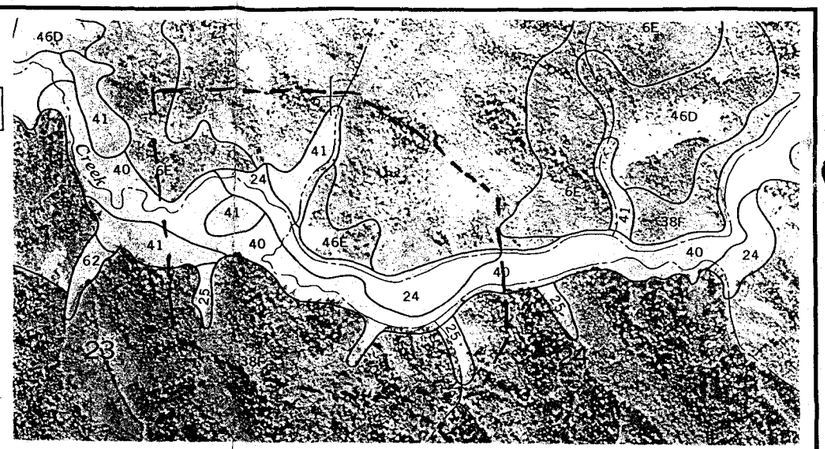
DRAWN:	S. Benjamin
APPROVED:	M. Walker
DATE:	April 1999
SCALE:	1 inch = 2,000 feet

City of Lakeside
Local Wetlands Inventory

NATIONAL WETLANDS INVENTORY MAP

Figure # 7 | Project # 98111

INSET A



LEGEND

Hydric soils: 28, 42, 61D, 62, 64

Non-hydric soils with hydric inclusions: 8D, 16, 40, 41, 59D-E

Non-hydric soils: 8E, 46D, 52D-E, 54D-E, 39F

Source: USDA SCS, 1989. Soil Survey of Coos County, Oregon. Sheet Numbers 1, 4 & 5.

Consultants in ecology and natural resource management

FISHMAN

Fishman Environmental Services
434 NW Sixth Avenue • Suite 304
Portland, Oregon 97209-3600
(503)224-0333

DRAWN:	S. Benjamin
APPROVED:	M. Walker
DATE:	April 1999
SCALE:	1 inch = 1,667 feet

City of Lakeside Local Wetlands Inventory

USDA SCS SOILS MAP

Figure # 8 | Project # 98111

APPENDICES

APPENDIX 1	CITY OF LAKESIDE WETLANDS SUMMARY TABLES: ACREAGE CLASSIFICATION AND PERCENT BY HABITAT OFWAM SUMMARY TABLE OF FUNCTIONS AND VALUES NON-SIGNIFICANT WETLANDS AFFECTED TAX LOT LIST
APPENDIX 2	WETLAND SUMMARY SHEETS
APPENDIX 3	WETLAND DETERMINATION DATA SHEETS
APPENDIX 4	OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY (OFWAM) SUMMARY SHEETS
APPENDIX 5	CITY OF LAKESIDE SPECIFIC INFORMATION AND OFWAM ASSESSMENT QUESTIONS AND CHARACTERIZATION WORKSHEETS
APPENDIX 6	SUPPLEMENTAL OFWAM INFORMATION (WETLAND FUNCTIONS AND VALUES)
APPENDIX 7	VEGETATION LIST
APPENDIX 8	SOIL PROFILES AND INFORMATION
APPENDIX 9	FISH AND WILDLIFE LIST
APPENDIX 10	ADDENDA

APPENDIX 1

CITY OF LAKESIDE WETLANDS SUMMARY TABLES:

CLASSIFICATION AND ACREAGE

OFWAM SUMMARY TABLE OF FUNCTIONS AND VALUES

NON-SIGNIFICANT WETLANDS

AFFECTED TAX LOT LIST

CITY OF LAKESIDE WETLAND ACREAGE CLASSIFICATION (APPROXIMATE)

SITE	TOTAL ACRES	ACREAGE BY TYPE					PERCENT BY TYPE			
		POW/PAB	PEM	PSS	PFO		POW/PAB	PEM	PSS	PFO
BOWRON CREEK (BC) WETLANDS										
BC-1*	31.25	-	11.56	13.64	6.06		0	37	44	19
BC-2	15.02	-	10.39	2.32	2.31		0	69	15	15
BC-3	10.12	-	9.11	1.01	-		0	90	10	0
BC-4	5.55	0.50	0.26	0.06	4.73		9	5	1	85
BC-5	3.56	-	-	-	3.56		0	0	0	100
BC-6	7.39	0.20	6.56	-	0.62		3	89	0	8
TENMILE LAKE (TL) WETLANDS										
TL-1	38.68	1.12	2.11	35.44	trace		3	5	92	0
TL-2	0.39	-	-	0.39	-		0	0	100	0
TL-3	2.34	1.17	0.66	0.51	-		50	28	22	0
TL-4	2.28	0.93	-	0.89	0.46		41	0	39	20
TL-5*	4.09	1.38	-	0.46	2.25		34	0	11	55
TENMILE CREEK (TC) WETLANDS										
TC-1*	31.74	5.00	5.97	20.77	-		16	19	65	0
TC-1***	22.77	4.02	6.62	11.52	0.61		18	29	51	3
TC-2	17.41	-	-	17.41	-		0	0	100	0
TC-3*	0.83	-	0.40	-	0.43		0	48	0	52
TC-4**	11.91	0.15	0.07	11.69	trace		1	1	98	0
TC-5**	8.57	0.27	present	6.93	1.38		3	0	81	16
EEL CREEK (EC) WETLANDS										
EC-1*	11.88	-	-	2.39	9.49		0	0	20	80
EC-2*	3.34	-	2.48	trace	0.86		0	74	0	26
EC-3**	0.13	-	-	-	0.13		0	0	0	100
CLEAR CREEK (CC) WETLAND										
CC-1*	4.77	0.25	1.07	2.06	1.40		5	22	43	29
ISOLATED WETLANDS										
BC-1A	0.50	-	-	0.50	-					
CP-1	0.80	-	0.72	-	0.08		0	90	0	10
CP-2	0.68	-	-	0.68	-					
RA-1	0.79	0.08	-	0.71	-		10	0	90	0
SP-1*	1.42	-	-	-	1.42		0	0	0	100
Total	**238.21**	**15.07**	**57.97**	**129.39**	**35.78**	**Overall**	**6.33**	**24.34**	**54.32**	**15.02**

*Wetland extends outside UGB; outside acreage not included (see Page 3).

***Wetland acreage outside UGB but within Study Area Boundary.

**Wetland is outside UGB and extends outside Study Area Boundary (SAB); outside acreage not included (see Page 3).

POW / PAB = Palustrine Open Water/Palustrine Aquatic Bed; PEM = Palustrine Emergent; PSS = Palustrine Scrub-Shrub; PFO = Palustrine Forested

CITY OF LAKESIDE WETLAND ACREAGE CLASSIFICATION (APPROXIMATE)

Coleman Arm	TOTAL	ACREAGE BY TYPE					PERCENT BY TYPE			
SITE	ACRES	POW/PAB	PEM	PSS	PFO		POW/PAB	PEM	PSS	PFO
COLEMAN ARM, TENMILE LAKE (CA) WETLANDS										
CA-1	0.10	-	-	0.10	-		0	0	100	0
CA-2	0.05	-	-	-	0.05		0	0	0	100
CA-3	0.58	-	-	-	0.58		0	0	0	100
CA-4	2.04	0.27	-	0.43	1.34		13	0	21	66
CA-5	0.10	-	0.10	-	-		0	100	0	0
CA-6	0.18	-	-	0.18	-		0	0	100	0
CA-7	0.62	0.18	-	0.44	-		29	0	71	0
CA-8	7.43	0.17	1.61	3.51	2.14		2	22	47	29
CA-9	0.47	0.10	0.05	0.15	0.17		21	11	32	36
CA-10	0.55	0.09	0.14	0.32	-		16	25	58	0
CA-11	5.38	0.37	3.21	0.92	0.88		7	60	17	16
CA-12	3.08	0.34	0.34	1.73	0.67		11	11	56	22
CA-13*	36.79	-	36.79	-	trace		0	100	0	0
Total	**57.37**	**1.52**	**42.24**	**7.78**	**5.83**	**Overall**	**2.65**	**73.63**	**13.56**	**10.16**

*Wetland extends outside Study Area Boundary; outside acreage not included.

CA-1 thr.12	20.57	1.51	5.45	7.78	5.83		7	26	38	28

PFO = Palustrine Forested
PEM = Palustrine Emergent
PSS = Palustrine Scrub-Shrub
POW / PAB = Palustrine Open Water / Palustrine Aquatic Bed

TENMILE CREEK SAB - OUTSIDE UGB (information included in Page 1 Table)

	TOTAL	ACREAGE BY TYPE					PERCENT BY TYPE			
SITE	ACRES	POW/PAB	PEM	PSS	PFO		POW/PAB	PEM	PSS	PFO
TC-1***	22.77	4.02	6.62	11.52	0.61		18	29	51	3
TC-4**	11.91	0.15	0.07	11.69	trace		1	1	98	0
TC-5**	8.57	0.27	present	6.93	1.38		3	0	81	16
EC-3**	0.13	-	-	-	0.13		0	0	0	100
Total	**43.38**	**4.44**	**6.69**	**30.13**	**2.12**		**10.23**	**15.42**	**69.47**	**4.89**

POW / PAB = Palustrine Open Water / Palustrine Aquatic Bed; PEM = Palustrine Emergent; PSS = Palustrine Scrub-Shrub; PFO = Palustrine Forested

CITY OF ESIDE WETLAND ACREAGE CLASSIFICATION (APPROXIMATE)
COMBINED UNITS AND AREAS EXTENDING OUTSIDE UGB AND SAB

	TOTAL	ACREAGE BY TYPE					PERCENT BY TYPE			
SITE	ACRES	POW/PAB	PEM	PSS	PFO		POW/PAB	PEM	PSS	PFO
BC-1 in UGB	31.25	-	11.56	13.64	6.06		0	37	44	19
BC-1 outside UGB	1.55	-	0.23	1.32	-		0	15	85	0
Total	**32.80**	**0.00**	**11.79**	**14.95**	**6.06**		**0**	**36**	**46**	**18**
BC-5	3.56	-	-	-	3.56		0	0	0	100
BC-6	7.39	0.20	6.56	-	0.62		3	89	0	8
Total	**10.95**	**0.20**	**6.56**	**0.00**	**4.18**		**2**	**60**	**0**	**38**
TL-2	0.39	-	-	0.39	-		0	0	100	0
TL-3	2.34	1.17	0.66	0.51	-		50	28	22	0
TL-4	2.28	0.93	-	0.89	0.46		41	0	39	20
Total	**5.01**	**2.10**	**0.66**	**1.79**	**0.46**		**42**	**13**	**36**	**9**
TL-5 on lake (UGB	2.07	0.42	-	0.46	1.19		20	0	22	57
TL-5 pond in UGB	2.02	0.96	-	-	1.06		47	0	0	53
TL-5 pond outside	1.33	-	-	-	1.33		0	0	0	100
Total	**5.42**	**1.38**	**0.00**	**0.46**	**3.58**		**25**	**0**	**8**	**66**
TC-1 in UGB	31.74	5.00	5.97	20.77	-		16	19	65	0
TC-1 in SAB	22.77	4.02	6.62	11.52	0.61		18	29	51	3
Total	**54.51**	**9.02**	**12.59**	**32.29**	**0.61**		**17**	**23**	**59**	**1**
TC-3 in UGB	0.83	-	0.40	-	0.43		0	48	0	52
TC-3 outside UGB	0.76	0.37	-	0.24	0.15		49	0	32	19
Total	**1.60**	**0.37**	**0.40**	**0.24**	**0.58**		**23**	**25**	**15**	**36**
TC-4 in SAB	11.91	0.15	0.07	11.69	trace		1	1	98	0
TC-4 outside SAB	6.21	-	5.89	0.32	-		0	95	5	0
Total	**18.12**	**0.15**	**5.96**	**12.01**	**0.00**		**1**	**33**	**66**	**0**
TC-5 in SAB	8.57	0.27	present	6.93	1.38		3	0	81	16
TC-5 outside SAB	6.13	-	present	6.13	-		0	0	100	0
Total	**14.71**	**0.27**	**0.00**	**13.06**	**1.38**		**2**	**0**	**89**	**9**
EC-1 in UGB	11.88	-	-	2.39	9.49		0	0	20	80
EC-1 outside UGB	17.64	-	10.61	0.08	6.96		0	60	0	39
Total	**29.52**	**0.00**	**10.61**	**2.47**	**16.44**		**0**	**36**	**8**	**56**
EC-2 in UGB	3.34	-	2.48	trace	0.86		0	74	0	26
EC-2 outside UGB	1.09	-	-	1.09	-		0	0	100	0
Total	**4.43**	**0.00**	**2.48**	**1.09**	**0.86**		**0**	**56**	**25**	**19**
EC-3 in SAB	0.13	-	-	-	0.13		0	0	0	100
EC-3 outside SAB	4.23	-	0.15	3.95	0.13		0	4	93	3
Total	**4.36**	**0.00**	**0.15**	**3.95**	**0.26**		**0**	**3**	**91**	**6**
CC-1 in UGB	4.77	0.25	1.07	2.06	1.40		5	22	43	29
CC-1 outside UGB	1.98	-	-	0.88	1.10		0	0	44	56
Total	**6.75**	**0.25**	**1.07**	**2.94**	**2.50**		**4**	**16**	**44**	**37**
SP-1 in UGB	1.42	-	-	-	1.42		0	0	0	100
SP-1 outside UGB	0.10	-	-	-	0.10		0	0	0	100
Total	**1.52**	**0.00**	**0.00**	**0.00**	**1.52**		**0**	**0**	**0**	**100**
OUTSIDE TOTAL	**41.04**									

POW / PAB = Palustrine Open Water / Palustrine Aquatic Bed; PEM = Palustrine Emergent; PSS = Palustrine Scrub-Shrub; PFO = Palustrine Forested

CITY (LAKESIDE WETLAND ACREAGE CLASSIFICATIO(.PPROXIMATE)

UGB ONLY	TOTAL	ACREAGE BY TYPE					PERCENT BY TYPE			
SITE	ACRES	POW/PAB	PEM	PSS	PFO		POW/PAB	PEM	PSS	PFO
BOWRON CREEK (BC) WETLANDS										
BC-1*	31.25	-	11.56	13.64	6.06		0	37	44	19
BC-2	15.02	-	10.39	2.32	2.31		0	69	15	15
BC-3	10.12	-	9.11	1.01	-		0	90	10	0
BC-4	5.55	0.50	0.26	0.06	4.73		9	5	1	85
BC-5	3.56	-	-	-	3.56		0	0	0	100
BC-6	7.39	0.20	6.56	-	0.62		3	89	0	8
TENMILE LAKE (TL) WETLANDS										
TL-1	38.68	1.12	2.11	35.44	trace		3	5	92	0
TL-2	0.39	-	-	0.39	-		0	0	100	0
TL-3	2.34	1.17	0.66	0.51	-		50	28	22	0
TL-4	2.28	0.93	-	0.89	0.46		41	0	39	20
TL-5*	4.09	1.38	-	0.46	2.25		34	0	11	55
TENMILE CREEK (TC) WETLANDS										
TC-1*	31.74	5.00	5.97	20.77	-		16	19	65	0
TC-2	17.41	-	-	17.41	-		0	0	100	0
TC-3*	0.83	-	0.40	-	0.43		0	48	0	52
EEL CREEK (EC) WETLANDS										
EC-1*	11.88	-	-	2.39	9.49		0	0	20	80
EC-2*	3.34	-	2.48	trace	0.86		0	74	0	26
CLEAR CREEK (CC) WETLAND										
CC-1*	4.77	0.25	1.07	2.06	1.40		5	22	43	29
ISOLATED WETLANDS										
BC-1A	0.50	-	-	0.50	-		0	0	100	0
CP-1	0.80	-	0.72	-	0.08		0	90	0	10
CP-2	0.68	-	-	0.68	-		0	0	100	0
RA-1	0.79	0.08	-	0.71	-		10	0	90	0
SP-1*	1.42	-	-	-	1.42		0	0	0	100
Total	**194.82**	**10.63**	**51.29**	**99.25**	**33.66**	**Overall**	**5.46**	**26.32**	**50.94**	**17.28**

*Wetland extends outside UGB; outside acreage not included (see Page 3).

CITY OF LAKESIDE OFWAM FUNCTION AND VALUE SUMMARY TABLE

WETLAND UNIT	Wildlife Habitat	Fish Habitat	Water Quality	Hydrologic Control	Sensitivity to Future Impacts	Enhancement Potential*	Education	Recreation	Aesthetic Quality
BOWRON CREEK (BC) WETLANDS									
BC-1*	diverse	intact	intact	intact	potentially	-	potential	rec. opportunities	pleasing
BC-2	some	degraded	intact	intact	potentially	high	potential	not appropriate	pleasing
BC-3	some	degraded	intact	intact	potentially	high	potential	not appropriate	pleasing
BC-4	diverse	intact	intact	intact	potentially	-	potential	potential	pleasing
BC-5	diverse	intact	intact	intact	potentially	-	potential	potential	moderately pleasing
BC-6	diverse	intact	intact	intact	potentially	-	potential	potential	pleasing
TENMILE LAKE (TL) WETLANDS									
TL-1	some	degraded	intact	intact	potentially	high	potential	rec. opportunities	pleasing
TL-2,3,4	diverse	intact	intact	intact	potentially	-	potential	rec. opportunities	pleasing
TL-5*	diverse	intact	intact	intact	potentially	-	educational uses	rec. opportunities	pleasing
TENMILE CREEK (TC) WETLANDS									
TC-1*	diverse	intact	intact	intact	potentially	-	potential	rec. opportunities	pleasing
TC-2	some	degraded	intact	intact	potentially	high	potential	potential	pleasing
TC-3*	diverse	intact	intact	intact	potentially	-	potential	potential	moderately pleasing
TC-4*	diverse	intact	intact	intact	potentially	-	potential	rec. opportunities	moderately pleasing
TC-5*	diverse	intact	intact	intact	potentially	-	educational uses	rec. opportunities	pleasing
EEL CREEK (EC) WETLANDS									
EC-1*	diverse	intact	intact	intact	potentially	-	potential	potential	pleasing
EC-2*	diverse	degraded	intact	intact	potentially	-	potential	potential	moderately pleasing
EC-3*	diverse	intact	intact	intact	potentially	-	educational uses	potential	moderately pleasing
CLEAR CREEK (CC) WETLAND									
CC-1*	diverse	intact	intact	intact	potentially	-	potential	potential	pleasing
ISOLATED WETLANDS									
BC-1A	some	not applic.	degraded	intact	potentially	high	potential	rec. opportunities	moderately pleasing
CP-1	some	not applic.	intact	intact	potentially	moderate	educational uses	rec. opportunities	pleasing
CP-2	some	not applic.	degraded	intact	potentially	high	educational uses	potential	moderately pleasing
RA-1	some	degraded	intact	intact	potentially	high	potential	potential	moderately pleasing
SP-1*	some	not applic.	intact	intact	potentially	moderate	educational uses	rec. opportunities	pleasing
COLEMAN ARM, TENMILE LAKE (CA) WETLANDS									
CA-1 - 12	diverse	intact	intact	intact	potentially	-	potential	rec. opportunities	pleasing
CA-13*	some	degraded	intact	intact	potentially	high	not appropriate	not appropriate	not pleasing

*Wetland extends outside UGB or Study Area Boundary.

CITY OF LAKESIDE LOCAL WETLANDS INVENTORY TABLE OF NON-SIGNIFICANT WETLANDS (<0.50 ACRE)		
WETLAND	**APPROX. ACREAGE**	**LOCATION**
NS-1	0.24	North of TL-2 on County Park property (undeveloped portion, old mill site, part of old pond, Plot 20)
NS-2	0.08	West of TL-1 on County Park property (undeveloped portion, old mill site, part of an old pond)
NS-3	0.31	Northeast of CP-1 on County Park property (undeveloped portion, old mill site, per DSL review)
NS-4	0.03	North of TL-3, north of Park Avenue (school property, Plot 4)
NS-5	0.15	North of TL-4, north of Park Avenue (school property, road right-of-way, Plots 23 and 24)
NS-6	0.08	East of 11th St., north of North Lake Avenue, south of railroad, in residential area (Plot OF-3)
NS-7	0.14	Fringe along Tenmile Creek by Lakeshore Lodge Marina (Plot OF-10)
NS-8	0.08	North end of Airport landing, small scrub-shrub spirea wetland
NS-9	~~0.11~~	~~Pond above RA-1, to east, may drain north to EC-2 (per DSL review)~~
NS-10	0.06	Small isolated (stock-watering?) pond on property near EC-2 wetland

OMIT (does not exist)

WETLAND TAXLOTS (INCLUDES STREAMS) - CITY OF LAKESIDE UGB ONLY (DOES NOT INCLUDE TENMILE CREEK SAB OR COLEMAN ARM SAB)
April 21, 1999 Updated June 1, 1999

23 12 6: 400, 500 (Eel Creek on tax lots 300, 700 (William Tugman State Park))
23 12 6CC: 500, 600

23 12 7: 1000, 1100 1200
23 12 7CA: 102, 103, 109
23 12 7BB: 100, 200, 300, 400, 800
23 12 7BC: 100, 114, 207
23 12 7CB: 1500, 1600, 2400, 2401, 2402, 2403, 2404, 2405, 2500, 2501, 2502, 2800
23 12 7CC: 3800 (airport ditch)
23 12 7CD: 100?, 200, 600, 606, 607, 608, 609?, 610, 611

23 12 17B: 500, 600, 700, 800, 900, 1001
23 12 17CB: 200, 900

23 12 18A: 100, 101, 200, 300, SPRR
23 12 18AB: 213, 214, 215, 225, 226, 244, 245, 252, 1000, 1200, 1201, 1203, 1204, 1500, 1600, 2400, 3100, 3200, 3300, SPRR
23 12 18AC: SPRR; 9900
23 12 18AD: 700, 1400-1900
23 12 18BA: 100
23 12 18BB: 2600, 2700, 2702;
23 12 18BC: 300, 800, 900, 1100, 1400-3200, 3400, 3401, 3402, 3500, 3501, 7300, 7500, 12200
23 12 18BD: SPRR 12200
23 12 18C: 800, 801, 900, 1000, 1100, 1102, 1103, 1400
23 12 18CA: 300, 301, 600
23 12 18CB: 3100, 3200, 3405, 3701, 3702, 3800, 3900, 3901, 4000-4200, 4301, 4300-4800, 4801, 4900, 5000, 5001, 5002, 5003, 5100, 5200; 5500-5700, 6000, 6100, 6800-7000
23 12 18D: 100, 200, 300, 500, 503, 504, 505
23 12 18D Supplemental Map No. 1: 90000

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FES Project 98111

APPENDIX 2

WETLAND SUMMARY SHEETS

CITY OF LAKESIDE LOCAL WETLANDS INVENTORY

WETLAND SUMMARY SHEETS

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DESCRIPTIVE INDEX

BOWRON CREEK (BC) WETLANDS

BC-1: Wetlands from North Tenmile Lake to Railroad track, east of Willow Creek RV Park (extends slightly outside UGB).

BC-2: North of railroad tracks, disturbed by grazing (offsite).

BC-3: North of BC-2, disturbed by grazing and soil removal and erosion (offsite).

BC-4: North of Rugh Lane, small ponds with surrounding PSS/PFO wetlands, connected by narrow drainages.

BC-5: West of Rugh Lane, forested wetlands connected to BC-6.

BC-6: East of Fern Lane (and west of Rugh Lane), small ponds with surrounding PEM grazed/mowed wetlands (offsite); connected to BC-5. (Note: BC-5 and BC-6 combined on summary sheet after OFWAM completed.)

TENMILE LAKE (TL) WETLANDS

TL-1: Large size wetland area at Osprey Point RV Resort and North Lake Canal (offsite).

TL-2: Scrub-shrub fringe between Osprey Point RV Resort and Tenmile Lake County Park.

TL-3: Tenmile Lake County Park.

TL-4: Pier Condos (offsite) and Lakeshore Lodge property.

Note: TL-2, TL-3, and TL-4 were combined into one unit for assessment purposes; these are all small wetlands along Tenmile Lake with developed surrounding landuse.

TL-5: Wetland across Tenmile Lake, more rural, less developed surrounding landuse, with beaver pond above Devore Arm road (extends outside UGB).

TENMILE CREEK (TC) WETLANDS

TC-1: Wetlands on either side of creek near sewage treatment plant, also includes offsite wetland areas to the west that are outside of the UGB.

TC-2: North of railroad, west of airport. Separated from TC-1 because very disturbed, different habitat (offsite).

TC-3: Forked drainage below Hilltop Drive, connected to Tenmile Creek opposite the sewage treatment plant (extends outside UGB).

TC-4: Drainage crossing Highway 101 south of south entrance (offsite; outside UGB, extends outside study area boundary (SAB)).

TC-5: Saunders Creek (at Spinreel Campground; outside UGB, extends outside SAB).

EEL CREEK (EC) WETLANDS

EC-1: Wetland adjacent to Eel Creek (feeds out of Eel Lake), north of EC-2. Includes large area east of UGB.

EC-2: North and East of Bonneville Road (offsite; extends outside UGB).

EC-3: West of Highway 101, between south entrance to Lakeside and Wildwood Drive (offsite, outside UGB, extends outside of SAB).

CLEAR CREEK (CC) WETLAND

CC-1: Clear Creek wetland (swamp), outflow tributary feeds into Eel Lake (extends outside UGB).

ISOLATED WETLANDS

BC-1A: West of BC-1 (Willow Creek RV Resort) on North Lake Resort property.

CP-1: County Park east of parking lot (not connected to Tenmile Lake).

CP-2: County Park west of Osprey Point RV Resort.

RA-1: Robinhood Avenue and Kings Avenue.

SP-1: Tugman State Park (extends outside UGB).

COLEMAN ARM, TENMILE LAKE (CA) WETLANDS

CA-1 through CA-12: Steep drainages into Coleman Arm, grouped together (offsite; outside UGB), and CA-13: Large emergent mowed/grazed and ditched agricultural wetland

at head; includes Benson Creek (offsite; outside UGB).

CITY OF LAKESIDE LOCAL WETLANDS INVENTORY
WETLAND SUMMARY SHEET

WETLAND: Bowron Creek Wetland adjacent to North Tenmile Lake **UNIT:** BC-1

Drainage Basin: Tenmile Lakes **Plot Numbers:** 17, OF-4, OF-5

Approx. Acreage: 31.25 (6.06 PFO, 13.64 PSS, 11.56 PEM)

Location: East of Willow Creek RV Resort, north and east of North Lake Resort, north of North Tenmile Lake, south of the railroad tracks.

Tax Lots: 23 12 17B: 500, 600, 700, 800, 900; **18A:** 300; SPRR; (**8:** 300 and **8CD:** 1600 outside UGB)

T23S R12W Section: 18NE/17NW **Field Date:** 11/21/98

General Description: Bowron Creek flows south through this large wetland complex to North Tenmile Lake, receiving drainage from Units BC-2, BC-3, BC-4, BC-5 and BC-6. The unit is commonly flooded by high waters in North Tenmile Lake. The wetland has a nice mix of forested, scrub-shrub, and emergent wetlands, including an upland island dominated by shore pine. Several trails are present during low water conditions. The wetland extends beyond the city limits to the north (1.55 acres outside UGB). Bowron Creek has been straightened in its lower reach and the stream is currently receiving a large silt load from land disturbances upstream. Small pockets of remant scrub-shrub wetland are still present at RV resort. See DSL Determination #96-0099 and fill permit FP-10572 for further information

Onsite NWI Classification: 19% PFO, 44% PSS, 37% PEM
(Note: North Tenmile Lake was not included in this calculation, but was counted as open water for OFWAM assessment.) Site is mapped as two areas of PSSC with a lake-fringing marsh of PEMC and PEMF. Flooding regime: C; Special Modifier: none
(A temporary B saturated C seasonal F semi-permanently H permanent K artificial)

Mapped Soils; Onsite Soils: 64 Yaquina loamy fine sand (hydric); 10YR 4/2 fine sandy silt loam with common, fine-medium 10YR 3/1, 10YR 5/4, and 10YR 5/6 redox concentrations.

Hydrologic Source: Perennial stream (Bowron Creek), and flooding from North Tenmile Lake. Soils have a high water table.

Dominant Vegetation:

Trees	**Shrubs**	**Herbs/Emergents**
red alder	Hooker willow	reed canarygrass
Pacific willow		

Other vegetation includes shore pine, Pacific dewberry, salmonberry, Douglas spirea, cascara, slough sedge, soft rush, water parsley, reed canarygrass, lady fern, vetch, bracken fern, and willow-weed.

Boundary Information: Well-defined by fill slope along railroad tracks and by recently placed fill from the Willow Creek RV Resort. A slightly higher elevation upland island inclusion is present near the north center of the wetland (unable to reach due to high water).

Wetland Functions and Significance: Provides diverse wildlife habitat and has intact fish habitat, water quality, and hydrologic control functions. Area provides recreational opportunities. Significant due to 4 intact wetland functions.

CITY OF LAKESIDE LOCAL WETLANDS INVENTORY
WETLAND SUMMARY SHEET

WETLAND: Bowron Creek Wetland north of railroad tracks **UNIT:** BC-2

Drainage Basin: Tenmile Lakes **Plot Numbers:** 13, 14, 15, 16, OF-6 - partly offsite

(See Plots 11 and 12 for Bowron Creek between BC-4 and BC-2)

Approx. Acreage: 15.02 (2.31 PFO, 2.32 PSS, 10.39 PEM)

Location: North of railroad tracks north of BC-1, east of Bowron Road.

Tax Lots: 23 12 17B: 800, SPRR; **18A:** 100, 101, 200, SPRR, unknown TL (possibly 900?); **18AB:** SPRR, **18AC:** SPRR; **18BD:** SPRR 12200

Bowron Creek between BC-4 and BC-2: 23 12 18AB 213, 214, 215, 225, 226, 244, 245, 251, 252, 1000, 1200, 1204, 1500, 1600

T23S R12W Section: 17NW/18NE&NW **Field Dates:** 11/21-22/98

General Description: This unit is mostly grazed pasture, with a fenced ponded area with slough sedge at the eastern end, and scrub-shrub along the railroad berm to south, and a linear forested component north near the railroad tracks to the west. The unit receives flow from Units BC-3 and BC-4, and receives inflow from the wetland drainage north of the railroad tracks. The emergent wetland meadow has been disturbed by grazing and Bowron Creek has been ditched through the pasture. A small ponded area with slough sedge is present near the east end of the unit.

Onsite NWI Classification: 15% PFO, 15% PSS, 70% PEM
Site is mapped as a small area of PEMC. Flooding regime: C; Special Modifier: partly d
(A temporary B saturated C seasonal F semi-permanently H permanent K artificial);
(b beaver d partially drained/ditched h diked/impounded x excavated f farmed p pasture-planted to 1 sp. of grass)

Mapped Soils; Onsite Soils: 64 Yaquina loamy fine sand (hydric); varied, including 10YR 4/3 fine sand with organic streaking, 10YR 3/2 sand with 10YR 3/1 mottles and organic streaking, and 10YR 3/2 sandy silt loam with common fine-medium 7.5YR 4/4 redox concentrations (all samples from the railroad area south of Bowron Road).

Hydrologic Source: Perennial stream (Bowron Creek), high groundwater table.

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
-	Hooker willow	slough sedge
	shore pine	marsh speedwell
	western crabapple	grasses
	Douglas spirea	

Other vegetation includes common velvetgrass.

Boundary Information: Distinct topographic break to north upland, and along toe of railroad berm; less distinct topography on western emergent boundary where upland defined by road to house. Upland vegetation along railroad includes Himalayan blackberry, Pacific wax-myrtle, some facultative plants.

Wetland Functions and Significance: Intact water quality and hydrologic control functions (provides wildlife habitat for some species and has degraded fish habitat). Has a high enhancement potential. Significant due to 2 intact wetland functions.

CITY OF LAKESIDE LOCAL WETLANDS INVENTORY
WETLAND SUMMARY SHEET

WETLAND: Bowron Creek Wetland north of BC-2	**UNIT:** BC-3
Drainage Basin: Tenmile Lakes	**Plot Numbers:** OF-11, OF-22
Approx. Acreage: 10.12 (trace PFO, 1.01 PSS, 9.11 PEM)	
Location: Northeast of Lakeland Drive	
Tax Lots: 23 12 7: 1000, 1100 **T23S R12W Section:** 7SE	**Field Dates:** 11/22/98, 3/4/99

General Description: Unit BC-3 consists of an emergent wetland with scrub-shrub and trace forested components associated with Bowron Creek. The wetland has been disturbed by grazing and occasional severe runoff and erosion from an adjacent development to the west (Lakeland Estates Phase II). Bowron Creek has been ditched through the pasture on each side and is subjected to cattle disturbance.

Onsite NWI Classification: trace PFO, 10% PSS, 90% PEM
Site is mapped as PEMC with a R4SBC input. Flooding regime: C; Special Modifier: none
(A temporary B saturated C seasonal F semi-permanently H permanent K artificial)

Mapped Soils; Onsite Soils: 64 Yaquina loamy fine sand (hydric); not sampled (offsite).

Hydrologic Source: Drainages to Bowron Creek, seeps (reported by owner).

Dominant Vegetation:

Trees	**Shrubs**	**Herbs/Emergents**
western red cedar	Douglas spirea	slough sedge
	willow	reed canarygrass
		skunk cabbage

Boundary Information: steeply sloped to north - unable to see all of boundary. Well-defined by fill slope to west and fill pad to south around barn.

Wetland Functions and Significance: Intact water quality and hydrologic control functions (provides wildlife habitat for some species and has degraded fish habitat). Has a high enhancement potential. Significant due to 2 intact wetland functions.

CITY OF LAKESIDE LOCAL WETLANDS INVENTORY
WETLAND SUMMARY SHEET

WETLAND: Bowron Creek Wetlands: ponds, forest, and drainages **UNIT:** BC-4
Drainage Basin: Tenmile Lakes **Plot Numbers:** 30, 31, 32, 33, OF-12
(See Plots 11 and 12 for Bowron Creek between BC-4 and BC-2)
Approx. Acreage: 5.55 (4.73 PFO, 0.06 PSS, 0.26 PEM, 0.50 POW/PAB)
Location: North of Rugh Lane, east of BC-5
Tax Lots: 23 12 7: 1200 (see also **7CD:** 100?); **18AB:** 1200, 1201, 1203, 1204, 2400, 3100
T23S R12W Section: 7SE **Field Dates:** 11/21/98, 3/2/99

General Description: Very nice mix of forested wetland, emergent areas, and two man-made ponds with active beaver mark present. Partly disturbed by horses.

Onsite NWI Classification: 85% PFO, 1% PSS, 5% PEM, 9% POW/PAB
Site is mapped as PFOA, PSSA, and PEMCh.
Flooding regime: C and H; Special Modifier: b and h
(A temporary B saturated C seasonal F semi-permanently H permanent K artificial);
(b beaver d partially drained/ditched h diked/impounded x excavated f farmed p pasture-planted to 1 sp. of grass)

Mapped Soils; Onsite Soils: 64 Yaquina loamy fine sand (hydric), with upland areas mapped as 52E Salander silt loam, 30-50% slopes; 10YR 3/1 mucky silt with sand and mottles and gley and 10YR 2/2 and 2/1 sandy muck.

Hydrologic Source: Perennial stream flowing down slope, two open water ponds, soils with high groundwater table.

Dominant Vegetation:

Trees	**Shrubs**	**Herbs/Emergents**
willow	willow	skunk cabbage
red alder	Douglas spirea	water parsley
Sitka spruce		watercress
western red cedar		

Other vegetation includes small-fruited bulrush, creeping buttercup, reed canarygrass, soft rush, slough sedge, broad-leaf cattail, and pampas grass.

Boundary Information: Upland very steep on west end and includes sandstone cliff, with vertical basalt cliff on east side (with seeps), gradually-sloped ravine to north, upland boundary on south formed by residential development. Upland vegetation includes sword fern and blackberry mixed in with facultative vegetation. Upland soils had a chroma of 4.

Wetland Functions and Significance: Provides diverse wildlife habitat and has intact fish habitat, water quality, and hydrologic control functions. Significant due to 4 intact wetland functions.

CITY OF LAKESIDE LOCAL WETLANDS INVENTORY
WETLAND SUMMARY SHEET

WETLAND: Forested (BC-5) and emergent (BC-6) wetlands **UNIT:** BC-5 and BC-6
Drainage Basin: Tenmile Lakes **Plot Numbers:** BC-5: 34, 35; BC-6: OF-1 (offsite)
Approx. Acreage: 10.95 (4.18 PFO, 6.56 PEM, 0.20 POW/PAB)
Location: East of Fern Lane, west of Rugh Lane and BC-4
Tax Lots: 23 12 7: 1200; **7CD:** 200, 600, 606, 607, 608, 609?, 610, 611; **18BA:** 100
Stream flowing out of BC-5: 23 12 18AB: 1201, 3100, 3200, 3300
T23S R12W Section: 7SW, 18NW **Field Dates:** 11/20/98, 3/2/99, 3/4/99

General Description: This wetland is forested in the east (BC-5) and grazed-emergent-ditched in the west (BC-6). The unit was divided in two since we expected that the grazed portion (BC-6) would rank lower in the OFWAM assessment, but it rated the same as BC-5, so we have combined them again for this summary sheet. BC-5 is an undisturbed forested wetland bordered by upland forest on the north and south. BC-6 has two small excavated ponds, and the drainages have been ditched and straightened. The drainages flow east to form a tributary to Bowron Creek.

Onsite NWI Classification: Overall 38% PFO, 60% PEM, 2%POW/PAB
BC-5 is 3.56 acres (100% PFO); BC-6 is 7.39 acres (8% PFO, 89% PEM, 3% POW/PAB).
BC-5 is mapped as PSSA and BC-6 is mapped as PEMC and PUBHx.
Flooding regime: C; Special Modifier: partly d
(A temporary B saturated C seasonal F semi-permanently H permanent K artificial);
(b beaver d partially drained/ditched h diked/impounded x excavated f farmed p pasture-planted to 1 sp. of grass)

Mapped Soils; Onsite Soils: 64 Yaquina loamy fine sand (hydric); 10YR 2/2 peat.

Hydrologic Source: Perennial stream coming from seeps

Dominant Vegetation:

Trees	**Shrubs**	**Herbs/Emergents**
willow	willow	slough sedge
red alder		small-fruited bulrush
		skunk cabbage
		reed canarygrass
		grazed grasses

Boundary Information: Upland forest to the south dominated by shore pine, salal, evergreen huckleberry, Pacific rhododendron and Pacific wax-myrtle, with chroma 3 sand lacking organic streaking. Steep slopes to north, and well defined boundary to the east.

Wetland Functions and Significance: Provides diverse wildlife habitat and has intact fish habitat, water quality, and hydrologic control functions. Significant due to 4 intact wetland functions.

CITY OF LAKESIDE LOCAL WETLANDS INVENTORY
WETLAND SUMMARY SHEET

WETLAND: Osprey Point Wetland on Tenmile Lake and Canal **UNIT:** TL-1
Drainage Basin: Tenmile Lakes **Plot Numbers:** OF-7, OF-8, OF-9, OF-15, 40 (offsite)
Approx. Acreage: 38.68 (trace PFO, 35.44 PSS, 2.11 PEM, 1.12 POW/PAB)
Location: South of North Lake Avenue near 15th Street, includes Tenmile Canal
Tax Lots: 23 12 17B: 900, 1001; **17CB:** 200, 900; **18AC:** 9900; **18AD:** 700, 1400-1900; **18D:** 100, 200
T23S R12W Section: 17NW&SW, 18NE&SE **Field Dates:** 11/21-22/98, 3/3/99

General Description: This unit is a large scrub-shrub wetland divided by North Lake Canal. Most of the scrub-shrub wetland is relatively undisturbed. The Osprey Point RV Resort has developed part of the historic wetlands, some dating to the log mill that was on the site (see DSL fill permit?). Several existing open water ponds are remnant mill pond wetlands. The drainage into the site under North Lake Avenue has been channelized. The Oregon State Marine Board dredges the canal on a regular basis to keep it open for boat traffic.

Onsite NWI Classification: trace PFO, 92% PSS, 5% PEM, 3% POW/PAB
(Note: North Tenmile Lake was not included in this calculation, but was counted as open water for OFWAM assessment.) Site is mapped as PSSC with narrow PEMC/F fringe, and PUBHx ponds that are no longer in place. Canal is mapped as R2UBH. Flooding regime: C, F and H; Special Modifier: very small portion x.
(A temporary B saturated C seasonal F semi-permanently H permanent K artificial);
(b beaver d partially drained/ditched h diked/impounded x excavated f farmed p pasture-planted to 1 sp. of grass)

Mapped Soils; Onsite Soils: 64 Yaquina loamy fine sand (hydric); offsite.

Hydrologic Source: Influenced by Tenmile Lake and high groundwater table.

Dominant Vegetation:

Trees	**Shrubs**	**Herbs/Emergents**
red alder	Hooker willow	reed canarygrass
	Douglas spirea	soft rush
	shore pine	

Other vegetation includes slough sedge, broad-leaf cattail, water-milfoil, and tall fescue.

Boundary Information: Developed into paved RV park. Steeply sloped upland on east side of wetland (east of canal).

Wetland Functions and Significance: Intact water quality and hydrologic control functions (provides wildlife habitat for some species and has degraded fish habitat). Has a high enhancement potential. Provides recreational opportunities. Significant due to 2 intact wetland functions.

CITY OF LAKESIDE LOCAL WETLANDS INVENTORY
WETLAND SUMMARY SHEET

WETLAND: Tenmile Lake wetland fringe and adjacent wetlands **UNIT:** TL-2, TL-3, and TL-4
Drainage Basin: Tenmile Lakes **Plot Numbers:** 1, 2, 3, 4, 20, 21, 22, OF-2 (partly offsite)
Approx. Acreage: 5.01 (0.46 PFO, 1.79 PSS, 0.66 PEM, 2.10 POW/PAB)
Location: Lakeshore Lodge, Pier Condos, and Old Mill Site (Coos County Park) fringe
Tax Lots: 23 12 18CA: 300, 301, 600; **18D:** 300, 500, 503, 504, 505; **18D Supplemental Map No. 1:** 90000 (latter offsite)
T23S R12W Section: 18SW&SE **Field Dates:** 11/20-21/98, 3/4/99

General Description: This group of three wetland units includes fringing wetlands along the edge of Tenmile Lake, and the forested wetland behind McKay's Market and the pump station. TL-2 is a narrow scrub-shrub fringe on property immediately west of the Osprey Point RV Resort; this land has been purchased by the county for development into a park. TL-3 includes the fringing wetlands and scrub-shrub upslope wetland on the Tenmile Lake County Park, west of TL-2. The Pier Condos (offsite) and the Lakeshore Lodge waterfront fringing wetlands comprise the southern portion of TL-4, which extends to the north to a forested area behind the City's pump station. (See DSL Permit No. RP-14744 for dredging and disposal for the Lakeshore Lodge. News Flash (June 99): See DSL Det. #98-0529 and permit RF#16869 for proposed fill and mitigation at Lakeshore Lodge. Mill site information is included in DSL Permit No. 2800 for Bohemia Lumber Inc., previously known as Elkside Lumber Company.)

Onsite NWI Classification: Overall 9% PFO, 36% PSS, 13% PEM, 42% POW/PAB
TL-2: 0.39 acres (100% PSS). TL-3: 2.34 acres (22% PSS, 28%PEM, 50% POW/PAB). TL-4: 2.28 acres (20% PFO, 39% PSS, 41% POW/PAB). (Note: North Tenmile Lake was not included in this calculation, but was counted as open water for OFWAM assessment.) Site is mapped as PSSC and PUBHx (TL-2 and NS-1) and L2ABH (TL-3 and TL-4).
Flooding regime: C, F and H; Special Modifier: none.
(A temporary B saturated C seasonal F semi-permanently H permanent K artificial)

Mapped Soils; Onsite Soils: 64 Yaquina loamy fine sand (hydric); NS-1 soils (north of TL-2) were 10YR 2/1 loamy fine sand with mottles, and 10YR 3/2 sand with organic streaking in the surface.
Hydrologic Source: Tenmile Lake, high groundwater table, intermittent stream inflow.
Dominant Vegetation:

Trees	western crabapple	smartweed
Pacific willow	red alder	slough sedge
shore pine	Himalayan blackberry	reed canarygrass
Shrubs	**Herbs/Emergents**	creeping buttercup
Pacific willow	hardstem or softstem bulrush	common velvetgrass
Hooker willow	broad-leaf cattail	

Other vegetation includes Douglas spirea, Pacific blackberry, water parsley, pointed rush, dagger-leaf rush, tapered rush, soft rush, Pacific silverweed, yellow parentucellia, pennyroyal, may lily, American speedwell, golden blue-eyed grass, birdsfoot-trefoil, spotted cats-ear, orchard grass, bentgrass, and bluegrass.
Boundary Information: Upland vegetation includes shore pine and Pacific wax-myrtle, and mowed lawn grasses. Upland soils had a matrix chroma of 6.
Wetland Functions and Significance: Provides diverse wildlife habitat and has intact fish habitat, water quality, and hydrologic control functions. Provides recreational opportunities. Significant due to 4 intact wetland functions.

CITY OF LAKESIDE LOCAL WETLANDS INVENTORY
WETLAND SUMMARY SHEET

WETLAND: Devore Arm Road Wetland on Tenmile Lake and beaver pond **UNIT:** TL-5
Drainage Basin: Tenmile Lakes **Plot Numbers:** 38, 39
Approx. Acreage: 4.09 (2.25 PFO, 0.46 PSS, 1.38 POW/PAB)
Location: On Devore Arm Road, on south side of Tenmile Lake
Tax Lots: 23 12 18C: 1400; **19:** outside UGB
T23S R12W Section: 18SW **Field Date:** 3/3/99

General Description: Forested wetland fringe on Tenmile Lake and beaver pond with lots of woody debris present, and snags from beaver activity. Noted a fish in the beaver pond. Extends outside UGB (approximately 1.33 acres outside UGB).

Onsite NWI Classification: 55% PFO, 11% PSS, 34% POW/PAB
(Note: North Tenmile Lake was not included in this calculation, but was counted as open water for OFWAM assessment.) Site is mapped as PEMC with R4SBC input. Flooding regime: C and F; Special Modifier: partly b.
(A temporary B saturated C seasonal F semi-permanently H permanent K artificial);
(b beaver d partially drained/ditched h diked/impounded x excavated f farmed p pasture-planted to 1 sp. of grass)

Mapped Soils; Onsite Soils: 52D Salander silt loam, 2-30% slopes; gleyed silt.

Hydrologic Source: Northern portion influenced by Tenmile Lake level; south portion on other side of road has a beaver dam on the drainage.

Dominant Vegetation:

Trees	**Shrubs**	**Herbs/Emergents**
red alder	willow	skunk cabbage
		slough sedge
		reed canarygrass

Other vegetation includes lesser duckweed, small-fruited bulrush, watercress, and pondweed.

Boundary Information: Steep slopes on west and east sides, more gradual to the south. Surrounding upland vegetation has been logged, and includes Douglas fir, western hemlock, and Sitka spruce. Upland soils had a matrix chroma of 4.

Wetland Functions and Significance: Provides diverse wildlife habitat and has intact fish habitat, water quality, and hydrologic control functions. Has educational uses and provides recreational opportunities. Significant due to 4 intact wetland functions.

CITY OF LAKESIDE LOCAL WETLANDS INVENTORY
WETLAND SUMMARY SHEET

WETLAND: Tenmile Creek Wetlands **UNIT:** TC-1

(TC-1 East = within UGB, TC-1 West = outside UGB but within offsite study area boundary)

Drainage Basin: Tenmile Creek **Plot Numbers:** 5, 6, 7, 8, 45, 46, OF-16 (by boat)

Approx. Acreage: Total 54.51. TC-1 East = 31.74 (20.77 PSS, 5.97 PEM, 5.00 POW/PAB); TC-1 West = 22.77 (0.61 PFO, 11.52 PSS, 6.62 PEM, 4.02 POW/PAB).

Location: West of sewage treatment plant (STP) on Park Avenue and south of railroad tracks, extends to the west outside of the UGB to the railroad bridge.

Tax Lots: TC-1 East: **23 12 18BC:** 1400-3200, 3400, 3401, 3402, 3500, 3501, 7500; **18CB:** 3100, 3200, 3405, 3701, 3702, 3800, 3900, 3901, 4000-4200, 4301, 4300-4800, 4801, 4900, 5000, 5001, 5002, 5003, 5100, 5200; 5500-5700, 6000, 6100, 6800-7000; **18C:** 800, 801, 900, 1000, 1100, 1102.

TC-1 West: **23 13 13D:** 100, 200, 300, 402, 500. **Field Dates:** 11/20/98, 3/3-4/99

T23S R12W Section: 18NW&SW (outside UGB = T23S R13W Section 13SE)

General Description: Very large complex of scrub-shrub and emergent wetlands along Tenmile Creek. Sampled onsite west of the residential area near 2nd Street north of North Lake Avenue and west of 3rd Street south of North Lake Avenue, and along Park Avenue. Conducted an offsite survey along Tenmile Creek (from mouth to railroad bridge) by boat on 3/3/99. The creek was out of its banks and the traversing was hazardous (many thanks to Bob Harr for his daring volunteering). A new channel has been cut through the prominent oxbow just west of the STP (See DSL Permit No. 3985, 1985). Two areas north and south of the creek near the STP are used for irrigation of treated wastewater. The majority of the wetlands are scrub-shrub. Part of the unit west of the UGB is grazed.

Onsite NWI Classification: TC-1 East 65% PSS, 19% PEM, 16% POW/PAB. TC-1 West 2% PFO, 51% PSS, 29% PEM, 18% POW/PAB. Overall 1% PFO, 59% PSS, 23% PEM, 17% POW/PAB.

Creek is mapped as R2UBH and R2ABH, with wetland areas of PEMC and PSSC.

Flooding regime: A and C; Special Modifier: none

(A temporary B saturated C seasonal F semi-permanently H permanent K artificial)

Mapped Soils; Onsite Soils: 28 Heceta fine sand (hydric); 10YR 5/3 fine sand with 10YR 3/1 mottles and organic streaking near the surface. Also 10YR 3/2 sand with mottles and organic streaking.

Hydrologic Source: Much of the hydrology of this area is driven by the Tenmile Creek (and Tenmile Lake) water level.

Dominant Vegetation:	**Shrubs**	**Herbs/Emergents**
Trees	Douglas spirea	slough sedge
red alder	Hooker willow	reed canarygrass

Other vegetation includes western crabapple, salmonberry, Himalayan blackberry, red elderberry, etc.

Boundary Information: Most of the wetland in the north and west is surrounded by steep slopes; the boundary is more gradual on the east edge, where residential development has encroached into wetland areas. The south boundary is confined by marine and residential development within the UGB, and is a gradual slope in the agricultural area outside the UGB. Upland vegetation includes shore pine, Pacific rhododendron, hairy manzanita, bluegrass, spotted cats-ear, and facultative vegetation.

Wetland Functions and Significance: Provides diverse wildlife habitat and has intact fish habitat, water quality, and hydrologic control functions. Provides recreational opportunities. Significant due

to 4 intact wetland functions.

CITY OF LAKESIDE LOCAL WETLANDS INVENTORY
WETLAND SUMMARY SHEET

WETLAND: Scrub-shrub area beneath powerlines west of airport **UNIT:** TC-2
Drainage Basin: Tenmile Creek **Plot Numbers:** OF-23
Approx. Acreage: 17.41 (17.41 PSS)
Location: North of Airport Way and small area north of railroad tracks
Tax Lots: 23 12 7CC: 3800 (airport ditch); **18BB:** 2600, 2700, 2702; **18BC:** 300, 800, 900, 1100, 7300; **18BC:** 12200
T23S R12W Section: 18NW **Field Date:** 11/20/98

General Description: This unit was separated from TC-1 due to its disturbance (areas beneath powerlines mowed, area north of railroad tracks and south of Airport Way quite disturbed, vegetation cleared in preparation for residential development). The wetland is culverted under Airport Way and the railroad tracks. Cleared area reviewed by DSL, see Determination #99-0124.

Onsite NWI Classification: 100% PSS
Site is not mapped. Flooding regime: C; Special Modifier: none
(A temporary B saturated C seasonal F semi-permanently H permanent K artificial)

Mapped Soils; Onsite Soils: 64 Yaquina loamy fine sand (hydric); offsite.

Hydrologic Source: Several drainages have been ditched through the wetland; drainage culverted under railroad tracks; and soils have a high groundwater table.

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
-	Douglas spirea	slough sedge
	shore pine	
	willow	
	red alder	

Boundary Information: Very steep slope to west and north; steep upland berm to highway in south; boundary to east provided by the mowed airport grounds and a few houses in the southeast. Upland vegetation includes salal, shore pine, bristly manzanita, Scot's broom.

Wetland Functions and Significance: Intact water quality and hydrologic control functions (provides wildlife habitat for some species and has degraded fish habitat). Has a high enhancement potential. Significant due to 2 intact wetland functions.

CITY OF LAKESIDE LOCAL WETLANDS INVENTORY
WETLAND SUMMARY SHEET

WETLAND: Below Hilltop Drive south of STP **UNIT:** TC-3
Drainage Basin: Tenmile Creek **Plot Numbers:** 36, 37, OF-17
Approx. Acreage: 0.83 (0.43 PFO, 0.40 PEM)
Location: South of Tenmile Creek, below Hilltop Drive
Tax Lots: 23 12 18C: 1103; **23 13 13D:** 900 (latter outside UGB)
T23S R12W Section: 18SW **Field Date:** 3/3/99

General Description: Two tributary drainage to Tenmile Creek, extends west outside of the UGB (0.76 acre outside UGB). West tributary consists of three ponds with dams and long culverts (did not see upper two). Lower wetland area has b
een cleared of trees and consists of an emergent wetland. East tributary is forested, with cleared understory vegetation. Connected to Tenmile Creek, across from sewage treatment plant.

Onsite NWI Classification: 48% PFO, 52% PEM
Site is not mapped. Flooding regime: C and H; Special Modifier: partly h
(A temporary B saturated C seasonal F semi-permanently H permanent K artificial);
(b beaver d partially drained/ditched h diked/impounded x excavated f farmed p pasture-planted to 1 sp. of grass)

Mapped Soils; Onsite Soils: 54D Templeton silt loam, 7-30% slopes; 10YR 2/2 peat.

Hydrologic Source: Perennial stream.

Dominant Vegetation:

Trees	**Shrubs**	**Herbs/Emergents**
red alder	willow	soft rush
	Douglas spirea	skunk cabbage
		slough sedge

Other vegetation includes small-fruited bulrush, willow-weed, etc.

Boundary Information: Steep slopes, paved road to parking area between two tributaries. Upland vegetation includes red alder, Douglas fir, shore pine, western hemlock, salal, evergreen huckleberry, salmonberry, Scot's broom, Himalayan blackberry, sword fern, Pacific blackberry, spotted cats-ear, licorice fern, and bentgrass.

Wetland Functions and Significance: Provides diverse wildlife habitat and has intact fish habitat, water quality, and hydrologic control functions. Significant due to 4 intact wetland functions.

CITY OF LAKESIDE LOCAL WETLANDS INVENTORY
WETLAND SUMMARY SHEET

WETLAND: Outside UGB to west of city and Wildwood Drive **UNIT:** TC-4
Drainage Basin: Tenmile Creek **Plot Numbers:** OF-19, OF-20
Approx. Acreage: 11.91 (trace PFO, 11.69 PSS, 0.07 PEM, 0.15 POW/PAB)
Location: South of Dunes Mobile Ranch, west of Wildwood Drive, and east of Highway 101.
Tax Lots: 23 13 13: 200; **13B:** 900, 1000; **13C:** 300-800. (Outside SAB = 13C: 100, 1500.)
T23S R13W Section: 13SW **Field Date:** 3/4/99

General Description: Scrub-shrub wetland west of Wildwood Drive, emergent wetland east of Highway 101, drains to Tenmile Creek. Extends outside SAB (approximately 6.21 acres outside SAB).

Onsite NWI Classification: trace PFO, 98% PSS, 1% PEM, 1% POW/PAB
Site is mapped as a linear PSSC, with a larger PSSC and PEMC wetland area east of Highway 101.
Flooding regime: C; Special Modifier: none
(A temporary B saturated C seasonal F semi-permanently H permanent K artificial)

Mapped Soils; Onsite Soils: Mostly 28 Heceta fine sand (hydric); offsite.

Hydrologic Source: Perennial stream from east to Tenmile Creek, roadside ditch culverted under driveways west of Wildwood Drive.

Dominant Vegetation:

Trees	**Shrubs**	**Herbs/Emergents**
-	Hooker willow	slough sedge
	Douglas spirea	reed canarygrass
	salmonberry	
	red alder	

Other vegetation includes black twinberry, red elderberry, red alder, and skunk cabbage.

Boundary Information: Roadside ditch well-defined. Large scrub-shrub area west of Wildwood Drive well defined on south boundary by earthen berm adjacent to residence, did not see northern boundary, or area west of Tenmile Creek - wetland enlarged due to DSL review. Emergent area east of Highway 101 surrounded by steep slopes. Upland vegetation includes salal, evergreen huckleberry, Scot's broom, and shore pine.

Wetland Functions and Significance: Provides diverse wildlife habitat and has intact fish habitat, water quality, and hydrologic control functions. Provides recreational opportunities. Significant due to 4 intact wetland functions.

CITY OF LAKESIDE LOCAL WETLANDS INVENTORY
WETLAND SUMMARY SHEET

WETLAND: Saunders Creek at Spinreel Campground **UNIT:** TC-5
Drainage Basin: Saunders Creek to Tenmile Creek **Plot Numbers:** 43, 44, OF-21
Approx. Acreage: 8.57 (1.38 PFO, 6.93 PSS/PEM, 0.27 POW/PAB)
Location: West of Wildwood Drive in southwest portion of study area boundary, outside UGB.
Tax Lots: 23 13 13C: 1100, 1300; **23 13 14:** State Parks.
T23S R13W Section: 13SW, 14SE **Field Date:** 3/4/99

General Description: Very nice scrub-shrub wetland with interspersion of forested, emergent, and open water areas. Saunders Creek is a coho salmon nursery and adult coho were observed within the State Park above a fish friendly culvert. Small scrub-shrub wetland located east of Wildwood Drive near the south end, west of the railroad tracks (no culvert found but may be connected). Extends outside SAB (approximately 6.13 acres outside SAB).

Onsite NWI Classification: 16% PFO, 81% PSS/PEM, 3% POW/PAB
Site is mapped as PSSC with an R2UBH entry into Tenmile Creek. Flooding regime: C; Special Modifier: none. (A temporary B saturated C seasonal F semi-permanently H permanent K artificial)

Mapped Soils; Onsite Soils: 28 Heceta fine sand (hydric); 10YR 2/2 sand with organic staining.

Hydrologic Source: Perennial stream, soils with high groundwater table.

Dominant Vegetation:

Trees	**Shrubs**	**Herbs/Emergents**
-	willow	slough sedge
	Douglas spirea	

Other vegetation includes skunk cabbage. Note: it is possible that Lyngby sedge is present here.

Boundary Information: Steep slope to east, steep dunes to west, developed park areas in north. Wetland continues to the south outside of the study area boundary. Upland vegetation includes shore pine, Sitka spruce, Pacific rhododendron, Pacific wax-myrtle, madrone, salal, and Scot's broom. Upland soils were a 10YR 4/4 fine sand.

Wetland Functions and Significance: Provides diverse wildlife habitat and has intact fish habitat, water quality, and hydrologic control functions. Has educational uses and provides recreational opportunities. Significant due to 4 intact wetland functions.

CITY OF LAKESIDE LOCAL WETLANDS INVENTORY
WETLAND SUMMARY SHEET

WETLAND: Eel Creek wetland in the north, south of Wm. Tugman State Park **UNIT:** EC-1

Drainage Basin: Eel Creek **Plot Numbers:** 28, 29, 47, OF-13

Approx. Acreage: 11.88 (9.49 PFO, 2.39 PSS)

Location: South of William Tugman State Park, east of Highway 101, behind Seadrift Motel and RV Park, and mostly north of logging road just south of T'ree Acres Mini Mart on Highway 101.

Tax Lots: 23 12 6CC: 500, 600; **7:** 200, 300 (outside UGB); **7BB:** 100, 200, 300, 400 (Eel Creek on 800)

T23S R12W Section: 6SW, 7NW

Field Dates: 11/22/98, 3/4/99

General Description: A very large wetland complex extending east outside of the UGB (approximately 17.64 acres outside UGB); Eel Creek flows south through mostly forested wetland (the wetland east of the UGB is mostly emergent). The small scrub-shrub portion in the west has been disturbed by logging and fill. Eel Creek has excellent riparian cover. See DSL Determination #96-0327 for more information.

Onsite NWI Classification: 80% PFO, 20% PSS
Site is mapped as PEMC/F and PSSC, with one small area of PABF. Flooding regime: C and F; Special Modifier: none. (A temporary B saturated C seasonal F semi-permanently H permanent K artificial)

Mapped Soils; Onsite Soils: 28 Heceta fine sand (hydric); 10YR 4/3 fine sand with 10YR 2/1 and 5/6 mottles.

Hydrologic Source: Perennial stream, soils with high groundwater table.

Dominant Vegetation:

Trees	**Shrubs**	**Herbs/Emergents**
Sitka spruce	Douglas spirea	slough sedge
red alder	western crabapple	
Hooker willow	labrador tea (*Ledum glandulosum*) noted by DSL	

Other vegetation includes Douglas fir, grand fir, Pacific blackberry, soft rush, spotted cats-ear, dagger-leaf rush, foxglove, willow-weed, horseweed, etc.

Boundary Information: Steep on east and south, developed on west, partly developed in north (State Park). Upland vegetation includes Douglas fir, Sitka spruce, shore pine, salal, Douglas spirea, cascara, red alder, evergreen huckleberry, Pacific rhododendron, sword fern, and spotted cats-ear.

Wetland Functions and Significance: Provides diverse wildlife habitat and has intact fish habitat, water quality, and hydrologic control functions. Significant due to 4 intact wetland functions.

CITY OF LAKESIDE LOCAL WETLANDS INVENTORY
WETLAND SUMMARY SHEET

WETLAND: North and east of Bonneville Road, south of EC-1	**UNIT:** EC-2
Drainage Basin: Eel Creek	**Plot Numbers:** OF-14
Approx. Acreage: 3.34 (0.86 PFO, trace PSS, 2.48 PEM)	
Location: North and east of Bonneville Road, east of Highway 101	
Tax Lots: 23 12 7BC: 100, 114, 207 (latter Eel Creek)	
T23S R12W Section: 7NW	**Field Date:** 3/3/99

General Description: Mostly grazed wetland with drainage flowing west to Eel Creek. Eel Creek flows under Highway 101 to the west. Extends outside UGB (approximately 1.09 acres outside UGB).

Onsite NWI Classification: 26% PFO, trace PSS, 74% PEM
Site is not mapped on NWI but USGS shows a drainage. Flooding regime: C; Special Modifier: none
(A temporary B saturated C seasonal F semi-permanently H permanent K artificial)

Mapped Soils; Onsite Soils: Finger of 28 Heceta fine sand (hydric), surrounded by 54D Templeton silt loam, 7-30% slopes; offsite.

Hydrologic Source: Perennial drainage, soils with high groundwater table.

Dominant Vegetation:

Trees	**Shrubs**	**Herbs/Emergents**
red alder	willow	soft rush
		grazed grasses

Other vegetation includes water parsley and others.

Boundary Information: Steeply sloped on south and to east, and north of residences. Upland includes Douglas fir.

Wetland Functions and Significance: Provides diverse wildlife habitat and has intact water quality and hydrologic control functions (fish habitat is degraded). Significant due to 3 intact wetland functions.

CITY OF LAKESIDE LOCAL WETLANDS INVENTORY
WETLAND SUMMARY SHEET

WETLAND: Outside UGB to the southwest, west of Highway 101. **UNIT:** EC-3
Drainage Basin: Eel Creek **Plot Numbers:** 41, 42
Approx. Acreage: 0.13 (0.13 PFO)
Location: West of Highway 101 north of Wildwood Drive, north of confluence with Tenmile Creek. Accessible by foot path.
Tax Lots: 23 13 13A: ODOT, ODNRA.
T23S R13W Section: 13NE **Field Date:** 3/4/99

General Description: EC-3 is located outside of the UGB (to the west of the city) and extends north outside of the study area boundary into the Oregon Dunes National Recreation Area (approximately 4.23 acres outside SAB). A very small portion of the wetland is within the study area boundary; did not see remainder of wetland. Nice trail along Eel Creek reveals narrow fringing marsh of slough sedge under Sitka spruce. View of double box culverts under Highway 101.

Onsite NWI Classification: 100% PFO
Part of site is mapped as PSSC and PEMC. Flooding regime: C; Special Modifier: none
(A temporary B saturated C seasonal F semi-permanently H permanent K artificial)

Mapped Soils; Onsite Soils: 28 Heceta fine sand (hydric); 10YR 2/2 sand with organic streaking.

Hydrologic Source: High groundwater table, seeps, to perennial stream.

Dominant Vegetation:

Trees	**Shrubs**	**Herbs/Emergents**
red alder	salmonberry	slough sedge

Other vegetation includes cascara, Himalayan blackberry, Pacific blackberry, skunk cabbage. Northern portion is scrub-shrub and emergent, in the dunes, and most likely has different dominant vegetation (did not see).

Boundary Information: Steep slope to east (berm of Highway 101), developed to west, did not see northern boundary. Upland vegetation includes Douglas fir, red alder, salmonberry, salal, cascara, English ivy, Pacific blackberry, sword fern and trace amounts of slough sedge.

Wetland Functions and Significance: Provides diverse wildlife habitat and has intact fish habitat, water quality, and hydrologic control functions. Has educational uses. Significant due to 4 intact wetland functions.

CITY OF LAKESIDE LOCAL WETLANDS INVENTORY
WETLAND SUMMARY SHEET

WETLAND: Clear Creek Swamp **UNIT:** CC-1
Drainage Basin: Eel Creek **Plot Numbers:** 26, 27
Approx. Acreage: 4.77 (1.40 PFO, 2.06 PSS, 1.07 PEM, 0.25 POW/PAB)
Location: West of Wildwood Drive and Highway 101 and Eel Lake.
Tax Lots: 23 12 6: 400, 500, (600 outside UGB) (Clear Creek and Eel Creek on tax lots 300, 700 (William Tugman State Park))
T23S R12W Section: 6SW&NW **Field Dates:** 11/21/98, 3/4/99

General Description: Clear Creek swamp is located downstream of Hall Lake and Shuttpelz Lake, and drains to Eel Lake. This is a very picturesque wetland in the northern tip of the UGB, west of Wildwood Drive and Highway 101. Approximately 1.98 acres are outside the UGB.

Onsite NWI Classification: 30% PFO, 43% PSS, 22% PEM, 5% POW/PAB
Site is mapped as PSSC with an R3UBH input; output is not mapped. Flooding regime: C; Special Modifier: partly b. (A temporary B saturated C seasonal F semi-permanently H permanent K artificial);
(b beaver d partially drained/ditched h diked/impounded x excavated f farmed p pasture-planted to 1 sp. of grass)

Mapped Soils; Onsite Soils: 61D Waldport-Heceta fine sands (hydric); 10YR 5/3 fine sand with 7.5YR 5/8 mottles.

Hydrologic Source: Perennial stream, soils with high ground water table.

Dominant Vegetation:

Trees	**Shrubs**	**Herbs/Emergents**
red alder	Douglas spirea	slough sedge
	Hooker willow	

Other vegetation includes soft rush, dagger-leaf rush, skunk cabbage.

Boundary Information: Well-defined upland slopes and vegetation, which includes Douglas fir, shore pine, salal, cascara, sword fern.

Wetland Functions and Significance: Provides diverse wildlife habitat and has intact fish habitat, water quality, and hydrologic control functions. Significant due to 4 intact wetland functions.

CITY OF LAKESIDE LOCAL WETLANDS INVENTORY
WETLAND SUMMARY SHEET

WETLAND: Isolated wetland west of BC-1, North Lake Resort **UNIT:** BC-1A
Drainage Basin: Tenmile Lakes **Plot Numbers:** None
Approx. Acreage: 0.50 (0.50 PSS)
Location: On North Lake Resort property west of BC-1, in parking area, north of North Lake Road, north of North Lake canal and North Tenmile Lake
Tax Lots: 23 12 17B: 900
T23S R12W Section: 17NW **Field Date:** per DSL Review

General Description: Small isolated scrub-shrub wetland disturbed by parking of boat trailers and other (recreational) vehicles. This wetland may be under water during extremely high lake levels. Wetland added per DSL review.

Onsite NWI Classification: 100% PSS
Site is not mapped. Flooding regime: C; Special Modifier: none
(A temporary B saturated C seasonal F semi-permanently H permanent K artificial)

Mapped Soils; Onsite Soils: 64 Yaquina loamy fine sand (hydric); offsite, not noted.

Hydrologic Source: Soils have a high water table, and precipitation.

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
-	Hooker willow	soft rush (mowed)

Boundary Information: Gradual slope to gravel/dirt parking area and roads, and mowed lawn for camping.

Wetland Functions and Significance: Intact hydrologic control function (provides wildlife habitat for some species; fish habitat not applicable; water quality function impacted or degraded). Has a high enhancement potential. Provides recreational opportunities. Significant due to 1 intact wetland function.

CITY OF LAKESIDE LOCAL WETLANDS INVENTORY
WETLAND SUMMARY SHEET

WETLAND: County Park east of boat launch (isolated)	**UNIT:** CP-1
Drainage Basin: Tenmile Lakes	**Plot Numbers:** 18, 19
Approx. Acreage: 0.80 (0.08 PFO, 0.72 PEM)	
Location: East edge of Tenmile Lake County Park, east of parking lot.	
Tax Lots: 23 12 18D: 300	
T23S R12W Section: 18SE	**Field Date:** 11/21/98

General Description: Shallow channel with berm at south end separating the wetland from Tenmile Lake (could restore fish habitat).

Onsite NWI Classification: 10% PFO, 90% PEM
Site is not mapped. Flooding regime: C; Special Modifier: x?
(A temporary B saturated C seasonal F semi-permanently H permanent K artificial);
(b beaver d partially drained/ditched h diked/impounded x excavated f farmed p pasture-planted to 1 sp. of grass)

Mapped Soils; Onsite Soils: 64 Yaquina loamy fine sand (hydric); 10YR 4/2 fine sand with 10YR 6/3 mottles and organic streaking.

Hydrologic Source: High groundwater table.

Dominant Vegetation:

Trees	**Shrubs**	**Herbs/Emergents**
red alder	Hooker willow	bentgrass

Other vegetation includes Douglas spirea, reed canarygrass, dock, common velvetgrass, Pacific blackberry, yellow nut-sedge, and large barnyard grass.

Boundary Information: Well-defined by slope to parking lot on west, top of berm at south, old mill site to east, and fill soils to north. Upland vegetation includes tall fescue and Italian ryegrass.

Wetland Functions and Significance: Intact water quality and hydrologic control functions (provides wildlife habitat for some species; fish habitat not applicable). Has a moderate enhancement potential. Has educational uses and provides recreational opportunities. Significant due to 2 intact wetland functions.

CITY OF LAKESIDE LOCAL WETLANDS INVENTORY
WETLAND SUMMARY SHEET

WETLAND: County Park west of Osprey Point RV Resort (isolated) **UNIT:** CP-2
Drainage Basin: Tenmile Lakes **Plot Numbers:** none
Approx. Acreage: 0.68 (0.68 PSS)
Location: Just west of entrance to Osprey Point RV Resort, just south of North Lake Avenue, on undeveloped portion of County Park property (old mill site)
Tax Lots: 23 12 18AC: 9900
T23S R12W Section: 18NE **Field Date:** per DSL Review

General Description: Small isolated scrub-shrub wetland that surrounds a residence. Wetland added per DSL review.

Onsite NWI Classification: 100% PSS
Site is not mapped. Flooding regime: C; Special Modifier: none
(A temporary B saturated C seasonal F semi-permanently H permanent K artificial)

Mapped Soils; Onsite Soils: 64 Yaquina loamy fine sand (hydric); offsite, not noted.

Hydrologic Source: Precipitation and soils have a high water table.

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
-	Hooker willow	slough sedge

Boundary Information: Defined by change in vegetation; some Himalayan blackberry on east edge.

Wetland Functions and Significance: Intact hydrologic control function (provides wildlife habitat for some species; fish habitat not applicable; water quality function impacted or degraded). Has a high enhancement potential. Has educational uses. Significant due to 1 intact wetland function.

CITY OF LAKESIDE LOCAL WETLANDS INVENTORY
WETLAND SUMMARY SHEET

WETLAND: Robinhood Avenue (isolated) **UNIT:** RA-1
Drainage Basin: Tenmile Creek **Plot Numbers:** 9, 10, OF-18 to east
Approx. Acreage: 0.79 (0.71 PSS, 0.08 POW/PAB)
Location: North and west of Robinhood Avenue, south of Kings Avenue, east of North 8th St.
Tax Lots: 23 12 7CB: 1500, 1600, 2400, 2401, 2402, 2403, 2404, 2405, 2501, 2502, 2500, 2800. Upslope drainage on **7CA:** 102, 103, 109
T23S R12W Section: 7SW **Field Dates:** 11/20/98, 3/3/99

General Description: Pond area surrounded by residential development. Identified two inflows which are both apparently culverted to pond, and one outflow ditch that goes west to airport property. A narrow wetland drainage is present far upslope to the east of the pond (with a ~225 foot culvert) that is dominated by red alder and skunk cabbage.

Onsite NWI Classification: 90% PSS, 10% POW/PAB
Site is not mapped. Flooding regime: C/F; Special Modifier: none
(A temporary B saturated C seasonal F semi-permanently H permanent K artificial)

Mapped Soils; Onsite Soils: 64 Yaquina loamy fine sand (hydric); 10YR 2/1 silty sand.

Hydrologic Source: High groundwater table.

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
-	Hooker willow	slough sedge
	Pacific willow	

Other vegetation includes water parsley and water-starwort.

Boundary Information: Surrounding upland is fill for residences and backyards.

Wetland Functions and Significance: Intact water quality and hydrologic control functions (provides wildlife habitat for some species and has degraded fish habitat). Has a high enhancement potential. Significant due to 2 intact wetland functions.

CITY OF LAKESIDE LOCAL WETLANDS INVENTORY
WETLAND SUMMARY SHEET

WETLAND: William M. Tugman State Park (isolated)	**UNIT:** SP-1
Drainage Basin: Eel Creek	**Plot Numbers:** 25
Approx. Acreage: 1.42 (1.42 PFO)	
Location: Near southeast end of State Park, south of Eel Lake.	
Tax Lots: 23 12 6CC: 500	
T23S R12W Section: 6SW	**Field Date:** 11/21/98

General Description: Two small forested wetland areas with probable hydric soils. Small portion extends outside of UGB (0.10 acre outside UGB).

Onsite NWI Classification: 100% PFO
Site is not mapped. Flooding regime: C; Special Modifier: none
(A temporary B saturated C seasonal F semi-permanently H permanent K artificial)

Mapped Soils; Onsite Soils: 28 Heceta fine sand (hydric); 10YR 5/4 fine sand without mottling; probably hydric due to probable aquic moisture regime. (Rain and light conditions for viewing soil colors were not optimum.)

Hydrologic Source: High groundwater table.

Dominant Vegetation:

Trees	**Shrubs**	**Herbs/Emergents**
Douglas fir	western crabapple	slough sedge
	Pacific wax-myrtle	

Other vegetation includes skunk cabbage, sword fern, and Pacific blackberry.

Boundary Information: Defined by lack of slough sedge and increase in salal; some areas paved for campground.

Wetland Functions and Significance: Intact water quality and hydrologic control functions (provides wildlife habitat for some species; fish habitat not applicable). Has a moderate enhancement potential. Has educational uses and provides recreational opportunities. Significant due to 2 intact wetland functions.

CITY OF LAKESIDE LOCAL WETLANDS INVENTORY
WETLAND SUMMARY SHEET

WETLAND: Coleman Arm (offsite) **UNIT:** CA-1 through CA-12
Drainage Basin: Tenmile Lakes **Plot Numbers:** OF-CA-1 through OF-CA-12
Approx. Acreage: Total 20.58 (5.83 PFO, 7.78 PSS, 5.45 PEM, 1.51 POW/PAB)
(CA-1, CA-2, CA-5, and CA-6 are less than 0.50 acre)
Location: Along Coleman Arm in Tenmile Lake, east of the city
Tax Lots: 23 12 21DD: CA-1=1100, 1200, CA-2=100; **22:** CA-3 and CA-4=600; CA-7 and CA-8=300, CA-9=200; **22B:** CA-5 and CA-6=2800, CA-10=100, CA-11=300, CA-12=1000.
T23S R12W Section: 21SE, 22SW&NW&NE **Field Date:** 3/3/99 (by boat)

General Description: Generally steep drainages leading into Coleman Arm. CA-1 through CA-8 are located on the south side of Coleman Arm; CA-9 through CA-12 are located on the north side, and CA-13 (next page) is located at the east end of Coleman Arm. Some exhibit flood debris and beaver mark (CA-4). CA-8 and CA-11 are large wetland complexex.

Onsite NWI Classification: Overall: 28% PFO, 38% PSS, 27% PEM, 7% POW/PAB
CA-4 mapped as PFOA; CA-8 mapped as PEMC/A; CA-11 mapped as PEMC and PSSA; CA-12 mapped as PFOA; others not mapped. Flooding regime: C; Special Modifier: none
(A temporary B saturated C seasonal F semi-permanently H permanent K artificial);
(b beaver d partially drained/ditched h diked/impounded x excavated f farmed p pasture-planted to 1 sp. of grass)

Mapped Soils; Onsite Soils: CA-1 through CA-7 and CA-9 through CA-10 and CA-12 are mapped as 39F Millicoma-Templeton Complex, 50-75% slopes; CA-8 mapped as 62 Willanch fine sandy loam (hydric); CA-11 mapped as 42 Nestucca-Willanch Complex (hydric); offsite.

Hydrologic Source: Coleman Arm of Tenmile Lake is a permanent water feature. Most of the steeply sloped uplands surrounding the wetlands carry drainages to the wetlands. CA-5 is just lacustrine fringe with no drainage.

Dominant Vegetation:

Trees	**Shrubs**	**Herbs/Emergents**
red alder	willow	slough sdedge
	salmonberry	skunk cabbage
		reed canarygrass

Vegetation was very consistent in these wetlands.

Boundary Information: CA-1 through CA-5, and CA-10: Steeply sloped upland has vegetation of Douglas fir, Sitka spruce, western red cedar, madrone, Oregon white oak, Oregon myrtle (Pacific laurel), salal, evergreen huckleberry, Pacific rhododendron and sword fern. The land upslope of CA-6, CA-7, CA-8, CA-9 and CA-12 has been logged and replanted with Douglas fir.

Wetland Functions and Significance: Provides diverse wildlife habitat and has intact fish habitat, water quality, and hydrologic control functions. Provides recreational opportunities. Significant due to 4 intact wetland functions.

CITY OF LAKESIDE LOCAL WETLANDS INVENTORY
WETLAND SUMMARY SHEET

WETLAND: Coleman Arm (offsite) at east end. **UNIT:** CA-13
Drainage Basin: Tenmile Lakes **Plot Numbers:** OF-CA-13
Approx. Acreage: 36.79 (trace PFO, 36.79 PEM)
Location: East end of Coleman Arm.
Tax Lots: 23 12 14: 400; **22:** 100; **23:** 100, 200; **24:** 100.
T23S R12W Section: 14SW&NW&SE, 22NW, 23NW&NE, 24NW **Field Date:** 3/3/99 by boat

General Description: Unable to reach this site by boat due to sedimentation in the end of the lake, and a line of willow shrubs that extends across the lake. Information garnered from the aerial photograph and other background maps. This site is huge, and consists mainly of emergent pasture mowed for hay (and possibly grazed?). Benson Creek runs along the south border of this wetland and has been ditched. Another creek has been ditched along the north border of this wetland, and the two inputs into Coleman Arm show heavy siltation. The streams on this parcel could be greatly enhanced by protection from bank erosion and by providing shading. It is our understanding that the property owner is working with the Watershed Council at this time.

Onsite NWI Classification: trace PFO, 100% PEM
Site is mapped as PEMC/F/A with Benson Creek partly mapped as R2UBH.
Flooding regime: C; Special Modifier: df
(A temporary B saturated C seasonal F semi-permanently H permanent K artificial);
(b beaver d partially drained/ditched h diked/impounded x excavated f farmed p pasture-planted to 1 sp. of grass)

Mapped Soils; Onsite Soils: 62 Willanch fine sandy loam (hydric) and others; offsite.

Hydrologic Source: Perennial stream and high groundwater table.

Dominant Vegetation:

Trees	**Shrubs**	**Herbs/Emergents**
		grass

Boundary Information: Steep slopes up from this broad wetland valley.

Wetland Functions and Significance: Intact water quality and hydrologic control functions (provides wildlife habitat for some species and has degraded fish habitat). Has a high enhancement potential. Significant due to 2 intact wetland functions.

APPENDIX 3

WETLAND DETERMINATION DATA SHEETS

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: TL-3 County: Coos. State: OR Date: 11/20/98 Plot: 1
Site: Tenmile Lake County Park Sect.(1/4) 18 SE Township 23S Range 12W (Wet) / Up
Plot Location: Tenmile Lake County Park 23 12 18D TL 300
Topographic Location: 1 foot West of Stream, near edge of mowed grass
Do normal environmental conditions exist? Y N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? (N) Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.	*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 110) (5 ft. radius)			**Shrub/Sapling** Stratum (% total cover: 55) (5' rad.)		
* 1. Phalaris arundinacea	80	FACW	*1. Pyrus fusca	30	FACW
* 2. Ranunculus repens	20	FACW	*2. Salix hookeriana	20	FACW-
3. Rubus discolor	10	FACW	3. Alnus rubra	5	FAC
4.			4.		
5.			5.		
6.			**Tree** Stratum (% total cover:_____) (30 ft. radius)		
7.			1.		
8.			2.		
9.			3.		

Remarks: Pinus contorta upslope to east
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 4/4 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PSS

SOILS

Mapped unit name: Yaquina loamy fine sand 64 Matches Profile? Y (N)
Taxonomy: Aquic Haplorthods Drainage Class: Somewhat poorly

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other
0-4		10YR 2/2	none	
4-16		10YR 2/1	few, coarse 10YR 5/3	fiSaLm or LmfiSa

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed X Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List
Remarks: organic streaking, very black at bottom
Hydric Soil Criterion / Indicators Met? (YES) NO

HYDROLOGY

Depth of inundation: 4" in stream Depth to free water:_____ Depth to saturation: ~12" seeps (?):_____

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
X Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other: 2 ft. wide stream, 12" bank height	
___Sediment Deposits	Remarks:	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? (root, wd+gbh in lake) (YES) NO
Comments:
Determined by: CMcMullen Walker + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: N of TL-3 County: Coos. State: OR Date: 11/20/98 Plot: 2
Site: Tenmile Lake County Park Sect.(1/4) 18SE Township 23S Range 12W Wet / (Up)
Plot Location: 10 feet upslope to north of Plot 1
Topographic Location: upslope of Plot 1
Do normal environmental conditions exist? Y N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? (N) Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 100) (5 ft. radius)		
* 1. Poa sp. (planted+mowed)	95	prob. FAC
2. Rumex acetosella	5	FACU+
3.		
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover: 50) (5' rad.)		
* 1. Pinus contorta	30	FAC
2. Myrica californica	20	FACW
3.		
4.		
5.		
Tree Stratum (% total cover:_____) (30 ft. radius)		
1.		
2.		
3.		

Remarks:
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 3/3 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class

SOILS

Mapped unit name: Yaquina loamy fine sand 64 Matches Profile? Y (N) 2nd layer close
Taxonomy: Aquic Haplorthods Drainage Class: Somewhat poorly

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other
0-2		10YR 2/2	none	LmfiSa, very rooty
2-6		10YR 6/6	none	Sa
6-12		2.5Y 6/6	none	Sa
12-16		10YR 4/4	inclusions of 2.5Y 6/4 silt	SiSa

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List

Remarks: depths approximate
Hydric Soil Criterion / Indicators Met? YES (NO)

HYDROLOGY

Depth of inundation:_____ Depth to free water:_____ Depth to saturation:_____ seeps (?):_____

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other:	
___Sediment Deposits	Remarks: dry 0-16"	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? YES (NO)	

DETERMINATION: Is this plot a Wetland? YES (NO)
Comments:
Determined by: C Mintzwalk + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: TL-3 County: Coos. State: OR Date: 11/20/98 Plot: 3
Site: Tenmile Lake County Park Sect.(1/4) 18SE Township 23S Range 12W (Wet) / Up
Plot Location: inside Scrub-Shrub wetland, near center
Topographic Location: flat area
Do normal environmental conditions exist? Y N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? (N) Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 80) (5 ft. radius)		
*1. Phalaris arundinacea	60	FACW
*2. Carex obnupta	20	OBL
3.		
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover: 100) (5' rad.)		
*1. Spiraea douglasii	20	FACW
*2. Salix lasiandra	20	FACW+
*3. Salix hookeriana	20	FACW-
*4. Alnus rubra	20	FAC
*5. Rubus discolor	20	FACU
Tree Stratum (% total cover: 20) (30 ft. radius)		
*1. Salix lasiandra	20	FACW+
2.		
3.		

Remarks: At Lakeshore: Polygonum sp. 30% w/i 20 feet, Myriophyllum <5%, SAHO/SALA + Scirpus ac/va. fr. OESA
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 7/8 = 87.5%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PSS

SOILS

Mapped unit name: Yaquina loamy fine sand 64 Matches Profile? Y (N) 2nd layer close
Taxonomy: Aquic Haplorthods Drainage Class: Somewhat poorly

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other
0-4		10YR 2/1	none	organics
4-16		10YR 4/2	none	Sa

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed X Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List
Remarks: organic streaking 4-16"
Hydric Soil Criterion / Indicators Met? (YES) NO

HYDROLOGY

Depth of inundation:_____ Depth to free water: 6" Depth to saturation: Surface seeps (?):_____

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
X Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other:	
___Sediment Deposits	Remarks:	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments:
Determined by: C M Walker + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: CP-2 (N of TL-3) County: Coos. State: OR Date: 11/20/98 Plot: 4
Site: ball field Sect.(1/4) 18SE Township 23S Range 12W (Wet) / Up
Plot Location: north of Park Ave., south of ball field of school
Topographic Location: 2 ft. north of ditch in ponded area
Do normal environmental conditions exist? Y N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? (N) Explain: mowed

VEGETATION

*Dominant Plant Species	% Cover	Ind.	*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 100) (5 ft. radius)			**Shrub/Sapling** Stratum (% total cover: 30) (5' rad.)		
*1. Juncus oxymeris	30	FACW+	* Alnus rubra	20	FAC
2. Juncus ensifolius	10	FACW	* Pinus contorta	10	FAC
3. Phalaris arundinacea	10	FACW	3.		
4. Ranunculus repens	10	FACW	4.		
5. Carex obnupta	10	OBL	5.		
6. Juncus effusus	5	FACW	**Tree** Stratum (% total cover:_____) (30 ft. radius)		
7. Potentilla pacifica	5	OBL	1.		
8. Parentucellia viscosa	tr	FAC-	2.		
*9. Poa sp.	20	prob. FAC	3.		

Remarks: Sisyrinchium californicum (trace) FACW+, veg. mowed
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 4/4 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class mostly PEM
+ Mentha pulegium (trace), Veronica americana (trace)

SOILS

Mapped unit name: Yaquina loamy fine sand (64) Matches Profile? Y (N)
Taxonomy: Aquic Haplorthods Drainage Class: somewhat poorly

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other
0-2		10YR 2/1	none	
2-16		10YR 3/2	10YR 3/1	Sa

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed X Organic Streaking
___Sulfidic Odor X Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List

Remarks: organic streaking 2-16"
Hydric Soil Criterion / Indicators Met? (YES) NO

HYDROLOGY

Depth of inundation: 1" Depth to free water:_____ Depth to saturation:_____ seeps (?):_____

1° Indicators	2° Indicators	2° Indicators
X Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other: 4" water in ditch	
___Sediment Deposits	Remarks:	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments: Area ~ 10 ft x 20 ft plus ditch
Determined by: CMcM Wally + Stacy Benjamin

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: TC-1 County: Coos. State: OR Date: 11/20/98 Plot: 5
Site: N of Park Ave by 3rd St ROW Sect.(1/4) 18SW Township 23S Range 12W (Wet) / Up
Plot Location: east of wastewater treatment plant, ~30' South of Termile Cr.
Topographic Location: ~2 feet above creek
Do normal environmental conditions exist? Y N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? (N) Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 80) (5 ft. radius)		
*1. Carex obnupta	40	OBL
*2. Phalaris arundinacea	40	FACW
3.		
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover: 120) (5' rad.)		
*1. Spiraea douglasii	80	FACW
*2. Salix hookeriana	40	FACW-
3.		
4.		
5.		
Tree Stratum (% total cover: ____) (30 ft. radius)		
1.		
2.		
3.		

Remarks: 20% bare ground
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 4/4 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PSS

SOILS

Mapped unit name: Heceta fine sand 28 Matches Profile? Y (N)
Taxonomy: Typic Psammaquents Drainage Class: poorly

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other
0-4		10YR 2/1	none	SaSiLm
4-16		10YR 5/3	com, fine 10YR 3/1	fiSa

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed X Organic Streaking
___Sulfidic Odor X Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List
Remarks: organic streaking 4-16" (chroma 3 ok if sand, with streaking
Hydric Soil Criterion / Indicators Met? (YES) NO

HYDROLOGY

Depth of inundation:_____ Depth to free water:_____ Depth to saturation:_____ seeps (?):_____

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other: overflow area of creek	
___Sediment Deposits	Remarks: very moist 0-16", did not hit water table	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

Note: This area flooded in March site visit (3/2-5/99)

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments:
Determined by: CMuirWalker + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: (TC-1 U) County: Coos. State: OR Date: 11/20/98 Plot: 6
Site: Sect.(1/4) 18SW Township 23S Range 12W Wet / (Up)
Plot Location: ~10 feet north of Park Ave., ~15 feet South of PSS wetland
Topographic Location: ~6" above south edge of wetland (U for plot 5)
Do normal environmental conditions exist? Y N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? (N) Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 100) (5 ft. radius)		
* 1. Poa sp.	80	prob. FAC
* 2. Hypochaeris radicata	20	FACU
3. Taraxacum officinale	tr	FACU
4. Ranunculus repens	tr	FACW
5. Trifolium pratense ?	tr	FACU
6. Rumex sp.	tr	?
7. Geranium sp.	tr	FAC-/FACU+/NOL
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover:____) (5' rad.)		
1.		
2.		
3.		
4.		
5.		
Tree Stratum (% total cover:____) (30 ft. radius)		
1.		
2.		
3.		

Remarks: Veg. mowed
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 1/2 = 50%
Hydrophytic Vegetation Criterion Met? **YES** (NO) NWI Class

SOILS

Mapped unit name: Yaquina loamy fine sand 64 Matches Profile? Y (N)
Taxonomy: Aquic Haplorthods Drainage Class: Somewhat poorly

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other
0-4		10YR 3/2	none	SaLm
4-6		10YR 3/2	none	SiSa

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List

Remarks: fill gravels @ 6"
Hydric Soil Criterion / Indicators Met? **YES** (NO)

HYDROLOGY

Depth of inundation:_____ Depth to free water:_____ Depth to saturation:_____ seeps (?):_____

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other:	
___Sediment Deposits	Remarks: dry 0-6"	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? **YES** (NO)	

DETERMINATION: Is this plot a Wetland? **YES** (NO)
Comments:
Determined by: CMarie Walls + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: TC-1 County: Coos. State: OR Date: 11/20/98 Plot: 7
Site: _____ Sect.(1/4) 18SW Township 23S Range 12W (Wet) / Up
Plot Location: ~40-50 ft north of N. Lake Ave.
Topographic Location: _____
Do normal environmental conditions exist? Y N Explain: _____
Are soils___ vegetation___ hydrology___ significantly disturbed? N Explain: _____

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 40) (5 ft. radius)		
*1. Carex obnupta	40	OBL
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover: 70) (5' rad.)		
*1. Salix lasiandra		FACW+
*2. Salix hookeriana		FACW-
3. Pyrus fusca	tr	FACW
4. Rubus spectabilis	tr	FAC+
5.		
Tree Stratum (% total cover: ____) (30 ft. radius)		
1.		
2.		
3.		

Remarks: outside this area appears to mosaic
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 3/3 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PSS

SOILS

Mapped unit name: Hecata fine sand 28 Matches Profile? Y (N)
Taxonomy: Typic Psammaquents Drainage Class: poorly

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other
		10YR 2/1	none	organic SL
		10YR 3/2	7.5YR 5/8	SL, streaking

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed X Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List
Remarks: _____
Hydric Soil Criterion / Indicators Met? (YES) NO

HYDROLOGY

Depth of inundation: 4" Depth to free water: _____ Depth to saturation: _____ seeps (?): _____

1° Indicators	2° Indicators	2° Indicators
X Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain: _____	
___Drift Lines	Other: _____	
___Sediment Deposits	Remarks: _____	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments: _____
Determined by: C Mutch Walker + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: _____ County: Coos. State: OR Date: 11/20/98 Plot: 8
Site: _____ Sect.(1/4) 18SW Township 23S Range 12W Wet / (Up)
Plot Location: immediately north of N. Lake Ave. in small fill area
Topographic Location: _____
Do normal environmental conditions exist? Y N Explain: _____
Are soils ✓ vegetation ___ hydrology ___ significantly disturbed? N Explain: fill soils

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 80) (5 ft. radius)		
*1. Phalaris arundinacea	30	FACW
*2. Holcus lanatus	30	FAC
*3. Festuca arundinacea	20	FAC-
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover: 90) (5' rad.)		
*1. Rubus discolor	40	FACU
*2. Salix lasiandra	20	FACW+
*3. Salix hookeriana	20	FACW-
4. Cytisus scoparius	10	NOL
5. Rosa (non-native)	tr	—
Tree Stratum (% total cover: ____) (30 ft. radius)		
1.		
2.		
3.		

Remarks: _____
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 4/6 = 67%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class _____

SOILS

Mapped unit name: Heceta fine Sand 28 Matches Profile? Y N
Taxonomy: Typic Psammaquents Drainage Class: poorly

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List

Remarks: could not get soil sample, gravel layer @ 3" solid gravel
Hydric Soil Criterion / Indicators Met? YES (NO)

HYDROLOGY

Depth of inundation: _____ Depth to free water: _____ Depth to saturation: _____ seeps (?): _____

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain: _____	
___Drift Lines	Other: _____	
___Sediment Deposits	Remarks: lack of indicators in November	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? YES NO	

DETERMINATION: Is this plot a Wetland? YES (NO)
Comments: _____
Determined by: C. Mirth Walker *Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: South of RA-1 County: Coos. State: OR Date: 11/20/98 Plot: 9
Site: _____ Sect.(1/4) 7 SW Township 23S Range 12W Wet / (Up)
Plot Location: north of Robin Hood Ave. ~3ft. upslope to South of pond
Topographic Location: upslope of pond, ~1' above pond
Do normal environmental conditions exist? Y N Explain: _____
Are soils___ vegetation___ hydrology___ significantly disturbed? N Explain: mowed

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 100) (5 ft. radius)		
*1. planted grasses (mowed)	100	
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover: ____) (5' rad.)		
1.		
2.		
3.		
4.		
5.		
Tree Stratum (% total cover: _____) (30 ft. radius)		
1.		
2.		
3.		

Remarks: _____
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): _____ = _____
Hydrophytic Vegetation Criterion Met? **YES NO** NWI Class _____

SOILS

Mapped unit name: V mapped @ 54D Templeton Silt Loam Yaquina loamy fine sand Matches Profile? Y (N)
Taxonomy: Aquic Haplorthods Drainage Class: Somewhat poorly

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other
____	____	10YR 3/3+4/3	mixed matrix	____
____	____	____	____	____
____	____	____	____	____
____	____	____	____	____

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List

Remarks: _____
Hydric Soil Criterion / Indicators Met? **YES** (NO)

HYDROLOGY

Depth of inundation: _____ Depth to free water: _____ Depth to saturation: _____ seeps (?): _____

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain: _____	
___Drift Lines	Other: _____	
___Sediment Deposits	Remarks: dry	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? **YES** (NO)	

DETERMINATION: Is this plot a Wetland? **YES** (NO)
Comments: _____
Determined by: C Muth Walker + Stacy Benjamin

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: RA-1 County: Coos. State: OR Date: 11/20/98 Plot: 10
Site: _____ Sect.(1/4) 7 SW Township 23S Range 12W (Wet) Up
Plot Location: Pond N of Robin Hood Ave., ~10ft N of fence (backyard)
Topographic Location: _____
Do normal environmental conditions exist? Y N Explain: _____
Are soils___ vegetation___ hydrology___ significantly disturbed? (N) Explain: pond edge @ property stake; surround = previous fill

VEGETATION

*Dominant Plant Species	% Cover	Ind.	*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 20) (5 ft. radius)			**Shrub/Sapling** Stratum (% total cover: 80) (5' rad.)		
*1. Carex obnupta	20	OBL	*1. Salix hookeriana	60	FACW-
2. Oenanthe sarmentosa	tr	OBL	*2. Salix lasiandra	20	FACW+
3. Callitriche sp.	tr	OBL	3.		
4.			4.		
5.			5.		
6.			**Tree** Stratum (% total cover:) (30 ft. radius)		
7.			1.		
8.			2.		
9.			3.		

Remarks: dense scrub-shrub over pond
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 3/3 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PSS (90%) / POW (10%)

SOILS

Mapped unit name: ~~of Templeton~~ Yaquina loamy fine sand 64 Matches Profile? Y (N)
Taxonomy: Aquic Haplorthods Drainage Class: Somewhat poorly

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other
		10YR 2/1	none	SiSa or LmfiSa

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List

Remarks: Soil Sample taken in edge of pond
Hydric Soil Criterion / Indicators Met? (YES) NO

HYDROLOGY

Depth of inundation: 3' Depth to free water: _____ Depth to saturation: _____ seeps (?): _____

1° Indicators	2° Indicators	2° Indicators
X Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other:	
___Sediment Deposits	Remarks:	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? YES NO	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments: _____
Determined by: CMinthWalker + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: _____ County: Coos. State: OR Date: 11/20/98 Plot: 11
Site: West Fork Bowron Creek Sect.(1/4) 18NE Township 23S Range 12W (Wet) / Up
Plot Location: Stream under Jensen Rd., 1ft from edge of Stream
Topographic Location: Streambank
Do normal environmental conditions exist? Y N Explain: _____
Are soils___ vegetation___ hydrology___ significantly disturbed? N Explain: _____

VEGETATION

*Dominant Plant Species	% Cover	Ind.	*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 100) (5 ft. radius)			**Shrub/Sapling** Stratum (% total cover: ____) (5' rad.)		
*1. Phalaris arundinacea	100	FACW	1. Salix hookeriana	tr	FACW-
2. Carex obrupta	tr	OBL	2.		
3. Scirpus microcarpus	tr	OBL	3.		
4.			4.		
5.			5.		
6.			**Tree** Stratum (% total cover: _____) (30 ft. radius)		
7.			1.		
8.			2.		
9.			3.		

Remarks: Sparse riparian cover along creek
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 1/1 = 100%
Hydrophytic Vegetation Criterion Met? **YES** **NO** NWI Class PEM

SOILS

Mapped unit name: Yaquina loamy fine sand 6A Matches Profile? Y (N) 2nd layer close
Taxonomy: Aquic Haplorthods Drainage Class: Somewhat poorly

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other
0-4		10YR 3/2	none	SaSi
4+		10YR 4/2	few lt. yellow & dk. brown mottles	frSa

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor X Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List

Remarks: Saturated below 4"
Hydric Soil Criterion / Indicators Met? (YES) **NO**

HYDROLOGY

Depth of inundation:_____ Depth to free water:_____ Depth to saturation: 4" seeps (?):_____

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
X Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain: _____	
___Drift Lines	Other: _____	
___Sediment Deposits	Remarks: Stream 2 ft deep, 10 ft wide	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) **NO**	

DETERMINATION: Is this plot a Wetland? (YES) **NO**
Comments: _____
Determined by: C Mathwalker + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: _____ County: Coos. State: OR Date: 11/20/98 Plot: 12
Site: Lakeland Estates Sect.(1/4) 18NE Township 23S Range 12W Wet / (Up)
Plot Location: ~ 5 ft. north of Plot 11
Topographic Location: 3' from top of bank edge
Do normal environmental conditions exist? Y N Explain: _____
Are soils___ vegetation___ hydrology___ significantly disturbed? N Explain: mowed

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 100) (5 ft. radius)		
* 1. Holcus lanatus	50	FAC
* 2. unknown grass (planted+mowed)	50	
3. Hypochaeris radicata	tr	
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover: ____) (5' rad.)		
1. Cytisus scoparius	tr	NOL
2. Salix hookeriana	tr	FACW-
3.		
4.		
5.		
Tree Stratum (% total cover: _____) (30 ft. radius)		
1.		
2.		
3.		

Remarks: trace Polystichum munitum, Rubus ursinus on bank slope
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 4/4 = 50% - 100% ?
Hydrophytic Vegetation Criterion Met? **YES** **NO** NWI Class _____

SOILS

Mapped unit name: Yaquina loamy fine sand 64 Matches Profile? Y (N)
Taxonomy: Aquic Haplorthods Drainage Class: Somewhat poorly

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other
0-1		10YR 3/2	none	SaSi
1-5		10YR 3/3	none	frSa
5-8		10YR 4/4	2.5Y 6/3 mottles	Si
8-14		10YR 3/3	none	frSaLm

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List
Remarks: _____
Hydric Soil Criterion / Indicators Met? **YES** (NO)

HYDROLOGY

Depth of inundation: _____ Depth to free water: _____ Depth to saturation: _____ seeps (?): _____

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain: _____	
___Drift Lines	Other: _____	
___Sediment Deposits	Remarks: dry 0-14"	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? **YES** (NO)	

DETERMINATION: Is this plot a Wetland? **YES** (NO)
Comments: Lack of Soils, Hydrology
Determined by: C. Mitch Wolf + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: BC-2 County: Coos. State: OR Date: 11/22/98 Plot: 13
Site: Sect.(1/4) 18NE Township 23S Range 12W (Wet) / Up
Plot Location: east of Stanley Lane, south of Bowron
Topographic Location: toe of railroad slope, bottom of channel
Do normal environmental conditions exist? Y N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? N Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 70) (5 ft. radius)		
*1. Carex obnupta	70	OBL
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover: 35) (5' rad.)		
*1. Salix hookeriana	25	FACW-
*2. Spiraea douglasii	10	FACW
3. Vaccinium ovatum	tr	NOL
4.		
5.		
Tree Stratum (% total cover: 70) (30 ft. radius)		
*1. Pinus contorta	70	FAC
2.		
3.		

Remarks: 30% duff; Upslope veg. Vaccinium ovatum, Gaultheria Shallon, Rubus discolor
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 4/4 = 100% (Spiraea douglasii Pinus contorta)
Hydrophytic Vegetation Criterion Met? **YES** **NO** NWI Class PFO

SOILS

Mapped unit name: Yaquina loamy fine sand 64 Matches Profile? Y(N)
Taxonomy: Aquic Haplorthods Drainage Class: Somewhat poorly

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other
2-0				duff
0-4		10YR 4/3	few, fine 10YR 3/2	SaSiLm, very rooty
4-6		10YR 3/2	com fine-med 7.5YR 4/4	SaSiLm, more silt this layer
6-12		10YR 4/3 or 5/3	10YR 7/1 Silt inclusions	fine

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed X Organic Streaking
___Sulfidic Odor X Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List
Remarks: organic streaking 6-12"
Hydric Soil Criterion / Indicators Met? (YES) NO

HYDROLOGY

Depth of inundation:_____ Depth to free water:_____ Depth to saturation: 10-12" seeps (?):_____

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
X Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other:	
___Sediment Deposits	Remarks:	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments:
Determined by: Mark Walls + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: BC-2 County: Coos. State: OR Date: 11/21/98 Plot: 14
Site: N of RR, S of Bouron Road Sect.(1/4) 18NW Township 23S Range 12W (Wet) / Up
Plot Location: West of Plot 13
Topographic Location: bottom of channel
Do normal environmental conditions exist? Y N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? N Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 70) (5 ft. radius)		
*1. Carex obnupta	70	OBL
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover: 10) (5' rad.)		
*1. Salix hookeriana	10	FACW-
2.		
3.		
4.		
5.		
Tree Stratum (% total cover:_____) (30 ft. radius)		
1.		
2.		
3.		

Remarks: banks are Rubus discolor, Myrica californicum, Carex obnupta, Salix hookeriana
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 2/2 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PEM

SOILS

Mapped unit name: Yaquina loamy fine sand 64 Matches Profile? Y (N)
Taxonomy: Aquic Haplorthods Drainage Class: Somewhat poorly

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other
0-2				organic Si
2-10		10YR 3/2	10YR 3/1 mottles + organic streaking	Sa
10-16		2.5Y 4/2	organic Streaking	Sa

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed X Organic Streaking
___Sulfidic Odor X Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List

Remarks: Organic Streaking 2-16", soil sampled under inundation
Hydric Soil Criterion / Indicators Met? (YES) NO

HYDROLOGY

Depth of inundation: 6" in middle of channel Depth to free water:_____ Depth to saturation: Surface seeps (?):_____

1° Indicators	2° Indicators	2° Indicators
X Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other: 25 ft. wide channel, narrows to 10 ft. to east	
___Sediment Deposits	Remarks:	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments:
Determined by: C Mutth Walker *Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: north of BC-2 County: Coos. State: OR Date: 11/21/98 Plot: 15
Site: N of RR, S of Bowron Road Sect.(1/4) 18NW Township 23S Range 12W Wet / (Up)
Plot Location: 20 ft. east of Plot 14
Topographic Location: top of 4ft. bank
Do normal environmental conditions exist? Y N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? N Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 40) (5 ft. radius)		
*1. Holcus lanatus	40	FAC
2. Geranium sp.	tr	—
3. Montbretia	tr	NOL
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover: 40) (5' rad.)		
*1. Rubus discolor	40	FACU
2.		
3.		
4.		
5.		
Tree Stratum (% total cover:_____) (30 ft. radius)		
1.		
2.		
3.		

Remarks: 20% bare ground, scattered Carex obnupta, Pteridium aquilinum, Spiraea douglasii outside plot
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 1/2 = 50%
Hydrophytic Vegetation Criterion Met? **YES** (NO) NWI Class

SOILS

Mapped unit name: Yaquina loamy fine Sand 64 Matches Profile? Y(N)
Taxonomy: Aquic Haplorthods Drainage Class: Somewhat poorly

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other
0-8		10YR 2/1	none	organic SaSi
8-16		2.5Y 4/3	none	fiSa

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List

Remarks:
Hydric Soil Criterion / Indicators Met? **YES** (NO)

HYDROLOGY

Depth of inundation:_____ Depth to free water:_____ Depth to saturation:_____ seeps (?):_____

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other:	
___Sediment Deposits	Remarks: very moist 0-4", dry below	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? **YES** (NO)	

DETERMINATION: Is this plot a Wetland? YES (NO)

Comments:
Determined by: CMcMurtrie + Stacy Benjamin

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: BC-2 County: Coos. State: OR Date: 11/2/98 Plot: 16
Site: _____ Sect.(1/4) 18 NE Township 23S Range 12W (Wet) / Up
Plot Location: east of culvert under Rainbow Lane, east of Plot 15
Topographic Location: bottom of channel
Do normal environmental conditions exist? Y N Explain: _____
Are soils___ vegetation___ hydrology___ significantly disturbed? N Explain: _____

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 25) (5 ft. radius)		
*1. Veronica scutellata	15	OBL
*2. Carex obnupta	10	OBL
3. Holcus lanatus	tr	FAC
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover: 15) (5' rad.)		
*1. Spiraea douglasii	5	FACW
*2. Pyrus fusca	5	FACW
*3. Salix hookeriana	5	FACW-
4.		
5.		
Tree Stratum (% total cover: 40) (30 ft. radius)		
*1. Pinus contorta	40	FAC
2.		
3.		

Remarks: 75% bare ground
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 6/6 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PFO

SOILS

Mapped unit name: Yaquina loamy fine sand 4% Matches Profile? Y (N) 1st layer close
Taxonomy: Aquic Haplorthods Drainage Class: Somewhat poorly

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other
0-2		10YR 4/2	10YR 3/2 mottles, ORC	fiSaLm
2-10		10YR 3/2	com, fine-med 7.5YR 4/4, ORC	SaSiLm
10-16		10YR 5/3	none	fiSa

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor X Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List

Remarks: _____
Hydric Soil Criterion / Indicators Met? (YES) NO

HYDROLOGY

Depth of inundation:_____ Depth to free water:_____ Depth to saturation: 2-16" seeps (?):_____

1° Indicators	2° Indicators	2° Indicators
___Inundated	X Oxidized Root Channels in upper 12"	___Local Soil Survey Data
X Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other: Channel is shallower here than to West	
___Sediment Deposits	Remarks:	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments: _____
Determined by: C Mumaw + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: BC-1 County: Coos. State: OR Date: 11/21/98 Plot: 17
Site: accessed from RR tracks Sect.(1/4) 18NE Township 23S Range 12W (Wet) / Up
Plot Location: South of railroad tracks, east of Bowron creek culvert under RR
Topographic Location: flat area 2 ft. north of creek
Do normal environmental conditions exist? Y N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? N Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 100) (5 ft. radius)		
*1. Phalaris arundinacea	100	FACW
2. Carex obnupta	tr	OBL
3. Athyrium filix-femina	tr	FAC
4. Vicia sp.	tr	—
5. Pteridium aquilinum	tr	FACu
6. Epilobium sp.	tr	—
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover: 25) (5' rad.)		
*1. Salix hookeriana	25	FACW-
2. Rubus ursinus	tr	FACu
3. Rubus spectabilis	tr	FAC
4. Rhamnus purshiana	tr	FAC-
5.		
Tree Stratum (% total cover: 40) (30 ft. radius)		
*1. Alnus rubra	25	FAC
*2. Salix lasiandra	15	FACW+
3.		

Remarks: good riparian cover along creek
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 4/4 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PFO

SOILS

Mapped unit name: Yaquina loamy fine sand 64 Matches Profile? Y (N) 2nd layer close
Taxonomy: Aquic Haplorthods Drainage Class: Somewhat poorly

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other
0-8		10YR 2/2	com fine 10YR 5/8 ORC	SaSiLm w/ organics
8-14		10YR 4/2	com, fine-med 10YR 3/1, 5/4 + 5/6	fiSaSiLm

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed X Organic Streaking
___Sulfidic Odor X Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List

Remarks: organic streaking 8-14"
Hydric Soil Criterion / Indicators Met? (YES) NO

HYDROLOGY

Depth of inundation:_____ Depth to free water:_____ Depth to saturation: 4-14" seeps (?):_____

1° Indicators	2° Indicators	2° Indicators
___Inundated	X Oxidized Root Channels in upper 12"	___Local Soil Survey Data
X Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other: creek is 8-15 ft wide, meandering, 3 ft. deep	
___Sediment Deposits	Remarks:	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments: Wland defined by RR fill + Willow Creek RV fill
Determined by: C Murk Walker + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: CP-1 County: Coos. State: OR Date: 11/21/98 Plot: 18
Site: Tenmile Lake County Park Sect.(1/4) 18SE Township 23S Range 12W (Wet) / Up
Plot Location: Central portion of channel along east edge of Tenmile Lake County Park parking lot
Topographic Location: bottom of shallow channel
Do normal environmental conditions exist? Y N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? N Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.	*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 100) (5 ft. radius)			**Shrub/Sapling** Stratum (% total cover: 10) (5' rad.)		
*1. Agrostis sp.	90	prob. FAC	*1. Salix hookeriana	10	FACW-
2. Phalaris arundinacea	5	FACW	2. Spiraea douglasii	tr	FACW
3. Rumex sp.	5	—	3.		
4. Holcus lanatus	tr	FAC	4.		
5. Rubus ursinus	10	FACU	5.		
6.			**Tree** Stratum (% total cover: 10) (30 ft. radius)		
7.			*1. Alnus rubra	10	FAC
8.			2.		
9.			3.		

Remarks: Elsewhere Cyperus esculentus(?), Echinochloa crusgalli
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 3/3 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO
NWI Class PFO 10% / 90% PEM overall
PFO includes SAHO, ALRU, PICO

SOILS

Mapped unit name: Yaquina loamy fine sand 64 Matches Profile? Y (N) 2nd layer close
Taxonomy: Aquic Haplorthods Drainage Class: Somewhat poorly

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other
0-6		10YR 3/2	(few coarse 10YR 6/3)	SiLm
6-14		10YR 4/2	10YR 3/1 organic Streaking	fiSa

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed X Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List
Remarks: organic Streaking 6-14"
Hydric Soil Criterion / Indicators Met? (YES) NO

HYDROLOGY

Depth of inundation: See comments below Depth to free water: 6" ? soil probe Depth to saturation: 2-14" seeps (?):

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
X Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other: Channel dikes @ South end by ~~Tenmile Lake~~ berm	
___Sediment Deposits	Remarks: Channel is shallower here than to South	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

→ not connected to lake

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments: Area ponded in March 1999
Determined by: CM Walker + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: north of CP-1 County: Coos. State: OR Date: 11/21/98 Plot: 19
Site: E of Tenmile Lake Co Park/Parkside Sect.(1/4) 18SE Township 23S Range 12W Wet / (Up)
Plot Location: north of Plot 18
Topographic Location: ~6" higher than Plot 18
Do normal environmental conditions exist? Y N Explain:
Are soils ✓ vegetation ___ hydrology ___ significantly disturbed? N Explain: fill soils

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 100) (5 ft. radius)		
*1. Festuca arundinacea	45	FAC-
*2. Lolium multiflorum	40	NOL
3. Cyperus esculentus?	10	FACW
4. Holcus lanatus	5	FAC
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover: ____) (5' rad.)		
1.		
2.		
3.		
4.		
5.		
Tree Stratum (% total cover: ____) (30 ft. radius)		
1.		
2.		
3.		

Remarks:
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 0/2 = Ø
Hydrophytic Vegetation Criterion Met? **YES** (NO) NWI Class

SOILS

Mapped unit name: Yaquina loamy fine sand 64 Matches Profile? Y (N)
Taxonomy: Aquic Haplorthods Drainage Class: Somewhat poorly

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other
0-3		7.5YR 3/3	none	SiLm
3-7		10YR 2/2	none	SaSiLmW/organics
7-15		10YR 3/2	none	SiLm, humus layer, very rocky

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List
Remarks: fill soils w/gravel, 7-15" probably old surface layer
Hydric Soil Criterion / Indicators Met? **YES** (NO)

HYDROLOGY

Depth of inundation: ____ Depth to free water: ____ Depth to saturation: ____ seeps (?): ____

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other:	
___Sediment Deposits	Remarks: moist 0-7"	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? **YES** (NO)	

DETERMINATION: Is this plot a Wetland? **YES** (NO)
Comments:
Determined by: C Mwthwalk + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: TL-2 County: Coos. State: OR Date: 11/21/98 Plot: 20
Site: Sect.(1/4) 18SE Township 23S Range 12W (Wet)/ Up
Plot Location: South end of old lumber mill paved area, south of pavement
Topographic Location: flat area
Do normal environmental conditions exist? Y N Explain:
Are soils X vegetation ___ hydrology ___ significantly disturbed? N Explain: very disturbed site

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 80) (5 ft. radius)		
*1. Holcus lanatus	50	FAC
*2. Lotus Sp.	25	?
3. Carex obnupta	5	OBL
4. Typha latifolia	tr	OBL
5. Mentha pulegium	tr	OBL
6. Juncus acuminatus?	tr	OBL
7. Dactylis glomerata	tr	FACU
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover: 30) (5' rad.)		
*1. Alnus rubra	30	FAC
2.		
3.		
4.		
5.		
Tree Stratum (% total cover:) (30 ft. radius)		
1.		
2.		
3.		

Remarks: Juncus acuminatus more abundant to north
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 2/3 = 67% (at least)
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PSS
#2 probably Lotus corniculatus, FAC

SOILS

Mapped unit name: Yaquina loamy fine sand 64 Matches Profile? Y (N)
Taxonomy: Aquic Haplorthods Drainage Class: Somewhat poorly

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other
				wood waste
		10YR 3/2	none	Sa

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List
Remarks: refusal @ 6" (woodwaste over Sa; disturbed)
Hydric Soil Criterion / Indicators Met? **YES NO**

HYDROLOGY

Depth of inundation: 1-3" Depth to free water: Depth to saturation: seeps (?):

1° Indicators	2° Indicators	2° Indicators
X Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other:	
___Sediment Deposits	Remarks: ponded	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments: hydrology driven wetland - hydric soils not yet developed
Determined by: C. Mathwalker + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: TL-4 County: Coos. State: OR Date: 11/21/98 Plot: 21
Site: _____ Sect.(1/4) 18SE Township 23S Range 12W (Wet) / Up
Plot Location: ~100' South of pump Station, South of Park Ave.
Topographic Location: flat area Behind McKay's Market
Do normal environmental conditions exist? Y N Explain: _____
Are soils___ vegetation___ hydrology___ significantly disturbed? N Explain: _____

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 90) (5 ft. radius)		
*1. Carex obnupta	90	OBL
2. Phalaris arundinacea	tr	FACW
3. Agrostis sp.	tr	prob. FAC
4. Hypochaeris radicata	tr	FACU
5. Maianthemum dilatatum	tr	FAC
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover: tr) (5' rad.)		
1. Rubus ursinus	tr	FACU
2. Spiraea douglasii	tr	FACW
3.		
4.		
5.		
Tree Stratum (% total cover: 100) (30 ft. radius)		
*1. Pinus contorta	80	FAC
*2. Salix hookeriana	20	FACW -
3.		

Remarks: 10% bare ground
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 3/3 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PFO (PICO)/ PSS (SAHO, SPDO)

SOILS

Mapped unit name: Yaquina loamy fine sand 64 Matches Profile? Y (N)
Taxonomy: Aquic Haplorthods Drainage Class: Somewhat poorly

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other
0-4	____	N 2/0	none	fiSalm w/organics
4-16	____	10YR 2/1	10YR 4/4 sand+ few coarse 10YR 5/4	fiSa
____	____	____	____	____
____	____	____	____	____

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed X Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List
Remarks: organic Streaking 4-16"
Hydric Soil Criterion / Indicators Met? (YES) NO

HYDROLOGY

Depth of inundation: 6" (scattered nearby) Depth to free water: 1" Depth to saturation: Surface seeps (?): _____

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
X Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain: _____	
___Drift Lines	Other: _____	
___Sediment Deposits	Remarks: _____	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? (YES) NO

Comments: _____
Determined by: C Smith Walker + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: west of TL-4 County: Coos. State: OR Date: 11/21/98 Plot: 22
Site: Sect.(1/4) 18SE Township 23S Range 12W Wet / (Up)
Plot Location: west of Plot 21 (wetland)
Topographic Location: 3 ft. above Plot 21; on fill pile (behind Mckay's)
Do normal environmental conditions exist? Y N Explain:
Are soils ✓ vegetation ___ hydrology ___ significantly disturbed? N Explain: fill pile

VEGETATION

*Dominant Plant Species	% Cover	Ind.	*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 60) (5 ft. radius)			**Shrub/Sapling** Stratum (% total cover: 20) (5' rad.)		
*1. Carex obnupta	20	OBL	*. Rubus ursinus	15	FACU
*2. Hypochaeris radicata	15	FACU	2. Rubus discolor	5	FACU
3. Holcus lanatus	10	FAC	3.		
4. Agrostis sp.	10	—	4.		
5. Polystichum munitum	5	FACU	5.		
6. Phalaris arundinacea	tr	FACW	**Tree** Stratum (% total cover: 50) (30 ft. radius)		
7. Hedera helix	tr	NOL	*. Pinus contorta	50	FAC
8. Anaphalis margaritacea	tr	NOL	2.		
9.			3.		

Remarks: Carex obnupta extends 3ft. up fill slope, 40% bare ground
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 2/4 = 50%
Hydrophytic Vegetation Criterion Met? **YES** (NO) NWI Class

SOILS

Mapped unit name: Yaquina loamy fine sand 6A Matches Profile? Y (N)
Taxonomy: Aquic Haplorthods Drainage Class: Somewhat poorly

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other
0-16		10YR3/3	few med 10YR 5/4	fSa

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor X Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List

Remarks:
Hydric Soil Criterion / Indicators Met? (YES) NO

HYDROLOGY

Depth of inundation: — Depth to free water: — Depth to saturation: — seeps (?):

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other:	
___Sediment Deposits	Remarks: dry 0-16"	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? **YES** (NO)	

DETERMINATION: Is this plot a Wetland? **YES** (NO)
Comments:
Determined by: C. Matthew Walker + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: CP-3 County: Coos. State: OR Date: 11/21/98 Plot: 23
Site: ball field Sect.(1/4) 18SE Township 23S Range 12W (Wet) / Up
Plot Location: north of Park Ave., west edge of ball field
Topographic Location: in swale / ditch (might have been excavated to keep ballfield from flooding).
Do normal environmental conditions exist? Y N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? N Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 80) (5 ft. radius)		
*1. Poa Sp.	50	prob. FAC
*2. Phalaris arundinacea	30	FACW
3. Carex obnupta	tr	OBL
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover: 5) (5' rad.)		
*1. Salix hookeriana	5	FACW-
2.		
3.		
4.		
5.		
Tree Stratum (% total cover: 60) (30 ft. radius)		
*1. Alnus rubra	60	FAC
2.		
3.		

Remarks: Ranunculus repens + Potentilla pacifica in ball field near swale
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 4/4 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PFO

SOILS

Mapped unit name: Yaquina loamy fine sand 64 Matches Profile? Y(N)
Taxonomy: Aquic Haplorthods Drainage Class: Somewhat poorly

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other
0-2		10YR 3/2	none	frSaLm
2-8		10YR 2/1	none	organic SiSa
8-14		10YR 4/2	com, coarse 10YR 4/4 + med 10YR 5/3	fiSa

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed X Organic Streaking
___Sulfidic Odor X Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List
Remarks: organic streaking 8-14"
Hydric Soil Criterion / Indicators Met? (YES) NO

HYDROLOGY

Depth of inundation: 6" Depth to free water:_____ Depth to saturation:_____ seeps (?):_____

1° Indicators	2° Indicators	2° Indicators
X Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other: swale/ditch 3-10 ft. wide	
___Sediment Deposits	Remarks:	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments:
Determined by: CM with Walker + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: West of CP-3 County: Coos. State: OR Date: 11/21/98 Plot: 24
Site: _____ Sect.(1/4) 18SE Township 23S Range 12W Wet / (Up)
Plot Location: 15 ft West of Plot 23
Topographic Location: ~2-3 ft. above plot 23
Do normal environmental conditions exist? Y N Explain: _____
Are soils___ vegetation___ hydrology___ significantly disturbed? N Explain: _____

VEGETATION

*Dominant Plant Species	% Cover	Ind.	*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 65) (5 ft. radius)			**Shrub/Sapling** Stratum (% total cover: 60) (5' rad.)		
*1. Pteridium aquilinum	40	FACU	*. Rubus discolor	50	FACW
*2. Rubus ursinus	20	FACU	2. Pyrus fusca	5	FACW
3. Polystichum munitum	5	FACU	3. Rhamnus purshiana	5	FAC-
4. Hedera helix	tr	NOL	4.		
5. Carex obnupta	tr	OBL	5.		
6.			**Tree** Stratum (% total cover: 50) (30 ft. radius)		
7.			*1. Alnus rubra	50	FAC
8.			2.		
9.			3.		

Remarks: _____
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 1/4 = 25%
Hydrophytic Vegetation Criterion Met? **YES** (NO) NWI Class _____

SOILS

Mapped unit name: Yaquina loamy fine sand 64 Matches Profile? Y (N)
Taxonomy: Aquic Haplorthods Drainage Class: Somewhat poorly

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other
0-6	____	10YR 2/1	none	fiSaLm w/ organics
6-12	____	10YR 3/3	few, fine 10YR 4/4	fiSa
____	____	____	____	____
____	____	____	____	____

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor X Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List
Remarks: _____
Hydric Soil Criterion / Indicators Met? (YES) NO

HYDROLOGY

Depth of inundation:_____ Depth to free water:_____ Depth to saturation:_____ seeps (?):_____

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain: _____	
___Drift Lines	Other: _____	
___Sediment Deposits	Remarks: moist 0-4" / Saturation > 12" (below 12")	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? **YES** (NO)	

DETERMINATION: Is this plot a Wetland? **YES** (NO)
Comments: _____
Determined by: CMWh Walker + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: SP-1 County: Coos. State: OR Date: 11/21/98 Plot: 25
Site: William Tugman State Park Sect.(1/4) 6SW Township 23S Range 12W (Wet) / Up
Plot Location: William Tugman State Park Campground, South of SE Shower building
Topographic Location: flat area
Do normal environmental conditions exist? Y N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? N Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 50) (5 ft. radius)		
*1. Carex obnupta	50	OBL
2. Lysichitum americanum	tr	OBL
3. Polystichum munitum	tr	FACU
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover: 35) (5' rad.)		
*1. Pyrus fusca	25	FACW
*2. Myrica californica	10	FACW
3. Rubus ursinus	tr	FACU
4.		
5.		
Tree Stratum (% total cover:) (30 ft. radius)		
*1. Pseudotsuga menziesii	75	FACU
2.		
3.		

Remarks: 50% moss
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 3/4 = 75%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PFO

SOILS

Mapped unit name: Heceta fine sand 28 hydric Matches Profile? Y (N)
Taxonomy: Typic Psammaquents Drainage Class: poorly

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other
0-2		10YR 2/1	none	SaSiLm w/organics + duff
2-16		10YR 5/4	none	fiSa

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
X Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List
Remarks: Note: it was dark + quite rainy - soils are questionable in color but appear hydric due to hydrology and probable aquic moisture regime
Hydric Soil Criterion / Indicators Met? (YES) NO

HYDROLOGY

Depth of inundation:_____ Depth to free water:_____ Depth to saturation: 8-16" seeps (?):_____

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
X Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other:	
___Sediment Deposits	Remarks:	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments:
Determined by: Mark Walker + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: CC-1 County: Coos. State: OR Date: 11/21/98 Plot: 26
Site: Clear Creek Swamp Sect.(1/4) 6SW Township 23S Range 12W (Wet) / Up
Plot Location: West of Wildwood Drive, west of clear creek, South of fence (2 ropes)
Topographic Location: flat area 2 ft. above clear creek, South end of unnamed swamp
Do normal environmental conditions exist? Y N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? N Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.	*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 50) (5 ft. radius)			**Shrub/Sapling** Stratum (% total cover: 55) (5' rad.)		
*1. Carex obnupta	50	OBL	*1. Spiraea douglasii	50	FACW
2. Juncus effusus	tr	FACW	2. Salix hookeriana	5	FACW-
3. Juncus ensifolius	tr	FACW	3.		
4. Lysichitum americanum	tr	OBL	4.		
5.			5.		
6.			**Tree** Stratum (% total cover: tr) (30 ft. radius)		
7.			1. Alnus rubra	tr	FAC
8.			2.		
9.			3.		

Remarks: Alnus rubra @ north end, good riparian cover along creek
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 2/2 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PSS
PEM 40% / Overall 5% Stream / 25% PSS / 30% PFO

SOILS

Mapped unit name: Waldport - Heceta fine sands 61D Matches Profile? Y (N) (Heceta Hydric)
Taxonomy: Typic Tropopsamments - Psammaquents Drainage Class: excessively/poorly

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other
0-4		10YR 2/1	none	SaSiLm
4-12		10YR 5/3	few, coarse 7.5YR 5/8	fiSa

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor X Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List

Remarks:
Hydric Soil Criterion / Indicators Met? (YES) NO

HYDROLOGY

Depth of inundation: ✓ in 3/99 yes to 4" Depth to free water: Depth to saturation: Sat. in sand layer seeps (?):

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
X Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other: Creek 8 ft. wide, 2-4 ft. deep, sand bottom	
___Sediment Deposits	Remarks: Checked on 3/4/99, beaver dam to East Stream	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

Clear Creek flows out 36" culvert w/ trash rack, under Wildwood Drive

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments:
Determined by: CMW + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: South of CC-1 County: Coos. State: OR Date: 11/21/98 Plot: 27
Site: Sect.(1/4) 6SW Township 23S Range 12W Wet / (Up)
Plot Location 10 ft. South of Plot 26
Topographic Location: 3 ft. upslope of Plot 26, fairly Steep Slope
Do normal environmental conditions exist? Y N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? N Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: tr) (5 ft. radius)		
1. Polystichum munitum	tr	FACU
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover: 80) (5' rad.)		
*1. Gaultheria Shallon	80	FACU
2. Rhamnus purshiana	tr	FAC-
3. Spiraea douglasii	tr	FACW
4.		
5.		
Tree Stratum (% total cover: 50) (30 ft. radius)		
*1. Pinus contorta	30	FAC
*2. Pseudotsuga menziesii	20	FACU
3.		

Remarks:
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 1/3 = 33%
Hydrophytic Vegetation Criterion Met? **YES** (NO) NWI Class

SOILS

Mapped unit name: Waldport-Heceta fine sands 61D Matches Profile? Y (N)
Taxonomy: Typic Tropopsamments-Psammaquents Drainage Class: excessively/poorly

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other
0-2				duff
2-12		10YR 4/3	few darker mottles	Sa

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor X Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List

Remarks: getting dark
Hydric Soil Criterion / Indicators Met? (YES) NO

HYDROLOGY

Depth of inundation:_____ Depth to free water:_____ Depth to saturation:_____ seeps (?):_____

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other: 36" culvert under wildwood drive w/ trash rack	
___Sediment Deposits	Remarks: very moist 2-12"	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? **YES** (NO)	

DETERMINATION: Is this plot a Wetland? **YES** (NO)
Comments:
Determined by: C. Mirth Walker + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: EC-1 County: Coos. State: OR Date: 11/22/98 Plot: 28
Site: Near Eel Creek Sect.(1/4) 6SW Township 23S Range 12W (Wet) / Up
Plot Location: east of Seadrift Motel + RV Park off Hwy 101
Topographic Location: flat area east of cleared area
Do normal environmental conditions exist? Y (N) Explain: heavy rain + hail today
Are soils___ vegetation✓ hydrology___ significantly disturbed? N Explain: disturbance from adjacent clearing (logging?)

VEGETATION

*Dominant Plant Species	% Cover	Ind.	*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 90) (5 ft. radius)			**Shrub/Sapling** Stratum (% total cover: 60) (5' rad.)		
*1. Carex obnupta	75	OBL	*. Spiraea douglasii	50	FACW
2. Juncus effusus	10	FACW	2. Rubus ursinus	10	FACU
3. Hypochaeris radicata	5	FACU	3. Salix hookeriana	tr	FACW-
4. Juncus ensifolius	tr	FACW	4.		
5. Digitalis purpurea	tr	FACU	5.		
6. Epilobium sp.	tr	—	**Tree** Stratum (% total cover:_____) (30 ft. radius)		
7. Conyza canadensis	tr	FACU	1.		
8.			2.		
9.			3.		

Remarks: Scattered Stumps
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 2/2 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PSS
Most of Unit EC-1 PFO w/ PISI, w/ some PSME + ABGR
Also PSS w/ SPDO, PYFU + CAOB

SOILS

Mapped unit name: Heceta fine sand 28 Matches Profile? Y (N)
Taxonomy: Typic Psammaquents Drainage Class: poorly

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other
0-5		10YR 2/1	none	SaSiLm w/ organics
5-15		10YR 4/3	10YR 2/1 + 5% mottles + 10YR 4/2, 3/3 + 3/2 sand grains	fiSa w/ some Si

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor X Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List

Remarks: Surface layer almost peat; chroma of 3 or 4 in sand
To south of mobile homes = PISI + CAOB w/ channels PFO
Behind Tree Acres ALRU, SALA, SPDO
Hydric Soil Criterion / Indicators Met? (YES) NO

HYDROLOGY

Depth of inundation: 2-8" scattered ponding nearby Depth to free water:_____ Depth to saturation: Surface seeps (?):_____

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
X Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other:	
___Sediment Deposits	Remarks:	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

Note: Eel Ck has excellent riparian, 50% shading+

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments:_____
Determined by: CMuthWalker + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: U inclusion in EC-1 County: Coos. State: OR Date: 11/22/98 Plot: 29
Site: _____ Sect.(1/4) 6SW Township 23S Range 12W Wet / (Up)
Plot Location: 10 ft. ~~north~~ west of Eel Creek, east of Plot 28
Topographic Location: ~6 ft above creek, ~2 ft above Plot 28; fairly steep bank
Do normal environmental conditions exist? Y (N) Explain: heavy rain + hail today
Are soils___ vegetation___ hydrology___ significantly disturbed? N Explain: _____
(PSS to E+N denser w/ taller SPDO + more PYFU, CAOB; S. by mobile home lot PISI + CAOB, small channel/swale)

VEGETATION

*Dominant Plant Species	% Cover	Ind.	*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 25) (5 ft. radius)			**Shrub/Sapling** Stratum (% total cover: 130) (5' rad.)		
*1. Carex obnupta	20	OBL	*Gaultheria shallon	65	FACU
2. Polystichum munitum	5	FACU	*Spiraea douglasii	20	FACW
3. Hypochaeris radicata	tr	FACU	*Rhamnus purshiana	20	FAC-
4.			*Alnus rubra	20	FAC
5.			5. Vaccinium ovatum	5	NOL
6.			**Tree** Stratum (% total cover: 10) (30 ft. radius)		
7.			1. Pseudotsuga menziesii	5	FACU
8.			2. Picea sitchensis	5	FAC
9.			3.		

Remarks: 10% moss, trace Rubus ursinus, excellent riparian cover + shading along creek
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 3/5 = 60%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PSS
E of CK @ Tree Acres U = PSME/GASH

SOILS

Mapped unit name: Heceta fine sand 28 Matches Profile? Y (N)
Taxonomy: Typic Psammaquents Drainage Class: poorly

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other
0-4		10YR 2/1	none	SaSiLm w/ organics
4-12		10YR 5/3	few, fine 10YR 5/8	fiSa

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor X Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List
Remarks: _____
Hydric Soil Criterion / Indicators Met? (YES) NO

HYDROLOGY

Depth of inundation: _____ Depth to free water: _____ Depth to saturation: 0-4" seeps (?): _____

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
X Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain: _____	
___Drift Lines	Other: surface saturation from unusually high rainfall	
___Sediment Deposits	Remarks: moist 4-12"	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? YES (NO)	

Creek has @ least 10 ft of wetland fringe.

DETERMINATION: Is this plot a Wetland? probably natural levee - YES (NO)
Comments: located in transition area adjacent to wetland fringe along creek
Determined by: CMarkWalker + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: BC-4 County: Coos. State: OR Date: 3/2/99 Plot: 30
Site: Rough Lane - North Sect.(1/4) 7SE Township 23S Range 12W (Wet) / Up
Plot Location: 10ft west of dirt road, north of driveway
Topographic Location: near toe of slope in drainage coming down slope
Do normal environmental conditions exist? (Y) N Explain:
Are soils ✓ vegetation ✓ hydrology ___ significantly disturbed? N Explain: dirt road disturbed adjacent to plot by horses

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 60) (5 ft. radius)		
1. Lysichitum americanum	20	OBL
2. Oenanthe sarmentosa	20	OBL
3. Rorippa nasturtium-aquaticum	20	OBL
4. Scirpus microcarpus	tr	OBL
5. Ranunculus repens	tr	FACW
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover: tr) (5' rad.)		
1. Rubus spectabilis	tr	FAC+
2. Rubus discolor	tr	FACU
3.		
4.		
5.		
Tree Stratum (% total cover: 30) (30 ft. radius)		
1. Picea sitchensis	20	FAC
2. Thuja plicata	5	FAC
3. Alnus rubra	5	FAC

Remarks: 40% bare ground
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 4/4 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PSS/PFO
Skunk cabbage to 50' upslope, then salmonberry ravine

SOILS

Mapped unit name: 64 – Yaquina loamy fine sand – 0 to N, W to E Aquic Haplorthods
Salander Silt Loam 52E upslope Matches Profile? Y (N)
Taxonomy: Typic Dystrandepts/Aquic Haplorthods Drainage Class: well drained

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other
0-10		10YR 3/1	Com, med 7.5YR 4/4 + com crse 5G 4/1 ogley	mucky silt w/trace sand

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ✓ Gleyed ___Organic Streaking
✓ Sulfidic Odor ✓ Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List
Remarks: Oxidized root channels, soils compressed in probe + sulfidic odor
Hydric Soil Criterion / Indicators Met? (YES) NO

HYDROLOGY

Depth of inundation: 1/2" scattered Depth to free water: — Depth to saturation: surface seeps (?): —

1° Indicators	2° Indicators	2° Indicators
✓ Inundated	✓ Oxidized Root Channels in upper 12"	___Local Soil Survey Data
✓ Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other: Upslope seep above road	
___Sediment Deposits	Remarks: drainage ~20ft wide upslope, 40 ft wide @ toe	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

Open water pond N of Plot 30 shaded by ALRU trees around edge

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments:
Determined by: C Mott Wally + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: West of BC-4 County: Coos. State: OR Date: 3/2/99 Plot: 31
Site: Rugh Lane-North Sect.(1/4) 7SE Township 23S Range 12W Wet / (Up)
Plot Location: north of Plot 30, west of dirt road + open water pond
Topographic Location: just above wetland ditch at toe of slope
Do normal environmental conditions exist? (Y) N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? (N) Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 85) (5 ft. radius)		
(1) Polystichum munitum	75	FACU
2. Blechnum spicant	10	FACt
3.		
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover: 20) (5' rad.)		
(1) Rubus spectabilis	20	FACt
2. Rubus discolor	tr	FACU
3.		
4.		
5.		
Tree Stratum (% total cover: 100) (30 ft. radius)		
(1) Thuja plicata	50	FAC
(2) Alnus rubra	50	FAC
3.		

Remarks:
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 3/4 = 75%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class

SOILS

Mapped unit name: Salander silt loam 52E 30-50% slopes Matches Profile? Y (N)
Taxonomy: Typic Dystrandepts Drainage Class: well drained

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other
0-4		10YR 2/2	—	SaSiL w/organics
4-7		10YR 4/4	many crse 10YR 3/4, 5/6 + 2.5Y 6/6	SrSaL

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List

Remarks: hardpan @ 7", degraded SandStone on slope above plot, steep (road trodden by horses)
Hydric Soil Criterion / Indicators Met? YES (NO)

HYDROLOGY

Depth of inundation: — Depth to free water: — Depth to saturation: surface seeps (?): —

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
✓ Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other:	
___Sediment Deposits	Remarks:	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? YES (NO)
Comments:
Determined by C. Smith Walls + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: BC-4 County: Coos. State: OR Date: 3/2/99 Plot: 32
Site: Rugh Lane - N Sect.(1/4) 7SE Township 23S Range 12W (Wet) / Up
Plot Location: South of Plot 30, 20 ft east of driveway, S. of house, E. of fence
Topographic Location: 2 ft west of edge of water
Do normal environmental conditions exist? (Y) N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? (N) Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 60) (5 ft. radius)		
(1) Lysichitum americanum	40	OBL
2. Phalaris arundinacea	10	FACW
3. Juncus effusus	5	FACW
4. Oenanthe Sarmentosa	5	OBL
5. Carex obnupta	tr	OBL
6. Ranunculus repens	tr	FACW
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover: 20) (5' rad.)		
(1) Spiraea douglasii	20	FACW
2.		
3.		
4.		
5.		
Tree Stratum (% total cover: 90) (30 ft. radius)		
(1) Salix sp.	90	FACorwetter
2.		
3.		

Remarks:
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 3/3 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PSS/PFO

SOILS

Mapped unit name: Yaquina loamy fine sand 64 Matches Profile? Y (N)
Taxonomy: Aquic Haplorthods Drainage Class: Somewhat poorly

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other
0-12+		10YR 2/2 & 2/1	few med 5Y 5/1 SaL	Sandy muck

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
✓ Sulfidic Odor ✓ Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List
Remarks: sulfidic odor - hard to detect w/ skunk cabbage odor
Hydric Soil Criterion / Indicators Met? (YES) NO

HYDROLOGY

Depth of inundation: 4-6" nearby Depth to free water: 1" Depth to saturation: Surface seeps (?): —

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
✓ Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other:	
___Sediment Deposits	Remarks: 1" to water in probe hole	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments: Steep slope on E of WL
Determined by: C Ruth Walker + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: West of BC-4 County: Coos. State: OR Date: 3/2/99 Plot: 33
Site: Rugh Lane - N Sect.(1/4) 7SE Township 23S Range 12W Wet / (Up)
Plot Location: 20 ft West of Plot 32, just east of fence by driveway
Topographic Location: ~12" above plot 32
Do normal environmental conditions exist? (Y) N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? (N) Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 100) (5 ft. radius)		
(1) Phalaris arundinacea	40	FACW
(2) Poa sp.	30	prob. FAC
(3) Dactylis glomerata	20	FACU
4. Ranunculus repens	10	FACW
5. Lotus corniculatus	tr	FAC
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover:____) (5' rad.)		
1.		
2.		
3.		
4.		
5.		
Tree Stratum (% total cover: 20) (30 ft. radius)		
(1) Prunus sp. (planted in row) along fence	20	FAC-/FACU/NOL
2.		
3.		

Remarks:
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 2/4 = 50%
Hydrophytic Vegetation Criterion Met? **YES** (NO) NWI Class

SOILS

Mapped unit name: Yaquina loamy fine sand 64 Matches Profile? Y (N)
Taxonomy: Aquic Haplarthods Drainage Class: Somewhat poorly

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other
0-4		10YR 3/4	10YR 4/4 + 4/6 comm med	SrSaL

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List
Remarks: hardpan @ 5"
Hydric Soil Criterion / Indicators Met? **YES** (NO)

HYDROLOGY

Depth of inundation:___ Depth to free water:___ Depth to saturation: 0-1/2" only seeps (?):___

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other:	
___Sediment Deposits	Remarks: surface 1/2" saturated, dry below	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? **YES** (NO)	

DETERMINATION: Is this plot a Wetland? **YES** (NO)
Comments:
Determined by: Cmuth Walk + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: BC-5 County: Coos. State: OR Date: 3/2/99 Plot: 34
Site: _____ Sect.(1/4) 7SE Township 23S Range 12W (Wet) / Up
Plot Location: South of Plot 34, west of driveway in small grazed area
Topographic Location: flat west of barn
Do normal environmental conditions exist? (Y) N Explain: _____
Are soils ___ vegetation ✓ hydrology ___ significantly disturbed? N Explain: grazed by horses

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 100) (5 ft. radius)		
(1) Phalaris arundinacea	35	FACW
(2) Scirpus microcarpus	35	OBL
(3) Lysichitum americanum	30	OBL
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover: ____) (5' rad.)		
1.		
2.		
3.		
4.		
5.		
Tree Stratum (% total cover: 10) (30 ft. radius)		
(1) Salix sp.	10	FACorwetter
2.		
3.		

Remarks: _____
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 4/4 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PEM

SOILS

Mapped unit name: Yaquina loamy fine sand 64 Matches Profile? Y (N)
Taxonomy: Aquic Haplorthods Drainage Class: Somewhat poorly

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other
0-8+		10YR 2/2	—	peaty organic

✓ Histosol ___ Reducing Conditions (test) ___ Hi. Organic Cont. Surf. Layer
___ Histic Epipedon ___ Gleyed ___ Organic Streaking
___ Sulfidic Odor ___ Mottled (w/i 10") ___ Organic Pan
___ Prob. Aquic Moisture Regime ___ Concretions (w/i 3", >2mm) ___ On Hydric Soils List
Remarks: organic soils
Hydric Soil Criterion / Indicators Met? (YES) NO

HYDROLOGY

Depth of inundation: 1/2-1" Scattered Depth to free water: — Depth to saturation: Surface seeps (?): —

1° Indicators	2° Indicators	2° Indicators
✓ Inundated	___ Oxidized Root Channels in upper 12"	___ Local Soil Survey Data
✓ Saturated in upper 12"	___ Water-stained leaves	___ FAC-Neutral Test
___ Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___ Drift Lines	Other:	
___ Sediment Deposits	Remarks:	
___ Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments: _____
Determined by: C Mindy Walker + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: South of BC-5 + BC-6 County: Coos. State: OR Date: 3/4/99 Plot: 35
Site: _____ Sect.(1/4) 18NW Township 23S Range 12W Wet / (Up)
Plot Location: forest north of end of Raechel Road
Topographic Location: just north of road on 3/2/99
Do normal environmental conditions exist? Y N Explain: storm hit ~3:30-4pm v. High Winds
Are soils___ vegetation___ hydrology___ significantly disturbed? (N) Explain: _____
Also looked @ on 11/20/98 = Pinus contorta, Rhodo, Gaultheria shallon, Vaccinium ovatum,

VEGETATION Cytisus scoparius, Rubus spectabilis, Athyrium filix-femina, Rubus discolor,

*Dominant Plant Species	% Cover	Ind.	*Dominant Plant Species	% Cover	Ind.
Rubus ursinus, 1 Tsuga heterophylla					

Herb Stratum (% total cover:_____) (5 ft. radius)

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____

Shrub/Sapling Stratum (% total cover: 170) (5' rad.)

(1) Gaultheria Shallon	90	FACU
(2) Vaccinium ovatum	40	NOL
3 Rhododendron macrophyllum	25	NOL
4. Myrica californica	15	FACW
5.		

Tree Stratum (% total cover: 30) (30 ft. radius)

(1) Pinus contorta	30	FAC
2.		
3.		

Remarks: _____
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 1/3 = 30%
Hydrophytic Vegetation Criterion Met? YES (NO) NWI Class _____
2 FO @ Fern Lane W+S of B-5 = PICO/GASH, RHMA

SOILS
Mapped unit name: Yaquina loamy fine sand Matches Profile? Y (N)
Taxonomy: Aquic Haplarthods Drainage Class: Somewhat poorly

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other
0-2			—	forest duff w/Sand
2-6		10YR 3/2	—	Sand
6-12		10YR 4/3		Sand

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List
Remarks: no organic Streaking
Hydric Soil Criterion / Indicators Met? YES (NO)

HYDROLOGY
Depth of inundation: — Depth to free water: — Depth to saturation: Surface seeps (?): —

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
✓ Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other:	
___Sediment Deposits	Remarks:	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? YES (NO)
Comments: _____
Determined by [signature] + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: TC-3 County: Coos. State: OR Date: 3/3/99 Plot: 36
Site: Below Hilltop Drive Sect.(1/4) 18SW Township 23S Range 12W (Wet) / Up
Plot Location: East edge of Juncus meadow, South of Tennile Creek
Topographic Location: edge of water → west trib. of TC-3
Do normal environmental conditions exist? (Y) N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? (N) Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 100) (5 ft. radius)		
(1) Juncus effusus	100	FACW
2. Scirpus microcarpus	tr	OBL
3. Lysichitum americanum	tr	OBL
4. Epilobium sp.	tr	—
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover:____) (5' rad.)		
1.		
2.		
3.		
4.		
5.		
Tree Stratum (% total cover:_____) (30 ft. radius)		
1.		
2.		
3.		

Remarks:
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 1/1 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class → PEM
East trib. of TC-3 = SALSPP, SPDO/LYAM, CAOB no shade
w/steepbank to road - mobile home pad between two tributaries

SOILS

Mapped unit name: Templeton Silt loam 54D, E Matches Profile? Y (N)
Taxonomy: Andic Humitropepts Drainage Class: well drained

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other
0-12		10YR 2/2		peat

✓ Histosol	___Reducing Conditions (test)	___Hi. Organic Cont. Surf. Layer
___Histic Epipedon	___Gleyed	___Organic Streaking
___Sulfidic Odor	___Mottled (w/i 10")	___Organic Pan
___Prob. Aquic Moisture Regime	___Concretions (w/i 3", >2mm)	___On Hydric Soils List

Remarks: organic soils
Hydric Soil Criterion / Indicators Met? (YES) NO

HYDROLOGY

Depth of inundation: 6" Depth to free water: — Depth to saturation: surface seeps (?): —

1° Indicators	2° Indicators	2° Indicators
✓ Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
✓ Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other: culvert above to ~~fish~~ pond. / fish barrier	
___Sediment Deposits	Remarks: braided channel ~20 ft wide	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments:
Determined by: C Mortensen + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: east of TC-3 County: Coos. State: OR Date: 3/3/99 Plot: 37
Site: S. of Hilltop Drive Sect.(1/4) 18SW Township 23S Range 12W Wet / (Up)
Plot Location: just south of Plot 36, at edge of dirt road
Topographic Location: ~2ft above Plot 36
Do normal environmental conditions exist? (Y) N Explain:
Are soils ✓ vegetation ___ hydrology ___ significantly disturbed? N Explain: fill soils for dirt road

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 100) (5 ft. radius)		
(1) Agrostis sp.	75	prob FAC
2. Rubus ursinus	10	FACU
3. Hypochaeris radicata	10	FACU
4. Polystichum munitum	5	FACU
5. Juncus effusus	tr	FACW
6 Stachys cooleyae	tr	FACW
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover: ____) (5' rad.)		
1.		
2.		
3.		
4.		
5.		
Tree Stratum (% total cover: ____) (30 ft. radius)		
1.		
2.		
3.		

Remarks:
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 1/1 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class

SOILS

Mapped unit name: Templeton Silt loam 54E 30-50% slopes Matches Profile? Y (N)
Taxonomy: Andic Humitropepts Drainage Class: well drained

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other
0-5		10YR 3/2	—	SiL
5-14		10YR 5/4	Com 2.5Y 6/3	SiL

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List

Remarks:
Hydric Soil Criterion / Indicators Met? YES (NO)

HYDROLOGY

Depth of inundation: — Depth to free water: — Depth to saturation: 0-5" seeps (?): —

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
✓Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other:	
___Sediment Deposits	Remarks:	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? YES (NO)
Comments:
Determined by: C Mish Walker + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: TL-5 County: Coos. State: OR Date: 3/3/99 Plot: 38
Site: Sect.(1/4) 18SW Township 23S Range 12W (Wet)/ Up
Plot Location: North Side of Devore Road
Topographic Location: edge of water Arm - beaver pond on south side of road
Do normal environmental conditions exist? (Y) N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? (N) Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 30) (5 ft. radius)		
(1) Phalaris arundinacea	10	FACW
(2) Lysichitum americanum	10	OBL
(3) Carex obrupta	10	OBL
4. Lemna minor	tr	OBL
5. Scirpus microcarpus	tr	OBL
6. Rorippa nasturtium-aquaticum	tr	OBL
7. Potamogeton sp.	tr	
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover: 20) (5' rad.)		
(1) Salix sp.	20	FAC or wetter
2.		
3.		
4.		
5.		
Tree Stratum (% total cover: 20) (30 ft. radius)		
(1) Alnus rubra	20	FAC
2.		
3.		

Remarks: 30% open water
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 5/5 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO
Unit NWI Class of Beaver Pond = PFO 20% / PSS 20% / PEM 30% / POW 30%
30% of water shaded, good fish habitat

SOILS

Mapped unit name: Salander Silt loam 2-30% Slopes Matches Profile? Y (N)
Taxonomy: Typic Dystrandepts Drainage Class: well drained

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other
		gley		Si

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ✓ Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List

Remarks: Soils are gleyed silt
Hydric Soil Criterion / Indicators Met? (YES) NO
Lots of woody debris, snags from beaver activity

HYDROLOGY

Depth of inundation: 5-6 ft Depth to free water: — Depth to saturation: Surface seeps (?): —

1° Indicators	2° Indicators	2° Indicators
✓ Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
✓ Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other: Saw fish jump	
___Sediment Deposits	Remarks: 100 ft wide ponded wetland	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments: 25 = logged, POMU/GASH, VAOV; shade from QUGA, ACMA, PSME, TSHE
Determined by: Chuck Walker + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: east of TL-5 County: Coos. State: OR Date: 3/3/99 Plot: 39
Site: Devore Arm Road Sect.(1/4) 18SW Township 23S Range 12W Wet / (Up)
Plot Location: ~75 ft SE. of Plot 38, edge of road
Topographic Location: ~8 ft above Plot 38
Do normal environmental conditions exist? (Y) N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? (N) Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 50) (5 ft. radius)		
(1) Hypochaeris radicata	30	FACU
(2) Rubus ursinus	20	FACU
3.		
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover: 15) (5' rad.)		
1. Pseudotsuga menziesii	5	FACU
2. Tsuga heterophylla	5	FACU-
3. Picea sitchensis	5	FAC
4.		
5.		
Tree Stratum (% total cover:_____) (30 ft. radius)		
1.		
2.		
3.		

Remarks: 50% bare ground
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 0/2 = 0
Hydrophytic Vegetation Criterion Met? **YES** (NO) NWI Class

SOILS

Mapped unit name: Salander silt loam 52D Matches Profile? Y (N)
Taxonomy: Typic Dystrandepts Drainage Class: well drained

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other
0-8		10YR 5/4 + 6/4	—	Sr
8-9		10YR 3/2	—	Sa
9-12		10YR 6/4	—	Si

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List

Remarks:
Hydric Soil Criterion / Indicators Met? **YES** (NO)

HYDROLOGY

Depth of inundation: — Depth to free water: — Depth to saturation: — seeps (?): —

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other:	
___Sediment Deposits	Remarks: Soils moist throughout	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? **YES** (NO)	

DETERMINATION: Is this plot a Wetland? **YES** (NO)
Comments:
Determined by: C Mugh Walker + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: TL-1 County: Coos. State: OR Date: 3/3/99 Plot: 40
Site: _____ Sect.(1/4) 18NE Township 23S Range 12W (Wet) / Up
Plot Location: South of Willow creek RV Resort, east of new houses, south of N. Lake Ave.
Topographic Location: flat
Do normal environmental conditions exist? (Y) N Explain: _____
Are soils___ vegetation___ hydrology___ significantly disturbed? (N) Explain: _____

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 100) (5 ft. radius)		
(1) Phalaris arundinacea	80	FACW
(2) Festuca arundinacea	20	FAC-
3. Juncus spp.	tr	
4. Lotus corniculatus	tr	FAC
5. Ranunculus repens	tr	FACW
6. Carex obnupta	tr	OBL
7. Rubus ursinus	tr	FACU
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover:____) (5' rad.)		
1.		
2.		
3.		
4.		
5.		
Tree Stratum (% total cover:____) (30 ft. radius)		
1.		
2.		
3.		

Remarks: Pinus contorta @ S. edge where it becomes PSS (SPDO + SALSPP)
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 1/2 = 50%
Hydrophytic Vegetation Criterion Met? (YES) NO close NWI Class PEM

SOILS

Mapped unit name: Yaquina loamy fine sand 64 Matches Profile? Y (N)
Taxonomy: Aquic Haplorthods Drainage Class: Somewhat poorly

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other
0-12		10YR 4/2	10YR 3/1 + 6/6 streaking	Sa
12+		10YR 3/1	—	Sa

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ✓ Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List

Remarks: _____
Hydric Soil Criterion / Indicators Met? (YES) NO

HYDROLOGY

Depth of inundation: — Depth to free water: 1" in probe hole Depth to saturation: surface seeps (?): —

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
✓ Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain: _____	
___Drift Lines	Other: Reportedly underwater earlier this year	
___Sediment Deposits	Remarks: Scattered 4" ponding	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments: _____
Determined by: C Murphy Walker + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: EC-3 County: Coos. State: OR Date: 3/4/99 Plot: 41
Site: Sect.(1/4) 13NE Township 23S Range 13W (Wet)/ Up
Plot Location: West of Hwy 101 where Eel Creek crosses Hwy @ sath end of town
Topographic Location: adjacent to ponded area. Upslope/N of Eel Ck + concrete box culverts (2 10ft wide) ~750' from Rd to south
Do normal environmental conditions exist? Y (N) Explain: hail!
Are soils___ vegetation___ hydrology___ significantly disturbed? (N) Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 20) (5 ft. radius)		
(1) Carex obnupta	20	OBL
2. Rubus ursinus	tr	FACU
3. Lysichitum americanum	tr	OBL
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover: 60) (5' rad.)		
(1) Rubus spectabilis	60	FAC+
2. Rubus discolor	tr	FACU
3. Rhamnus purshiana	tr	FAC-
4.		
5.		
Tree Stratum (% total cover: 20) (30 ft. radius)		
(1) Alnus rubra	20	FAC
2.		
3.		

Remarks:
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 3/3 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PSS/PFO
10-20 foot fringing Slough sedge marsh along Eel Creek

SOILS

Mapped unit name: Heceta fine sand 28 Matches Profile? (Y) N close
Taxonomy: Typic Psammaquents Drainage Class: poorly

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other
~10"		10YR 2/2	organic streaking	Sand

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ✓Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List
Remarks: WI 61D Waldport-Heceta fine sands, 0-30% slopes (hydric) to North
Hydric Soil Criterion / Indicators Met? (YES) NO

HYDROLOGY

Depth of inundation: 2-4" nearby Depth to free water: ___ Depth to saturation: Surface seeps (?): ___

1° Indicators	2° Indicators	2° Indicators
✓Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
✓Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other:	
___Sediment Deposits	Remarks: water flowing 2-4" deep, 30 ft wide, to Eel Creek	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments:
Determined by: C Murphy Walker + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: South of EC-3 County: Coos. State: OR Date: 3/4/99 Plot: 42
Site: Sect.(1/4) 13NE Township 23S Range 13W Wet / (Up)
Plot Location: just east of Plot 41
Topographic Location: 1 ft. above Plot 41, near toe of Hwy 101 Slope
Do normal environmental conditions exist? (Y) N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? (N) Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 70) (5 ft. radius)		
(1) Hedera helix	40	NOL
(2) Rubus ursinus	20	FACU
3. Polystichum munitum	5	FACU
4. Carex obnupta	5	OBL
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover: 40) (5' rad.)		
(1) Rubus spectabilis	20	FAC+
(2) Gaultheria shallon	20	FACU
3. Rhamnus purshiana	tr	FAC-
4.		
5.		
Tree Stratum (% total cover: 65) (30 ft. radius)		
(1) Pseudotsuga menziesii	60	FACU
2. Alnus rubra	5	FAC
3.		

Remarks:
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 1/5 = 20%
Hydrophytic Vegetation Criterion Met? **YES** (NO) NWI Class

SOILS

Mapped unit name: Heceta fine Sand 28 Matches Profile? Y (N)
Taxonomy: Typic Psammaquents Drainage Class: poorly

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other
Surface				forest duff
~10"		10YR 5/4	w/ darker grains	Sand

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List

Remarks: no organic streaking
Hydric Soil Criterion / Indicators Met? **YES** (NO)

HYDROLOGY

Depth of inundation:___ Depth to free water:___ Depth to saturation:___ seeps (?):___

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other:	
___Sediment Deposits	Remarks: Soils dry	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? **YES** (NO)	

DETERMINATION: Is this plot a Wetland? **YES** (NO)
Comments:
Determined by: C Miah Walker + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: TC-5 County: Coos. State: OR Date: 3/4/99 Plot: 43
Site: Spinreel Campground Sect.(1/4) 14SE Township 23S Range 13W (Wet) / Up
Plot Location: west edge of campground, west side of road
Topographic Location: inside water's edge @ bottom of road fill slope
Do normal environmental conditions exist? Y N Explain: → Saunders Creek
Are soils___ vegetation___ hydrology___ significantly disturbed? N Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 90) (5 ft. radius)		
(1.) Carex obnupta	90	OBL
2. Lysichitum americanum	tr	OBL
3.		
4.		
5.		
6.		
7.		
8.		
9. (Carex, young, possibly C. Lyngbyei but no flowr)		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover: 10) (5' rad.)		
1. Salix sp.	5	FACw wetter
2. Spiraea douglasii	5	FACW
3.		
4.		
5.		
Tree Stratum (% total cover:) (30 ft. radius)		
1.		
2.		
3.		

Remarks: upland veg. on west side of wetland is Pinus contorta, Rhododendron Myrica californica Arbutus menziesii
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 1/1 = 100% macrophyllum,
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PEM
Snags. Overall unit = 10%PFO/40% PSS/40%PEM/10% POW

SOILS

Mapped unit name: 28 Heceta fine sand (hydric) in most NORTH Waldport fine sand 59D 0-30% Matches Profile? (Y) N - close to Heceta
Taxonomy: ~~Typic Tropopsamments~~ Drainage Class: ~~excessively drained~~

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other
~10"		10YR 2/2	organic staining	Sand w/few silt inclusions

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ✓ Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List

Remarks:
Hydric Soil Criterion / Indicators Met? (YES) NO

HYDROLOGY

Depth of inundation: 76" to 2-3 ft Depth to free water: — Depth to saturation: — seeps (?): —

1° Indicators	2° Indicators	2° Indicators
✓ Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other: Coho salmon! @ culvert	
___Sediment Deposits	Remarks: wetland is approx. 100 ft wide, up to 3ft deep	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments:
Determined by: C. Mitchell + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: East of TC-5 County: Coos. State: OR Date: 3/4/99 Plot: 44
Site: Spinreel Campground Sect.(1/4) 14SE Township 23S Range 13W Wet / (Up)
Plot Location: just east of Plot 43, 2 ft west of road + curb
Topographic Location: 2 ft. above Plot 43
Do normal environmental conditions exist? Y N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? N Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 50) (5 ft. radius)		
(1) Carex obnupta	20	OBL
(2) grass	20	prob FAC
3. Hypochaeris radicata	5	FACU
4. Cerastium sp?	5	FACU/NOL
5. Rubus ursinus	tr	FACU
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover: 20) (5' rad.)		
(1) Salix sp.	10	FACW wetter
(2) Cytisus scoparius	10	NOL
3.		
4.		
5.		
Tree Stratum (% total cover:_____) (30 ft. radius)		
1.		
2.		
3.		

Remarks: upland veg on other side of road is Salix sp., Crataegus sp. + Gaultheria shallon
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 2/4 = 50%
Hydrophytic Vegetation Criterion Met? **YES** (NO) NWI Class
~~Overall unit 10%PFO~~

SOILS

Mapped unit name: Waldport fine Sand Matches Profile? (Y) N close
Taxonomy: Typic Tropopsamments Drainage Class: excessively drained

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other
0-4				Sand w/some organics + gravel
4-12		10YR 4/4	—	fine Sand

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List

Remarks:
Hydric Soil Criterion / Indicators Met? **YES** (NO)

HYDROLOGY

Depth of inundation: — Depth to free water: — Depth to saturation: — seeps (?): —

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other:	
___Sediment Deposits	Remarks: Slightly moist from 4-12"	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? **YES** (NO)	

DETERMINATION: Is this plot a Wetland? **YES** (NO)
Comments:
Determined by: C. Ruth Walker + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: TC -1 County: Coos. State: OR Date: 3/4/99 Plot: 45
Site: Sect.(1/4) 18SW Township 23S Range 12W (Wet) / Up
Plot Location: South of N. Lake Ave, East of 3rd St.
Topographic Location: flat
Do normal environmental conditions exist? Y N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? (N) Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.	*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover:_____) (5 ft. radius)			**Shrub/Sapling** Stratum (% total cover: 60) (5' rad.)		
(1) Phalaris arundinacea	85	FACW	(1) Salix hookeriana	30	FACW-
2. Lysichitum americanum	tr	OBL	(2) Rubus discolor	20	FACU
3. Rubus ursinus	tr	FACU	3. Rubus spectabilis	10	FAC+
4.			4. Sambucus racemosa	tr	FACU
5.			5.		
6.			**Tree** Stratum (% total cover: 50) (30 ft. radius)		
7.			(1) Alnus rubra	50	FAC
8.			2.		
9.			3.		

Remarks: Carex obnupta to west, backyards to east
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 3/4 = 75%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PEM/PSS/PFO

SOILS

Mapped unit name: Yaquina loamy fine sand 64 Matches Profile? Y (N)
Taxonomy: Aquic Haplarthods Drainage Class: Somewhat poorly

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other
0-6		10YR 2/2		Silty muck
6-10		10YR 5/3	possible organic streaking hard to see	Sand

___Histosol ___Reducing Conditions (test) ✓ Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ? Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List

Remarks:
Hydric Soil Criterion / Indicators Met? (YES) NO

HYDROLOGY

Depth of inundation: — Depth to free water: — Depth to saturation: Surface seeps (?): —

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
✓ Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other: Flood debris @ 2 ft on fence near Sewage TP	
___Sediment Deposits	Remarks: Scattered 1/2 - 2" ponding	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments:
Determined by: C Muth Walker + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: east of TC-1 County: Coos. State: OR Date: 3/4/99 Plot: 46
Site: Sect.(1/4) 18SW Township 23S Range 12W Wet / (Up)
Plot Location: just east of Plot 45
Topographic Location:
Do normal environmental conditions exist? Y N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? N Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 20) (5 ft. radius)		
(1) Carex obnupta	10	OBL
(2) Pteridium aquilinum	10	FACU
3.		
4.		
5.		
6.		
7.		
8.		
9.		
Shrub/Sapling Stratum (% total cover: 120) (5' rad.)		
(1) Gaultheria shallon	80	FACU
(2) Spiraea douglasii	20	FACW
3. Salix. sp.	10	FACw wetter
4. Vaccinium ovatum	5	NOL
5. Lonicera involucrata	5	FAC+
Tree Stratum (% total cover: 80) (30 ft. radius)		
(1) Pinus contorta	60	FAC
(2) Picea sitchensis	20	FAC
3.		

Remarks: Juncus effusus, grasses, Phalaris arundinacea, Rubus discolor nearby
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 4/6 = 67%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class

SOILS

Mapped unit name: Yaquina loamy fine sand 6% Matches Profile? Y (N)
Taxonomy: Aquic Haplorthods Drainage Class: Somewhat poorly

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other
0-4				duff
4-6		10YR 3/1		Sand w/ organics
6-12		10YR 3/2	possible organic streaking	

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ?Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List
Remarks:
Hydric Soil Criterion / Indicators Met? YES (NO)

HYDROLOGY

Depth of inundation: ___ Depth to free water: ___ Depth to saturation: 4" seeps (?): ___

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
✓Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other:	
___Sediment Deposits	Remarks:	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? YES (NO)
Comments: Borderline area - disturbed, residential area
Determined by: C Muthwalker + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: EC-1 (east of) County: Coos. State: OR Date: 3/4/99 Plot: 47
Site: Sect.(1/4) 7 Township 23S Range 12W Wet / (Up)
Plot Location: East of Hwy 101, east of T'ree Acres mini mart
Topographic Location: 3/4 East of Eel Creek @ wooden bridge
Do normal environmental conditions exist? (Y) N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? (N) Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 5) (5 ft. radius)		
1. Pteridium aquilinum	5	FACU
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover: 100) (5' rad.)		
1. Gaultheria Shallon	90	FACU
2. Vaccinium ovatum	10	NOL
3. Rhododendron macrophyllum tr		NOL
4.		
5.		
Tree Stratum (% total cover: 20) (30 ft. radius)		
1. Pseudotsuga menziesii	20	FACU
2. Pinus contorta	20	FAC
3.		

Remarks:
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 1/3 = 33%
Hydrophytic Vegetation Criterion Met? **YES** (NO) NWI Class

SOILS

Mapped unit name: 54D Templeton Silt loam Matches Profile? Y N
Taxonomy: 28 to West Drainage Class:

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other
0-6				forest duff
6-10		10YR 5/4 ± 1/2	mixed matrix	Sand, not moist

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List
Remarks: no organic streaking
Hydric Soil Criterion / Indicators Met? **YES** (NO)

HYDROLOGY

Depth of inundation: — Depth to free water: — Depth to saturation: — seeps (?): —

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other:	
___Sediment Deposits	Remarks: soils dry	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? **YES** (NO)	

DETERMINATION: Is this plot a Wetland? **YES** (NO)
Comments:
Determined by: C Mw Walker + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: BC-6 County: Coos. State: OR Date: 11/20/98 Plot: OF-1
Site: _____ Sect.(1/4) 7 Township 23S Range 12W (Wet) Up
Plot Location: east of Fern Lane
Topographic Location: _____
Do normal environmental conditions exist? Y N Explain: _____
Are soils___ vegetation___ hydrology___ significantly disturbed? N Explain: horses on parcel

VEGETATION

*Dominant Plant Species	% Cover	Ind.	*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover:____) (5 ft. radius)			**Shrub/Sapling** Stratum (% total cover:____) (5' rad.)		
1. Phalaris arundinacea		FACW	1.		
2. grazed grasses			2.		
3.			3.		
4.			4.		
5.			5.		
6.			**Tree** Stratum (% total cover:____) (30 ft. radius)		
7.			1. Can see Alnus rubra & Salix sp.		
8.			2. @ Far end		
9.			3.		

Remarks: vegetation grazed; upland veg. on south ~~north~~ side of road is Pinus contorta, Rhododendron macrophyllum + Gaultheria shallon
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 1/1 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PEM

SOILS

Mapped unit name: 64 Yaquina Loamy fine sand Matches Profile? Y N (Hydric)
Taxonomy: _____ Drainage Class: _____

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List
Remarks: off site - No Access (Access Denied)
Hydric Soil Criterion / Indicators Met? **YES NO**

HYDROLOGY

Depth of inundation:_____ Depth to free water:_____ Depth to saturation:_____ seeps (?):_____

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	X Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other: ditch flows E	
___Sediment Deposits	Remarks: 5 ft shallow ditch w/ RCG	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments: _____
Determined by: Cynthia Walker + Stacy Benjamin

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: TL-3 County: Coos. State: OR Date: 11/21/98 Plot: OF-2
Site: Pier Condos Sect.(1/4) 18 Township 23S Range 12W (Wet)/ Up
Plot Location: South of Park Ave, near 9th St.
Topographic Location: Vegetation along shoreline @ Pier Condos
Do normal environmental conditions exist? (Y) N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? (N) Explain:
ACCESS NOT GIVEN OFF-SITE

VEGETATION

*Dominant Plant Species	% Cover	Ind.	*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 20) (5 ft. radius)			**Shrub/Sapling** Stratum (% total cover: 60) (5' rad.)		
(1) Scirpus acutus/Validus?		OBL	(1) Salix lasiandra		FACW+
(2) Typha latifolia		OBL	(2) Salix hookeriana		FACW-
(3) Polygonum sp.		OBL	(3) Spiraea douglasii	tr	FACW
(4) Carex obnupta		OBL	4.		
5.			5.		
6.			**Tree** Stratum (% total cover:) (30 ft. radius)		
7.			1.		
8.			2.		
9.			3.		

Remarks: 20% open water
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 7/7 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class: PEM/PSS 60% 20% POW / 20%

SOILS

Mapped unit name: 64 Yaquina loamy fine sand Matches Profile? Y N (Hydric)
Taxonomy: Drainage Class:

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List
Remarks: off-site
Hydric Soil Criterion / Indicators Met? **YES NO**

HYDROLOGY Flooded shoreline

Depth of inundation:_____ Depth to free water:_____ Depth to saturation:_____ seeps (?):_____

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	X Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other: Ved on 3/4/99 - even more flooded - can't see emergents	
___Sediment Deposits	Remarks: Adjacent to Termile Lake	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? **YES NO**	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments:
Determined by: Cmith Wally + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: RR-1 County: Coos. State: OR Date: 11/21/98 Plot: OF-3
Site: E of 11thst + S of RR Ave Sect.(1/4) 18 Township 23S Range 12W (Wet) / Up
Plot Location: Tax Lot 6501
Topographic Location: Remnant wetland w/ 4' high chainlink fence
Do normal environmental conditions exist? Y N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? N Explain:
~50x70'

VEGETATION

*Dominant Plant Species	% Cover	Ind.	*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover:____) (5 ft. radius)			**Shrub/Sapling** Stratum (% total cover:____) (5' rad.)		
1. Carex obnupta	tr	OBL	1. Salix hookeriana		FACW-
2. Juncus effusus	tr	FACW	2. Rubus discolor		FACU
3. unknown grass			3. Pinus contorta	few	FAC
4.			4.		
5.			5.		
6.			**Tree** Stratum (% total cover:____) (30 ft. radius)		
7.			1.		
8.			2.		
9.			3.		

Remarks:
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 1/1 = ____
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PSS

SOILS

Mapped unit name: 64 Yaquina Loamy fine sand Matches Profile? Y N (Hydric)
Taxonomy: Drainage Class:

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List
Remarks:
Hydric Soil Criterion / Indicators Met? **YES NO**

HYDROLOGY

Depth of inundation: 12"? Depth to free water:____ Depth to saturation:____ seeps (?):____

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	X Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other:	
___Sediment Deposits	Remarks: narrow ditch in wetland	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments: Too small for LWI (<0.5ac) ~0.08ac
Determined by: CMuth Walker + Stacy Benjamin

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: BC-1-near County: Coos. State: OR Date: 11/21/98 Plot: OF-4
Site: Willow Creek RV Resort Sect.(1/4) 18 Township 23S Range 12W (Wet) / Up
Plot Location: remnant pockets of wetland in gravel filled RV park
Topographic Location:
Do normal environmental conditions exist? Y N Explain:
Are soils X vegetation___ hydrology___ significantly disturbed? N Explain: see fill permit
What about mitigation?

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover:____) (5 ft. radius)		
1. Carex obnupta		OBL
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover:____) (5' rad.)		
1. Pinus contorta		FAC
2. Spirea douglasii		FACW
3. Salix sp.		
4.		
5.		
Tree Stratum (% total cover:____) (30 ft. radius)		
1.		
2.		
3.		

Remarks: Remnant pockets of veg.
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-):____ = ____
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PSS

SOILS

Mapped unit name: 64 Yaquina loamy fine sa. Matches Profile? Y N (hydric)
Taxonomy: Drainage Class:

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List
Remarks: Silt fence @ toe of slope (fill); fill not sampled
Hydric Soil Criterion / Indicators Met? **YES NO**

HYDROLOGY

Depth of inundation: ponded Depth to free water:____ Depth to saturation:____ seeps (?):____

1° Indicators	2° Indicators	2° Indicators
X Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other:	
___Sediment Deposits	Remarks:	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments: Small wetland mosaic - too small to map
Determined by: CMW + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: BC-1 County: Coos. State: OR Date: 11/21/98 Plot: OF-5
Site: North of Willow Ck RV Res. Sect.(1/4) 18 Township 23S Range 12W (Wet) / Up
Plot Location: E of 15th Ave, S of RR tracks
Topographic Location: East of new manufactured home community
Do normal environmental conditions exist? Y N Explain: South of RR Tracks
Are soils___ vegetation___ hydrology___ significantly disturbed? N Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover:_____) (5 ft. radius)		
1. Juncus effusus	5%	FACW
2. Oenanthe Sarmentosa	5%	OBL
3. phalaris arundinacea		FACW
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover:____) (5' rad.)		
1. Spiraea douglasii		FACW
2. Salix hookeriana		FACW-
3.		
4.		
5.		
Tree Stratum (% total cover:_____) (30 ft. radius)		
1.		
2.		
3.		

Remarks:
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-):_____ = _____
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class EM area

SOILS

Mapped unit name: 64 Yaquina loamy fine sand Matches Profile? Y N (hydric)
Taxonomy:_____ Drainage Class:_____

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List
Remarks: not sampled
Hydric Soil Criterion / Indicators Met? **YES NO**

HYDROLOGY

Depth of inundation: 1" Depth to free water:_____ Depth to saturation:_____ seeps (?):_____

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other:	
___Sediment Deposits	Remarks: Ditch flowing East 10' wide, 4' deep channel	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments:
Determined by: CM Wolf + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: BC-2 County: Coos. State: OR Date: 11/2/98 Plot: OF-6
Site: East end of pasture Sect.(1/4) 17 Township 23S Range 12W (Wet) / Up
Plot Location: north of RR before tunnel @ east end of town
Topographic Location:
Do normal environmental conditions exist? (Y) N Explain:
Are soils___ vegetation ✓ hydrology___ significantly disturbed? N Explain: grazed

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 100) (5 ft. radius)		
1. grazed pasture grasses		prob FAC
2. Carex obnupta		OBL
3.		
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover:____) (5' rad.)		
1.		
2.		
3.		
4.		
5.		
Tree Stratum (% total cover:_____) (30 ft. radius)		
1.		
2.		
3.		

Remarks: Carex obnupta surrounding pond in fenced off area in grazed pasture
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 2/2 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PEM
Becomes Salix las. forest S of tracks E to tunnel (BC-1)

SOILS
Mapped unit name: 64 Yaquina loamy fine sand Matches Profile? Y N (hydric)
Taxonomy: Drainage Class:

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List
Remarks: off-site
Hydric Soil Criterion / Indicators Met? **YES NO**

HYDROLOGY
Depth of inundation:_____ Depth to free water:_____ Depth to saturation:_____ seeps (?):_____

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other:	
___Sediment Deposits	Remarks: Small ponded area inside fence	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments:
Determined by: CMW + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: TL- 1 County: Coos. State: OR Date: 11/21/99 Plot: OF-7
Site: Osprey Point Sect.(1/4) 18 Township 23S Range 12W (Wet)/ Up
Plot Location: Stream north + south of Pond Lane
Topographic Location: Channel excavated (or surrounding filled?)
Do normal environmental conditions exist? (Y) N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? (N) Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.	*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover:_____) (5 ft. radius)			**Shrub/Sapling** Stratum (% total cover:____) (5' rad.)		
1. Juncus effusus		FACW	1. Salix sp.	tr	FACw/wetter
2. Typha latifolia	tr		2.		
3. Myriophyllum sp.	tr		3.		
4.			4.		
5.			5.		
6.			**Tree** Stratum (% total cover: 20%) (30 ft. radius)		
7.			1. Alnus rubra	20%	FAC
8.			2.		
9.			3.		

Remarks: 10% open water north of Pond Lane, 80% open water south of pond lane
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 3/3 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class: PEM/PSS/PFO 20%
E-W part has 5% ALRU 10% POW / 70% → PSS S. of Pondlane

SOILS

Mapped unit name: 64 Yaquina loamy fine sand Matches Profile? Y N (hydric)
Taxonomy:_____ Drainage Class:_____

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List
Remarks: Off-site - access denied
Hydric Soil Criterion / Indicators Met? **YES NO**

HYDROLOGY

Depth of inundation:_____ Depth to free water:_____ Depth to saturation:_____ seeps (?):_____

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other: Creek flowing South	
___Sediment Deposits	Remarks: Channelized stream + small pond (excavated?)	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO ↓ in parking area	

Also large pond in SS - can't see

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments:
Determined by: Christy Walker + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: TL-1 County: Coos. State: OR Date: 11/22/98 Plot: OF-8
Site: SS Swamp Sect.(1/4) 17 Township 23S Range 12W (Wet) / Up
Plot Location: east side of canal, looking west from Council Hill
Topographic Location:
Do normal environmental conditions exist? (Y) N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? (N) Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.	*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover:_____) (5 ft. radius)			**Shrub/Sapling** Stratum (% total cover:____) (5' rad.)		
(1) Phalaris arundinacea		FACW	(1) Spiraea douglasii		FACW
2.			(2) Salix hookeriana		FACW-
3.			3. (more SAHO than SPDO)		
4.			4.		
5.			5.		
6.			**Tree** Stratum (% total cover:_____) (30 ft. radius)		
7.			1.		
8.			2.		
9.			3.		

Remarks:
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 3/3 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PSS

SOILS

Mapped unit name: 64 Yaquina loamy fine sand Matches Profile? Y N (hydric)
Taxonomy: Drainage Class:

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List
Remarks: off-site (access denied
Hydric Soil Criterion / Indicators Met? **YES NO**

HYDROLOGY

Depth of inundation:_____ Depth to free water:_____ Depth to saturation:_____ seeps (?):_____

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	X Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other:	
___Sediment Deposits	Remarks: Influenced by lake + groundwater table	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? **YES NO**	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments:
Determined by: Mark Walz + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: TL-1 County: Coos. State: OR Date: 11/22/98 Plot: OF-9
Site: E. of new horses S. of N. Lake Rd. Sect.(1/4) 18 Township 23S Range 12W (Wet) / Up
Plot Location: Emergent area. Across from entrance to Willow Ck.
Topographic Location: RV Resort
Do normal environmental conditions exist? Y N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? N Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.	*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover:____) (5 ft. radius)			**Shrub/Sapling** Stratum (% total cover:____) (5' rad.)		
1. Phalaris arundinacea		FACW	1.		
2. Festuca arundinacea		FAC-	2.		
3. some mowed grass		?	3.		
4.			4.		
5.			5.		
6.			**Tree** Stratum (% total cover:____) (30 ft. radius)		
7.			1.		
8.			2.		
9.			3.		

Remarks: 55 @ back
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-):____ = ____
Hydrophytic Vegetation Criterion Met? (YES) NO although not strong - need more data NWI Class PEM

SOILS

Mapped unit name: 64 Yaquina loamy fine sand Matches Profile? Y N (hydric)
Taxonomy:____ Drainage Class:____

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List
Remarks: off-site
Hydric Soil Criterion / Indicators Met? **YES NO**

HYDROLOGY

Depth of inundation:____ Depth to free water:____ Depth to saturation:____ seeps (?):____

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other:	
___Sediment Deposits	Remarks: shallow inundation in areas.	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? **YES NO**	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments:
Determined by: C. Mulholland + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: TC-1 County: Coos. State: OR Date: 11/22/98 Plot: OF-10
Site: Behind Lakeside Marina@ Sect.(1/4) 18 Township 23S Range 12W (Wet) / Up
Plot Location: Lakeshore Lodge - Thru chain link fence
Topographic Location: towards Tenmile Creek
Do normal environmental conditions exist? Y N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? N Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover:____) (5 ft. radius)		
1. Phalaris arundinacea		FACW
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover: 30%) (5' rad.)		
1. Spiraea douglasii		FACW
2. Salix hookeriana		FACW-
3.		
4.		
5.		
Tree Stratum (% total cover:____) (30 ft. radius)		
1.		
2.		
3.		

Remarks: Under water
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 3/3 = ____
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PSS

SOILS

Mapped unit name: 64 Yaquina loamy fine sand Matches Profile? Y N (hydric)
Taxonomy: Drainage Class:

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List
Remarks: off-site
Hydric Soil Criterion / Indicators Met? **YES NO**

HYDROLOGY

Depth of inundation: 7. Depth to free water:____ Depth to saturation:____ seeps (?):____

1° Indicators	2° Indicators	2° Indicators
X Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other:	
___Sediment Deposits	Remarks: RCG flooded	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments:
Determined by: C Mirth Walker + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

OF-11

Project #: 98111 Area: BC-3 County: Coos. State: OR Date: 11/22/98 Plot: OF-11

Site: Eg Lakeland Estates Sect.(1/4) 7 Township 23S Range 12W (Wet) / Up

Plot Location: View NE

Topographic Location:

Do normal environmental conditions exist? Y N Explain:

Are soils___ vegetation___ hydrology___ significantly disturbed? N Explain:

Note: hole in dike to North, V. silty runoff clogging storm drains + affecting Bowron Ck.

VEGETATION

*Dominant Plant Species	% Cover	Ind.	*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 90%) (5 ft. radius)			**Shrub/Sapling** Stratum (% total cover: 10%) (5' rad.)		
1. Carex obnupta	80%	OBL	1. Spiraea douglasii	10%	FACW
2. Phalaris arundinacea	10%	FACW	2.		
3.			3.		
4.			4.		
5.			5.		
6.			**Tree** Stratum (% total cover:_____) (30 ft. radius)		
7.			1.		
8.			2.		
9.			3.		

Remarks: Area around barn is V; cleared, filled

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 2/2 = 100%

Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class 10%PSS / 90%PEM

SOILS

Mapped unit name: 64 Yaquina (Loamy fine sand) Matches Profile? Y N (hydric)

Taxonomy: Surrounded by 52 VE (Salander) Drainage Class:

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer

___Histic Epipedon ___Gleyed ___Organic Streaking

___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan

___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List

Remarks: Off-site (access denied)

Hydric Soil Criterion / Indicators Met? **YES NO** steep slopes N+E

HYDROLOGY

Depth of inundation:_____ Depth to free water:_____ Depth to saturation:_____ seeps (?):_____

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other:	
___Sediment Deposits	Remarks:	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? **YES NO**	

DETERMINATION: Is this plot a Wetland? (YES) NO

Comments: Visually obvious wetland

Determined by: Chris Walker & Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: Rugh Lane-end County: Coos. State: OR Date: 11/21/98 Plot: OF-12
Site: _____ Sect.(1/4) 7 Township 23S Range 12W (Wet) / Up
Plot Location: Driveway bisects wetland (BC-4 to E, BC-5 to W)
Topographic Location: _____
Do normal environmental conditions exist? Y N Explain: _____
Are soils___ vegetation___ hydrology___ significantly disturbed? N Explain: _____

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: _____) (5 ft. radius)		
1. Scirpus microcarpus		OBL
2. Lysichitum americanum		OBL
3. Carex obnupta		OBL
4. Typha latifolia		OBL
5. Phalaris arundinacea		FACW
6. Juncus effusus		FACW
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover: 100) (5' rad.)		
1. Salix species	100	FACW
2. Spiraea douglasii		FACW
3.		
4.		
5.		
Tree Stratum (% total cover: _____) (30 ft. radius)		
1. Alnus rubra	tr	FAC
2. Picea sitchensis	tr	FAC
3.		

Remarks: all wetland except paved + mowed area
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): _____ =
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PSS/PFO some PEM to west

SOILS

Mapped unit name: _____ Matches Profile? Y N
Taxonomy: _____ Drainage Class: _____

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List
Remarks: did not know we had access yet - not sampled til spring
Hydric Soil Criterion / Indicators Met? **YES NO**

HYDROLOGY

Depth of inundation: ponded to E, sat. to west Depth to free water: _____ Depth to saturation: _____ seeps (?): _____

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other:	
___Sediment Deposits	Remarks: Stream flowing east 3 ft wide @ south between 1st 2nd tax lots (becomes 1 foot wide east of Rainbow Drive)	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments: _____
Determined by: C Mathwalk + Stacy Benjamin

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: EC-1 County: Coos. State: OR Date: 11/22/98 Plot: OF-13
Site: _____ Sect.(1/4) 7 Township 23S Range 12W (Wet)/ Up
Plot Location: East of Hwy 101, east of T'ree Acres mini mart
Topographic Location: West of Eel creek from logging road, yellow gate bridge
Do normal environmental conditions exist? (Y) N Explain: _____
Are soils___ vegetation___ hydrology___ significantly disturbed? (N) Explain: _____

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover:____) (5 ft. radius)		
1. Carex obnupta		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover:____) (5' rad.)		
1. Spirea douglasii		FACW
2.		
3.		
4.		
5.		
Tree Stratum (% total cover:____) (30 ft. radius)		
1. Alnus rubra		FAC
2. Salix hookeriana		FACW-
3.		

Remarks: Excellent riparian shading, 750%; PFO mostly Picea sitchensis w/ some Pseudotsuga menziesii & Abies grandis
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): ____ = ____
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PFO

SOILS

Mapped unit name: 28 Hecata fine sand Matches Profile? Y N (Hydric)
Taxonomy: _____ Drainage Class: _____

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List
Remarks: off-site (No access to Tree Acres); private logging road
Hydric Soil Criterion / Indicators Met? **YES NO**

HYDROLOGY

Depth of inundation:_____ Depth to free water:_____ Depth to saturation:_____ seeps (?):_____

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other:	
___Sediment Deposits	Remarks: Eel creek 15-20 ft wide, meandering	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? **YES NO**	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments: _____
Determined by: C Muth, Walker + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: EC-2 County: Coos. State: OR Date: 3/3/99 Plot: OF-14
Site: _____ Sect.(1/4) 7 Township 23S Range 12W (Wet)/ Up
Plot Location: below Bonneville Road - looking N + E
Topographic Location: _____
Do normal environmental conditions exist? (Y) N Explain: _____
Are soils___ vegetation___ hydrology___ significantly disturbed? N Explain: grazed? disturbed layer

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 100) (5 ft. radius)		
(1) grass (grazed)	70	probFAC
(2) Juncus effusus	20	FACW
3. Lysichitum americanum	10	OBL
4. Oenanthe sarmentosa	tr	OBL
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover: 10) (5' rad.)		
1. Salix sp (east end)	10	FACw wetter
2.		
3.		
4.		
5.		
Tree Stratum (% total cover: _____) (30 ft. radius)		
1.		
2.		
3.		

Remarks: upland is steeply sloped, replanted Douglas fir to east
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 2/2 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PEM 90% / 10% PSS

SOILS

Mapped unit name: 28 Heceta fine sand finger ___ Matches Profile? Y N
Taxonomy: surrounded by 54D Templeton Drainage Class: _____

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List

Remarks: off-site - access denied
Hydric Soil Criterion / Indicators Met? **YES NO**

HYDROLOGY

Depth of inundation:_____ Depth to free water:_____ Depth to saturation:_____ seeps (?):_____

1° Indicators	2° Indicators	2° Indicators
X Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain: _____	
___Drift Lines	Other: trace grass decumbent in stream	
___Sediment Deposits	Remarks: wide meandering channel flows west to Eel Creek	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments: _____
Determined by: CMW + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: TL-1 County: Coos. State: OR Date: 3/3/99 Plot: OF-15
Site: byboat Sect.(1/4) 17+18 Township 23S Range 12W (Wet) / Up
Plot Location: Tenmile canal - from boat
Topographic Location:
Do normal environmental conditions exist? Y N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? N Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.	*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover:____) (5 ft. radius)			**Shrub/Sapling** Stratum (% total cover:____) (5' rad.)		
1. Phalaris arundinacea	____	FACW	1. Salix sp.	____	FACw/FACW
2. Carex obnupta	tr	OBL	2. Spiraea douglasii	____	FACW
3.			3.		
4.			4.		
5.			5.		
6.			**Tree** Stratum (% total cover:____) (30 ft. radius)		
7.			1.		
8.			2.		
9. INUNDATED			3.		

Remarks: upland is mowed grass on west + Douglas fir, alder, sword fern on east
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 3/3 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PSS

SOILS

Mapped unit name: Water w/ 64 Yaquina on both sides Matches Profile? Y N (hydric)
Taxonomy: Drainage Class:

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List

Remarks: Off-site
Hydric Soil Criterion / Indicators Met? **YES NO**

HYDROLOGY

Flooded - emergents under water
Depth of inundation:_____ Depth to free water:_____ Depth to saturation:_____ seeps (?):_____

1° Indicators	2° Indicators	2° Indicators
X Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other: Bob Harr reports that Corps dredged canal last year	
___Sediment Deposits	Remarks:	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments:
Determined by: Coral Mitchell + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL 16

Project #: 98111 Area: TC-1 County: Coos. State: OR Date: 3/3/99 Plot: OF-16
Site: by boat Sect.(1/4) 18+13 Township 23S Range 12W (Wet) Up
Plot Location: near oxbow - from boat on Tenmile Creek +13W
Topographic Location:
Do normal environmental conditions exist? Y N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? N Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.	*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover:_____) (5 ft. radius)			**Shrub/Sapling** Stratum (% total cover:____) (5' rad.)		
(1) Lysichitum americanum		OBL	(1) Salix sp.		FAC or wetter
(2) Carex obrupta		OBL	2. Spiraea douglasii		FACW
3.			3.		
4.			4.		
5.			5.		
6.			**Tree** Stratum (% total cover:_____) (30 ft. radius)		
7.			(1) Alnus rubra		FAC
8.			2.		
9.			3.		

Remarks: upland is Shore pine, rhododendron, hairy manzanita
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 4/4 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PFO
W. of TC-3 Pseudotsuga menziesii / Gaultheria shallon, Vaccinium oratum, Rhododendron macrophyllum / Polystichum munitum

SOILS

Mapped unit name: Flat start, (Yaquina) Matches Profile? Y N (+E of here)
Taxonomy: Then 28 Heceta fi. sa. Drainage Class:

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List

Remarks: offsite
Hydric Soil Criterion / Indicators Met? **YES NO**

HYDROLOGY Flooded -

Depth of inundation:_____ Depth to free water:_____ Depth to saturation:_____ seeps (?):_____

1° Indicators	2° Indicators	2° Indicators
X Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other:	
___Sediment Deposits	Remarks: Creek out of its banks	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments:
Determined by: Chris Waltz + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: above TC-3 County: Coos. State: OR Date: 3/3/99 Plot: OF-17
Site: _____ Sect.(1/4) 18 or 13 Township 23S Range 12W Wet / (Up)
Plot Location: down slope of Hilltop Drive
Topographic Location: _____
Do normal environmental conditions exist? (Y) N Explain: _____
Are soils___ vegetation___ hydrology___ significantly disturbed? (N) Explain: _____

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover:_____) (5 ft. radius)		
(1) Polystichum munitum		FACU
(2) Gaultheria Shallon		FACU
3. Hedera helix		NOL
4. Rubus ursinus		FACU
5. Polypodium glycyrrhiza?		NOL
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover:____) (5' rad.)		
(1) Rubus spectabilis		FAC+
(2) Vaccinium ovatum		NOL
3. Cytisus scoparius		NOL
4. Rubus discolor		FACU
5.		
Tree Stratum (% total cover:_____) (30 ft. radius)		
(1) Alnus rubra		FAC
(2) Pseudotsuga menziesii		FACU
(3) Pinus contorta		FAC
4. Tsuga heterophylla		FACU-

Remarks: _____
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 3/7 = 43%
Hydrophytic Vegetation Criterion Met? **YES** (NO) NWI Class _____

SOILS

Mapped unit name: 54E Templeton silt loam Matches Profile? Y N
Taxonomy: _____ Drainage Class: _____

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List
Remarks: Off-site
Hydric Soil Criterion / Indicators Met? **YES NO**

HYDROLOGY

Depth of inundation:_____ Depth to free water:_____ Depth to saturation:_____ seeps (?):_____

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain: _____	
___Drift Lines	Other: _____	
___Sediment Deposits	Remarks: Can see drainage @ bottom of hill	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? **YES NO** see plot 36	

DETERMINATION: Is this plot a Wetland? **YES** (NO)
Comments: _____
Determined by: CMunnWalker + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: East of RA-1 County: Coos. State: OR Date: 3/3/99 Plot: OF-18
Site: E drainage/Robinhood Ave Sect.(1/4) 7 Township 23S Range 12W (Wet) Y Up
Plot Location:
Topographic Location: Upslope, above 225 foot long culvert
Do normal environmental conditions exist? Y N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? N Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.	*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover:____) (5 ft. radius)			**Shrub/Sapling** Stratum (% total cover:____) (5' rad.)		
(1) Lysichitum americanum		OBL	1.		
2.			2.		
3.			3.		
4.			4.		
5.			5.		
6.			**Tree** Stratum (% total cover:____) (30 ft. radius)		
7.			(1) Alnus rubra		FAC
8.			2.		
9.			3.		

Remarks: Drainage ~ 5 feet wide
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 2/2 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PFO

SOILS

Mapped unit name: 540 Templeton Silt Loam Matches Profile? Y N
Taxonomy: Drainage Class:

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List
Remarks: OFF-SITE
Hydric Soil Criterion / Indicators Met? **YES NO**

HYDROLOGY

Depth of inundation:_____ Depth to free water:_____ Depth to saturation:_____ seeps (?):_____

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other: Drainage culverted for ~ 225 feet (upslope),	
___Sediment Deposits	Remarks: daylights right by road, then	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? YES NO	

Culverted to pond. 12" rusty metal pipe.

DETERMINATION: Is this plot a Wetland? **YES NO**
Comments:
Determined by: CMirth Walker + Stacy Benjamin

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: TC-4 County: Coos. State: OR Date: 3/4/99 Plot: OF-19
Site: Outside UGB Sect.(1/4) 13 Township 23S Range 13W (Wet) / Up
Plot Location: South of Dunes Mobile Ranch, West side of Wildwood Drive
Topographic Location: toe of steep road embankment
Do normal environmental conditions exist? Y N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? N Explain:
culverted under driveways 9561, 9535, 9469+9447, 9425+9403, 9315

VEGETATION

*Dominant Plant Species	% Cover	Ind.	*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 25) (5 ft. radius)			**Shrub/Sapling** Stratum (% total cover: 25) (5' rad.)		
(1) Carex obnupta	25	OBL	(1) Spiraea douglasii	25	FACW
2. Lysichitum americanum	tr	OBL	2. Lonicera involucrata	tr	FAC+
3.			3. Rubus spectabilis	tr	FAC+
4.			4. Sambucus racemosa	tr	FACU
5.			5. Alnus rubra	tr	FAC
6.			**Tree** Stratum (% total cover:_____) (30 ft. radius)		
7.			1.		
8.			2.		
9.			3.		

Remarks: upland veg. is Gaultheria Shallon, Vaccinium ovatum, Cytisus Scoparius, Pinus contorta
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 2/2 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PSS
overall ~ 80% PSS w/ lots of Salix hookeriana

SOILS

Mapped unit name: 59D in North Waldport fi. sa. Matches Profile? Y N
Taxonomy: 28 in South Hecetafi. sa. Drainage Class:

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List
Remarks: Off-site
Hydric Soil Criterion / Indicators Met? **YES NO**

HYDROLOGY

snail eggs
Depth of inundation: 1-2ft Depth to free water: — Depth to saturation: — seeps (?): —

1° Indicators	2° Indicators	2° Indicators
✓ Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other: Culverted under several driveways	
___Sediment Deposits	Remarks: Wetland ~ 15 ft wide	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

fairly stagnant

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments:
Determined by: C Mirth Walker + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: TC-4 County: Coos. State: OR Date: 3/4/99 Plot: OF-20
Site: outside UGB Sect.(1/4) 13 Township 23S Range 13W (Wet) / Up
Plot Location: just North of driveway @ 9315 Wildwood Drive
Topographic Location: toe of berm along driveway
Do normal environmental conditions exist? Y N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? N Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover:____) (5 ft. radius)		
1. Phalaris arundinacea		FACW
2. Carex obnupta		OBL
3. Lysichitum americanum		OBL
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover:____) (5' rad.)		
1. Rubus spectabilis		FAC+
2. Spiraea douglasii		FACW
3. Alnus rubra		FAC
4. Salix sp.		FACorwetter
5.		
Tree Stratum (% total cover:____) (30 ft. radius)		
1.		
2.		
3.		

Remarks:
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 6/6 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PEM / PSS 60%

SOILS

Mapped unit name: 28 Heceta fine sand Matches Profile? Y N
Taxonomy: Drainage Class:

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List
Remarks: off-site
Hydric Soil Criterion / Indicators Met? **YES NO**

HYDROLOGY

Depth of inundation:_____ Depth to free water:_____ Depth to saturation:_____ seeps (?):_____

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other: Culvet under driveway connects wetland;	
___Sediment Deposits	Remarks: drainage to N flows W to Tenmile Creek, ~25 feet wide	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? **YES NO**	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments:
Determined by: CMunn Walker + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: TC-5 County: Coos. State: OR Date: 3/4/99 Plot: OF-21
Site: S. of Spinreel Dune Tours + ATV Rentals Sect.(1/4) 13 Township 23S Range 13W (Wet) / Up
Plot Location: north of railroad bridge, east side of Wildwood Drive
Topographic Location: bottom of road fill slope. Across from Saunders Creek wetland
Do normal environmental conditions exist? Y N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? (N) Explain:
Outside UGB

VEGETATION

*Dominant Plant Species	% Cover	Ind.	*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 50) (5 ft. radius)			**Shrub/Sapling** Stratum (% total cover: 50) (5' rad.)		
(1) Carex obnupta	50	OBL	(1) Spiraea douglasii	50	FACW
2. Lysichitum americanum	tr	OBL	2.		
3.			3.		
4.			4.		
5.			5.		
6.			**Tree** Stratum (% total cover:_____) (30 ft. radius)		
7.			1.		
8.			2.		
9.			3.		

Remarks: upland veg. on slope up to Hwy 101 Picea sitchensis, Gaultheria shallon, Cytisus scoparius
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 2/2 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PEM/PSS 50 50

SOILS

Mapped unit name: 28 Heceta fine sand Matches Profile? Y N
Taxonomy: 80 to East: Bullards Sa. Lm. Drainage Class:

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List

Remarks: OFF-SITE slight fill slope to north WL area close to soil mapping boundary
Hydric Soil Criterion / Indicators Met? YES NO

HYDROLOGY

Depth of inundation: 4-6" Depth to free water:_____ Depth to saturation:_____ seeps (?):_____

1° Indicators	2° Indicators	2° Indicators
✓ Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other: Looked for culvert - could not find - might still be connected	
___Sediment Deposits	Remarks: less water than wetland on other side of Wildwood	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments:
Determined by: C Mirth Walker + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: BC-3 County: Coos. State: OR Date: 3/4/99 Plot: OF-22
Site: Mr. Freeland; family-owned 1922 Sect.(1/4)_____ Township 23S Range 12W (Wet) / Up
Plot Location: Pasture northeast of Lakeland Estates
Topographic Location:_____
Do normal environmental conditions exist? Y N Explain:_____
Are soils___ vegetation___ hydrology___ significantly disturbed? N Explain:_____

VEGETATION

*Dominant Plant Species	% Cover	Ind.	*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 100) (5 ft. radius)			**Shrub/Sapling** Stratum (% total cover: 10) (5' rad.)		
(1) Phalaris arundinacea	85	FACW	1. Spiraea douglasii	10	FACW
2. Juncus effusus	10	FACW	2. Salix sp.	tr	FACw wetter
3. Lysichitum americanum	5	OBL	(3) Thuja plicata	tr	FAC
4.			4.		
5.			5.		
6.			**Tree** Stratum (% total cover:_____) (30 ft. radius)		
7.			1.		
8.			2.		
9.			3.		

Remarks: Lysichitum americanum pocket in north
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 1/1 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PEM 90%/10% PSS
U, scraped + logged

SOILS

Mapped unit name: 64 Yaquina Loamy Fine Sand to East Matches Profile? Y N
Taxonomy:_____ Drainage Class:_____

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List
Remarks: OFF-SITE; Access denied. Owner said soils black
Hydric Soil Criterion / Indicators Met? **YES NO**

HYDROLOGY

Depth of inundation:_____ Depth to free water:_____ Depth to saturation:_____ seeps (?):_____

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:_____	
___Drift Lines	Other: Owner said depth to water 1-2 ft in summer	
___Sediment Deposits	Remarks: Drainages at north end + springs in back	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments:_____
Determined by: C Mulholland + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: TC-2 County: Coos. State: OR Date: 11/20/98 Plot: OF-23
Site: West of Airport, N of Airport Way Sect.(1/4) 18NW Township 23S Range 12W (Wet) / Up
Plot Location: View from road parking area by gate to power lines
Topographic Location: View north
Do normal environmental conditions exist? Y N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? N Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover:____) (5 ft. radius)		
1. Carex obnupta		OBL
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover:____) (5' rad.)		
1. Spirea douglasii		FACW
2. Pinus contorta		FAC
3. Salix sp.		FACW+/-
4. Alnus rubra		FAC
5.		
Tree Stratum (% total cover:____) (30 ft. radius)		
1.		
2.		
3.		

Remarks:
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 5/5 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PSS
5 Veg = Gaultheria shallon, Pinus contorta, Arctostaphylos columbiana, Cytisus scoparius.

SOILS

Mapped unit name: 64 Yaquina Ifisa (hydric) Matches Profile? Y N
Taxonomy: Drainage Class:

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List
Remarks: Off-site
Hydric Soil Criterion / Indicators Met? **YES NO**

HYDROLOGY

Depth of inundation:_____ Depth to free water:_____ Depth to saturation:_____ seeps (?):_____

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other: Drainage flows south, Areas ponded	
___Sediment Deposits	Remarks:	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments: Yes. Cleared S. of Airport Way - Violation?
Determined by: C Munn/Walker + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: CA-1 County: Coos. State: OR Date: 3/3/99 Plot: OF-CA-1
Site: by boat Sect.(1/4) 21SE Township 23S Range 12W (Wet)/ Up
Plot Location: South shore of Coleman Arm
Topographic Location: lake fringe — no drainage
Do normal environmental conditions exist? Y N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? (N) Explain:
SEE VEG. REMARKS FOR UPLAND VEGETATION

VEGETATION

*Dominant Plant Species	% Cover	Ind.	*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover:____) (5 ft. radius)			**Shrub/Sapling** Stratum (% total cover:____) (5' rad.)		
1. Carex obnupta		OBL	(1) Salix sp.		FAC a wetter
2.			(2) Rubus spectabilis		FAC+
3.			3.		
4.			4.		
5.			5.		
6.			**Tree** Stratum (% total cover:____) (30 ft. radius)		
7.			(1) Alnus rubra		FAC
8.			2.		
9.			3.		

Remarks: Upland veg. on steep slope is Pseudotsuga menziesii, Gaultheria shallon, Vaccinium ovatum, Polystichum munitum
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 3/3 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PSS

SOILS

Mapped unit name: 39F Millicoma-Templeton Complex Matches Profile? Y N
Taxonomy: 50-75% slopes Drainage Class:

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, or Pores/Peds?	Texture, Struct., Other
	Typic Humitropept - Andic Humitropept			

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List
Remarks: off-site
Hydric Soil Criterion / Indicators Met? **YES NO**

HYDROLOGY

Depth of inundation:_____ Depth to free water:_____ Depth to saturation:_____ seeps (?):_____

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other:	
___Sediment Deposits	Remarks:	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? **YES NO**	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments: steep slope defines upland
Determined by: C. Worthy + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: CA-2 County: Coos. State: OR Date: 3/3/99 Plot: OF-CA-2
Site: by boat Sect.(1/4) 21SE Township 23S Range 12W (Wet) / Up
Plot Location: South shore of Coleman Arm, east of CA-1
Topographic Location: lake fringe small fringe in core
Do normal environmental conditions exist? Y N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? (N) Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.	*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover:____) (5 ft. radius)			**Shrub/Sapling** Stratum (% total cover:____) (5' rad.)		
(1) Carex obnupta		OBL	(1.) Rubus spectabilis		FAC+
(2) Lysichitum americanum		OBL	2.		
3.			3.		
4.			4.		
5.			5.		
6.			**Tree** Stratum (% total cover:____) (30 ft. radius)		
7.			(1) Alnus rubra		FAC
8.			2.		
9.			3.		

Remarks: upland veg on steep slope is Pseudotsuga menziesii, Picea sitchensis
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 4/4 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PSS/PFO
Gaultheria shallon, Rhododendron macrophyllum, Vaccinium ovatum, Polystichum munitum

SOILS

Note: GASH is dying - gray-white leaves
Mapped unit name: 39F Millicoma - Templeton Complex SD-7590 Slopes Matches Profile? Y N
Taxonomy: Drainage Class:

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other

___Histosol	___Reducing Conditions (test)	___Hi. Organic Cont. Surf. Layer
___Histic Epipedon	___Gleyed	___Organic Streaking
___Sulfidic Odor	___Mottled (w/i 10")	___Organic Pan
___Prob. Aquic Moisture Regime	___Concretions (w/i 3", >2mm)	___On Hydric Soils List

Remarks: off-site
Hydric Soil Criterion / Indicators Met? **YES NO**

HYDROLOGY

Depth of inundation:_____ Depth to free water:_____ Depth to saturation:_____ seeps (?):_____

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other:	
___Sediment Deposits	Remarks:	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? **YES NO**	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments: Steep slopes adjacent to wetland
Determined by: C Muthwalk + Stacy Benjamin

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: CA-3 County: Coos. State: OR Date: 3/3/99 Plot: OF-CA-3
Site: by boat Sect.(1/4) 22SW Township 23S Range 12W (Wet) / Up
Plot Location: South Shore of Coleman Arm, east of CA-2
Topographic Location: lake fringe + drainage; past pumphouse
Do normal environmental conditions exist? Y N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? (N) Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.	*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover:_____) (5 ft. radius)			**Shrub/Sapling** Stratum (% total cover:____) (5' rad.)		
(1) Carex obnupta	~60%	OBL	(1) Rubus spectabilis		FAC+
2.			2. Salix sp.		FACorwetter
3.			3.		
4.			4.		
5.			5.		
6.			**Tree** Stratum (% total cover:_____) (30 ft. radius)		
7.			(1) Alnus rubra		FAC
8.			2.		
9.			3.		

Remarks: Carex + Salix in water; Rubus spectabilis + Alnus rubra in Δ-Shaped drainage
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 3/3 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class ~~PEM/PSS~~/PFO
upland veg. same as CA-1 (PSME/GASH, VAOV/POMU)

SOILS

Mapped unit name: 39F Millicoma-Templeton Complex 50-75% Slopes Matches Profile? Y N
Taxonomy: Drainage Class:

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List
Remarks: off-site
Hydric Soil Criterion / Indicators Met? **YES NO**

HYDROLOGY

Depth of inundation:_____ Depth to free water:_____ Depth to saturation:_____ seeps (?):_____

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other:	
___Sediment Deposits	Remarks:	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? **YES NO**	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments:
Determined by: Chuck Walker + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: CA-4 County: Coos. State: OR Date: 3/3/99 Plot: OF-CA-4
Site: by boat Sect.(1/4) 22SW Township 23S Range 12W (Wet) / Up
Plot Location: South shore of Coleman Arm, east of CA-3
Topographic Location: lake fringe - U-shaped lagoon
Do normal environmental conditions exist? Y N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? (N) Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover:____) (5 ft. radius)		
(1) Carex obnupta	dom	OBL
2. Lysichitum americanum	few	OBL
3. Phalaris arundinacea	trace	FACW
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover:____) (5' rad.)		
(1.) Salix sp.	dom	
2.		
3.		
4.		
5.		
Tree Stratum (% total cover:____) (30 ft. radius)		
1. Alnus rubra	along edge	
2.		
3.		

Remarks:
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 2/2 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class: PAB/PSS/PFO
Upland veg. same as CA-1 + CA-3

SOILS

Mapped unit name: 39F Millicoma-Templeton Complex, 50-75% slopes Matches Profile? Y N
Taxonomy: Drainage Class:

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List
Remarks: offsite
Hydric Soil Criterion / Indicators Met? **YES NO**

HYDROLOGY

Depth of inundation:_____ Depth to free water:_____ Depth to saturation:_____ seeps (?):_____

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other:	
___Sediment Deposits	Remarks: flood debris, beaver mark	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? **YES NO**	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments: Steep on south side
Determined by: Chuck Wallis + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: CA-5 County: Coos. State: OR Date: 3/3/99 Plot: OF-CA5
Site: by boat Sect.(1/4) 22NW Township 23S Range 12W (Wet) / Up
Plot Location: South shore of Coleman Arm, east of CA-4
Topographic Location: lake fringe . location uncertain on this 20' wide ~~deep~~ fringe
Do normal environmental conditions exist? Y N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? (N) Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover:____) (5 ft. radius)		
(1) Carex obnupta		OBL
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover:____) (5' rad.)		
1.		
2.		
3.		
4.		
5.		
Tree Stratum (% total cover:____) (30 ft. radius)		
1.		
2.		
3.		

Remarks: 20 ft wide Carex fringe; upland veg. is Thuja plicata, Arbutus menziesii
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 1/1 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PEM
Rubus spectabilis, Alnus rubra, Polystichum munitum, Vaccinium ovatum

SOILS

Mapped unit name: 39F Mullicoma-Templeton Complex, 50-75% Slopes Matches Profile? Y N
Taxonomy: Drainage Class:

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List
Remarks: offsite
Hydric Soil Criterion / Indicators Met? **YES NO**

HYDROLOGY

Depth of inundation:_____ Depth to free water:_____ Depth to saturation:_____ seeps (?):_____

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other:	
___Sediment Deposits	Remarks: no drainage, just fringe	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? **YES NO**	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments:
Determined by: Cmuth Walker + Stacy Benjamin

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: CA-6 County: Coos. State: OR Date: 3/3/99 Plot: OF-CA6
Site: by boat Sect.(1/4) 22 10W Township 23S Range 12W (Wet) / Up
Plot Location: South Shore of Coleman Arm, east of CA-5
Topographic Location: lake fringe. collapsed house, logged hillside
Do normal environmental conditions exist? Y N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? (N) Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover:____) (5 ft. radius)		
(1) Carex obnupta		OBL
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover:____) (5' rad.)		
(1) Rubus spectabilis		FAC+
(2) Salix sp.		FAC or wetter
3.		
4.		
5.		
Tree Stratum (% total cover:____) (30 ft. radius)		
1.		
2.		
3.		

Remarks: Upland has been logged + planted w/ Pseudotsuga menziesii with Polystichum munitum
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 3/3 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PEMA/PSS

SOILS

Mapped unit name: 39F Mullicoma-Templeton Complex, 50-75% slopes Matches Profile? Y N
Taxonomy: Drainage Class:

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List
Remarks: off site
Hydric Soil Criterion / Indicators Met? **YES NO**

HYDROLOGY

Depth of inundation:_____ Depth to free water:_____ Depth to saturation:_____ seeps (?):_____

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other:	
___Sediment Deposits	Remarks:	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? **YES NO**	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments:
Determined by: C Mastwalk + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: CA-7 County: Coos. State: OR Date: 3/3/99 Plot: OF-CA-7
Site: by boat Sect.(1/4) 22NE Township 23S Range 12W (Wet)/ Up
Plot Location: South shore of Coleman Arm, east of CA-6
Topographic Location: lake fringe
Do normal environmental conditions exist? Y N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? (N) Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover:_____) (5 ft. radius)		
1. Lysichitum americanum		OBL
2. Phalaris arundinacea		OBL
3.		
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover: 80) (5' rad.)		
(1.) Salix sp.	80	FACw wetter
2. Rubus spectabilis		FAC+
3.		
4.		
5.		
Tree Stratum (% total cover:_____) (30 ft. radius)		
1.		
2.		
3.		

Remarks: Upland has been logged + planted w/ Pseudotsuga menziesii
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 1/1 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PSS + PAB

SOILS

Mapped unit name: 39F Millicoma-Templeton Complex, 50-75% Slopes Matches Profile? Y N
Taxonomy: Drainage Class:

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List

Remarks: off-site
Hydric Soil Criterion / Indicators Met? **YES NO**

HYDROLOGY

Depth of inundation:_____ Depth to free water:_____ Depth to saturation:_____ seeps (?):_____

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other:	
___Sediment Deposits	Remarks:	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? **YES NO**	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments:
Determined by: Chris Walls + Stacy Benjamin

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: CA-8 County: Coos. State: OR Date: 3/3/99 Plot: OF-CA-8
Site: by boat Sect.(1/4) 22 NE Township 23S Range 12W (Wet) / Up
Plot Location: East Shore of Coleman Arm, east of CA-7
Topographic Location: lake fringe large wetland complex to right of Benson Ck (CA-13) area.
Do normal environmental conditions exist? Y N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? (N) Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 50) (5 ft. radius)		
(1) Lysichitum americanum	20	OBL
(2) Phalaris arundinacea	20	OBL
(3) Carex obnupta	10	FACW
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover: 90) (5' rad.)		
(1) Salix sp.	90	FAC or wetter
2.		
3.		
4.		
5.		
Tree Stratum (% total cover:) (30 ft. radius)		
1.		
2.		
3.		

Remarks: upland has been logged + partially replanted w/ Pseudotsuga menziesii
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 4/4 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PSS w/ PEM / PFO / PAB

SOILS

Mapped unit name: 39F Abore 62: Willanch fine sandy loam (hydric) Matches Profile? Y N
Taxonomy: * Aeric Tropaqrepts Drainage Class:

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) X On Hydric Soils List
Remarks: off-site
Hydric Soil Criterion / Indicators Met? **YES NO**

HYDROLOGY

Depth of inundation:_____ Depth to free water:_____ Depth to saturation:_____ seeps (?):_____

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other:	
___Sediment Deposits	Remarks:	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? **YES NO**	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments:
Determined by: C Mathwalks + Stacy Benjamin

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: CA-9 County: Coos. State: OR Date: 3/3/99 Plot: OF-CA-9
Site: By boat Sect.(1/4) 22NE Township 23S Range 12W (Wet) / Up
Plot Location: North shore of Coleman Arm, west of CA-8 + CA-13
Topographic Location: lake fringe
Do normal environmental conditions exist? Y N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? (N) Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover:____) (5 ft. radius)		
(1) Carex obnupta		OBL
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover:____) (5' rad.)		
(1) Salix sp.		FACw wetter
(2) Rubus spectabilis		FAC+
3.		
4.		
5.		
Tree Stratum (% total cover:____) (30 ft. radius)		
(1) Alnus rubra		FAC
2.		
3.		

Remarks: upland has been logged + planted w/ Pseudotsuga menziesii
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 4/4 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PSS1/PFO
U before CA9 = Myrtle, Madrone, ___ Pseudotsuga menziesii

SOILS

Mapped unit name: 56E Templeton-Mullicoma Complex Matches Profile? Y N 12-50% slopes
Taxonomy: Andic Humitropept - Typic Humitropept Drainage Class:

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List
Remarks: off-site
Hydric Soil Criterion / Indicators Met? **YES NO**

HYDROLOGY

Depth of inundation:_____ Depth to free water:_____ Depth to saturation:_____ seeps (?):_____

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other:	
___Sediment Deposits	Remarks:	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments: Narrow fringes of Salix + Carex obnupta - too narrow to map.
Determined by: CMothWalls + Stacy Benjamin

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: CA-10 County: Coos. State: OR Date: 3/3/99 Plot: OF-CA10
Site: by boat Sect.(1/4) 22 NW Township 23S Range 12W (Wet) / Up
Plot Location: North Shore of Coleman Arm, west of CA-9
Topographic Location: lake fringe
Do normal environmental conditions exist? Y N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? (N) Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover:____) (5 ft. radius)		
(1) Carex obnupta		OBL
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover:____) (5' rad.)		
(1) Salix lasiandra		FACW+
(2) Salix sp.		FAC or wetter
3.		
4.		
5.		
Tree Stratum (% total cover:____) (30 ft. radius)		
1. Alnus rubra		FAC
2.		
3.		

Remarks: Upland veg. on steep slope is Pseudotsuga menziesii, Quercus garryana, Gaultheria Shallon, Vaccinium ovatum, Rhododendron macrophyllum, myrtlewood
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 3/3 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PEM/BSS

SOILS

Mapped unit name: 51oE Templeton-Millicoma complex Matches Profile? Y N 12-50% Slopes
Taxonomy: Drainage Class:

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List

Remarks: off-site
Hydric Soil Criterion / Indicators Met? **YES NO**

HYDROLOGY

Depth of inundation:_____ Depth to free water:_____ Depth to saturation:_____ seeps (?):_____

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other:	
___Sediment Deposits	Remarks:	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? **YES NO**	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments:
Determined by: CM Walker + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: CA-11 County: Coos. State: OR Date: 3/3/99 Plot: OF-CA-11
Site: by boat Sect.(1/4) 22NW Township 23S Range 12W (Wet) / Up
Plot Location: North shore of Coleman Arm, West of CA-10
Topographic Location: lake fringe Large WL area behind dock, hoseupslope
Do normal environmental conditions exist? Y N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? (N) Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 60) (5 ft. radius)		
(1) Lysichitum americanum		OBL
(2) Carex obnupta		OBL
(3) Phalaris arundinacea		FACW
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover: 20) (5' rad.)		
(1) Salix sp.	20	FACW or wetter
2. On east side		
3.		
4.		
5.		
Tree Stratum (% total cover: 20) (30 ft. radius)		
(1) Alnus rubra	20	FAC
2. on west side		
3.		

Remarks: Upland is fenced pasture + lawn + Pseudotsuga menziesii
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 3/3 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PEM/PSS/PFO

SOILS

Mapped unit name: 42 Nestucca-Willanch Complex (hydric) Matches Profile? Y N
Taxonomy: surrounded by 39F+56E Drainage Class:

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other
				Aeric Tropaquepts (both)

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List

Remarks: offsite
Hydric Soil Criterion / Indicators Met? **YES NO**

HYDROLOGY

Depth of inundation:_____ Depth to free water:_____ Depth to saturation:_____ seeps (?):_____

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other:	
___Sediment Deposits	Remarks:	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? **YES NO**	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments:
Determined by: CMirth Walker + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: CA-12 County: Coos. State: OR Date: 3/3/99 Plot: OF-CA12
Site: by boat Sect.(1/4) 22NW Township 23S Range 12W (Wet) / Up
Plot Location: North Shore of Coleman Arm, west of CA-11
Topographic Location: lake fringe mobile home on potential fill
Do normal environmental conditions exist? Y N Explain:
Are soils___ vegetation___ hydrology___ significantly disturbed? (N) Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover: 20) (5 ft. radius)		
1. Lysichitum americanum	20	OBL
2. Phalaris arundinacea	tr	FACW
3.		
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover: 80) (5' rad.)		
1. Salix sp.	80	FAC+wetter
2.		
3.		
4.		
5.		
Tree Stratum (% total cover:_____) (30 ft. radius)		
1. some Alnus rubra		FAC
2.		
3.		

Remarks: upland has been logged + partially replanted w/ Pseudotsuga menziesii
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 2/2 = 100%
Hydrophytic Vegetation Criterion Met? (YES) NO NWI Class PEM/PSS

SOILS

Mapped unit name: 42 Nestucca-Willanch Complex (hydric), below 39F + 56E → 12-50% Matches Profile? Y N
Taxonomy: Drainage Class:

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List
Remarks: off-site
Hydric Soil Criterion / Indicators Met? **YES NO**

HYDROLOGY

Depth of inundation:_____ Depth to free water:_____ Depth to saturation:_____ seeps (?):_____

1° Indicators
___Inundated
___Saturated in upper 12"
___Water Marks
___Drift Lines
___Sediment Deposits
___Drainage Patterns

2° Indicators
___Oxidized Root Channels in upper 12"
___Water-stained leaves
Recorded Data Available (aerials, gauge)? Explain:
Other:
Remarks:
Wetland Hydrology Criterion / Indicators Met? **YES NO**

2° Indicators
___Local Soil Survey Data
___FAC-Neutral Test

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments:
Determined by: CMcMonagle + Stacy Benjamin *Fishman Environmental Services* rev.11/98

CITY OF LAKESIDE WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 98111 Area: CA-13 County: Coos. State: OR Date: 3/3/99 Plot: OF-CA-13
Site: large pasture Sect.(1/4) 22NE Township 23S Range 12W (Wet)/ Up
Plot Location: east end of Coleman Arm - head · Benson Creek
Topographic Location:
Do normal environmental conditions exist? Y N Explain:
Are soils___ vegetation ✓ hydrology___ significantly disturbed? N Explain: grazed or mowed = ditched for agriculture

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum (% total cover:_____) (5 ft. radius)		
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum (% total cover:____) (5' rad.)		
1.		
2.		
3.		
4.		
5.		
Tree Stratum (% total cover:_____) (30 ft. radius)		
1.		
2.		
3.		

Remarks: Note: We have no data for this area - unable to reach by boat
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-):_____ = _____
Hydrophytic Vegetation Criterion Met? **YES NO** NWI Class
Huge emergent wetland area ditched + mowed for hay

SOILS

Mapped unit name: 62 Willanch fine sandy loam and others (hydric) Matches Profile? Y N
Taxonomy: Drainage Class:

Depth	Horizon	Matrix Color	Mottle Abund., Size, Color, on Pores/Peds?	Texture, Struct., Other

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon ___Gleyed ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List

Remarks:
Hydric Soil Criterion / Indicators Met? **YES NO**

HYDROLOGY

Depth of inundation:_____ Depth to free water:_____ Depth to saturation:_____ seeps (?):_____

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge)? Explain:	
___Drift Lines	Other:	
___Sediment Deposits	Remarks:	
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? **YES NO**	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments: See Aerial
Determined by: CMirth Walker + Stacy Benjamin *Fishman Environmental Services* rev.11/98

APPENDIX 4

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

(OFWAM) SUMMARY SHEETS

CITY OF LAKESIDE OFWAM SUMMARY SHEET

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City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Method Summary Sheet

Unit BC-1; Wetlands from North Tenmile Lake to railroad track, east of Willow Creek RV Park

Function	Evaluation Descriptor	Rationale
Wildlife Habitat	Diverse	Adjacent to N. Tenmile Lake, diversity of wetland types & vegetation structure.
Fish Habitat	Intact	Bowron Creek is well shaded with high instream structure in north portion of unit, coho, steelhead & cutthroat trout reported in N. Tenmile Lake.
Water Quality (pollutant removal)	Intact	High vegetation cover, unit is >5 acres, N. Tenmile Lake is water quality limited (aquatic weeds & algae).
Hydrologic Control (flood control & water supply)	Intact	Located within floodplain, unit is >5 acres.
Sensitivity to Future Impacts	Potentially sensitive	N. Tenmile Lake is water quality limited, dominant zoning is developed uses, dominant vegetation is woody.
Enhancement Potential*		
Education	Potential	Provides good fish & wildlife habitat and is adjacent to upland forest and open water habitats.
Recreation	Recreation Opportunities	Boat access from lake, fishing allowed at N. Tenmile Lake.
Aesthetic Quality	Pleasing	Diversity of wetland types & vegetation structure.
Narrative Description of Overall Wetland Functions and Conditions		
Unit BC-1 provides important fish and wildlife habitat adjacent to North Tenmile Lake. Emergent, scrub-shrub and forested habitats are present, along with an upland forest inclusion. Bowron Creek is a natural channel in the north portion of the unit, and was ditched in the southern part.		

*Skip Enhancement Potential if Wildlife Habitat is diverse.

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Method Summary Sheet

Unit BC-2; Wetlands north of railroad tracks, disturbed by grazing (offsite)

Function	Evaluation Descriptor	Rationale
Wildlife Habitat	Provides habitat for some species	Wildlife habitat is reduced due to low interspersion of wetland classes, no open water, and adjacent development.
Fish Habitat	Impacted or Degraded	Fish habitat is reduced due to sparse riparian vegetation cover & instream structure, and adjacent development.
Water Quality (pollutant removal)	Intact	High vegetation cover, unit is >5 acres, dominant adjacent land use is developed.
Hydrologic Control (flood control & water supply)	Intact	Located within floodplain, unit is >5 acres, dominant downstream land use is developed.
Sensitivity to Future Impacts	Potentially sensitive	Dominant zoning is developed uses, dominant vegetation is woody
Enhancement Potential*	High	Unit is >5 acres, wetland edge partially bordered by vegetated buffer.
Education	Potential	Illustrates human impacts to wetland function and values compared to less disturbed wetland to south (BC-1).
Recreation	No recreation opportunities	No boat access, fishing not appropriate.
Aesthetic Quality	Pleasing	Moderate diversity of wetland types & vegetation structure
Narrative Description of Overall Wetland Functions and Conditions		
Unit BC-2 consists of an emergent wetland associated with Bowron Creek, connected to a narrow scrub-shrub wetland fed by surface runoff along the north side of the railroad tracks. The emergent wetland has been disturbed by grazing and Bowron Creek has been ditched through the pasture.		

*Skip Enhancement Potential if Wildlife Habitat is diverse.

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Method Summary Sheet

Unit BC-3; Wetlands north of BC-2, disturbed by grazing, soil removal and erosion (offsite)

Function	Evaluation Descriptor	Rationale
Wildlife Habitat	Provides habitat for some species	Wildlife habitat is reduced due to sparse woody vegetation, no open water, and adjacent logging.
Fish Habitat	Impacted or Degraded	Fish habitat is reduced due to sparse riparian vegetation cover & instream structure, and adjacent logging.
Water Quality (pollutant removal)	Intact	High vegetation cover, unit is >5 acres, dominant adjacent land use is agricultural.
Hydrologic Control (flood control & water supply)	Intact	Located within enclosed basin, unit is >5 acres.
Sensitivity to Future Impacts	Potentially sensitive	Dominant zoning is developed uses
Enhancement Potential*	High	Unit is >5 acres, wetland edge partially bordered by vegetated buffer.
Education	Potential	Typical agricultural wetland, adjacent to logged upland forest habitat.
Recreation	No recreation opportunities	No boat access, fishing not appropriate.
Aesthetic Quality	Pleasing	Two wetland classes visible from Lakeland Estates.

Narrative Description of Overall Wetland Functions and Conditions

Unit BC-3 consists of an emergent wetland associated with Bowron Creek. The wetland has been disturbed by grazing and occasional severe runoff and erosion from an adjacent development to the west (Lakeland Estates Phase II). Bowron Creek has been ditched through the pasture and is subjected to cattle disturbance.

*Skip Enhancement Potential if Wildlife Habitat is diverse.

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Method Summary Sheet

Unit BC-4; Wetlands north of Rugh Lane, small ponds with surrounding PSS/PFO wetlands, connected by narrow drainages

Function	Evaluation Descriptor	Rationale
Wildlife Habitat	Diverse	Diversity of wetland types & vegetation structure, two ponds present
Fish Habitat	Intact	Bowron Creek is well shaded with high instream structure.
Water Quality (pollutant removal)	Intact	High vegetation cover, unit is >5 acres, dominant adjacent land use is agricultural.
Hydrologic Control (flood control & water supply)	Intact	Located within enclosed basin, unit is >5 acres, dominant downstream land use is developed.
Sensitivity to Future Impacts	Potentially Sensitive	Dominant zoning is developed uses, dominant vegetation is woody.
Enhancement Potential*		
Education	Potential	Provides good fish & wildlife habitat, adjacent to upland forest & logged forest habitat.
Recreation	Potential	No boat access, but fishing is allowed.
Aesthetic Quality	Pleasing	Diversity of wetland types & vegetation structure

Narrative Description of Overall Wetland Functions and Conditions

Unit BC-4 consists of forested wetland in the south and two ponds connected by culverted narrow drainages and surrounded by mixed scrub-shrub/forested wetlands in the north. Portions of the wetland are disturbed from three horses which are boarded on the property. Upland forest adjacent to the wetland on the east has been logged.

*Skip Enhancement Potential if Wildlife Habitat is diverse.

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Method Summary Sheet

Unit BC-5; Forested wetlands west of Rugh Lane, connected to BC-6

Function	Evaluation Descriptor	Rationale
Wildlife Habitat	Diverse	Forested wetland surrounded by predominantly open space.
Fish Habitat	Intact	Bowron Creek is well shaded with high instream structure.
Water Quality (pollutant removal)	Intact	High vegetation cover, unit is >5 acres.
Hydrologic Control (flood control & water supply)	Intact	Located within enclosed basin, unit is >5 acres.
Sensitivity to Future Impacts	Potentially Sensitive	Dominant zoning is developed uses, dominant vegetation is woody.
Enhancement Potential*		
Education	Potential	Provides good fish & wildlife habitat, adjacent to emergent wetland and upland forest habitats.
Recreation	Potential	No boat access, fishing allowed.
Aesthetic Quality	Moderately pleasing	Unit contains only one Cowardin class.

Narrative Description of Overall Wetland Functions and Conditions

Unit BC-5 consists of an undisturbed forested wetland bordered by upland forest on the north and south. This unit is connected to unit BC-6, which is disturbed; wetland was broken into two separate units due to difference in disturbance level.

*Skip Enhancement Potential if Wildlife Habitat is diverse.

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Method Summary Sheet

Unit BC-6; East of Fern Lane, small ponds with surrounding PEM grazed/ mowed wetlands (offsite)

Function	Evaluation Descriptor	Rationale
Wildlife Habitat	Diverse	Moderate diversity of wetland types & vegetation structure surrounded by predominantly open space.
Fish Habitat	Intact	Bowron Creek is moderately well shaded with high instream structure.
Water Quality (pollutant removal)	Intact	High vegetation cover, unit is >5 acres.
Hydrologic Control (flood control & water supply)	Intact	Located within enclosed basin, unit is >5 acres.
Sensitivity to Future Impacts	Potentially Sensitive	Dominant zoning is developed uses.
Enhancement Potential*		
Education	Potential	Provides good fish & wildlife habitat and is adjacent to forested wetland and upland forest habitats.
Recreation	Potential	No boat access from lake, fishing allowed.
Aesthetic Quality	Pleasing	Diversity of wetland types & vegetation structure.

Narrative Description of Overall Wetland Functions and Conditions

Unit BC-6 consists of a few small ponds associated with Bowron Creek and surrounded by emergent grazed or mowed wetland and a small forested wetland inclusion. This unit is connected to unit BC-5, which is not disturbed; wetland was broken into two separate units due to difference in disturbance level.

*Skip Enhancement Potential if Wildlife Habitat is diverse.

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Method Summary Sheet

Unit TL-1; Wetlands at Osprey Point RV Resort & North Lake Canal (offsite)

Function	Evaluation Descriptor	Rationale
Wildlife Habitat	Provides habitat for some species	Scrub-shrub wetland containing >1 acre open water, adjacent to Tenmile Lake and North Tenmile Canal.
Fish Habitat	Impacted or Degraded	Moderate riparian cover, but habitat value is reduced due to low instream structure & Tenmile Lake being water quality limited. Coho, steelhead, cutthroat trout reported.
Water Quality (pollutant removal)	Intact	High vegetation cover, unit is >5 acres, dominant adjacent land use is developed, Tenmile Lake is water quality limited.
Hydrologic Control (flood control & water supply)	Intact	Located within floodplain, unit is >5 acres, dominant downstream land use is developed.
Sensitivity to Future Impacts	Potentially Sensitive	Tenmile Lake is water quality limited, dominant zoning is developed uses, dominant vegetation is woody.
Enhancement Potential*	High	Potential to provide valuable fish and wildlife habitat adjacent to Tenmile Lake.
Education	Potential	Adjacent to open water and upland forest habitats.
Recreation	Recreation opportunities	Boat access from lake, fishing allowed at Tenmile Lake.
Aesthetic Quality	Pleasing	Moderate diversity of wetland types & vegetation structure.
Narrative Description of Overall Wetland Functions and Conditions		
Unit TL-1 is adjacent to both Tenmile Lake and North Lake Canal; however, fish and wildlife habitat values are reduced due to Tenmile Lake being water quality limited and the dominant land use adjacent to the wetland is developed. Provides excellent enhancement opportunity to improve fish and wildlife habitat in conjunction with the abandoned mill site.		

*Skip Enhancement Potential if Wildlife Habitat is diverse.

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Method Summary Sheet

Unit TL-2, TL-3, TL-4; Wetlands along Tenmile Lake, smaller, developed surrounding land use (partly offsite)

Function	Evaluation Descriptor	Rationale
Wildlife Habitat	Diverse	Adjacent to Tenmile Lake, diversity of wetland types & vegetation structure.
Fish Habitat	Intact	Tenmile Lake contains both deep & shallow water with high inwater structure, shoreline is well shaded, coho, steelhead & cutthroat trout reported.
Water Quality (pollutant removal)	Intact	Moderate vegetation cover, unit is >5 acres, and Tenmile Lake is water quality limited.
Hydrologic Control (flood control & water supply)	Intact	Located within floodplain, unit is >5 acres.
Sensitivity to Future Impacts	Potentially Sensitive	Tenmile Lake is water quality limited.
Enhancement Potential*		
Education	Potential	Provides good fish & wildlife habitat, adjacent to open water habitat.
Recreation	Recreation opportunities	Boat access from lake, fishing allowed at Tenmile Lake.
Aesthetic Quality	Pleasing	Diversity of wetland types & vegetation structure.
Narrative Description of Overall Wetland Functions and Conditions		
Units TL-2, TL-3 and TL-4 are small wetlands along Tenmile Lake, adjacent to Tenmile Lake County Park. The combined unit consists of aquatic bed, emergent, scrub-shrub and forested wetlands and provides important fish and wildlife habitat adjacent to Tenmile Lake. TL-2 (old mill site) is now owned by Coos County Parks and would make an excellent restoration site, unless it's history as a wood waste landfill (and old cars?) precludes restoration of wetlands.		

*Skip Enhancement Potential if Wildlife Habitat is diverse.

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Method Summary Sheet

Unit TL-5; Wetland across Tenmile Lake, more rural, less developed surrounding land use, with beaver pond above road

Function	Evaluation Descriptor	Rationale
Wildlife Habitat	Diverse	Adjacent to Tenmile Lake, diversity of wetland types & vegetation structure, beaver pond, surrounded by open space.
Fish Habitat	Intact	Tenmile Lake contains both deep & shallow water with high inwater structure, shoreline is well shaded, surrounded by open space, coho, steelhead & cutthroat trout reported.
Water Quality (pollutant removal)	Intact	High vegetation cover, unit is >5 acres, and Tenmile Lake is water quality limited.
Hydrologic Control (flood control & water supply)	Intact	Located within enclosed basin, unit is >5 acres.
Sensitivity to Future Impacts	Potentially Sensitive	Tenmile Lake is water quality limited, dominant vegetation is woody.
Enhancement Potential*		
Education	Educational uses	Open to the public, excellent fish & wildlife habitat, adjacent to open water and upland forest habitat, contains beaver pond.
Recreation	Recreation opportunities	Boat access from lake, fishing allowed at Tenmile Lake.
Aesthetic Quality	Pleasing	Diversity of wetland types & vegetation structure.

Narrative Description of Overall Wetland Functions and Conditions

Unit TL-5 provides excellent fish and wildlife habitat adjacent to Tenmile Lake. A large beaver pond is present above Devore Arm Road, and abundant downed wood and snags are present in the unit. TL-5 provides excellent educational opportunities due to its habitat values, ease of evaluation, and access.

*Skip Enhancement Potential if Wildlife Habitat is diverse.

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Method Summary Sheet

Unit TC-1; Wetlands on either side of Tenmile Creek; also includes wetlands to the west that are outside of the UGB

Function	Evaluation Descriptor	Rationale
Wildlife Habitat	Diverse	Adjacent to Tenmile Creek, diversity of wetland types & vegetation structure, surrounded by predominantly open space.
Fish Habitat	Intact	Tenmile Creek is a natural channel, high riparian vegetation cover & moderate instream structure.
Water Quality (pollutant removal)	Intact	High vegetation cover, unit is >5 acres, and Tenmile Creek has moderate water quality.
Hydrologic Control (flood control & water supply)	Intact	East portion of unit located within floodplain, unit is >5 acres.
Sensitivity to Future Impacts	Potentially Sensitive	Tenmile Creek has moderate water quality.
Enhancement Potential*		
Education	Potential	Excellent fish & wildlife habitat, adjacent to Tenmile Creek and upland forest habitat.
Recreation	Recreation opportunities	Boat access, fishing allowed at Tenmile Creek and Tenmile Lake.
Aesthetic Quality	Pleasing	Diversity of wetland types & vegetation structure.
Narrative Description of Overall Wetland Functions and Conditions		
Unit TC-1 consists of emergent and scrub-shrub wetlands along Tenmile Creek. Tenmile Creek is a natural channel with several oxbows, high riparian cover and instream structure. The Tenmile Creek corridor provides excellent fish and wildlife habitat and connection other habitat areas.		

*Skip Enhancement Potential if Wildlife Habitat is diverse.

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Method Summary Sheet

Unit TC-2; Wetland north of railroad, west of airport; separated from TC-1 because very disturbed different habitat (offsite)

Function	Evaluation Descriptor	Rationale
Wildlife Habitat	Provides habitat for some species	Wildlife habitat value is reduced due to low interspersion of wetland types and no open water.
Fish Habitat	Impacted or Degraded	Fish habitat value is reduced due to stream channel modification, low instream structure, and Tenmile Creek's moderate water quality.
Water Quality (pollutant removal)	Intact	High vegetation cover, unit is >5 acres, and moderate water quality of Tenmile Creek.
Hydrologic Control (flood control & water supply)	Intact	Unit is >5 acres, dominant downstream land use is developed.
Sensitivity to Future Impacts	Potentially Sensitive	Tenmile has moderate water quality, dominant vegetation is woody.
Enhancement Potential*	High	Unit >5 acres, bordered by vegetated buffer.
Education	Potential	Easy unmaintained access from Airport Way, adjacent to upland forest habitat.
Recreation	Potential	No boat access, fishing not appropriate.
Aesthetic Quality	Pleasing	Moderate diversity of wetland types & vegetation structure.

Narrative Description of Overall Wetland Functions and Conditions

Unit TC-2 consists of predominantly scrub-shrub wetland with a small amount of emergent wetland and low habitat interspersion. The stream has been channelized through the wetland and north of the wetland along the edge of the airport. Unit is surrounded by predominantly undeveloped land, including the airport on the east. Vegetation south of Airport Way and north of railroad tracks has been cleared prior to residential development. Appropriate buffers should be instituted on the stream.

*Skip Enhancement Potential if Wildlife Habitat is diverse.

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Method Summary Sheet

Unit TC-3; Forked drainage below Hilltop Drive, connected to Tenmile Creek opposite the sewage treatment plan

Function	Evaluation Descriptor	Rationale
Wildlife Habitat	Diverse	Diversity of wetland types & vegetation structure, >0.5 acres open water, surrounded by open space.
Fish Habitat	Intact	High riparian vegetation cover & instream structure, surrounded by open space.
Water Quality (pollutant removal)	Intact	High vegetation cover, unit is >0.5 acres, and Tenmile Creek has moderate water quality.
Hydrologic Control (flood control & water supply)	Intact	North portion of unit located within floodplain, dominant vegetation is woody.
Sensitivity to Future Impacts	Potentially Sensitive	Tenmile Creek has moderate water quality, dominant vegetation is woody.
Enhancement Potential*		
Education	Potential	Provides good fish & wildlife habitat, adjacent to upland forest habitat.
Recreation	Potential	No boat access, fishing allowed at Tenmile Creek.
Aesthetic Quality	Moderately pleasing	Not much of wetland visible from viewing area.

Narrative Description of Overall Wetland Functions and Conditions

Unit TC-3 contains a forked drainage south of Tenmile Creek and five small wetlands including open water, emergent, scrub-shrub and forested habitats. The stream is well shaded and contains moderate instream structure. The unit is surrounded by predominantly open space, with a residential influence.

*Skip Enhancement Potential if Wildlife Habitat is diverse.

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Method Summary Sheet

Unit TC-4; Drainage south of south entrance (offsite)

Function	Evaluation Descriptor	Rationale
Wildlife Habitat	Diverse	Adjacent to Tenmile Creek, diversity of wetland types & vegetation structure surrounded by predominantly open space.
Fish Habitat	Intact	High riparian shading & instream structure, adjacent to Tenmile Creek, dominant adjacent land use is open space.
Water Quality (pollutant removal)	Intact	High vegetation cover, unit is >5 acres, and moderate water quality of Tenmile Creek.
Hydrologic Control (flood control & water supply)	Intact	Unit is >5 acres, dominant downstream land use is developed.
Sensitivity to Future Impacts	Potentially Sensitive	Tenmile Creek has moderate water quality, dominant zoning is developed uses.
Enhancement Potential*		
Education	Potential	Provides good fish & wildlife habitat and is adjacent to Tenmile Creek, Oregon Dunes Recreation Area & upland forest habitat.
Recreation	Recreation opportunities	Boat access, fishing allowed at Tenmile Creek.
Aesthetic Quality	Moderately pleasing	Not much of wetland visible from viewing area.

Narrative Description of Overall Wetland Functions and Conditions

The north portion of Unit TC-4 consists of an approximately 15 foot wide roadside scrub-shrub wetland which is culverted under several driveways west of Wildwood Drive. The scrub-shrub wetland widens to the west before it joins Tenmile Creek. The stream is culverted under Wildwood Drive and Highway 101 where it enters the south portion of the unit; to the east is a large emergent wetland.

*Skip Enhancement Potential if Wildlife Habitat is diverse.

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Method Summary Sheet

Unit TC-5; Saunders Creek wetland at Spinreel Campground

Function	Evaluation Descriptor	Rationale
Wildlife Habitat	Diverse	Adjacent to Saunders & Tenmile Creeks, diversity of wetland types & vegetation structure, surrounded by open space.
Fish Habitat	Intact	Moderate riparian shading & high instream structure, coho nursery, adjacent to Saunders & Tenmile Creeks.
Water Quality (pollutant removal)	Intact	High vegetation cover, unit is >5 acres, and moderate water quality of Tenmile Creek.
Hydrologic Control (flood control & water supply)	Intact	Unit is >5 acres, dominant vegetation is woody.
Sensitivity to Future Impacts	Potentially Sensitive	Tenmile Creek has moderate water quality, dominant vegetation is woody.
Enhancement Potential*		*Skip Enhancement Potential if Wildlife Habitat is diverse.
Education	Educational uses	Open to the public, excellent fish & wildlife habitat, adjacent to Tenmile Creek, Oregon Dunes Recreation Area & upland forest.
Recreation	Recreation opportunities	Maintained access point (Spinreel Campground) boat access, fishing allowed, maintained trails & viewing areas.
Aesthetic Quality	Pleasing	Diversity of wetland types & vegetation structure.

Narrative Description of Overall Wetland Functions and Conditions

Unit TC-5 is a mixed emergent/scrub-shrub wetland which also contains a small amount of forested wetland. The unit provides excellent fish and wildlife habitat. The stream is well shaded with high instream structure and fish friendly culverts. A sign posted at the campground states the wetland area is a coho nursery (adults observed). Unit TC-5 provides excellent educational opportunities due to its habitat values, in addition it is open to the public without permission.

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Method Summary Sheet

Unit EC-1; Wetlands adjacent to Eel Creek (feeds out of Eel Lake), north of Bonneville Road, includes large area east of UGB

Function	Evaluation Descriptor	Rationale
Wildlife Habitat	Diverse	Adjacent to Eel Creek, diversity of wetland types & vegetation structure surrounded by predominantly open space.
Fish Habitat	Intact	Eel Creek is well shaded with high instream structure, coho, steelhead & cutthroat reported in Eel Lake, stream channel is natural.
Water Quality (pollutant removal)	Intact	High vegetation cover, unit is >5 acres.
Hydrologic Control (flood control & water supply)	Intact	Unit is >5 acres, dominant vegetation is woody.
Sensitivity to Future Impacts	Potentially Sensitive	Dominant vegetation is woody.
Enhancement Potential*		
Education	Potential	Provides good fish & wildlife habitat, adjacent to upland forest habitat.
Recreation	Potential	No boat access; fishing allowed at Eel Creek.
Aesthetic Quality	Pleasing	Diversity of wetland types & vegetation structure.

Narrative Description of Overall Wetland Functions and Conditions

Unit EC-1 is a large, diverse, mixed forested, scrub-shrub, and emergent wetland complex adjacent to Eel Creek. This complex extends outside of the UGB area to the east. It provides diverse wildlife habitat due to diversity of wetland types, vegetation, and adjacency to Eel Creek and upland forest areas. Eel Creek provides intact fish habitat and is well-shaded and the channel is natural.

*Skip Enhancement Potential if Wildlife Habitat is diverse.

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Method Summary Sheet

Unit EC-2; Wetlands east of Bonneville Road (offsite), south of EC-1

Function	Evaluation Descriptor	Rationale
Wildlife Habitat	Diverse	Adjacent to Eel Creek, diversity of wetland types & vegetation structure surrounded by predominantly open space.
Fish Habitat	Impacted or Degraded	Fish habitat value is reduced due to low riparian vegetation and low instream structure.
Water Quality (pollutant removal)	Intact	High vegetation cover, unit is >0.5 acres.
Hydrologic Control (flood control & water supply)	Intact	Located within enclosed basin, unit is >0.5 acres, dominant downstream land use is developed.
Sensitivity to Future Impacts	Potentially Sensitive	Dominant zoned land use is developed.
Enhancement Potential*	High	Potential to provide good fish habitat connected to Eel Lake, bordered by vegetative buffer.
Education	Potential	Provides good wildlife habitat, adjacent to logged upland forest habitat.
Recreation	Potential	No boat access, fishing allowed at Eel Creek.
Aesthetic Quality	Moderately pleasing	Moderate diversity of wetland types & vegetation structure.

Narrative Description of Overall Wetland Functions and Conditions

Unit EC-2 was assessed from off-site. The unit is grazed and more disturbed than EC-1. It has a small area extending east outside of the UGB that has been logged. The narrow wetland drainage flows west out of EC-2 and is joined by EC-1 before Eel Creek crosses under Highway 101 to the west. The wetland could be enhanced by protection of riparian vegetation.

*Skip Enhancement Potential if Wildlife Habitat is diverse.

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Method Summary Sheet

Unit EC-3; Wetlands west of Highway 101, between south entrance to Lakeside and Wildwood Drive

Function	Evaluation Descriptor	Rationale
Wildlife Habitat	Diverse	Adjacent to Eel Creek, diversity of wetland types & vegetation structure surrounded by predominantly open space.
Fish Habitat	Intact	Eel Creek is well shaded with high instream structure. Stream channel is natural.
Water Quality (pollutant removal)	Intact	High vegetation cover, unit is >5 acres.
Hydrologic Control (flood control & water supply)	Intact	Unit is >5 acres, dominant vegetation is woody.
Sensitivity to Future Impacts	Potentially Sensitive	Dominant vegetation is woody.
Enhancement Potential*		
Education	Educational uses	Open to the public, good fish & wildlife habitat, adjacent to Oregon Dunes Recreation Area & upland forest.
Recreation	Potential	No boat access; fishing allowed at Eel Creek.
Aesthetic Quality	Moderately Pleasing	Not much of wetland visible from viewing area.

Narrative Description of Overall Wetland Functions and Conditions

Unit EC-3 has a very small portion within the study area boundary, with most of the wetland located to the north, in the Oregon Dunes National Recreation Area. The drainage provides flow to Eel Creek during the wet season. The area is accessible from an undeveloped road just to the west of Highway 101; the road parallels Eel Creek providing opportunities for fishing, and a view of the concrete double box culverts on Eel Creek under Highway 101. The wetland is forested near the creek and scrub-shrub and emergent to the north.

*Skip Enhancement Potential if Wildlife Habitat is diverse.

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Method Summary Sheet

Unit CC-1; Headwater wetland of Clear Creek, feeds into Eel Lake

Function	Evaluation Descriptor	Rationale
Wildlife Habitat	Diverse	Adjacent to Clear Creek, diversity of wetland types & vegetation structure surrounded by predominantly open space.
Fish Habitat	Intact	Clear Creek is well shaded with high instream structure. Stream channel is natural.
Water Quality (pollutant removal)	Intact	High vegetation cover, unit is >5 acres, and moderate water quality of Eel Creek.
Hydrologic Control (flood control & water supply)	Intact	Unit is >5 acres, dominant vegetation is woody.
Sensitivity to Future Impacts	Potentially Sensitive	Eel Creek has moderate water quality, dominant vegetation is woody.
Enhancement Potential*		
Education	Potential	Provides good fish & wildlife habitat, adjacent to upland forest habitat.
Recreation	Potential	No boat access, fishing allowed at Eel Creek.
Aesthetic Quality	Pleasing	Diversity of wetland types & vegetation structure.

Narrative Description of Overall Wetland Functions and Conditions

Unit CC-1 is a mixed emergent/scrub-shrub/forested wetland associated with Clear Creek and connected to Eel Lake. The stream is a natural channel that is well shaded and has high instream structure. The unit is surrounded by open space and provides excellent fish and wildlife habitat. The wetland is somewhat inaccessible since it is not adjacent to the road and no access trails exist. Picturesque.

*Skip Enhancement Potential if Wildlife Habitat is diverse.

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Method Summary Sheet

Unit BC-1A; Isolated wetland west of BC-1, North Lake Resort near Tenmile Lake (offsite)

Function	Evaluation Descriptor	Rationale
Wildlife Habitat	Provides habitat for some species	Wildlife habitat value is reduced due to low habitat interspersion, no open water and no connection to any bodies of water.
Fish Habitat	Not Applicable	This isolated wetland does not contain, and is not connected to, a stream, lake or pond (except under extreme high water conditions on North Tenmile Lake).
Water Quality (pollutant removal)	Impacted or Degraded	Less than>0.5 acres, no surface inflow (except when extremely flooded).
Hydrologic Control (flood control & water supply)	Intact	Located within floodplain.
Sensitivity to Future Impacts	Potentially Sensitive	Wetland is isolated.
Enhancement Potential*	High	Wetland is disturbed by recreational parking.
Education	Potential	Open to the public by permission, maintained access point to Tenmile Lake.
Recreation	Recreation opportunities	Maintained access point to Tenmile Lake (private), fishing allowed at Tenmile Lake.
Aesthetic Quality	Moderately Pleasing	Viewshed present but buffer disturbed.
Narrative Description of Overall Wetland Functions and Conditions		
Unit BC-1A is an isolated scrub/shrub - emergent wetland near Tenmile Lake and the large wetland complex of BC-1 (mostly on the Willow Creek Resort property). The wetland has been disturbed by parking and related recreational activities at the North Lake Resort.		

*Skip Enhancement Potential if Wildlife Habitat is diverse.

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Method Summary Sheet

Unit CP-1; Wetland east of Tenmile Lake County Park (isolated; not connected to Tenmile Lake)

Function	Evaluation Descriptor	Rationale
Wildlife Habitat	Provides habitat for some species	Wildlife habitat value is reduced due to low habitat interspersion, no open water and no connection to any bodies of water.
Fish Habitat	Not Applicable	This isolated wetland does not contain, and is not connected to, a stream, lake or pond.
Water Quality (pollutant removal)	Intact	High vegetation cover, unit is >0.5 acres.
Hydrologic Control (flood control & water supply)	Intact	Located within floodplain, unit is >0.5 acres.
Sensitivity to Future Impacts	Potentially Sensitive	Wetland is isolated.
Enhancement Potential*	Moderate	No fish habitat is currently present (but could be restored), unit is small, not much vegetated buffer present.
Education	Educational uses	Open to the public, maintained access point (County Park), adjacent to Tenmile Lake.
Recreation	Recreation opportunities	Maintained access point (County Park) boat access, fishing allowed at Tenmile Lake.
Aesthetic Quality	Pleasing	Wetland viewable at Tenmile Lake County Park.

Narrative Description of Overall Wetland Functions and Conditions

Unit CP-1 is an isolated, shallow, emergent, possibly excavated channel, containing a small amount of forested wetland. The unit is diked at the south end and is not connected to Tenmile Lake. The wetland provides potential to enhance wildlife habitat and create fish habitat adjacent to Tenmile Lake by removing the dike and connecting the wetland to the lake.

*Skip Enhancement Potential if Wildlife Habitat is diverse.

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Method Summary Sheet

Unit CP-2; Isolated wetland in eastern portion of Tenmile Lake County Park just west of Osprey Point RV Resort (offsite)

Function	Evaluation Descriptor	Rationale
Wildlife Habitat	Provides habitat for some species	Wildlife habitat value is reduced due to low habitat interspersion, no open water and no connection to any bodies of water.
Fish Habitat	Not Applicable	This isolated wetland does not contain, and is not connected to, a stream, lake or pond.
Water Quality (pollutant removal)	Impacted or Degraded	Less than>0.5 acres, no surface inflow.
Hydrologic Control (flood control & water supply)	Intact	Located within floodplain.
Sensitivity to Future Impacts	Potentially Sensitive	Wetland is isolated.
Enhancement Potential*	High	Wildlife habitat is degraded.
Education	Educational uses	Open to the public, maintained access point (County Park), adjacent to Tenmile Lake.
Recreation	Potential	Wetland is isolated.
Aesthetic Quality	Moderately Pleasing	Viewshed present but buffer disturbed.
Narrative Description of Overall Wetland Functions and Conditions		
Unit CP-2 is an isolated scrub/shrub - emergent wetland that is located on the undeveloped County Park property (old mill site), near unit TL-1 on the Osprey Point RV Resort property. Visible from North Lake Avenue.		

*Skip Enhancement Potential if Wildlife Habitat is diverse.

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Method Summary Sheet

Unit RA-1; Isolated wetland between Robinhood Avenue and Kings Avenue

Function	Evaluation Descriptor	Rationale
Wildlife Habitat	Provides habitat for some species	Wildlife habitat value reduced due to low habitat interspersion, less than 0.5 acres open water, no connection to any other bodies of water, surrounded by development
Fish Habitat	Impacted or Degraded	Fish habitat value reduced due to the extensive development surrounding pond, no fish known to be present.
Water Quality (pollutant removal)	Intact	High vegetation cover, unit is >0.5 acres, dominant adjacent land use is developed.
Hydrologic Control (flood control & water supply)	Intact	Unit is >0.5 acres, dominant vegetation is woody, dominant downslope land use is developed.
Sensitivity to Future Impacts	Potentially Sensitive	Wetland is isolated, dominant zoning is developed uses, dominant vegetation is woody.
Enhancement Potential*	High	Unit is >0.5 acres, partially bordered by vegetated buffer.
Education	Potential	Nice small open water habitat.
Recreation	Potential	No boat access, fishing possible if pond was stocked, no fish known to be present.
Aesthetic Quality	Moderately pleasing	Wetland not visible from public viewing area, only visible from backyards.
Narrative Description of Overall Wetland Functions and Conditions		
Unit RA-1 consists of a small isolated pond with high scrub-shrub cover, surrounded by residential development.		

*Skip Enhancement Potential if Wildlife Habitat is diverse.

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Method Summary Sheet

Unit SP-1; Isolated wetlands at Tugman State Park

Function	Evaluation Descriptor	Rationale
Wildlife Habitat	Provides habitat for some species	Wildlife habitat value is reduced due to low habitat interspersion, no open water and no connection to any bodies of water.
Fish Habitat	Not Applicable	This isolated wetland does not contain, and is not connected to, a stream, lake or pond.
Water Quality (pollutant removal)	Intact	High vegetation cover, unit is >0.5 acres.
Hydrologic Control (flood control & water supply)	Intact	Unit is >0.5 acres, dominant upstream land use is urbanizing.
Sensitivity to Future Impacts	Potentially Sensitive	Wetland is isolated.
Enhancement Potential*	Moderate	Unit is small.
Education	Educational uses	Open to the public, maintained access point (Tugman State Park).
Recreation	Recreation opportunities	Maintained access point (Tugman State Park) and trails.
Aesthetic Quality	Pleasing	Wetland viewable at Tugman State Park.
Narrative Description of Overall Wetland Functions and Conditions		
Unit SP-1 consists of two small isolated forested wetlands at Tugman State Park.		

*Skip Enhancement Potential if Wildlife Habitat is diverse.

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Method Summary Sheet

Unit CA-1 through CA-12; Steep drainages into Coleman Arm (offsite)

Function	Evaluation Descriptor	Rationale
Wildlife Habitat	Diverse	Adjacent to Tenmile Lake, diversity of wetland types & vegetation structure, surrounded by predominantly open space.
Fish Habitat	Intact	Tenmile Lake contains both deep & shallow water with high inwater structure, shoreline is well shaded, coho, steelhead & cutthroat trout reported.
Water Quality (pollutant removal)	Intact	High vegetation cover, unit is >5 acres, and Tenmile Lake is water quality limited.
Hydrologic Control (flood control & water supply)	Intact	Located within floodplain, unit is >5 acres, dominant vegetation is woody.
Sensitivity to Future Impacts	Potentially Sensitive	Tenmile Lake is water quality limited, dominant zoned land use is developed, dominant vegetation is woody.
Enhancement Potential*		
Education	Potential	Some areas accessible by boat only, excellent fish & wildlife habitat, adjacent to upland forest habitat.
Recreation	Recreation opportunities	Boat access, fishing allowed at Tenmile Lake.
Aesthetic Quality	Pleasing	Diversity of wetland types & vegetation structure along shoreline of Tenmile Lake.
Narrative Description of Overall Wetland Functions and Conditions		
Units CA-1 through CA-12 consist of mostly small wetland fringes along Tenmile Lake; CA-8 and CA-11 are larger wetland complexes. This unit is mostly accessible by boat only and consists of aquatic bed, emergent, scrub-shrub and forested wetlands. Tenmile Lake and associated wetlands are surrounded by predominantly open space and provide excellent fish and wildlife habitat.		

*Skip Enhancement Potential if Wildlife Habitat is diverse.

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Method Summary Sheet

Unit CA-13; Large pasture wetland at head of Coleman Arm (offsite)

Function	Evaluation Descriptor	Rationale
Wildlife Habitat	Provides habitat for some species	Wildlife habitat value is reduced since only one Cowardin class is present, and there is low interspersion with other habitats.
Fish Habitat	Impacted or Degraded	Fish habitat value is degraded since Benson Creek has been ditched and has low riparian shading and instream structure.
Water Quality (pollutant removal)	Intact	High vegetation cover, unit is >5 acres, and moderate water quality of Benson Creek.
Hydrologic Control (flood control & water supply)	Intact	Located within floodplain, unit is >5 acres.
Sensitivity to Future Impacts	Potentially Sensitive	Located within Tenmile Lake Drainage District, Benson Creek has moderate water quality.
Enhancement Potential*	High	Potential to provide fish & wildlife habitat adjacent to Tenmile Lake, unit >5 acres, bordered by vegetated buffer.
Education	Not appropriate	No public access, not boat accessible.
Recreation	Not appropriate	No public access, not boat accessible.
Aesthetic Quality	Not pleasing	Not much of wetland visible from viewing area on Tenmile Lake.
Narrative Description of Overall Wetland Functions and Conditions		
Unit CA-13 is a huge emergent wetland associated with Benson Creek. The stream has been ditched, and the wetland appears to be mowed for hay. The surrounding land is zoned exclusive forest use, much of which has been logged and replanted with Douglas fir. The wetland has a high enhancement potential.		

*Skip Enhancement Potential if Wildlife Habitat is diverse.

APPENDIX 5

CITY OF LAKESIDE SPECIFIC INFORMATION

AND OFWAM ASSESSMENT QUESTIONS

AND

CHARACTERIZATION WORKSHEETS

City of Lakeside LWI Oregon Freshwater Wetland Assessment Questions (4/96 edition, with 7/97 addendum)
WETLAND CHARACTERIZATION - WATERSHED SETTING

Drainage Basin

1. What is the name of the drainage basin that contains your assessment area?

South Coast Drainage Basin, Hydrologic Unit Code 17100304

Physical characteristics of the watershed being assessed (within the drainage basin)

Topography

2. What is the watershed's area in square miles? 97

3. Calculate the average slope of the watershed: mostly flat inside UGB, steep at edges, steep (>30 degrees) outside

Hydrologic Profile

4. Is the stream flow in the watershed modified by dams, channelization or levees? (Choose all that is appropriate.)

a. Tributary streams to the main stem stream are modified.
b. Main stem stream is modified.
c. Stream flow is not modified (free flowing.) MOSTLY c.

Tenmile Creek	c. free flowing
Bowron Creek	a. parts of stream channelized and ditched
Eel Creek	c. free flowing
Clear Creek	c. free flowing, with beaver dam
Saunders Creek	c. free flowing
Tenmile Lake	c. free flowing
North Tenmile Lake	c. free flowing
Benson Creek, Coleman	a. PEM at head of Coleman Arm ditched around edge (Benson Creek)

5. Is water being taken out of the stream(s) through active diking, drainage or irrigation districts in the watershed upstream of the assessment area?

a. Yes.	a. Head of Coleman Arm - Benson Creek and other ditches, yes, Lakeside Drainage District
b. No.	b. No, all other streams (note that City drinking water comes from Eel Lake)

Land uses within the watershed

6. What is the dominant land use in the watershed upstream from the assessment area?

a. Urban.
b. Urbanizing (mix of urban, agriculture and forest uses).
c. Agriculture (farming, ranching or grazing).
d. Forested or natural area.

b. Urbanizing

Water quality

7. Consult the most recent State of Oregon DEQ 305(b) Report to determine whether any streams in the study area are listed as water quality limited (included in CWA 303(d) reporting).

a. Streams or portions of streams within the study area are listed as water quality limited.
b. No streams or portions of streams within the study area are listed as water quality limited.

Tenmile Creek	b.
Bowron Creek	b.
Eel Creek	b. (However, Eel Lake, Segment 337, severe with data for pH, Record 4814)
Clear Creek	b.
Saunders Creek	b.
Tenmile Lake	a. 1998 303(d) for Aquatic Weeds, Algae (Record 4746)
North Tenmile Lake	a. 1998 303(d) for Aquatic Weeds, Algae (Record 4747)
Benson Creek, Coleman	b.

8. Consult the most recent Oregon Statewide Assessment of Nonpoint Sources of Water Pollution to determine the water quality condition of stream reaches in the watershed upstream from the assessment area. (If both "b" and "c" apply, choose

a. All upstream reaches are listed as no problem (or no data available).
b. One or more upstream reaches are listed in moderate water quality condition.
c. One or more upstream reaches are listed in severe water quality condition.

Tenmile Creek	b. Moderate by observation (Segment 137) for sedimentation (Record 4846)
Bowron Creek	a. no data
Eel Creek	a. no data (Eel Lake, Segment 337, severe with data for pH)
Clear Creek	b. Moderate by observation (Segment 334) for sedimentation (Record 4834)
Saunders Creek	a. no data
Tenmile Lake	b. Moderate by observation (Segment 130) for nutrients, Dissolved Oxygen (DO), aquatic weeds* & algae, temperature
North Tenmile Lake	b. Moderate by observation (Segment 374) for nutrients, Dissolved Oxygen (DO), aquatic weeds* & algae
Benson Creek, Coleman	b. Moderate by observation (Segment 131), due to habitat modification (Record 4315)

Biological characterististics of the watershed

9. Fisheries: Select all that are appropriate and list type if known.

a. Cold water.
b. Warm water.
c. Anadromous.
d. Wild population.
e. Introduced or hatchery populations.
f. None.
g. Other (list).

Tenmile Creek	Coho salmon (Threatened), Winter steelhead (Candidate), Searun coastal cutthroat trout (C)
Bowron Creek	
Eel Creek	Coho salmon (Threatened), Winter steelhead (Candidate), Searun coastal cutthroat trout (C)
Clear Creek	Coho salmon, coastal run (Threatened)
Saunders Creek	Coho salmon (Threatened), Winter steelhead (Candidate), Searun coastal cutthroat trout (C)
Tenmile Lake	Coho salmon (Threatened), Winter steelhead (Candidate), Searun coastal cutthroat trout (C)
North Tenmile Lake	Coho salmon (Threatened), Winter steelhead (Candidate), Searun coastal cutthroat trout (C)
Benson Creek, Coleman	Coho salmon, coastal run (Threatened)

10. Are known sensitive threatened or endangered fish species present in the watershed: If so, list which species.

a. Yes. - See question 9.
b. No.
c. Unknown.

11. Wildlife species: Select all that are appropriate and list species if known.

a. Migratory birds.
b. Big game.
c. Nesting birds.

12. Are known sensitive, threatened or endangered plant species or wildlife species other than fish present in the watershed? If so, list which species.

a. Yes.
b. No.
c. Unknown.

northwestern pond turtle (Clemmys marmorata marmorata) (Tenmile Creek)
purple martin (Progne subis) (possible on Tenmile Lake)
western snowy plover (Charadrius alexandrinus nivosus) (possible, in dunes west of study area
Possibly lichen (Pseudocyphellaria mougeotiana) on Artostaphylos columbiana, west of H. 101
Possibly whorled marsh pennywort (Hydrocotyle verticillata) on arms of Tenmile Lake
Possibly bald eagle (Haliaeetus leucocephalus)

13. Does the watershed provide a natural corridor for fish or wildlife movement? (see text, page 33).

a. There are contiguous natural areas that allow speices movement, and if barriers exist, they do not stop animal or fish
b. The natural areas are fragmented, but species movement is still possible.
c. The habitat system is fragmented, and there are barriers to species movement.

fish: - a., movement corridor intact
wildlife: - a., movement corridor intact, except in developed areas of Lakeside (railroad tracks a divider but still movement of animals)

14. What are the landscape features at both ends of the movement corridor? (see text, page 33).

a. Large natural habitat areas are at both ends.
b. One end has a natural habitat area and the other end is developed.
c. Both ends are developed.

a. - sand dunes at west end, lake and forest lands at north, east, and south (of the UGB) - Watershed area much larger.

*PSU 1995 survey found extensive growth of Elodea densa, a non-native aquatic plant and a "B" designated weed by ODA, it dominates the macrophyte assemblage and interferes with beneficial uses; Chorophyll a exceeds 3 mo. std of 15 ug/l

Watershed size came from Watershed newsletter, FEMA, and Atlas of Oregon Lakes.
Water Quality information came from http://waterquality.deq.state.or.us/WQL1996/SubBasinList.asp
Fish information came from ODFW database ORIS and ONHD, except for Benson Creek and Clear Creek, which just came from ONHD

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Questions - Answer Sheet
(4/96 edition with 7/97 addendum)

WETLAND BC-1 (Bowron Creek)

Wildlife Habitat		
1	a	21
2	a	23
3	a	24
4	a	28
5	a	18
6	a	27
7	c	7+8
8	a	15
9b	a	26
Diverse		

Fish Habitat		
Streams and Rivers		
1	b	31
2	b	30
3	a	32
4	c	=WH7
5	a	=WH8
6	a	29
Lakes and Ponds		
1	0	33
2	0	35
3	0	34
4		=WH7
5		=WH8
6	a	29
Intact		

Water Quality (pollutant removal)		
1	a	36 (check)
2	a	37
3	a	21
4	a	17+27
5	c	15 (WH8 c=a, a=c, b=b)
6	a	7+8 (WH7 c=a, a=c, b=b)
Intact		

Hydrologic Control (flood control & water supply)		
1	a	19
2	a	37
3	a	17
4	b	38
5	a	23 (check)
6	c	16
7	a	6
Intact		

Sensitivity to Future Impacts		
1	a	27+40
2	b	5+27
3	a	=WQ6
4	c	=WQ5
5	a	20
6	a	23
Potentially Sensitive		

Enhancement Potential*		
1		WH-FH-WQ-HC
2		36
3		39
4	a	17
5b	a	26
6		=SI

*skip if WH provides diverse

Education		
1	b	41
2	b	42
3	a	WH-FH
4	a	44
5	b	46
6	a	45
Potential educational use		

Recreation		
1	b	46
2	a	47
3	b	48
4	a	WH
5	a	49
6	b	50
Provides recreational opportunities		

Aesthetic Quality		
1	a	58
2	a	57 (viewshed)
3	a	53+54
4	b	52
5	a	55
6	a	56
Pleasing		

C.. of Lakeside LWI Oregon Freshwater Wetland Assessment Questions (4/96 edition) (with 7/97 addendum)
(bold questions =field; office review important for 15, 16, 26)

Wetland BC-1
Plot 17

Wetland Structure and Landscape

15 What percentage of area within 500 feet of the wetland edge is dedicated to these land uses?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space		50 lake	
2. Agriculture		20 pasture	
3. Exclusive Forest Use			
4. Developed uses		30 RV park	
5. Other			

Observers MW+SB
Field Date 11/21/98
Revised

16 What is the dominant existing land use within 500 feet of the wetland on the downstream or down-slope edge of the wetland?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space		70 lake	
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses		30 RV park	
5. Other			

17 What is the (entire) wetland acreage?

	a. >5 acres	b. bet. 0.5 & 5 acres	c. < 0.5 acres
	(a)		

18 How is wetland connected to a stream, lake, or pond ? (see Figure, p. 35)

	a. connected by surface water (culv., ditch, int./per. stream)	b. not connected to water body within 1 mile	c. not connected, no water bodies within 1 mile
	(a)		

19 Is all or part of the wetland located within the 100-year floodplain or within an enclosed basin?

	a. yes	b. no
	(a)	

20 What is zoned percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses			100
5. Other			

zoning = residential + marine commercial

Wetland Habitat

21 What is percentage wetland area by Cowardin class (10% or more)?

	a. bet. 70% & 100%	b. bet. 50% & <70%	c. bet. 20% & <50%	d. bet. 10% & <20%
Open water (OW >6.6ft) (lake not counted)				
Emergent (EM)			40	
Scrub-shrub (SS)		50		
Forested (FO)				10

22 How many wetland plant species are present (urban areas)?

	a. >5	b. bet. 2 & 5	c. 1 (monotypic)
	(a)		

23 What is the dominant wetland vegetation cover?

	a. woody (FO & SS)	b. emergent and ponding, or open water only (EM w/ water or OW)	c. emergent vegetation only or wet meadow (EM)
	(a)		

24 How interspersed are the Cowardin classes (and upland inclusions)? (see Figure p. 37)

	a. high	b. moderate	c. low
	(a)		

25 SKIP (for rural areas) what percentage of the wetland edge is bordered by upland wildlife habitat at least 150 feet wide?

	a. >40%	b. bet. 10% & 40%	c. <10%

26 For urban areas, what percentage of the wetland edge is bordered by a vegetative buffer at least 25 feet wide?

	a. >40%	b. bet. 10% & 40%	c. <10%
	(a)		

27 How is the wetland connected to other wetlands?

	a. connected within 3 miles by surface water	b. not connected; wetlands present within 3 miles	c. not connected, no other wetlands within 3 miles
	(a)		

28 Estimate area of unvegetated, open water within the wetland.

	a. >3 acres	b. >1 to 3 acres	c. bet. 0.5 & 1 acre	d. <0.5 acre
	(a)			

(lake included here)

Fisheries Habitat Wetland BC-1

29 Are fish present in a stream, lake or pond connected to the wetland?

	(a.) salmon, trout or sensitive species are present at some time during the year	b. other fish species are present at some time during the year	c. no species are present at any time during the year

Streams connected to the wetland

30 What is the physical character of the stream channel?

	a. natural channel, or modified portions are returning to a natural channel	(b.) only portions of stream modified	c. extensively modified or confined in a non-vegetated channel or pipe

Channelized in pasture

31 What percentage of the stream is shaded by riparian vegetation?

	a. >75%	(b.) bet. 50% & 75%	c. bet. 25% & <50%	d. <25%

32 What percentage of the stream contains instream structures such as large woody debris, floating/submerged vegetation, large rocks or boulders?

	(a.) >25%	b. bet. 10% & 25%	c. <10%

Lakes or ponds (entire lake or pond and wetland complex)

33 Does the lake or pond contain areas of deep and shallow water?

	a. yes	b. cannot be determine	c. no

34 What percentage of the shoreline is shaded at the water's edge by forested or scrub-shrub vegetation?

	a. 60% or more	b. bet. 20% & <60%	c. <20%

35 What percentage of the wetland complex contains cover objects such as submerged logs, floating or submerged vegetation, large rocks or boulders?

	a. >25%	b. bet. 10% & 25%	c. <10%

Wetland Hydrology

36 What is the wetland's primary source of water? (emphasis on primary)

	(a.) surface flow, including streams and ditches	b. precipitation or sheet flow	c. groundwater, including springs or seeps

's there evidence of flooding or ponding during a portion of the growing season?

	(a.) yes (describe)	b. unable to determine or not applicable	c. no

38 Is the water flow out of the wetland restricted (beaver dam, concrete structure, undersized culvert)?

	a. yes, restricted or no outlet	(b.) minor restrictions slow down the water	c. no, outlet has unrestricted flow

39 If the primary source of water is surface flow, is the inflow restricted?

	(a.) not restricted or if blocked, can be removed	b. permanent blockage exists, but may be breached (create new flow channel)	c. flow is restricted and cannot be restored

40 Has the stream flow or stream bank been modified by human activities (dams, levees, channelization, confinement of stream in a pipe) < 1 mile above the wetland?

	(a.) yes	b. no

Public Access to Wetland Site

41 Is the wetland open to the public for direct access or observation?

	a. yes	(b.) yes, but only by permission	c. no, access not allow

42 Are there visible hazards to the public at the wetland site? (busy road with no buffer or sidewalk, steep embankment, contaminated water)

	a. no	(b.) one or two visible safety hazards exist (describe)	c. more than two visible safety hazards exist (describe)

railroad

43 Are other natural landscape features (stream, lake, pond, forest, agricultural land) contiguous or adjacent to the wetland? (list type and extent)

	(a.) yes	b. no

Ten mile Lake
Upland forest

44 Is there existing physical public access to features listed in question 43? Wetland BC-1

	(a.) public access to other habitats exists or can be created easily	b. public access doesn't exist and can't be created easily, but observation of other features can be made	c. public access doesn't exist, can't be crated easily, and observation of other features can't be made

access to a viewing spot or wetland edge available for individuals with limited mobility? (does not have to meet ADA)

	(a.) yes	b. no	(list physical barriers)

46 Is there a public access point within 250 feet of the wetland's edge? (parking lots, transit stops, bike lanes, trails, water courses; maintained means designated car or transit area; unmaintained means road pull-off, etc. - describe)

	a. yes, maintained access point exists	(b.) yes, unmaintained access point exists	c. no access point exists, or the access point is hazardous

Willow Creek RV Park + roadside along N. Lake Ave.

Recreation

47 Is the wetland accessible by boat?

	(a.) boat launching areas or access points exist on site or within 1/2 mile on a connected lake, river, bay or other body of	b. potential to develop launching areas or access points exists, or are >1/2 mile but <1 mile from wetland	c. no boat launching areas exist within 1 mile of the wetland, and potential to develop launching areas or access points

48 Are there trails, viewing areas or other structures that guide user movement to particular areas in or around the wetland?

	a. yes, developed or maintained trails or viewing areas exist	(b.) yes, undeveloped trails or viewing areas exist that do not disrupt wildlife or plant habitat	c. no trails or viewing areas exist, or those that do disrupt wildlife or plant habitat.

along RR + thru habitat (visible on aerial)

49 Is fishing allowed at the wetland or adjacent water body? (answer "c" if 18="b or c", unless 21=OW>10%)

	(a.) yes (all or part of yea	b. no	c. not applicable

Is hunting allowed at the wetland? (If wetland is within city limits, answer is no)

	a. yes (all or part of yea	(b.) no

Aesthetics

51 SKIP (for rural areas) what is the extent of visual contrast with the surrounding landscape? (see Figure p. 45)

	a. significant contrast	b. limited contrast	c. little or no contrast

52 For urban areas, what is the visual character of the surrounding area? (see Figure p. 46)

	a. open space or naturally landscaped	(b.) landscaped or manipulated by people	c. developed with no landscaping

53 Are there visual detractors at the site (abandoned cars, litter, shopping carts, etc.) that distract the viewer from the wetland?

	a. yes	(b.) no

54 If the site contains visual detractors, can they be easily removed?

	a. yes	b. no

Locate the primary viewing area(s) for the following 4 questions (and mark on map)

55 What odors are present at the primary viewing location(s)?

	(a.) natural, pleasant odors only	b. unpleasant odors (auto exhaust, sewage) present at certain times	c. unpleasant odors are distinct and continuously present

56 What noises are audible at the primary viewing location(s)?

	a. bird and wildlife noises and other naturally occurring sounds	(b.) some traffic and other similar background sounds are audible in addition to naturally occurring	c. continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds	d. continuous traffic or other intrusive noise is audible, but no naturally occurring audible sounds are

How much of the wetland is visible from the viewing area(s)? Describe the view.

	(a.) >50%	b. bet. 25% & 50%	c. <25%

58 How many Cowardin classes are visible from the primary viewing area(s)? (question 21)

	(a.) > two	b. two	c. one

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Questions - Answer Sheet
(4/96 edition with 7/97 addendum)

WETLAND BC-1A 6/1/99

Wildlife Habitat		
1	a	21 PSS/PEM
2	a	23
3	c	24
4	c	28 NA
5	b	18
6	b	27
7	c	7+8
8	c	15
9b	c	26 ~ 5%
		some

Fish Habitat NA		
Streams and Rivers		
1		31
2		30
3		32
4		=WH7
5		=WH8
6		29
Lakes and Ponds		
1		33
2		35
3		34
4		=WH7
5		=WH8
6		29

Water Quality (pollutant removal)		
1	c or b	36 (check)
2	a	37
3	a	21
4	b	17+27 > 0.5 ac
5	a	15 (WH8 c=a, a=c, b=b)
6	a	7+8 (WH7 c=a, a=c, b=b)
		impacted or degraded

Hydrologic Control (flood control & water supply)		
1	a	19
2	a	37
3	b	17
4	? b	38 no outlet - sheet flow
5	a	23 (check)
6	a	16
7	a	6
		intact

Sensitivity to Future Impacts		
1	a	27+40
2	b	5+27 isol.
3	a	=WQ6
4	a	=WQ5
5	a	20 marine commercial
6	a	23
		potentially

Enhancement Potential*		
1	a	WH-FH-WQ-HC
2	b or c	36
3	? a	39
4	b	17
5b	c	26
6	b	=SI
		High

*skip if WH provides diverse

Education		
1	b	41
2	a	42
3	b	WH-FH
4	a	44
5	a	46
6	a	45
		potential

Recreation		
1	a	46
2	b	47 - accessible when lake is high
3	a or b	48
4	b	WH
5	a	49
6	b	50
		provides

a? -

Aesthetic Quality		
1	b	58
2	a	57 (viewshed)
3	a	53+54
4	b or c	52
5	a	55
6	a	56
		moderately pleasing

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Questions - Answer Sheet
(4/96 edition with 7/97 addendum)

WETLAND BC-2 (Bowron Creek)

Wildlife Habitat		
1	a	21
2	b a	23
3	b	24
4	c	28
5	a	18
6	a	27
7	a	7+8
8	c	15
9b	b a	26
* Provides habitat for some species		

Fish Habitat		
Streams and Rivers		
1	c	31
2	b	30
3	c	32
4	a	=WH7
5	c	=WH8
6	a	29
Lakes and Ponds		
1	0	33
2	0	35
3	0	34
4		=WH7
5		=WH8
6	a	29
Impacted or degraded		

Water Quality (pollutant removal)		
1	a	36 (check)
2	a	37
3	a b	21
4	a	17+27
5	a	15 (WH8 c=a, a=c, b=b)
6	c	7+8 (WH7 c=a, a=c, b=b)
~~Intact~~ Degraded		

Hydrologic Control (flood control & water supply)		
1	a	19
2	a	37
3	a	17
4	b	38
5	b a	23 (check)
6	a	16
7	a	6
Intact *		

Sensitivity to Future Impacts		
1	a	27+40
2	b	5+27
3	c	=WQ6
4	a	=WQ5
5	a	20
6	a	23
Potentially sensitive		

Enhancement Potential*		
1	a	WH-FH-WQ-HC
2	a	36
3	a	39
4	a	17
5b	a	26
6	b	=SI
High		

*skip if WH provides diverse

Education		
1	b	41
2	b	42
3	b	WH-FH
4	b	44
5	b	46
6	a	45
Potential educational uses		

Recreation		
1	b	46
2	c	47
3	b	48
4	b	WH
5	b	49
6	b	50
Does not provide recreational opportunities		

Aesthetic Quality		
1	b	58
2	a	57 (viewshed)
3	a	53+54
4	b	52
5	a	55
6	a	56
Pleasing		

City of Lakeside LWI Oregon Freshwater Wetland Assessment Questions (4/96 edition) (with 7/97 addendum)
(bold questions =field; office review important for 15, 16, 26)

Wetland EX-2
Plots 13, 14 + 16
+ off-site

Wetland Structure and Landscape

15 What percentage of area within 500 feet of the wetland edge is dedicated to these land uses?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space	10		
2. Agriculture	15		
3. Exclusive Forest Use			
4. Developed uses			75
5. Other			

Observers MW + SB
Field Date 11/21/98
11/22/98
Revised

16 What is the dominant existing land use within 500 feet of the wetland on the downstream or down-slope edge of the wetland?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space		20	
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses			80
5. Other			

17 What is the (entire) wetland acreage?

	a. >5 acres	b. bet. 0.5 & 5 acres	c. < 0.5 acres
	(a)		

18 How is wetland connected to a stream, lake, or pond ? (see Figure, p. 35)

	a. connected by surface water (culv., ditch, int./per. stream)	b. not connected to water body within 1 mile	c. not connected, no water bodies within 1 mile
	(a)		

19 Is all or part of the wetland located within the 100-year floodplain or within an enclosed basin?

	a. yes	b. no
	(a)	

20 What is zoned percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses			100
5. Other			

Zoning - residential + general commercial

Wetland Habitat

21 What is percentage wetland area by Cowardin class (10% or more)?

	a. bet. 70% & 100%	b. bet. 50% & <70%	c. bet. 20% & <50%	d. bet. 10% & <20%
Open water (OW >6.6ft)				
Emergent (EM)			45	
Scrub-shrub (SS)		55		
Forested (FO)				

22 How many wetland plant species are present (urban areas)?

	a. >5	b. bet. 2 & 5	c. 1 (monotypic)
	(a)		

23 What is the dominant wetland vegetation cover?

	a. woody (FO & SS)	b. emergent and ponding, or open water only (EM w/ water or OW)	c. emergent vegetation only or wet meadow (EM)
	(a)		

24 How interspersed are the Cowardin classes (and upland inclusions)? (see Figure p. 37)

	a. high	b. moderate	c. low
		(b)	

25 SKIP (for rural areas) what percentage of the wetland edge is bordered by upland wildlife habitat at least 150 feet wide?

	a. >40%	b. bet. 10% & 40%	c. <10%

26 For urban areas, what percentage of the wetland edge is bordered by a vegetative buffer at least 25 feet wide?

	a. >40%	b. bet. 10% & 40%	c. <10%
	(a)		

27 How is the wetland connected to other wetlands?

	a. connected within 3 miles by surface water	b. not connected; wetlands present within 3 miles	c. not connected, no other wetlands within 3 miles
	(a)		

28 Estimate area of unvegetated, open water within the wetland.

	a. >3 acres	b. >1 to 3 acres	c. bet. 0.5 & 1 acre	d. <0.5 acre
				(d)

Fisheries Habitat Wetland BC-d

29 Are fish present in a stream, lake or pond connected to the wetland?

	(a.) salmon, trout or sensitive species are present at some time during the year	b. other fish species are present at some time during the year	c. no species are present at any time during the year

Streams connected to the wetland

30 What is the physical character of the stream channel?

	a. natural channel, or modified portions are returning to a natural channel	(b.) only portions of stream modified	c. extensively modified or confined in a non-vegetated channel or pipe

Channelized in pasture

31 What percentage of the stream is shaded by riparian vegetation?

	a. >75%	b. bet. 50% & 75%	c. bet. 25% & <50%	(d.) <25%

32 What percentage of the stream contains instream structures such as large woody debris, floating/submerged vegetation, large rocks or boulders?

	a. >25%	b. bet. 10% & 25%	(c.) <10%

Lakes or ponds (entire lake or pond and wetland complex)

33 Does the lake or pond contain areas of deep and shallow water?

	a. yes	b. cannot be determine	c. no

34 What percentage of the shoreline is shaded at the water's edge by forested or scrub-shrub vegetation?

	a. 60% or more	b. bet. 20% & <60%	c. <20%

35 What percentage of the wetland complex contains cover objects such as submerged logs, floating or submerged vegetation, large rocks or boulders?

	a. >25%	b. bet. 10% & 25%	c. <10%

Wetland Hydrology

36 What is the wetland's primary source of water? (emphasis on primary)

	(a.) surface flow, including streams and ditches	b. precipitation or sheet flow	c. groundwater, including springs or seeps

's there evidence of flooding or ponding during a portion of the growing season?

	(a.) yes (describe)	b. unable to determine or not applicable	c. no

38 Is the water flow out of the wetland restricted (beaver dam, concrete structure, undersized culvert)?

	a. yes, restricted or no outlet	(b.) minor restrictions slow down the water	c. no, outlet has unrestricted flow

39 If the primary source of water is surface flow, is the inflow restricted?

	(a.) not restricted or if blocked, can be removed	b. permanent blockage exists, but may be breached (create new flow channel)	c. flow is restricted and cannot be restored

40 Has the stream flow or stream bank been modified by human activities (dams, levees, channelization, confinement of stream in a pipe) < 1 mile above the wetland?

	(a.) yes	b. no

Public Access to Wetland Site

41 Is the wetland open to the public for direct access or observation?

	a. yes	(b.) yes, but only by permission	c. no, access not allow

42 Are there visible hazards to the public at the wetland site? (busy road with no buffer or sidewalk, steep embankment, contaminated water)

	a. no	(b.) one or two visible safety hazards exist (describe)	c. more than two visible safety hazards exist (describe)

railroad

43 Are other natural landscape features (stream, lake, pond, forest, agricultural land) contiguous or adjacent to the wetland? (list type and extent)

	(a.) yes	b. no

upland forest + logged forest

Wetland DC-a

44 Is there existing physical public access to features listed in question 43?

	a. public access to other habitats exists or can be created easily	b. public access doesn't exist and can't be created easily, but observation of other features can be made	c. public access doesn't exist, can't be crated easily, and observation of other features can't be made

access to a viewing spot or wetland edge available for individuals with limited mobility? (does not have to meet ADA)

	a. yes	b. no	(list physical barriers)

46 Is there a public access point within 250 feet of the wetland's edge? (parking lots, transit stops, bike lanes, trails, water courses; maintained means designated car or transit area; unmaintained means road pull-off, etc. - describe)

	a. yes, maintained access point exists	b. yes, unmaintained access point exists	c. no access point exists, or the access point is hazardous

road side along Bolivar Rd.

Recreation

47 Is the wetland accessible by boat?

	a. boat launching areas or access points exist on site or within 1/2 mile on a connected lake, river, bay or other body of	b. potential to develop launching areas or access points exists, or are >1/2 mile but <1 mile from wetland	c. no boat launching areas exist within 1 mile of the wetland, and potential to develop launching areas or access points

48 Are there trails, viewing areas or other structures that guide user movement to particular areas in or around the wetland?

	a. yes, developed or maintained trails or viewing areas exist	b. yes, undeveloped trails or viewing areas exist that do not disrupt wildlife or plant habitat	c. no trails or viewing areas exist, or those that do disrupt wildlife or plant habitat.

along RR

49 Is fishing allowed at the wetland or adjacent water body? (answer "c" if 18="b or c", unless 21=OW>10%)

	a. yes (all or part of yea	b. no	c. not applicable

50 Is hunting allowed at the wetland? (If wetland is within city limits, answer is no)

	a. yes (all or part of yea	b. no

Aesthetics

51 SKIP (for rural areas) what is the extent of visual contrast with the surrounding landscape? (see Figure p. 45)

	a. significant contrast	b. limited contrast	c. little or no contrast

52 For urban areas, what is the visual character of the surrounding area? (see Figure p. 46)

	a. open space or naturally landscaped	b. landscaped or manipulated by people	c. developed with no landscaping

53 Are there visual detractors at the site (abandoned cars, litter, shopping carts, etc.) that distract the viewer from the wetland?

	a. yes	b. no

54 If the site contains visual detractors, can they be easily removed?

	a. yes	b. no

Locate the primary viewing area(s) for the following 4 questions (and mark on map)

55 What odors are present at the primary viewing location(s)?

	a. natural, pleasant odors only	b. unpleasant odors (auto exhaust, sewage) present at certain times	c. unpleasant odors are distinct and continuously present

56 What noises are audible at the primary viewing location(s)?

	a. bird and wildlife noises and other naturally occurring sounds	b. some traffic and other similar background sounds are audible in addition to naturally occurring	c. continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds	d. continuous traffic or other intrusive noise is audible, but no naturally occurring audible sounds are

How much of the wetland is visible from the viewing area(s)? Describe the view.

	a. >50%	b. bet. 25% & 50%	c. <25%

mostly grassed PEM, PSS along road

58 How many Cowardin classes are visible from the primary viewing area(s)? (question 21)

	a. > two	b. two	c. one

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Questions - Answer Sheet
(4/96 edition with 7/97 addendum)

WETLAND BC-3 (Bowron Creek)

Wildlife Habitat		
1	a	21
2	b	23
3	c	24
4	c	28
5	a	18
6	a	27
7	a	7+8
8	b a	15
9b	a	26
Provides habitat for some species		

Fish Habitat		
Streams and Rivers		
1	c	31
2	b	30
3	c	32
4	a	=WH7
5	b a	=WH8
6	a	29
Lakes and Ponds		
1	0	33
2	0	35
3	0	34
4		=WH7
5		=WH8
6	a	29
Impacted or degraded		

Water Quality (pollutant removal)		
1	a	36 (check)
2	a	37
3	a	21
4	a	17+27
5	b c	15 (WH8 c=a, a=c, b=b)
6	c	7+8 (WH7 c=a, a=c, b=b)
Intact or degr.		

Hydrologic Control (flood control & water supply)		
1	a	19
2	a	37
3	a	17
4	b	38
5	c	23 (check)
6	b	16
7	a c	6
Intact		

Sensitivity to Future Impacts		
1	a	27+40
2	b	5+27
3	c	=WQ6
4	b	=WQ5
5	a	20
6	b	23
Potentially sensitive		

Enhancement Potential*		
1	a	WH-FH-WQ-HC
2	a	36
3	a	39
4	a	17
5b	a	26
6	b	=SI
High		

*skip if WH provides diverse

Education		
1	b	41
2	a	42
3	b	WH-FH
4	a	44
5	b	46
6	a	45
Potential educational uses		

Recreation		
1	b	46
2	c	47
3	b	48
4	b	WH
5	b	49
6	b	50
Does not provide recreational opportunities		

Aesthetic Quality		
1	b	58
2	a	57 (viewshed)
3	a	53+54
4	b	52
5	a	55
6	a	56
Pleasing		

BC-3

City of Lakeside LWI Oregon Freshwater Wetland Assessment Questions (4/96 edition) (with 7/97 addendum) Wetland BC-3 off-site

(bold questions =field; office review important for 15, 16, 26)

Wetland Structure and Landscape

15 What percentage of area within 500 feet of the wetland edge is dedicated to these land uses?

Observers MW+SB
Field Date 3/4/99
Revised

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space	10 (cleared area)		
2. Agriculture			85
3. Exclusive Forest Use			
4. Developed uses	5		
5. Other			

16 What is the dominant existing land use within 500 feet of the wetland on the downstream or down-slope edge of the wetland?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			
2. Agriculture			95
3. Exclusive Forest Use			
4. Developed uses	5		
5. Other			

17 What is the (entire) wetland acreage?

	a. >5 acres	b. bet. 0.5 & 5 acres	c. < 0.5 acres
	(a)		

18 How is wetland connected to a stream, lake, or pond ? (see Figure, p. 35)

	a. connected by surface water (culv., ditch, int./per. stream)	b. not connected to water body within 1 mile	c. not connected, no water bodies within 1 mile
	(a)		

19 Is all or part of the wetland located within the 100-year floodplain or within an enclosed basin?

	a. yes	b. no
	(a)	

-outside FP

20 What is zoned percentage of land use within 500 feet of the wetland edge?

Zoning = residential

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses			100
5. Other			

Wetland Habitat

21 What is percentage wetland area by Cowardin class (10% or more)?

	a. bet. 70% & 100%	b. bet. 50% & <70%	c. bet. 20% & <50%	d. bet. 10% & <20%
Open water (OW >6.6ft)				
Emergent (EM)	90			
Scrub-shrub (SS)				10
Forested (FO)				

22 How many wetland plant species are present (urban areas)?

	a. >5	b. bet. 2 & 5	c. 1 (monotypic)
	(a)		

23 What is the dominant wetland vegetation cover?

	a. woody (FO & SS)	b. emergent and ponding, or open water only (EM w/ water or OW)	c. emergent vegetation only or wet meadow (EM)
		(b)	

24 How interspersed are the Cowardin classes (and upland inclusions)? (see Figure p. 37)

	a. high	b. moderate	c. low
			(c)

25 SKIP (for rural areas) what percentage of the wetland edge is bordered by upland wildlife habitat at least 150 feet wide?

	a. >40%	b. bet. 10% & 40%	c. <10%

26 For urban areas, what percentage of the wetland edge is bordered by a vegetative buffer at least 25 feet wide?

	a. >40%	b. bet. 10% & 40%	c. <10%
	(a)		

27 How is the wetland connected to other wetlands?

	a. connected within 3 miles by surface water	b. not connected; wetlands present within 3 miles	c. not connected, no other wetlands within 3 miles
	(a)		

28 Estimate area of unvegetated, open water within the wetland.

	a. >3 acres	b. >1 to 3 acres	c. bet. 0.5 & 1 acre	d. <0.5 acre
				(d)

BC-3

Fisheries Habitat Wetland BC-3

29 Are fish present in a stream, lake or pond connected to the wetland?

	(a.) salmon, trout or sensitive species are present at some time during the year	b. other fish species are present at some time during the year	c. no species are present at any time during the year

treams connected to the wetland

30 What is the physical character of the stream channel?

	a. natural channel, or modified portions are returning to a natural channel	(b.) only portions of stream modified	c. extensively modified or confined in a non-vegetated channel or pipe

Channelized in pasture

31 What percentage of the stream is shaded by riparian vegetation?

	a. >75%	b. bet. 50% & 75%	c. bet. 25% & <50%	(d.) <25%

32 What percentage of the stream contains instream structures such as large woody debris, floating/submerged vegetation, large rocks or boulders?

	a. >25%	b. bet. 10% & 25%	(c.) <10%

Lakes or ponds (entire lake or pond and wetland complex)

33 Does the lake or pond contain areas of deep and shallow water?

	a. yes	b. cannot be determine	c. no

34 What percentage of the shoreline is shaded at the water's edge by forested or scrub-shrub vegetation?

	a. 60% or more	b. bet. 20% & <60%	c. <20%

35 What percentage of the wetland complex contains cover objects such as submerged logs, floating or submerged vegetation, large rocks or boulders?

	a. >25%	b. bet. 10% & 25%	c. <10%

Wetland Hydrology

36 What is the wetland's primary source of water? (emphasis on primary)

	(a.) surface flow, including streams and ditches	b. precipitation or sheet flow	c. groundwater, including springs or seeps

's there evidence of flooding or ponding during a portion of the growing season?

	(a.) yes (describe)	b. unable to determine or not applicable	c. no

38 Is the water flow out of the wetland restricted (beaver dam, concrete structure, undersized culvert)?

	a. yes, restricted or no outlet	(b.) minor restrictions slow down the water	c. no, outlet has unrestricted flow

39 If the primary source of water is surface flow, is the inflow restricted?

	(a.) not restricted or if blocked, can be removed	b. permanent blockage exists, but may be breached (create new flow channel)	c. flow is restricted and cannot be restored

40 Has the stream flow or stream bank been modified by human activities (dams, levees, channelization, confinement of stream in a pipe) < 1 mile above the wetland?

	(a.) yes	b. no

Public Access to Wetland Site

41 Is the wetland open to the public for direct access or observation?

	a. yes	(b.) yes, but only by permission	c. no, access not allow

42 Are there visible hazards to the public at the wetland site? (busy road with no buffer or sidewalk, steep embankment, contaminated water)

	(a.) no	b. one or two visible safety hazards exist (describe)	c. more than two visible safety hazards exist (describe)

43 Are other natural landscape features (stream, lake, pond, forest, agricultural land) contiguous or adjacent to the wetland? (list type and extent)

	(a.) yes	b. no

logged forest

44 Is there existing physical public access to features listed in question 43? Wetland DC-3

	a. public access to other habitats exists or can be created easily	b. public access doesn't exist and can't be created easily, but observation of other features can be made	c. public access doesn't exist, can't be crated easily, and observation of other features can't be made

logging roads

access to a viewing spot or wetland edge available for individuals with limited mobility? (does not have to meet ADA)

	a. yes	b. no

(list physical barriers)

46 Is there a public access point within 250 feet of the wetland's edge? (parking lots, transit stops, bike lanes, trails, water courses; maintained means designated car or transit area; unmaintained means road pull-off, etc. - describe)

	a. yes, maintained access point exists	b. yes, unmaintained access point exists	c. no access point exists, or the access point is hazardous

road side along north road off of Lakeland Dr.

Recreation

47 Is the wetland accessible by boat?

	a. boat launching areas or access points exist on site or within 1/2 mile on a connected lake, river, bay or other body of	b. potential to develop launching areas or access points exists, or are >1/2 mile but <1 mile from wetland	c. no boat launching areas exist within 1 mile of the wetland, and potential to develop launching areas or access points

48 Are there trails, viewing areas or other structures that guide user movement to particular areas in or around the wetland?

	a. yes, developed or maintained trails or viewing areas exist	b. yes, undeveloped trails or viewing areas exist that do not disrupt wildlife or plant habitat	c. no trails or viewing areas exist, or those that do disrupt wildlife or plant habitat.

logging road

49 Is fishing allowed at the wetland or adjacent water body? (answer "c" if 18="b or c", unless 21=OW>10%)

	a. yes (all or part of yea	b. no	c. not applicable

50 Is hunting allowed at the wetland? (If wetland is within city limits, answer is no)

	a. yes (all or part of yea	b. no

Aesthetics

51 SKIP (for rural areas) what is the extent of visual contrast with the surrounding landscape? (see Figure p. 45)

	a. significant contrast	b. limited contrast	c. little or no contrast

52 For urban areas, what is the visual character of the surrounding area? (see Figure p. 46)

	a. open space or naturally landscaped	b. landscaped or manipulated by people	c. developed with no landscaping

logged & cleared

53 Are there visual detractors at the site (abandoned cars, litter, shopping carts, etc.) that distract the viewer from the wetland?

	a. yes	b. no

54 If the site contains visual detractors, can they be easily removed?

	a. yes	b. no

Locate the primary viewing area(s) for the following 4 questions (and mark on map)

55 What odors are present at the primary viewing location(s)?

	a. natural, pleasant odors only	b. unpleasant odors (auto exhaust, sewage) present at certain times	c. unpleasant odors are distinct and continuously present

56 What noises are audible at the primary viewing location(s)?

	a. bird and wildlife noises and other naturally occurring sounds	b. some traffic and other similar background sounds are audible in addition to naturally occurring	c. continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds	d. continuous traffic or other intrusive noise is audible, but no naturally occurring audible sounds are

How much of the wetland is visible from the viewing area(s)? Describe the view.

	a. >50%	b. bet. 25% & 50%	c. <25%

58 How many Cowardin classes are visible from the primary viewing area(s)? (question 21)

	a. > two	b. two	c. one

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Questions - Answer Sheet
(4/96 edition with 7/97 addendum)

WETLAND BC-4 (Bowron Creek)

Wildlife Habitat		
1	a	21
2	a	23
3	a	24
4	c	28
5	a	18
6	a	27
7	a	7+8
8	b	15
9b	a	26
Diverse		

Fish Habitat		
Streams and Rivers		
1	a	31
2	b	30
3	a	32
4	a	=WH7
5	b	=WH8
6	a	29
Lakes and Ponds		
1	0	33
2	0	35
3	0	34
4		=WH7
5		=WH8
6	a	29
Intact		

Water Quality (pollutant removal)		
1	a	36 (check)
2	a	37
3	a	21
4	a	17+27
5	b	15 (WH8 c=a, a=c, b=b)
6	c	7+8 (WH7 c=a, a=c, b=b)
Intact		

Hydrologic Control (flood control & water supply)		
1	a	19
2	a	37
3	a	17
4	b	38
5	a	23 (check)
6	a	16
7	a	6
Intact		

Sensitivity to Future Impacts		
1	a	27+40
2	b	5+27
3	c	=WQ6
4	b	=WQ5
5	a	20
6	a	23
Potentially Sensitive		

Enhancement Potential*		
1		WH-FH-WQ-HC
2		36
3		39
4	a	17
5b	a	26
6		=SI

*skip if WH provides diverse

Education		
1	b	41
2	a	42
3	a	WH-FH
4	a	44
5	b	46
6	a	45
Potential educational uses		

Recreation		
1	b	46
2	c	47
3	c	48
4	a	WH
5	a	49
6	b	50
Potential recreational uses		

Aesthetic Quality		
1	a	58
2	a	57 (viewshed)
3	a	53+54
4	b	52
5	a	55
6	a	56
Pleasing		

City of Lakeside LWI Oregon Freshwater Wetland Assessment Questions (4/96 edition) (with 7/97 addendum)
(bold questions =field; office review important for 15, 16, 26)

Wetland BC-4
Plots 30 + 32

Wetland Structure and Landscape

15 What percentage of area within 500 feet of the wetland edge is dedicated to these land uses?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space		35	
2. Agriculture		45 (logged)	
3. Exclusive Forest Use			
4. Developed uses		20	
5. Other			

Observers MW + SB
Field Date 3/2/99
Revised

16 What is the dominant existing land use within 500 feet of the wetland on the downstream or down-slope edge of the wetland?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space		20	
2. Agriculture		20	
3. Exclusive Forest Use			
4. Developed uses			60
5. Other			

17 What is the (entire) wetland acreage?

a. >5 acres	b. bet. 0.5 & 5 acres	c. < 0.5 acres

18 How is wetland connected to a stream, lake, or pond ? (see Figure, p. 35)

a. connected by surface water (culv., ditch, int./per. stream)	b. not connected to water body within 1 mile	c. not connected, no water bodies within 1 mile

19 Is all or part of the wetland located within the 100-year floodplain or within an enclosed basin?

a. yes	b. no

- outside FP

20 What is zoned percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses			100
5. Other			

Zoning = residential

Wetland Habitat

21 What is percentage wetland area by Cowardin class (10% or more)?

	a. bet. 70% & 100%	b. bet. 50% & <70%	c. bet. 20% & <50%	d. bet. 10% & <20%
Open water (OW >6.6ft)				10
Emergent (EM)				
Scrub-shrub (SS)				
Forested (FO)	90			

22 How many wetland plant species are present (urban areas)?

a. >5	b. bet. 2 & 5	c. 1 (monotypic)

23 What is the dominant wetland vegetation cover?

a. woody (FO & SS)	b. emergent and ponding, or open water only (EM w/ water or OW)	c. emergent vegetation only or wet meadow (EM)

24 How interspersed are the Cowardin classes (and upland inclusions)? (see Figure p. 37)

a. high	b. moderate	c. low

25 SKIP (for rural areas) what percentage of the wetland edge is bordered by upland wildlife habitat at least 150 feet wide?

a. >40%	b. bet. 10% & 40%	c. <10%

26 For urban areas, what percentage of the wetland edge is bordered by a vegetative buffer at least 25 feet wide?

a. >40%	b. bet. 10% & 40%	c. <10%

27 How is the wetland connected to other wetlands?

a. connected within 3 miles by surface water	b. not connected; wetlands present within 3 miles	c. not connected, no other wetlands within 3 miles

28 Estimate area of unvegetated, open water within the wetland.

a. >3 acres	b. >1 to 3 acres	c. bet. 0.5 & 1 acre	d. <0.5 acre

BC-4

Fisheries Habitat Wetland DC-4

29 Are fish present in a stream, lake or pond connected to the wetland?

	(a.) salmon, trout or sensitive species are present at some time during the year	b. other fish species are present at some time during the year	c. no species are present at any time during the year

Streams connected to the wetland

30 What is the physical character of the stream channel?

	a. natural channel, or modified portions are returning to a natural channel	(b.) only portions of stream modified	c. extensively modified or confined in a non-vegetated channel or pipe

31 What percentage of the stream is shaded by riparian vegetation?

	(a.) >75%	b. bet. 50% & 75%	c. bet. 25% & <50%	d. <25%

32 What percentage of the stream contains instream structures such as large woody debris, floating/submerged vegetation, large rocks or boulders?

	(a.) >25%	b. bet. 10% & 25%	c. <10%

beaver activity

Lakes or ponds (entire lake or pond and wetland complex)

33 Does the lake or pond contain areas of deep and shallow water?

	a. yes	b. cannot be determine	c. no

34 What percentage of the shoreline is shaded at the water's edge by forested or scrub-shrub vegetation?

	a. 60% or more	b. bet. 20% & <60%	c. <20%

35 What percentage of the wetland complex contains cover objects such as submerged logs, floating or submerged vegetation, large rocks or boulders?

	a. >25%	b. bet. 10% & 25%	c. <10%

Wetland Hydrology

36 What is the wetland's primary source of water? (emphasis on primary)

	(a.) surface flow, including streams and ditches	b. precipitation or sheet flow	c. groundwater, including springs or seeps

Is there evidence of flooding or ponding during a portion of the growing season?

	(a.) yes (describe)	b. unable to determine or not applicable	c. no

38 Is the water flow out of the wetland restricted (beaver dam, concrete structure, undersized culvert)?

	a. yes, restricted or no outlet	(b.) minor restrictions slow down the water	c. no, outlet has unrestricted flow

39 If the primary source of water is surface flow, is the inflow restricted?

	(a.) not restricted or if blocked, can be removed	b. permanent blockage exists, but may be breached (create new flow channel)	c. flow is restricted and cannot be restored

40 Has the stream flow or stream bank been modified by human activities (dams, levees, channelization, confinement of stream in a pipe) < 1 mile above the wetland?

	(a.) yes	b. no

Public Access to Wetland Site

41 Is the wetland open to the public for direct access or observation?

	a. yes	(b.) yes, but only by permission	c. no, access not allow

42 Are there visible hazards to the public at the wetland site? (busy road with no buffer or sidewalk, steep embankment, contaminated water)

	(a.) no	b. one or two visible safety hazards exist (describe)	c. more than two visible safety hazards exist (describe)

43 Are other natural landscape features (stream, lake, pond, forest, agricultural land) contiguous or adjacent to the wetland? (list type and extent)

	(a.) yes	b. no

upland forest
logged forest

Wetland DC-1

44 Is there existing physical public access to features listed in question 43?

	a. public access to other habitats exists or can be created easily	b. public access doesn't exist and can't be created easily, but observation of other features can be made	c. public access doesn't exist, can't be crated easily, and observation of other features can't be made

logging roads

45 access to a viewing spot or wetland edge available for individuals with limited mobility? (does not have to meet ADA)

	a. yes	b. no

(list physical barriers)

46 Is there a public access point within 250 feet of the wetland's edge? (parking lots, transit stops, bike lanes, trails, water courses; maintained means designated car or transit area; unmaintained means road pull-off, etc. - describe)

	a. yes, maintained access point exists	b. yes, unmaintained access point exists	c. no access point exists, or the access point is hazardous

roadside @ end of Rugh Lane

Recreation

47 Is the wetland accessible by boat?

	a. boat launching areas or access points exist on site or within 1/2 mile on a connected lake, river, bay or other body of	b. potential to develop launching areas or access points exists, or are >1/2 mile but <1 mile from wetland	c. no boat launching areas exist within 1 mile of the wetland, and potential to develop launching areas or access points

48 Are there trails, viewing areas or other structures that guide user movement to particular areas in or around the wetland?

	a. yes, developed or maintained trails or viewing areas exist	b. yes, undeveloped trails or viewing areas exist that do not disrupt wildlife or plant habitat	c. no trails or viewing areas exist, or those that do disrupt wildlife or plant habitat.

49 Is fishing allowed at the wetland or adjacent water body? (answer "c" if 18="b or c", unless 21=OW>10%)

	a. yes (all or part of yea	b. no	c. not applicable

50 Is hunting allowed at the wetland? (If wetland is within city limits, answer is no)

	a. yes (all or part of yea	b. no

Aesthetics

51 SKIP (for rural areas) what is the extent of visual contrast with the surrounding landscape? (see Figure p. 45)

	a. significant contrast	b. limited contrast	c. little or no contrast

52 For urban areas, what is the visual character of the surrounding area? (see Figure p. 46)

	a. open space or naturally landscaped	b. landscaped or manipulated by people	c. developed with no landscaping

53 Are there visual detractors at the site (abandoned cars, litter, shopping carts, etc.) that distract the viewer from the wetland?

	a. yes	b. no

54 If the site contains visual detractors, can they be easily removed?

	a. yes	b. no

Locate the primary viewing area(s) for the following 4 questions (and mark on map)

55 What odors are present at the primary viewing location(s)?

	a. natural, pleasant odors only	b. unpleasant odors (auto exhaust, sewage) present at certain times	c. unpleasant odors are distinct and continuously present

56 What noises are audible at the primary viewing location(s)?

	a. bird and wildlife noises and other naturally occurring sounds	b. some traffic and other similar background sounds are audible in addition to naturally occurring	c. continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds	d. continuous traffic or other intrusive noise is audible, but no naturally occurring audible sounds are

57 How much of the wetland is visible from the viewing area(s)? Describe the view.

	a. >50%	b. bet. 25% & 50%	c. <25%

58 How many Cowardin classes are visible from the primary viewing area(s)? (question 21)

	a. > two	b. two	c. one

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Questions - Answer Sheet
(4/96 edition with 7/97 addendum)

WETLAND BC-5 (Bowron Creek)

Wildlife Habitat		
1	b	21
2	a	23
3	b	24
4	c	28
5	a	18
6	a	27
7	a	7+8
8	a	15
9b	a	26
Diverse		

Fish Habitat		
Streams and Rivers		
1	a	31
2	b	30
3	b	32
4	a	=WH7
5	a	=WH8
6	a	29
Lakes and Ponds		
1	0	33
2	0	35
3	0	34
4		=WH7
5		=WH8
6	a	29
Intact		

Water Quality (pollutant removal)		
1	a	36 (check)
2	a	37
3	a	21
4	a	17+27
5	c	15 (WH8 c=a, a=c, b=b)
6	c	7+8 (WH7 c=a, a=c, b=b)
Intact		

Hydrologic Control (flood control & water supply)		
1	a	19
2	a	37
3	a	17
4	b	38
5	a	23 (check)
6	c	16
7	a	6
Intact		

Sensitivity to Future Impacts		
1	a	27+40
2	b	5+27
3	c	=WQ6
4	c	=WQ5
5	a	20
6	a	23
Potentially Sensitive		

Enhancement Potential*		
1		WH-FH-WQ-HC
2		36
3		39
4	a	17
5b	a	26
6		=SI

*skip if WH provides diverse

Education		
1	b	41
2	a	42
3	a	WH-FH
4	b	44
5	b	46
6	a	45
Potential educational uses		

Recreation		
1	b	46
2	c	47
3	c	48
4	b	WH
5	a	49
6	b	50
Potential recreational opportunities		

Aesthetic Quality		
1	c	58
2	a	57 (viewshed)
3	a	53+54
4	b	52
5	a	55
6	a	56
Moderately pleasing		

City of Lakeside LWI Oregon Freshwater Wetland Assessment Questions (4/96 edition) (with 7/97 addendum)
(bold questions =field; office review important for 15, 16, 26)

Wetland BC-5
Plot 34

Wetland Structure and Landscape

15 What percentage of area within 500 feet of the wetland edge is dedicated to these land uses?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space		50	
2. Agriculture		30	
3. Exclusive Forest Use			
4. Developed uses	20		
5. Other			

Observers MW + SB
Field Date 3/2/99
Revised

16 What is the dominant existing land use within 500 feet of the wetland on the downstream or down-slope edge of the wetland?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			70
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses		30	
5. Other			

17 What is the (entire) wetland acreage?

	a. >5 acres	b. bet. 0.5 & 5 acres	c. < 0.5 acres
	(a)		

18 How is wetland connected to a stream, lake, or pond ? (see Figure, p. 35)

	a. connected by surface water (culv., ditch, int./per. stream)	b. not connected to water body within 1 mile	c. not connected, no water bodies within 1 mile
	(a)		

19 Is all or part of the wetland located within the 100-year floodplain or within an enclosed basin?

	a. yes	b. no
	(a)	

- outside FP

20 What is zoned percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses			100
5. Other			

Zoning = residential

Wetland Habitat

21 What is percentage wetland area by Cowardin class (10% or more)?

	a. bet. 70% & 100%	b. bet. 50% & <70%	c. bet. 20% & <50%	d. bet. 10% & <20%
Open water (OW >6.6ft)				
Emergent (EM)				
Scrub-shrub (SS)				
Forested (FO)	100			

22 How many wetland plant species are present (urban areas)?

	a. >5	b. bet. 2 & 5	c. 1 (monotypic)
	(a)		

23 What is the dominant wetland vegetation cover?

	a. woody (FO & SS)	b. emergent and ponding, or open water only (EM w/ water or OW)	c. emergent vegetation only or wet meadow (EM)
	(a)		

24 How interspersed are the Cowardin classes (and upland inclusions)? (see Figure p. 37)

	a. high	b. moderate	c. low
		(b)	

25 SKIP (for rural areas) what percentage of the wetland edge is bordered by upland wildlife habitat at least 150 feet wide?

	a. >40%	b. bet. 10% & 40%	c. <10%

26 For urban areas, what percentage of the wetland edge is bordered by a vegetative buffer at least 25 feet wide?

	a. >40%	b. bet. 10% & 40%	c. <10%
	(a)		

27 How is the wetland connected to other wetlands?

	a. connected within 3 miles by surface water	b. not connected; wetlands present within 3 miles	c. not connected, no other wetlands within 3 miles
	(a)		

28 Estimate area of unvegetated, open water within the wetland.

	a. >3 acres	b. >1 to 3 acres	c. bet. 0.5 & 1 acre	d. <0.5 acre
				(d)

BC-5

Fisheries Habitat Wetland BC-5

29 Are fish present in a stream, lake or pond connected to the wetland?

	(a) salmon, trout or sensitive species are present at some time during the year	b. other fish species are present at some time during the year	c. no species are present at any time during the year

treams connected to the wetland

30 What is the physical character of the stream channel?

	a. natural channel, or modified portions are returning to a natural channel	(b) only portions of stream modified	c. extensively modified or confined in a non-vegetated channel or pipe

31 What percentage of the stream is shaded by riparian vegetation?

	(a) >75%	b. bet. 50% & 75%	c. bet. 25% & <50%	d. <25%

32 What percentage of the stream contains instream structures such as large woody debris, floating/submerged vegetation, large rocks or boulders?

	a. >25%	(b) bet. 10% & 25%	c. <10%

Lakes or ponds (entire lake or pond and wetland complex)

33 Does the lake or pond contain areas of deep and shallow water?

	a. yes	b. cannot be determine	c. no

34 What percentage of the shoreline is shaded at the water's edge by forested or scrub-shrub vegetation?

	a. 60% or more	b. bet. 20% & <60%	c. <20%

35 What percentage of the wetland complex contains cover objects such as submerged logs, floating or submerged vegetation, large rocks or boulders?

	a. >25%	b. bet. 10% & 25%	c. <10%

Wetland Hydrology

36 What is the wetland's primary source of water? (emphasis on primary)

	(a) surface flow, including streams and ditches	b. precipitation or sheet flow	c. groundwater, including springs or seeps

's there evidence of flooding or ponding during a portion of the growing season?

	(a) yes (describe)	b. unable to determine or not applicable	c. no

38 Is the water flow out of the wetland restricted (beaver dam, concrete structure, undersized culvert)?

	a. yes, restricted or no outlet	(b) minor restrictions slow down the water	c. no, outlet has unrestricted flow

39 If the primary source of water is surface flow, is the inflow restricted?

	(a) not restricted or if blocked, *can be* removed	b. permanent blockage *exists, but may be* breached (create new flow channel)	c. flow is restricted and *cannot be restored*

40 Has the stream flow or stream bank been modified by human activities (dams, levees, channelization, confinement of stream in a pipe) < 1 mile above the wetland?

	(a) yes	b. no

Public Access to Wetland Site

41 Is the wetland open to the public for direct access or observation?

	a. yes	(b) yes, but only by permission	c. no, access not allow

42 Are there visible hazards to the public at the wetland site? (busy road with no buffer or sidewalk, steep embankment, contaminated water)

	(a) no	b. one or two visible safety hazards exist (describe)	c. more than two visible safety hazards exist (describe)

43 Are other natural landscape features (stream, lake, pond, forest, agricultural land) contiguous or adjacent to the wetland? (list type and extent)

	(a) yes	b. no

upland forest
emergent wetland (BC-6)

44 Is there existing physical public access to features listed in question 43? Wetland DC-3

	a. public access to other habitats exists or can be created easily	b. public access doesn't exist and can't be created easily, but observation of other features can be made	c. public access doesn't exist, can't be crated easily, and observation of other features can't be made
		(b)	

access to a viewing spot or wetland edge available for individuals with limited mobility? (does not have to meet ADA)

	a. yes	b. no	(list physical barriers)
	(a)		

46 Is there a public access point within 250 feet of the wetland's edge? (parking lots, transit stops, bike lanes, trails, water courses; maintained means designated car or transit area; unmaintained means road pull-off, etc. - describe)

	a. yes, maintained access point exists	b. yes, unmaintained access point exists	c. no access point exists, or the access point is hazardous
		(b)	

road side along north end of Rugh Lane

Recreation

47 Is the wetland accessible by boat?

	a. boat launching areas or access points exist on site or within 1/2 mile on a connected lake, river, bay or other body of	b. potential to develop launching areas or access points exists, or are >1/2 mile but <1 mile from wetland	c. no boat launching areas exist within 1 mile of the wetland, and potential to develop launching areas or access points
			(c)

48 Are there trails, viewing areas or other structures that guide user movement to particular areas in or around the wetland?

	a. yes, developed or maintained trails or viewing areas exist	b. yes, undeveloped trails or viewing areas exist that do not disrupt wildlife or plant habitat	c. no trails or viewing areas exist, or those that do disrupt wildlife or plant habitat.
			(c)

49 Is fishing allowed at the wetland or adjacent water body? (answer "c" if 18="b or c", unless 21=OW>10%)

	a. yes (all or part of yea	b. no	c. not applicable
	(a)		

50 Is hunting allowed at the wetland? (If wetland is within city limits, answer is no)

	a. yes (all or part of yea	b. no
		(b)

Aesthetics

51 SKIP (for rural areas) what is the extent of visual contrast with the surrounding landscape? (see Figure p. 45)

	a. significant contrast	b. limited contrast	c. little or no contrast

52 For urban areas, what is the visual character of the surrounding area? (see Figure p. 46)

	a. open space or naturally landscaped	b. landscaped or manipulated by people	c. developed with no landscaping
		(b)	

53 Are there visual detractors at the site (abandoned cars, litter, shopping carts, etc.) that distract the viewer from the wetland?

	a. yes	b. no
		(b)

54 If the site contains visual detractors, can they be easily removed?

	a. yes	b. no

Locate the primary viewing area(s) for the following 4 questions (and mark on map)

55 What odors are present at the primary viewing location(s)?

	a. natural, pleasant odors only	b. unpleasant odors (auto exhaust, sewage) present at certain times	c. unpleasant odors are distinct and continuously present
	(a)		

56 What noises are audible at the primary viewing location(s)?

	a. bird and wildlife noises and other *naturally occurring* sounds	b. some traffic and other similar *background sounds* are audible in addition to naturally occurring	c. continuous traffic or other intrusive noise is audible *in addition to* naturally occurring sounds	d. continuous traffic or other intrusive noise is audible, but no naturally occurring audible sounds are
		(b)		

How much of the wetland is visible from the viewing area(s)? Describe the view.

	a. >50%	b. bet. 25% & 50%	c. <25%
	(a)		

58 How many Cowardin classes are visible from the primary viewing area(s)? (question 21)

	a. > two	b. two	c. one
			(c)

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Questions - Answer Sheet
(4/96 edition with 7/97 addendum)

WETLAND BC-6 (Bowron Creek)

Wildlife Habitat		
1	a	21
2	b	23
3	b	24
4	c	28
5	a	18
6	a	27
7	a	7+8
8	a	15
9b	a	26
ok Diverse		

Fish Habitat		
Streams and Rivers		
1	b	31
2	b	30
3	c	32
4	a	=WH7
5	a	=WH8
6	a	29
Lakes and Ponds		
1	0	33
2	0	35
3	0	34
4		=WH7
5		=WH8
6	a	29
ok Intact		

Water Quality (pollutant removal)		
1	a	36 (check)
2	a	37
3	a	21 what's around channels?
4	a	17+27
5	c	15 (WH8 c=a, a=c, b=b)
6	c	7+8 (WH7 c=a, a=c, b=b)
Intact ?		

Hydrologic Control (flood control & water supply)		
1	a enclosed basin	19
2	a	37
3	a	17
4	b	38
5	b	23 (check)
6	c	16 no logging = openspace
7	a c	6
~~Intact~~ degraded		

Sensitivity to Future Impacts		
1	a	27+40
2	b	5+27
3	c	=WQ6
4	c	=WQ5
5	a	20
6	c	23
ok Potentially sensitive		

Enhancement Potential*		
1		WH-FH-WQ-HC
2		36
3		39
4	a	17
5b	a	26
6		=SI

*skip if WH provides diverse

Education		
1	b	41
2	a	42
3	a	WH-FH
4	b	44
5	b	46
6	a	45
ok Potential educational use		

Recreation		
1	b	46
2	c	47
3	c	48
4	a	WH
5	a	49
6	b	50
ok Potential recreational opportunities		

Aesthetic Quality		
1	b	58
2	a	57 (viewshed)
3	b	53+54
4	b	52
5	a	55
6	a	56
ok Pleasing		

all answered urbanizing per Mike Mader input

City of Lakeside LWI Oregon Freshwater Wetland Assessment Questions (4/96 edition) Wetland BC-6
(bold questions =field; office review important for 15, 16, 26) **(with 7/97 addendum)** off-site

Wetland Structure and Landscape

15 What percentage of area within 500 feet of the wetland edge is dedicated to these land uses?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			70
2. Agriculture		20	
3. Exclusive Forest Use			
4. Developed uses	10		
5. Other			

Observers MW+SB
Field Date 11/20/99
Revised

16 What is the dominant existing land use within 500 feet of the wetland on the downstream or down-slope edge of the wetland?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			80
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses		20	
5. Other			

17 What is the (entire) wetland acreage?

	a. >5 acres	b. bet. 0.5 & 5 acres	c. < 0.5 acres
	(a)		

18 How is wetland connected to a stream, lake, or pond ? (see Figure, p. 35)

	a. connected by surface water (culv., ditch, int./per. stream)	b. not connected to water body within 1 mile	c. not connected, no water bodies within 1 mile
	(a)		

19 Is all or part of the wetland located within the 100-year floodplain or within an enclosed basin?

	a. yes	b. no
	(a)	

- outside FP

20 What is zoned percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses			100
5. Other			

Zoning = residential

Wetland Habitat

21 What is percentage wetland area by Cowardin class (10% or more)?

	a. bet. 70% & 100%	b. bet. 50% & <70%	c. bet. 20% & <50%	d. bet. 10% & <20%
Open water (OW >6.6ft)				
Emergent (EM)	90			
Scrub-shrub (SS)				
Forested (FO)				10

22 How many wetland plant species are present (urban areas)?

	a. >5	b. bet. 2 & 5	c. 1 (monotypic)
	(a)		

23 What is the dominant wetland vegetation cover?

	a. woody (FO & SS)	b. emergent and ponding, or open water only (EM w/ water or OW)	c. emergent vegetation only or wet meadow (EM)
		(b)	

24 How interspersed are the Cowardin classes (and upland inclusions)? (see Figure p. 37)

	a. high	b. moderate	c. low
		(b)	

25 SKIP (for rural areas) what percentage of the wetland edge is bordered by upland wildlife habitat at least 150 feet wide?

	a. >40%	b. bet. 10% & 40%	c. <10%

26 For urban areas, what percentage of the wetland edge is bordered by a vegetative buffer at least 25 feet wide?

	a. >40%	b. bet. 10% & 40%	c. <10%
	(a)		

27 How is the wetland connected to other wetlands?

	a. connected within 3 miles by surface water	b. not connected; wetlands present within 3 miles	c. not connected, no other wetlands within 3 miles
	(a)		

28 Estimate area of unvegetated, open water within the wetland.

	a. >3 acres	b. >1 to 3 acres	c. bet. 0.5 & 1 acre	d. <0.5 acre
				(d)

BC-6

Fisheries Habitat Wetland BC-6

29 Are fish present in a stream, lake or pond connected to the wetland?

	(a) salmon, trout or sensitive species are present at some time during the year	b. other fish species are present at some time during the year	c. no species are present at any time during the year

Streams connected to the wetland

30 What is the physical character of the stream channel?

	a. natural channel, or modified portions are returning to a natural channel	(b) only portions of stream modified	c. extensively modified or confined in a non-vegetated channel or pipe

31 What percentage of the stream is shaded by riparian vegetation?

	a. >75%	b. bet. 50% & 75%	(c) bet. 25% & <50%	d. <25%

32 What percentage of the stream contains instream structures such as large woody debris, floating/submerged vegetation, large rocks or boulders?

	a. >25%	b. bet. 10% & 25%	(c) <10%

Lakes or ponds (entire lake or pond and wetland complex)

33 Does the lake or pond contain areas of deep and shallow water?

	a. yes	b. cannot be determine	c. no

34 What percentage of the shoreline is shaded at the water's edge by forested or scrub-shrub vegetation?

	a. 60% or more	b. bet. 20% & <60%	c. <20%

35 What percentage of the wetland complex contains cover objects such as submerged logs, floating or submerged vegetation, large rocks or boulders?

	a. >25%	b. bet. 10% & 25%	c. <10%

Wetland Hydrology

36 What is the wetland's primary source of water? (emphasis on primary)

	(a) surface flow, including streams and ditches	b. precipitation or sheet flow	c. groundwater, including springs or seeps

Is there evidence of flooding or ponding during a portion of the growing season?

	(a) yes (describe)	b. unable to determine or not applicable	c. no

38 Is the water flow out of the wetland restricted (beaver dam, concrete structure, undersized culvert)?

	a. yes, restricted or no outlet	(b) minor restrictions slow down the water	c. no, outlet has unrestricted flow

39 If the primary source of water is surface flow, is the inflow restricted?

	(a) not restricted or if blocked, can be removed	b. permanent blockage exists, but may be breached (create new flow channel)	c. flow is restricted and cannot be restored

40 Has the stream flow or stream bank been modified by human activities (dams, levees, channelization, confinement of stream in a pipe) < 1 mile above the wetland?

	(a) yes	b. no

Public Access to Wetland Site

41 Is the wetland open to the public for direct access or observation?

	a. yes	(b) yes, but only by permission	c. no, access not allow

42 Are there visible hazards to the public at the wetland site? (busy road with no buffer or sidewalk, steep embankment, contaminated water)

	(a) no	b. one or two visible safety hazards exist (describe)	c. more than two visible safety hazards exist (describe)

43 Are other natural landscape features (stream, lake, pond, forest, agricultural land) contiguous or adjacent to the wetland? (list type and extent)

	(a) yes	b. no

Upland forest
Wetland forest (BC-5)

Wetland WC-6

44 Is there existing physical public access to features listed in question 43?

	a. public access to other habitats exists or can be created easily	b. public access doesn't exist and can't be created easily, but observation of other features can be made	c. public access doesn't exist, can't be crated easily, and observation of other features can't be made
		(b)	

access to a viewing spot or wetland edge available for individuals with limited mobility? (does not have to meet ADA)

	a. yes	b. no	(list physical barriers)
	(a)		

46 Is there a public access point within 250 feet of the wetland's edge? (parking lots, transit stops, bike lanes, trails, water courses; maintained means designated car or transit area; unmaintained means road pull-off, etc. - describe)

	a. yes, maintained access point exists	b. yes, unmaintained access point exists	c. no access point exists, or the access point is hazardous
		(b)	

Road side along end of Fern Lane

Recreation

47 Is the wetland accessible by boat?

	a. boat launching areas or access points exist on site or within 1/2 mile on a connected lake, river, bay or other body of	b. potential to develop launching areas or access points exists, or are >1/2 mile but <1 mile from wetland	c. no boat launching areas exist within 1 mile of the wetland, and potential to develop launching areas or access points
			(c)

48 Are there trails, viewing areas or other structures that guide user movement to particular areas in or around the wetland?

	a. yes, developed or maintained trails or viewing areas exist	b. yes, undeveloped trails or viewing areas exist that do not disrupt wildlife or plant habitat	c. no trails or viewing areas exist, or those that do disrupt wildlife or plant habitat.
			(c)

49 Is fishing allowed at the wetland or adjacent water body? (answer "c" if 18="b or c", unless 21=OW>10%)

	a. yes (all or part of yea	b. no	c. not applicable
	(a)		

Is hunting allowed at the wetland? (If wetland is within city limits, answer is no)

	a. yes (all or part of yea	b. no
		(b)

Aesthetics

51 SKIP (for rural areas) what is the extent of visual contrast with the surrounding landscape? (see Figure p. 45)

	a. significant contrast	b. limited contrast	c. little or no contrast

52 For urban areas, what is the visual character of the surrounding area? (see Figure p. 46)

	a. open space or naturally landscaped	b. landscaped or manipulated by people	c. developed with no landscaping
		(b)	

53 Are there visual detractors at the site (abandoned cars, litter, shopping carts, etc.) that distract the viewer from the wetland?

	a. yes	b. no
		(b)

54 If the site contains visual detractors, can they be easily removed?

	a. yes	b. no

Locate the primary viewing area(s) for the following 4 questions (and mark on map)

55 What odors are present at the primary viewing location(s)?

	a. natural, pleasant odors only	b. unpleasant odors (auto exhaust, sewage) present at certain times	c. unpleasant odors are distinct and continuously present
	(a)		

56 What noises are audible at the primary viewing location(s)?

	a. bird and wildlife noises and other naturally occurring sounds	b. some traffic and other similar background sounds are audible in addition to naturally occurring	c. continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds	d. continuous traffic or other intrusive noise is audible, but no naturally occurring audible sounds are
		(b)		

low much of the wetland is visible from the viewing area(s)? Describe the view.

	a. >50%	b. bet. 25% & 50%	c. <25%
	(a)		

58 How many Cowardin classes are visible from the primary viewing area(s)? (question 21)

	a. > two	b. two	c. one
		(b)	

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Questions - Answer Sheet
(4/96 edition with 7/97 addendum)

WETLAND CA 1-12 (Coleman Arm)

Wildlife Habitat		
1	a	21
2	a	23
3	b	24
4	a	28
5	a	18
6	a	27
7	c	7+8
8	a	15
9a	a	25
Diverse		

Fish Habitat		
Streams and Rivers		
1		31
2		30
3		32
4		=WH7
5		=WH8
6	a	29
Lakes and Ponds		
1	a	33
2	a	35
3	a	34
4	c	=WH7
5	a	=WH8
6	a	29
Intact		

Water Quality (pollutant removal)		
1	a	36 (check)
2	a	37
3	a	21
4	a	17+27
5	c	15 (WH8 c=a, a=c, b=b)
6	a	7+8 (WH7 c=a, a=c, b=b)
Intact		

Hydrologic Control (flood control & water supply)		
1	a	19
2	a	37
3	a	17
4	c	38
5	a	23 (check)
6	c	16
7	a	6
Intact		

Sensitivity to Future Impacts		
1	a	27+40
2	b	5+27
3	a	=WQ6
4	c	=WQ5
5	a	20
6	a	23
Potentially Sensitive		

Enhancement Potential*		
1		WH-FH-WQ-HC
2		36
3		39
4	a	17
5a		25
6		=SI

*skip if WH provides diverse

Education		
1	b	41
2	a	42
3	a	WH-FH
4	c	44
5	c	46
6	b	45
Potential educational uses		

Recreation		
1	c	46
2	a	47
3	c	48
4	a	WH
5	a	49
6	a	50
Provides recreational opportunitres		

Aesthetic Quality		
1	a	58
2	a	57 (viewshed)
3	a	53+54
4	a	51
5	a	55
6	b	56
Pleasing		

CA 1-12

City of Lakeside LWI Oregon Freshwater Wetland Assessment Questions (4/96 edition) (with 7/97 addendum) Wetland CA1-12
(bold questions =field; office review important for 15, 16, 26) off-site

Wetland Structure and Landscape

15 What percentage of area within 500 feet of the wetland edge is dedicated to these land uses?

Observers MW+SB
Field Date 3/3/99
Revised

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			65
2. Agriculture		30 (logged)	
3. Exclusive Forest Use			
4. Developed uses	5		
5. Other			

16 What is the dominant existing land use within 500 feet of the wetland on the downstream or down-slope edge of the wetland?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			65
2. Agriculture		30	
3. Exclusive Forest Use			
4. Developed uses	5		
5. Other			

17 What is the (entire) wetland acreage?

	(a.) >5 acres	b. bet. 0.5 & 5 acres	c. < 0.5 acres

18 How is wetland connected to a stream, lake, or pond ? (see Figure, p. 35)

	(a.) connected by surface water (culv., ditch, int./per. stream)	b. not connected to water body within 1 mile	c. not connected, no water bodies within 1 mile

19 Is all or part of the wetland located within the 100-year floodplain or within an enclosed basin?

	(a.) yes	b. no

20 What is zoned percentage of land use within 500 feet of the wetland edge?

Zoning: rural residential; exclusive forest use

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			
2. Agriculture			
3. Exclusive Forest Use		30	
4. Developed uses			70
5. Other			

Wetland Habitat

21 What is percentage wetland area by Cowardin class (10% or more)?

	a. bet. 70% & 100%	b. bet. 50% & <70%	c. bet. 20% & <50%	d. bet. 10% & <20%
Aquatic bed / ~~Open water (OW>6.6ft)~~				7
Emergent (EM)			27	
Scrub-shrub (SS)			38	
Forested (FO)			28	

22 How many wetland plant species are present (urban areas)?

	(a.) >5	b. bet. 2 & 5	c. 1 (monotypic)

23 What is the dominant wetland vegetation cover?

	(a.) woody (FO & SS)	b. emergent and ponding, or open water only (EM w/ water or OW)	c. emergent vegetation only or wet meadow (EM)

24 How interspersed are the Cowardin classes (and upland inclusions)? (see Figure p. 37)

	a. high	(b.) moderate	c. low

25 SKIP (for rural areas) what percentage of the wetland edge is bordered by upland wildlife habitat at least 150 feet wide?

	(a.) >40%	b. bet. 10% & 40%	c. <10%

26 For urban areas, what percentage of the wetland edge is bordered by a vegetative buffer at least 25 feet wide?

	(a.) >40%	b. bet. 10% & 40%	c. <10%

27 How is the wetland connected to other wetlands?

	(a.) connected within 3 miles by surface water	b. not connected; wetlands present within 3 miles	c. not connected, no other wetlands within 3 miles

28 Estimate area of unvegetated, open water within the wetland.

	(a.) >3 acres	b. >1 to 3 acres	c. bet. 0.5 & 1 acre	d. <0.5 acre

(lake included)

CA1 - CA12

Fisheries Habitat Wetland CA1-12

29 Are fish present in a stream, lake or pond connected to the wetland?

	(a.) salmon, trout or sensitive species are present at some time during the year	b. other fish species are present at some time during the year	c. no species are present at any time during the year

Streams connected to the wetland

30 What is the physical character of the stream channel?

	a. natural channel, or modified portions are returning to a natural channel	b. only portions of stream modified	c. extensively modified or confined in a non-vegetated channel or pipe

31 What percentage of the stream is shaded by riparian vegetation?

	a. >75%	b. bet. 50% & 75%	c. bet. 25% & <50%	d. <25%

32 What percentage of the stream contains instream structures such as large woody debris, floating/submerged vegetation, large rocks or boulders?

	a. >25%	b. bet. 10% & 25%	c. <10%

Lakes or ponds (entire lake or pond and wetland complex)

33 Does the lake or pond contain areas of deep and shallow water?

	(a.) yes	b. cannot be determine	c. no

34 What percentage of the shoreline is shaded at the water's edge by forested or scrub-shrub vegetation?

	(a.) 60% or more	b. bet. 20% & <60%	c. <20%

35 What percentage of the wetland complex contains cover objects such as submerged logs, floating or submerged vegetation, large rocks or boulders?

	(a.) >25%	b. bet. 10% & 25%	c. <10%

Wetland Hydrology

36 What is the wetland's primary source of water? (emphasis on primary)

	(a.) surface flow, including streams and ditches	b. precipitation or sheet flow	c. groundwater, including springs or seeps

Is there evidence of flooding or ponding during a portion of the growing season?

	(a.) yes (describe)	b. unable to determine or not applicable	c. no

38 Is the water flow out of the wetland restricted (beaver dam, concrete structure, undersized culvert)?

	a. yes, restricted or no outlet	b. minor restrictions slow down the water	(c.) no, outlet has unrestricted flow

39 If the primary source of water is surface flow, is the inflow restricted?

	(a.) not restricted or if blocked, can be removed	b. permanent blockage exists, but may be breached (create new flow channel)	c. flow is restricted and cannot be restored

40 Has the stream flow or stream bank been modified by human activities (dams, levees, channelization, confinement of stream in a pipe) < 1 mile above the wetland?

	(a.) yes	b. no

modified in CA-13

Public Access to Wetland Site

41 Is the wetland open to the public for direct access or observation?

	a. yes	(b.) yes, but only by permission	c. no, access not allow

42 Are there visible hazards to the public at the wetland site? (busy road with no buffer or sidewalk, steep embankment, contaminated water)

	(a.) no	b. one or two visible safety hazards exist (describe)	c. more than two visible safety hazards exist (describe)

43 Are other natural landscape features (stream, lake, pond, forest, agricultural land) contiguous or adjacent to the wetland? (list type and extent)

	(a.) yes	b. no

upland forest
logged forest

44 Is there existing physical public access to features listed in question 43? Wetland CA1-1d

	a. public access to other habitats exists or can be created easily	b. public access doesn't exist and can't be created easily, but observation of other features can be made	(c.) public access doesn't exist, can't be crated easily, and observation of other features can't be made

45 Is access to a viewing spot or wetland edge available for individuals with limited mobility? (does not have to meet ADA)

	a. yes	(b.) no	(list physical barriers)

46 Is there a public access point within 250 feet of the wetland's edge? (parking lots, transit stops, bike lanes, trails, water courses; maintained means designated car or transit area; unmaintained means road pull-off, etc. - describe)

	a. yes, maintained access point exists	b. yes, unmaintained access point exists	(c.) no access point exists, or the access point is hazardous

majority boat access only

Recreation

47 Is the wetland accessible by boat?

	(a.) boat launching areas or access points exist on site or within 1/2 mile on a connected lake, river, bay or other body of	b. potential to develop launching areas or access points exists, or are >1/2 mile but <1 mile from wetland	c. no boat launching areas exist within 1 mile of the wetland, and potential to develop launching areas or access points

48 Are there trails, viewing areas or other structures that guide user movement to particular areas in or around the wetland?

	a. yes, developed or maintained trails or viewing areas exist	b. yes, undeveloped trails or viewing areas exist that do not disrupt wildlife or plant habitat	(c.) no trails or viewing areas exist, or those that do disrupt wildlife or plant habitat.

49 Is fishing allowed at the wetland or adjacent water body? (answer "c" if 18="b or c", unless 21=OW>10%)

	(a.) yes (all or part of yea	b. no	c. not applicable

Is hunting allowed at the wetland? (If wetland is within city limits, answer is no)

	(a.) yes (all or part of yea	b. no

Aesthetics

51 SKIP (for rural areas) what is the extent of visual contrast with the surrounding landscape? (see Figure p. 45)

	(a.) significant contrast	b. limited contrast	c. little or no contrast

52 For urban areas, what is the visual character of the surrounding area? (see Figure p. 46)

	a. open space or naturally landscaped	(b.) landscaped or manipulated by people	c. developed with no landscaping

logged

53 Are there visual detractors at the site (abandoned cars, litter, shopping carts, etc.) that distract the viewer from the wetland?

	a. yes	(b.) no

54 If the site contains visual detractors, can they be easily removed?

	a. yes	b. no

Locate the primary viewing area(s) for the following 4 questions (and mark on map)

55 What odors are present at the primary viewing location(s)?

	(a.) natural, pleasant odors only	b. unpleasant odors (auto exhaust, sewage) present at certain times	c. unpleasant odors are distinct and continuously present

56 What noises are audible at the primary viewing location(s)? boat noise

	a. bird and wildlife noises and other naturally occurring sounds	(b.) some ~~traffic~~ and other similar background sounds are audible in addition to naturally occurring	c. continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds	d. continuous traffic or other intrusive noise is audible, but no naturally occurring audible sounds are

How much of the wetland is visible from the viewing area(s)? Describe the view.

	(a.) >50%	b. bet. 25% & 50%	c. <25%

58 How many Cowardin classes are visible from the primary viewing area(s)? (question 21)

	(a.) > two	b. two	c. one

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Questions - Answer Sheet
(4/96 edition with 7/97 addendum)

WETLAND CA-13 (Coleman Arm)

Wildlife Habitat		
1	C	21
2	b	23
3	c	24
4	a	28
5	a	18
6	a	27
7	b	7+8
8	a	15
9a	a	25
Provides habitat for some species		

Fish Habitat		
Streams and Rivers		
1	C	31
2	c	30
3	c	32
4	b	=WH7
5	a	=WH8
6	a	29
Lakes and Ponds		
1		33
2		35
3		34
4		=WH7
5		=WH8
6	a	29
Impacted or degraded		

Water Quality (pollutant removal)		
1	a	36 (check)
2	a	37
3	a	21
4	a	17+27
5	C	15 (WH8 c=a, a=c, b=b)
6	b	7+8 (WH7 c=a, a=c, b=b)
Intact		

Hydrologic Control (flood control & water supply)		
1	a	19
2	a	37
3	a	17
4	b	38
5	b	23 (check)
6	C	16
7	a	6
Intact		

Sensitivity to Future Impacts		
1	a	27+40
2	a	5+27
3	b	=WQ6
4	C	=WQ5
5	C	20
6	C	23
Potentially sensitive		

Enhancement Potential*		
1	a	WH-FH-WQ-HC
2	a	36
3	a	39
4	a	17
5a	a	25
6	b	=SI
High		

*skip if WH provides diverse

Education		
1	c	41
2	a	42
3	b	WH-FH
4	c	44
5	c	46
6	b	45
Not appropriate for educational use		

Recreation		
1	c	46
2	c	47
3	c	48
4	b	WH
5	a	49
6	a	50
Not appropriate for recreational use		

Aesthetic Quality		
1	c	58
2	c	57 (viewshed)
3	a	53+54
4	b	51
5	a	55
6	a	56
Not pleasing		

City of Lakeside LWI Oregon Freshwater Wetland Assessment Questions (4/96 edition) (with 7/97 addendum)
(bold questions =field; office review important for 15, 16, 26)

Wetland CA-13 off-site

Wetland Structure and Landscape

15 What percentage of area within 500 feet of the wetland edge is dedicated to these land uses?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			
2. Agriculture			
3. Exclusive Forest Use			100
4. Developed uses			
5. Other			

Observers MW+SB
Field Date 3/3/99
Revised

16 What is the dominant existing land use within 500 feet of the wetland on the downstream or down-slope edge of the wetland?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			75 (lake)
2. Agriculture			
3. Exclusive Forest Use		25	
4. Developed uses			
5. Other			

17 What is the (entire) wetland acreage?

	a. >5 acres	b. bet. 0.5 & 5 acres	c. < 0.5 acres
	(a.)		

18 How is wetland connected to a stream, lake, or pond ? (see Figure, p. 35)

	a. connected by surface water (culv., ditch, int./per. stream)	b. not connected to water body within 1 mile	c. not connected, no water bodies within 1 mile
	(a.)		

19 Is all or part of the wetland located within the 100-year floodplain or within an enclosed basin?

	a. yes	b. no
	(a.)	

20 What is zoned percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			
2. Agriculture			
3. Exclusive Forest Use			100
4. Developed uses			
5. Other			

Wetland Habitat

21 What is percentage wetland area by Cowardin class (10% or more)?

	a. bet. 70% & 100%	b. bet. 50% & <70%	c. bet. 20% & <50%	d. bet. 10% & <20%
Open water (OW >6.6ft)				(trace)
Emergent (EM)	100			
Scrub-shrub (SS)				(trace)
Forested (FO)				

22 How many wetland plant species are present (urban areas)?

	a. >5	b. bet. 2 & 5	c. 1 (monotypic)
		(b.)	

23 What is the dominant wetland vegetation cover?

	a. woody (FO & SS)	b. emergent and ponding, or open water only (EM w/ water or OW)	c. emergent vegetation only or wet meadow (EM)
		(b.)	

24 How interspersed are the Cowardin classes (and upland inclusions)? (see Figure p. 37)

	a. high	b. moderate	c. low
			(c.)

25 SKIP (for rural areas) what percentage of the wetland edge is bordered by upland wildlife habitat at least 150 feet wide?

	a. >40%	b. bet. 10% & 40%	c. <10%
	(a.)		

26 For urban areas, what percentage of the wetland edge is bordered by a vegetative buffer at least 25 feet wide?

	a. >40%	b. bet. 10% & 40%	c. <10%

27 How is the wetland connected to other wetlands?

	a. connected within 3 miles by surface water	b. not connected; wetlands present within 3 miles	c. not connected, no other wetlands within 3 miles
	(a.)		

28 Estimate area of unvegetated, open water within the wetland.

	a. >3 acres	b. >1 to 3 acres	c. bet. 0.5 & 1 acre	d. <0.5 acre
	(a.)			

(lake included)

CA-13

Fisheries Habitat

29 Are fish present in a stream, lake or pond connected to the wetland?

	(a.) salmon, trout or sensitive species are present at some time during the year	b. other fish species are present at some time during the year	c. no species are present at any time during the year

Streams connected to the wetland

30 What is the physical character of the stream channel?

	a. natural channel, or modified portions are returning to a natural channel	b.only portions of stream modified	(c.) extensively modified or confined in a non-vegetated channel or pipe	extensively ditched

31 What percentage of the stream is shaded by riparian vegetation?

	a. >75%	b. bet. 50% & 75%	c. bet. 25% & <50%	(d.) <25%

32 What percentage of the stream contains instream structures such as large woody debris, floating/submerged vegetation, large rocks or boulders?

	a. >25%	b. bet. 10% & 25%	(c.) <10%

Lakes or ponds (entire lake or pond and wetland complex)

33 Does the lake or pond contain areas of deep and shallow water?

	a. yes	b. cannot be determine	c. no

34 What percentage of the shoreline is shaded at the water's edge by forested or scrub-shrub vegetation?

	a. 60% or more	b. bet. 20% & <60%	c. <20%

35 What percentage of the wetland complex contains cover objects such as submerged logs, floating or submerged vegetation, large rocks or boulders?

	a. >25%	b. bet. 10% & 25%	c. <10%

Wetland Hydrology

36 What is the wetland's primary source of water? (emphasis on primary)

	(a.) surface flow, including streams and ditches	b. precipitation or sheet flow	c. groundwater, including springs or seeps

37 Is there evidence of flooding or ponding during a portion of the growing season?

	(a.) yes (describe)	b. unable to determine or not applicable	c. no

38 Is the water flow out of the wetland restricted (beaver dam, concrete structure, undersized culvert)?

	a. yes, restricted or no outlet	(b.) minor restrictions slow down the water	c. no, outlet has unrestricted flow

39 If the primary source of water is surface flow, is the inflow restricted?

	(a.) not restricted or if blocked, can be removed	b. permanent blockage exists, but may be breached (create new flow channel)	c. flow is restricted and cannot be restored

40 Has the stream flow or stream bank been modified by human activities (dams, levees, channelization, confinement of stream in a pipe) < 1 mile above the wetland?

	(a.) yes	b. no

Public Access to Wetland Site

41 Is the wetland open to the public for direct access or observation?

	a. yes	b. yes, but only by permission	(c.) no, access not allow

42 Are there visible hazards to the public at the wetland site? (busy road with no buffer or sidewalk, steep embankment, contaminated water)

	(a.) no	b. one or two visible safety hazards exist (describe)	c. more than two visible safety hazards exist (describe)

43 Are other natural landscape features (stream, lake, pond, forest, agricultural land) contiguous or adjacent to the wetland? (list type and extent)

	(a.) yes	b. no

logged forest

Wetland CA-13

44 Is there existing physical public access to features listed in question 43?

	a. public access to other habitats exists or can be created easily	b. public access doesn't exist and can't be created easily, but observation of other features can be made	(c.) public access doesn't exist, can't be crated easily, and observation of other features can't be made

access to a viewing spot or wetland edge available for individuals with limited mobility? (does not have to meet ADA)

	a. yes	(b.) no	(list physical barriers)

46 Is there a public access point within 250 feet of the wetland's edge? (parking lots, transit stops, bike lanes, trails, water courses; maintained means designated car or transit area; unmaintained means road pull-off, etc. - describe)

	a. yes, maintained access point exists	b. yes, unmaintained access point exists	(c.) no access point exists, or the access point is hazardous

Recreation

47 Is the wetland accessible by boat?

	a. boat launching areas or access points exist on site or within 1/2 mile on a connected lake, river, bay or other body of	b. potential to develop launching areas or access points exists, or are >1/2 mile but <1 mile from wetland	(c.) no boat launching areas exist within 1 mile of the wetland, and potential to develop launching areas or access points

access blocked by band of scrub-shrub in east end of lake

48 Are there trails, viewing areas or other structures that guide user movement to particular areas in or around the wetland?

	a. yes, developed or maintained trails or viewing areas exist	b. yes, undeveloped trails or viewing areas exist that do not disrupt wildlife or plant habitat	(c.) no trails or viewing areas exist, or those that do disrupt wildlife or plant habitat.

49 Is fishing allowed at the wetland or adjacent water body? (answer "c" if 18="b or c", unless 21=OW>10%)

	(a) yes (all or part of yea	b. no	c. not applicable

Is hunting allowed at the wetland? (If wetland is within city limits, answer is no)

	(a) yes (all or part of yea	b. no

Aesthetics

51 SKIP (for rural areas) what is the extent of visual contrast with the surrounding landscape? (see Figure p. 45)

	a. significant contrast	(b.) limited contrast	c. little or no contrast

52 For urban areas, what is the visual character of the surrounding area? (see Figure p. 46)

	a. open space or naturally landscaped	b. landscaped or manipulated by people	c. developed with no landscaping

53 Are there visual detractors at the site (abandoned cars, litter, shopping carts, etc.) that distract the viewer from the wetland?

	a. yes	(b.) no

54 If the site contains visual detractors, can they be easily removed?

	a. yes	b. no

Locate the primary viewing area(s) for the following 4 questions (and mark on map)

55 What odors are present at the primary viewing location(s)?

	(a.) natural, pleasant odors only	b. unpleasant odors (auto exhaust, sewage) present at certain times	c. unpleasant odors are distinct and continuously present

56 What noises are audible at the primary viewing location(s)?

	(a.) bird and wildlife noises and other naturally occurring sounds	b. some traffic and other similar background sounds are audible in addition to naturally occurring	c. continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds	d. continuous traffic or other intrusive noise is audible, but no naturally occurring audible sounds are

How much of the wetland is visible from the viewing area(s)? Describe the view.

	a. >50%	b. bet. 25% & 50%	(c.) <25%

58 How many Cowardin classes are visible from the primary viewing area(s)? (question 21)

	a. > two	b. two	(c.) one

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Questions - Answer Sheet
(4/96 edition with 7/97 addendum)

WETLAND CC-1 (Clear Creek)

Wildlife Habitat		
1	a	21
2	a	23
3	b	24
4	c	28
5	a	18
6	a	27
7	b	7+8
8	a	15
9b	a	26
Diverse		

Fish Habitat		
Streams and Rivers		
1	a	31
2	a	30
3	a	32
4	b	=WH7
5	a	=WH8
6	a	29
Lakes and Ponds		
1		33
2		35
3		34
4		=WH7
5		=WH8
6	a	29
Intact		

Water Quality (pollutant removal)		
1	a	36 (check)
2	a	37
3	a	21
4	a	17+27
5	c	15 (WH8 c=a, a=c, b=b)
6	b	7+8 (WH7 c=a, a=c, b=b)
Intact		

Hydrologic Control (flood control & water supply)		
1	b	19
2	a	37
3	a	17
4	b	38
5	a	23 (check)
6	c	16
7	a	6
Intact		

Sensitivity to Future Impacts		
1	b	27+40
2	b	5+27
3	b	=WQ6
4	c	=WQ5
5	c	20
6	a	23
Potentially sensitive		

Enhancement Potential*		
1		WH-FH-WQ-HC
2		36
3		39
4	a	17
5b	a	26
6		=SI

*skip if WH provides diverse

Education		
1	b	41
2	a	42
3	a	WH-FH
4	b	44
5	b	46
6	b	45
Potential educational uses		

Recreation		
1	b	46
2	c	47
3	c	48
4	a	WH
5	a	49
6	b	50
Potential recreational opportunities		

Aesthetic Quality		
1	a	58
2	b	57 (viewshed)
3	a	53+54
4	a	52
5	a	55
6	a	56
Pleasing		

CC-1

City of Lakeside LWI Oregon Freshwater Wetland Assessment Questions (4/96 edition) (with 7/97 addendum)
(bold questions =field; office review important for 15, 16, 26)

Wetland CC-1
Plot 26

Wetland Structure and Landscape

15 What percentage of area within 500 feet of the wetland edge is dedicated to these land uses?

	a. <20%	b. bet. 20% & 50%	c. >50%
Open Space			100
Agriculture			
3. Exclusive Forest Use			
4. Developed uses			
5. Other			

Observers MW+SB
Field Date 11/21/98
3/4/99
Revised

16 What is the dominant existing land use within 500 feet of the wetland on the downstream or down-slope edge of the wetland?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			100
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses			
5. Other			

17 What is the (entire) wetland acreage?

	a. >5 acres	b. bet. 0.5 & 5 acres	c. < 0.5 acres
	(a)		

18 How is wetland connected to a stream, lake, or pond ? (see Figure, p. 35)

	a. connected by surface water (culv., ditch, int./per. stream)	b. not connected to water body within 1 mile	c. not connected, no water bodies within 1 mile
	(a)		

19 Is all or part of the wetland located within the 100-year floodplain or within an enclosed basin?

	a. yes	b. no
		(b)

20 What is zoned percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			*100
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses			
5. Other			

Zoning = recreational / residential

no development within 500 feet

Wetland Habitat

21 What is percentage wetland area by Cowardin class (10% or more)?

	a. bet. 70% & 100%	b. bet. 50% & <70%	c. bet. 20% & <50%	d. bet. 10% & <20%
Open water (OW >6.6ft)				5%
Emergent (EM)			40	
Scrub-shrub (SS)			25	
Forested (FO)			30	

22 How many wetland plant species are present (urban areas)?

	a. >5	b. bet. 2 & 5	c. 1 (monotypic)
	(a)		

23 What is the dominant wetland vegetation cover?

	a. woody (FO & SS)	b. emergent and ponding, or open water only (EM w/ water or OW)	c. emergent vegetation only or wet meadow (EM)
	(a)		

24 How interspersed are the Cowardin classes (and upland inclusions)? (see Figure p. 37)

	a. high	b. moderate	c. low
		(b)	

25 SKIP (for rural areas) what percentage of the wetland edge is bordered by upland wildlife habitat at least 150 feet wide?

	a. >40%	b. bet. 10% & 40%	c. <10%

26 For urban areas, what percentage of the wetland edge is bordered by a vegetative buffer at least 25 feet wide?

	a. >40%	b. bet. 10% & 40%	c. <10%
	(a)		

27 How is the wetland connected to other wetlands?

	a. connected within 3 miles by surface water	b. not connected; wetlands present within 3 miles	c. not connected, no other wetlands within 3 miles
	(a)		

28 Estimate area of unvegetated, open water within the wetland.

	a. >3 acres	b. >1 to 3 acres	c. bet. 0.5 & 1 acre	d. <0.5 acre
				(d)

CC-1

Fisheries Habitat Wetland CC -1

29 Are fish present in a stream, lake or pond connected to the wetland?

	(a.) salmon, trout or sensitive species are present at some time during the year	b. other fish species are present at some time during the year	c. no species are present at any time during the year

Streams connected to the wetland

30 What is the physical character of the stream channel?

	(a.) natural channel, or modified portions are returning to a natural channel	b.only portions of stream modified	c. extensively modified or confined in a non-vegetated channel or pipe

31 What percentage of the stream is shaded by riparian vegetation?

	(a.) >75%	b. bet. 50% & 75%	c. bet. 25% & <50%	d. <25%

32 What percentage of the stream contains instream structures such as large woody debris, floating/submerged vegetation, large rocks or boulders?

	(a.) >25%	b. bet. 10% & 25%	c. <10%

Lakes or ponds (entire lake or pond and wetland complex)

33 Does the lake or pond contain areas of deep and shallow water?

	a. yes	b. cannot be determine	c. no

34 What percentage of the shoreline is shaded at the water's edge by forested or scrub-shrub vegetation?

	a. 60% or more	b. bet. 20% & <60%	c. <20%

35 What percentage of the wetland complex contains cover objects such as submerged logs, floating or submerged vegetation, large rocks or boulders?

	a. >25%	b. bet. 10% & 25%	c. <10%

Wetland Hydrology

36 What is the wetland's primary source of water? (emphasis on primary)

	(a.) surface flow, including streams and ditches	b. precipitation or sheet flow	c. groundwater, including springs or seeps

Is there evidence of flooding or ponding during a portion of the growing season?

	(a.) yes (describe)	b. unable to determine or not applicable	c. no

38 Is the water flow out of the wetland restricted (beaver dam, concrete structure, undersized culvert)?

	a. yes, restricted or no outlet	(b.) minor restrictions slow down the water	c. no, outlet has unrestricted flow

39 If the primary source of water is surface flow, is the inflow restricted?

	(a.) not restricted or if blocked, can be removed	b. permanent blockage exists, but may be breached (create new flow channel)	c. flow is restricted and cannot be restored

40 Has the stream flow or stream bank been modified by human activities (dams, levees, channelization, confinement of stream in a pipe) < 1 mile above the wetland?

	a. yes	(b.) no

Public Access to Wetland Site

41 Is the wetland open to the public for direct access or observation?

	a. yes	(b.) yes, but only by permission	c. no, access not allow

42 Are there visible hazards to the public at the wetland site? (busy road with no buffer or sidewalk, steep embankment, contaminated water)

	(a.) no	b. one or two visible safety hazards exist (describe)	c. more than two visible safety hazards exist (describe)

43 Are other natural landscape features (stream, lake, pond, forest, agricultural land) contiguous or adjacent to the wetland? (list type and extent)

	(a.) yes	b. no

upland forest

44 Is there existing physical public access to features listed in question 43? Wetland CC-1

	a. public access to other habitats exists or can be created easily	b. public access doesn't exist and can't be created easily, but observation of other features can be made	c. public access doesn't exist, can't be crated easily, and observation of other features can't be made

access to a viewing spot or wetland edge available for individuals with limited mobility? (does not have to meet ADA)

	a. yes	b. no	(list physical barriers) wetland edge 75ft from road

46 Is there a public access point within 250 feet of the wetland's edge? (parking lots, transit stops, bike lanes, trails, water courses; maintained means designated car or transit area; unmaintained means road pull-off, etc. - describe)

	a. yes, maintained access point exists	b. yes, unmaintained access point exists	c. no access point exists, or the access point is hazardous

road side along Wildwood Dr.

Recreation

47 Is the wetland accessible by boat?

	a. boat launching areas or access points exist on site or within 1/2 mile on a connected lake, river, bay or other body of	b. potential to develop launching areas or access points exists, or are >1/2 mile but <1 mile from wetland	c. no boat launching areas exist within 1 mile of the wetland, and potential to develop launching areas or access points

48 Are there trails, viewing areas or other structures that guide user movement to particular areas in or around the wetland?

	a. yes, developed or maintained trails or viewing areas exist	b. yes, undeveloped trails or viewing areas exist that do not disrupt wildlife or plant habitat	c. no trails or viewing areas exist, or those that do disrupt wildlife or plant habitat.

49 Is fishing allowed at the wetland or adjacent water body? (answer "c" if 18="b or c", unless 21=OW>10%)

	a. yes (all or part of yea	b. no	c. not applicable

's hunting allowed at the wetland? (If wetland is within city limits, answer is no)

	a. yes (all or part of yea	b. no

Aesthetics

51 SKIP (for rural areas) what is the extent of visual contrast with the surrounding landscape? (see Figure p. 45)

	a. significant contrast	b. limited contrast	c. little or no contrast

52 For urban areas, what is the visual character of the surrounding area? (see Figure p. 46)

	a. open space or naturally landscaped	b. landscaped or manipulated by people	c. developed with no landscaping

53 Are there visual detractors at the site (abandoned cars, litter, shopping carts, etc.) that distract the viewer from the wetland?

	a. yes	b. no

54 If the site contains visual detractors, can they be easily removed?

	a. yes	b. no

Locate the primary viewing area(s) for the following 4 questions (and mark on map)

55 What odors are present at the primary viewing location(s)?

	a. natural, pleasant odors only	b. unpleasant odors (auto exhaust, sewage) present at certain times	c. unpleasant odors are distinct and continuously present

56 What noises are audible at the primary viewing location(s)?

	a. bird and wildlife noises and other naturally occurring sounds	b. some traffic and other similar background sounds are audible in addition to naturally occurring	c. continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds	d. continuous traffic or other intrusive noise is audible, but no naturally occurring audible sounds are

How much of the wetland is visible from the viewing area(s)? Describe the view.

	a. >50%	b. bet. 25% & 50%	c. <25%

not visible from road

58 How many Cowardin classes are visible from the primary viewing area(s)? (question 21)

	a. > two	b. two	c. one

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Questions - Answer Sheet
(4/96 edition with 7/97 addendum)

WETLAND CP-1 (Tenmile Lake County Park)

Wildlife Habitat		
1	a	21
2	b	23
3	c	24
4	c	28
5	b	18
6	b	27
7	a	7+8
8	a	15
9b	b	26
Provides habitat for some species		

Fish Habitat — Not Applicable		
Streams and Rivers		
1	NA	31
2	NA	30
3	NA	32
4	a	=WH7
5	a	=WH8
6	c	29
Lakes and Ponds		
1	NA	33
2	NA	35
3	NA	34
4	a	=WH7
5	a	=WH8
6	c	29
No fish habitat present		

Water Quality (pollutant removal)		
1	a	36 (check)
2	a	37
3	a	21
4	b	17+27
5	c	15 (WH8 c=a, a=c, b=b)
6	c	7+8 (WH7 c=a, a=c, b=b)
Intact		

Hydrologic Control (flood control & water supply)		
1	a	19
2	a	37
3	b	17
4	a	38
5	b	23 (check)
6	c	16
7	a	6
Intact		

Sensitivity to Future Impacts		
1	a	27+40
2	a	5+27
3	c	=WQ6
4	c	=WQ5
5	c	20
6	c	23
Potentially sensitive		

Enhancement Potential*		
1	b	WH-FH-WQ-HC
2	a	36
3	a	39
4	b	17
5b	b	26
6	b	=SI
moderate		

*skip if WH provides diverse

Education		
1	a	41
2	a	42
3	b	WH-FH
4	a	44
5	a	46
6	a	45
Educational uses		

Recreation		
1	a	46
2	a	47
3	a	48
4	b	WH
5	b	49
6	b	50
Provides recreational opportunities		

Aesthetic Quality		
1	b	58
2	a	57 (viewshed)
3	a	53+54
4	b	52
5	a	55
6	a	56
Pleasing		

CP-1

City of Lakeside LWI Oregon Freshwater Wetland Assessment Questions (4/96 edition) (with 7/97 addendum)
(bold questions =field; office review important for 15, 16, 26)

Wetland CP-1
Plot 18

Wetland Structure and Landscape

15 What percentage of area within 500 feet of the wetland edge is dedicated to these land uses?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			75
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses		25	
5. Other			

Observers MW + SB
Field Date 11/21/98
Revised

16 What is the dominant existing land use within 500 feet of the wetland on the downstream or down-slope edge of the wetland?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			100
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses			
5. Other			

17 What is the (entire) wetland acreage?

	a. >5 acres	(b) bet. 0.5 & 5 acres	c. < 0.5 acres

18 How is wetland connected to a stream, lake, or pond ? (see Figure, p. 35)

	a. connected by surface water (culv., ditch, int./per. stream)	(b) not connected to water body within 1 mile	c. not connected, no water bodies within 1 mile

19 Is all or part of the wetland located within the 100-year floodplain or within an enclosed basin?

	(a) yes	b. no

20 What is zoned percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			*75
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses		25	
5. Other			

Zoning = recreational residential public facilities water use

*abandoned mill site + County Park included as open space

Wetland Habitat

21 What is percentage wetland area by Cowardin class (10% or more)?

	a. bet. 70% & 100%	b. bet. 50% & <70%	c. bet. 20% & <50%	d. bet. 10% & <20%
Open water (OW >6.6ft)				
Emergent (EM)	90			
Scrub-shrub (SS)				
Forested (FO)				10

22 How many wetland plant species are present (urban areas)?

	a. >5	(b) bet. 2 & 5	c. 1 (monotypic)

23 What is the dominant wetland vegetation cover?

	a. woody (FO & SS)	(b) emergent and ponding, or open water only (EM w/ water or OW)	c. emergent vegetation only or wet meadow (EM)

24 How interspersed are the Cowardin classes (and upland inclusions)? (see Figure p. 37)

	a. high	b. moderate	(c) low

25 SKIP (for rural areas) what percentage of the wetland edge is bordered by upland wildlife habitat at least 150 feet wide?

	a. >40%	b. bet. 10% & 40%	c. <10%

26 For urban areas, what percentage of the wetland edge is bordered by a vegetative buffer at least 25 feet wide?

	a. >40%	(b) bet. 10% & 40%	c. <10%

27 How is the wetland connected to other wetlands?

	a. connected within 3 miles by surface water	(b) not connected; wetlands present within 3 miles	c. not connected, no other wetlands within 3 miles

28 Estimate area of unvegetated, open water within the wetland.

	a. >3 acres	b. >1 to 3 acres	c. bet. 0.5 & 1 acre	(d) <0.5 acre

CP-1

Fisheries Habitat Wetland CR-1

29 Are fish present in a stream, lake or pond connected to the wetland?

	a. salmon, trout or sensitive species are present at some time during the year	b. other fish species are present at some time during the year	c. no species are present at any time during the year
			(c)

Not applicable - isolated wetland

Streams connected to the wetland

30 What is the physical character of the stream channel?

	a. natural channel, or modified portions are returning to a natural channel	b. only portions of stream modified	c. extensively modified or confined in a non-vegetated channel or pipe

wetland is not connected to stream or lake

31 What percentage of the stream is shaded by riparian vegetation?

	a. >75%	b. bet. 50% & 75%	c. bet. 25% & <50%	d. <25%

32 What percentage of the stream contains instream structures such as large woody debris, floating/submerged vegetation, large rocks or boulders?

	a. >25%	b. bet. 10% & 25%	c. <10%

Lakes or ponds (entire lake or pond and wetland complex)

33 Does the lake or pond contain areas of deep and shallow water?

	a. yes	b. cannot be determine	c. no

34 What percentage of the shoreline is shaded at the water's edge by forested or scrub-shrub vegetation?

	a. 60% or more	b. bet. 20% & <60%	c. <20%

35 What percentage of the wetland complex contains cover objects such as submerged logs, floating or submerged vegetation, large rocks or boulders?

	a. >25%	b. bet. 10% & 25%	c. <10%

Wetland Hydrology

36 What is the wetland's primary source of water? (emphasis on primary)

	a. surface flow, including streams and ditches	b. precipitation or sheet flow	c. groundwater, including springs or seeps
	(a)		

Is there evidence of flooding or ponding during a portion of the growing season?

	a. yes (describe)	b. unable to determine or not applicable	c. no
	(a)		

38 Is the water flow out of the wetland restricted (beaver dam, concrete structure, undersized culvert)?

	a. yes, restricted or no outlet	b. minor restrictions slow down the water	c. no, outlet has unrestricted flow
	(a)		

no culvert seen

39 If the primary source of water is surface flow, is the inflow restricted?

	a. not restricted or if blocked, can be removed	b. permanent blockage exists, but may be breached (create new flow channel)	c. flow is restricted and cannot be restored
	(a)		

40 Has the stream flow or stream bank been modified by human activities (dams, levees, channelization, confinement of stream in a pipe) < 1 mile above the wetland?

	a. yes	b. no

Not applicable

Public Access to Wetland Site

41 Is the wetland open to the public for direct access or observation?

	a. yes	b. yes, but only by permission	c. no, access not allow
	(a)		

42 Are there visible hazards to the public at the wetland site? (busy road with no buffer or sidewalk, steep embankment, contaminated water)

	a. no	b. one or two visible safety hazards exist (describe)	c. more than two visible safety hazards exist (describe)
	(a)		

43 Are other natural landscape features (stream, lake, pond, forest, agricultural land) contiguous or adjacent to the wetland? (list type and extent)

	a. yes	b. no
	(a)	

Tenmile Lake

44 Is there existing physical public access to features listed in question 43? Wetland CP-1

	(a) public access to other habitats exists or can be created easily	b. public access doesn't exist and can't be created easily, but observation of other features can be made	c. public access doesn't exist, can't be crated easily, and observation of other features can't be made

access to a viewing spot or wetland edge available for individuals with limited mobility? (does not have to meet ADA)

	(a) yes	b. no	(list physical barriers)

46 Is there a public access point within 250 feet of the wetland's edge? (parking lots, transit stops, bike lanes, trails, water courses; maintained means designated car or transit area; unmaintained means road pull-off, etc. - describe)

	(a) yes, maintained access point exists	b. yes, unmaintained access point exists	c. no access point exists, or the access point is hazardous	Tenmile Lake County Park

Recreation

47 Is the wetland accessible by boat?

	(a) boat launching areas or access points exist on site or within 1/2 mile on a connected lake, river, bay or other body of	b. potential to develop launching areas or access points exists, or are >1/2 mile but <1 mile from wetland	c. no boat launching areas exist within 1 mile of the wetland, and potential to develop launching areas or access points	boat launch @ Tenmile Lake

48 Are there trails, viewing areas or other structures that guide user movement to particular areas in or around the wetland?

	(a) yes, developed or maintained trails or viewing areas exist	b. yes, undeveloped trails or viewing areas exist that do not disrupt wildlife or plant habitat	c. no trails or viewing areas exist, or those that do disrupt wildlife or plant habitat.	along edge of Parking lot

49 Is fishing allowed at the wetland or adjacent water body? (answer "c" if 18="b or c", unless 21=OW>10%)

	a. yes (all or part of yea	b. no	(c) not applicable

s hunting allowed at the wetland? (If wetland is within city limits, answer is no)

	a. yes (all or part of yea	(b) no

Aesthetics

51 SKIP (for rural areas) what is the extent of visual contrast with the surrounding landscape? (see Figure p. 45)

	a. significant contrast	b. limited contrast	c. little or no contrast

52 For urban areas, what is the visual character of the surrounding area? (see Figure p. 46)

	a. open space or naturally landscaped	(b) landscaped or manipulated by people	c. developed with no landscaping

53 Are there visual detractors at the site (abandoned cars, litter, shopping carts, etc.) that distract the viewer from the wetland?

	a. yes	(b) no

54 If the site contains visual detractors, can they be easily removed?

	a. yes	b. no

Locate the primary viewing area(s) for the following 4 questions (and mark on map)

55 What odors are present at the primary viewing location(s)?

	(a) natural, pleasant odors only	b. unpleasant odors (auto exhaust, sewage) present at certain times	c. unpleasant odors are distinct and continuously present

56 What noises are audible at the primary viewing location(s)?

	a. bird and wildlife noises and other naturally occurring sounds	(b) some traffic and other similar background sounds are audible in addition to naturally occurring	c. continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds	d. continuous traffic or other intrusive noise is audible, but no naturally occurring audible sounds are

How much of the wetland is visible from the viewing area(s)? Describe the view.

	(a) >50%	b. bet. 25% & 50%	c. <25%

58 How many Cowardin classes are visible from the primary viewing area(s)? (question 21)

	a. > two	(b) two	c. one

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Questions - Answer Sheet
(4/96 edition with 7/97 addendum)

WETLAND CP-2 6/1/99

Wildlife Habitat			
1	a	21	PSS + PEM
2	a	23	PSS
3	c	24	
4	c	28	(NA)
5	b	18	not connected
6	b	27	" "
7	a	7+8	
8	c	15	dev. (some a = OS)
9b	a	26	~40%
		Some wildlife	

Fish Habitat	NA		
Streams and Rivers			
1		31	
2		30	
3		32	
4		=WH7	
5		=WH8	
6		29	
Lakes and Ponds			
1		33	
2		35	
3		34	
4		=WH7	
5		=WH8	
6		29	

Water Quality (pollutant removal)			
1	b or c	36 (check)	
2	c	37	
3	a	21	
4	b	17+27	>0.5 ac
5	a	15 (WH8 c=a, a=c, b=b)	
6	c	7+8 (WH7 c=a, a=c, b=b)	
		Impacted or degraded	

Hydrologic Control (flood control & water supply)			
1	a b	19	
2	c	37	
3	b size	17	
4	a duh	88	
5	a	23 (check)	
6	a	16	
7	a	6	
		INTACT	

Sensitivity to Future Impacts			
1	a	27+40	isol.
2	b	5+27	isol.
3	c	=WQ6	
4	a	=WQ5	
5	a	20	Rec. Res.
6	a	23	
		potentially sensitive	

Enhancement Potential*			
1	a	WH-FH-WQ-HC	
2	c or b	36	
3		39	NA → b?
4	b	17	
5b	b	26	~40%
6	b	=SI	
		High	

*skip if WH provides diverse

Education			
1	a	41	Co. on Park property
2	a	42	
3	b	WH-FH	
4	a	44	the lake etc.
5	a	46	if you count Osprey Point RV Park
6	a	45	
		Has	

Recreation			
1	a	46	
2	?	47	b? boat launch exists
3	b	48	but WL is isolated.
4	b	WH	
5	b	49	
6	b	50	
		potential	

Aesthetic Quality			
1	b	58	
2	a	57 (viewshed)	
3	a	53+54	
4	c	52	
5	a	55	
6	a	56	
		moderately pleasing	

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Questions - Answer Sheet
(4/96 edition with 7/97 addendum)

WETLAND EC-1 (Eel Creek)

Wildlife Habitat		
1	a	21
2	a	23
3	b	24
4	c	28
5	a	18
6	a	27
7	a	7+8
8	a	15
9b	a	26
Diverse		

Fish Habitat		
Streams and Rivers		
1	a	31
2	a	30
3	a	32
4	a	=WH7
5	a	=WH8
6	a	29
Lakes and Ponds		
1		33
2		35
3		34
4		=WH7
5		=WH8
6	a	29
Intact		

Water Quality (pollutant removal)		
1	a	36 (check)
2	a	37
3	a	21
4	a	17+27
5	c	15 (WH8 c=a, a=c, b=b)
6	c	7+8 (WH7 c=a, a=c, b=b)
Intact		

Hydrologic Control (flood control & water supply)		
1	b	19
2	a	37
3	a	17
4	b	38
5	a	23 (check)
6	c	16
7	a	6
Intact		

Sensitivity to Future Impacts		
1	a	27+40
2	b	5+27
3	c	=WQ6
4	c	=WQ5
5	c	20
6	a	23
Potentially sensitive		

Enhancement Potential*		
1		WH-FH-WQ-HC
2		36
3		39
4	a	17
5b	a	26
6		=SI

*skip if WH provides diverse

Education		
1	b	41
2	a	42
3	a	WH-FH
4	b	44
5	b	46
6	a	45
Potential educational use		

Recreation		
1	b	46
2	c	47
3	c	48
4	a	WH
5	a	49
6	b	50
Potential recreational opportunities		

Aesthetic Quality		
1	a	58
2	b	57 (viewshed)
3	a	53+54
4	b	52
5	a	55
6	a	56
Pleasing		

EC-1

City of Lakeside LWI Oregon Freshwater Wetland Assessment Questions (4/96 edition) (with 7/97 addendum)
(bold questions =field; office review important for 15, 16, 26)

Wetland EC-1
Plot 28

Wetland Structure and Landscape

15 What percentage of area within 500 feet of the wetland edge is dedicated to these land uses?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			75 (incl. state park)
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses	25		
5. Other			

Observers MW+SB
Field Date 11/22/98
Revised

16 What is the dominant existing land use within 500 feet of the wetland on the downstream or down-slope edge of the wetland?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			100
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses			
5. Other			

north edge of wetland → flows to Eel Lake

17 What is the (entire) wetland acreage?

	(a.) >5 acres	b. bet. 0.5 & 5 acres	c. < 0.5 acres

18 How is wetland connected to a stream, lake, or pond ? (see Figure, p. 35)

	(a.) connected by surface water (culv., ditch, int./per. stream)	b. not connected to water body within 1 mile	c. not connected, no water bodies within 1 mile

19 Is all or part of the wetland located within the 100-year floodplain or within an enclosed basin?

	a. yes	(b.) no

20 What is zoned percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			*75
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses		25	
5. Other			

Zoning= General residential, general commercial + open space

+ includes Tugman State Park as open space + area outside UGB

Wetland Habitat

21 What is percentage wetland area by Cowardin class (10% or more)?

	a. bet. 70% & 100%	b. bet. 50% & <70%	c. bet. 20% & <50%	d. bet. 10% & <20%
Open water (OW >6.6ft)				(5%)
Emergent (EM)			30	
Scrub-shrub (SS)				15
Forested (FO)		50		

22 How many wetland plant species are present (urban areas)?

	a. >5	b. bet. 2 & 5	c. 1 (monotypic)

23 What is the dominant wetland vegetation cover?

	(a.) woody (FO & SS)	b. emergent and ponding, or open water only (EM w/ water or OW)	c. emergent vegetation only or wet meadow (EM)

24 How interspersed are the Cowardin classes (and upland inclusions)? (see Figure p. 37)

	a. high	(b.) moderate	c. low

25 SKIP (for rural areas) what percentage of the wetland edge is bordered by upland wildlife habitat at least 150 feet wide?

	a. >40%	b. bet. 10% & 40%	c. <10%

26 For urban areas, what percentage of the wetland edge is bordered by a vegetative buffer at least 25 feet wide?

	(a.) >40%	b. bet. 10% & 40%	c. <10%

27 How is the wetland connected to other wetlands?

	(a.) connected within 3 miles by surface water	b. not connected; wetlands present within 3 miles	c. not connected, no other wetlands within 3 miles

28 Estimate area of unvegetated, open water within the wetland.

	a. >3 acres	b. >1 to 3 acres	c. bet. 0.5 & 1 acre	(d.) <0.5 acre

EC-1

Fisheries Habitat Wetland EC-1

29 Are fish present in a stream, lake or pond connected to the wetland?

	(a.) salmon, trout or sensitive species are present at some time during the year	b. other fish species are present at some time during the year	c. no species are present at any time during the year

treams connected to the wetland

30 What is the physical character of the stream channel?

	(a.) natural channel, or modified portions are returning to a natural channel	b.only portions of stream modified	c. extensively modified or confined in a non-vegetated channel or pipe

31 What percentage of the stream is shaded by riparian vegetation?

	(a.) >75%	b. bet. 50% & 75%	c. bet. 25% & <50%	d. <25%

32 What percentage of the stream contains instream structures such as large woody debris, floating/submerged vegetation, large rocks or boulders?

	(a.) >25%	b. bet. 10% & 25%	c. <10%

Lakes or ponds (entire lake or pond and wetland complex)

33 Does the lake or pond contain areas of deep and shallow water?

	a. yes	b. cannot be determine	c. no

34 What percentage of the shoreline is shaded at the water's edge by forested or scrub-shrub vegetation?

	a. 60% or more	b. bet. 20% & <60%	c. <20%

35 What percentage of the wetland complex contains cover objects such as submerged logs, floating or submerged vegetation, large rocks or boulders?

	a. >25%	b. bet. 10% & 25%	c. <10%

Wetland Hydrology

36 What is the wetland's primary source of water? (emphasis on primary)

	(a.) surface flow, including streams and ditches	b. precipitation or sheet flow	c. groundwater, including springs or seeps

's there evidence of flooding or ponding during a portion of the growing season?

	(a.) yes (describe)	b. unable to determine or not applicable	c. no

38 Is the water flow out of the wetland restricted (beaver dam, concrete structure, undersized culvert)?

	a. yes, restricted or no outlet	(b.) minor restrictions slow down the water	c. no, outlet has unrestricted flow

39 If the primary source of water is surface flow, is the inflow restricted?

	(a.) not restricted or if blocked, can be removed	b. permanent blockage exists, but may be breached (create new flow channel)	c. flow is restricted and cannot be restored

40 Has the stream flow or stream bank been modified by human activities (dams, levees, channelization, confinement of stream in a pipe) < 1 mile above the wetland?

	(a.) yes	b. no

Public Access to Wetland Site

41 Is the wetland open to the public for direct access or observation?

	a. yes	(b.) yes, but only by permission	c. no, access not allow

42 Are there visible hazards to the public at the wetland site? (busy road with no buffer or sidewalk, steep embankment, contaminated water)

	(a.) no	b. one or two visible safety hazards exist (describe)	c. more than two visible safety hazards exist (describe)

43 Are other natural landscape features (stream, lake, pond, forest, agricultural land) contiguous or adjacent to the wetland? (list type and extent)

	(a.) yes	b. no

upland forest

44 Is there existing physical public access to features listed in question 43? Wetland EC-1

	a. public access to other habitats exists or can be created easily	b. public access doesn't exist and can't be created easily, but observation of other features can be made	c. public access doesn't exist, can't be crated easily, and observation of other features can't be made

access to a viewing spot or wetland edge available for individuals with limited mobility? (does not have to meet ADA)

	a. yes	b. no	(list physical barriers)

46 Is there a public access point within 250 feet of the wetland's edge? (parking lots, transit stops, bike lanes, trails, water courses; maintained means designated car or transit area; unmaintained means road pull-off, etc. - describe)

	a. yes, maintained access point exists	b. yes, unmaintained access point exists	c. no access point exists, or the access point is hazardous

access from Seadrift motel + RV Park

Recreation

47 Is the wetland accessible by boat?

	a. boat launching areas or access points exist on site or within 1/2 mile on a connected lake, river, bay or other body of	b. potential to develop launching areas or access points exists, or are >1/2 mile but <1 mile from wetland	c. no boat launching areas exist within 1 mile of the wetland, and potential to develop launching areas or access points

48 Are there trails, viewing areas or other structures that guide user movement to particular areas in or around the wetland?

	a. yes, developed or maintained trails or viewing areas exist	b. yes, undeveloped trails or viewing areas exist that do not disrupt wildlife or plant habitat	c. no trails or viewing areas exist, or those that do disrupt wildlife or plant habitat.

49 Is fishing allowed at the wetland or adjacent water body? (answer "c" if 18="b or c", unless 21=OW>10%)

	a. yes (all or part of yea	b. no	c. not applicable

Is hunting allowed at the wetland? (If wetland is within city limits, answer is no)

	a. yes (all or part of yea	b. no

Aesthetics

51 SKIP (for rural areas) what is the extent of visual contrast with the surrounding landscape? (see Figure p. 45)

	a. significant contrast	b. limited contrast	c. little or no contrast

52 For urban areas, what is the visual character of the surrounding area? (see Figure p. 46)

	a. open space or naturally landscaped	b. landscaped or manipulated by people	c. developed with no landscaping

53 Are there visual detractors at the site (abandoned cars, litter, shopping carts, etc.) that distract the viewer from the wetland?

	a. yes	b. no

54 If the site contains visual detractors, can they be easily removed?

	a. yes	b. no

Locate the primary viewing area(s) for the following 4 questions (and mark on map)

55 What odors are present at the primary viewing location(s)?

	a. natural, pleasant odors only	b. unpleasant odors (auto exhaust, sewage) present at certain times	c. unpleasant odors are distinct and continuously present

56 What noises are audible at the primary viewing location(s)?

	a. bird and wildlife noises and other naturally occurring sounds	b. some traffic and other similar background sounds are audible in addition to naturally occurring	c. continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds	d. continuous traffic or other intrusive noise is audible, but no naturally occurring audible sounds are

How much of the wetland is visible from the viewing area(s)? Describe the view.

	a. >50%	b. bet. 25% & 50%	c. <25%

only South edge visible

58 How many Cowardin classes are visible from the primary viewing area(s)? (question 21)

	a. > two	b. two	c. one

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Questions - Answer Sheet
(4/96 edition with 7/97 addendum)

WETLAND EC-2 (Eel Creek)

Wildlife Habitat		
1	a	21
2	b	23
3	b	24
4	c	28
5	a	18
6	a	27
7	a	7+8
8	a	15
9b	a	26
Diverse		

Fish Habitat		
Streams and Rivers		
1	c	31
2	b	30
3	c	32
4	a	=WH7
5	a	=WH8
6	a	29
Lakes and Ponds		
1		33
2		35
3		34
4		=WH7
5		=WH8
6	a	29
Impacted or degraded		

Water Quality (pollutant removal)		
1	a	36 (check)
2	a	37
3	a	21
4	b	17+27
5	c	15 (WH8 c=a, a=c, b=b)
6	c	7+8 (WH7 c=a, a=c, b=b)
Intact		

Hydrologic Control (flood control & water supply)		
1	a	19
2	a	37
3	b	17
4	b	38
5	b	23 (check)
6	a	16
7	a	6
Intact		

Sensitivity to Future Impacts		
1	b	27+40
2	b	5+27
3	c	=WQ6
4	c	=WQ5
5	a	20
6	c	23
Potentially sensitive		

Enhancement Potential*		
1	a	WH-FH-WQ-HC
2	a	36
3	a	39
4	b	17
5b	a	26
6	b	=SI
High		

*skip if WH provides diverse

Education		
1	b	41
2	a	42
3	a	WH-FH
4	b	44
5	b	46
6	a	45
Potential educational use		

Recreation		
1	b	46
2	c	47
3	c	48
4	a	WH
5	a	49
6	b	50
Potential recreational opportunities		

Aesthetic Quality		
1	c	58
2	b	57 (viewshed)
3	a	53+54
4	b	52
5	a	55
6	a	56
moderately pleasing		

EC-2

City of Lakeside LWI Oregon Freshwater Wetland Assessment Questions (4/96 edition) (with 7/97 addendum)
(bold questions =field; office review important for 15, 16, 26)

Wetland EC-2 Off-site

Observers MW+SB
Field Date 3/3/99
Revised

Wetland Structure and Landscape

15 What percentage of area within 500 feet of the wetland edge is dedicated to these land uses?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			60
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses		40	
5. Other			

16 What is the dominant existing land use within 500 feet of the wetland on the downstream or down-slope edge of the wetland?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space		25	
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses			75
5. Other			

17 What is the (entire) wetland acreage?

	a. >5 acres	(b.) bet. 0.5 & 5 acres	c. < 0.5 acres

18 How is wetland connected to a stream, lake, or pond ? (see Figure, p. 35)

	(a.) connected by surface water (culv., ditch, int./per. stream)	b. not connected to water body within 1 mile	c. not connected, no water bodies within 1 mile

19 Is all or part of the wetland located within the 100-year floodplain or within an enclosed basin?

	(a.) yes	b. no

-outside FP

20 What is zoned percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space		*50	
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses		50	
5. Other			

Zoning = General residential

*Included area outside UGB as open space

Wetland Habitat

21 What is percentage wetland area by Cowardin class (10% or more)?

	a. bet. 70% & 100%	b. bet. 50% & <70%	c. bet. 20% & <50%	d. bet. 10% & <20%
Open water (OW >6.6ft)				
Emergent (EM)		55		
Scrub-shrub (SS)			45	
Forested (FO)				(trace)

22 How many wetland plant species are present (urban areas)?

	(a.) >5	b. bet. 2 & 5	c. 1 (monotypic)

23 What is the dominant wetland vegetation cover?

	a. woody (FO & SS)	(b.) emergent and ponding, or open water only (EM w/ water or OW)	c. emergent vegetation only or wet meadow (EM)

24 How interspersed are the Cowardin classes (and upland inclusions)? (see Figure p. 37)

	a. high	(b.) moderate	c. low

25 SKIP (for rural areas) what percentage of the wetland edge is bordered by upland wildlife habitat at least 150 feet wide?

	(a.) >40%	b. bet. 10% & 40%	c. <10%

26 For urban areas, what percentage of the wetland edge is bordered by a vegetative buffer at least 25 feet wide?

	(a.) >40%	b. bet. 10% & 40%	c. <10%

27 How is the wetland connected to other wetlands?

	(a.) connected within 3 miles by surface water	b. not connected; wetlands present within 3 miles	c. not connected, no other wetlands within 3 miles

28 Estimate area of unvegetated, open water within the wetland.

	a. >3 acres	b. >1 to 3 acres	c. bet. 0.5 & 1 acre	(d.) <0.5 acre

EC-2

Fisheries Habitat Wetland EC-d

29 Are fish present in a stream, lake or pond connected to the wetland?

	(a.) salmon, trout or sensitive species are present at some time during the year	b. other fish species are present at some time during the year	c. no species are present at any time during the year

Streams connected to the wetland

30 What is the physical character of the stream channel?

	a. natural channel, or modified portions are returning to a natural channel	(b.) only portions of stream modified	c. extensively modified or confined in a non-vegetated channel or pipe

31 What percentage of the stream is shaded by riparian vegetation?

	a. >75%	b. bet. 50% & 75%	c. bet. 25% & <50%	(d.) <25%

32 What percentage of the stream contains instream structures such as large woody debris, floating/submerged vegetation, large rocks or boulders?

	a. >25%	b. bet. 10% & 25%	(c.) <10%

Lakes or ponds (entire lake or pond and wetland complex)

33 Does the lake or pond contain areas of deep and shallow water?

	a. yes	b. cannot be determine	c. no

34 What percentage of the shoreline is shaded at the water's edge by forested or scrub-shrub vegetation?

	a. 60% or more	b. bet. 20% & <60%	c. <20%

35 What percentage of the wetland complex contains cover objects such as submerged logs, floating or submerged vegetation, large rocks or boulders?

	a. >25%	b. bet. 10% & 25%	c. <10%

Wetland Hydrology

36 What is the wetland's primary source of water? (emphasis on primary)

	(a.) surface flow, including streams and ditches	b. precipitation or sheet flow	c. groundwater, including springs or seeps

Is there evidence of flooding or ponding during a portion of the growing season?

	(a.) yes (describe)	b. unable to determine or not applicable	c. no

38 Is the water flow out of the wetland restricted (beaver dam, concrete structure, undersized culvert)?

	a. yes, restricted or no outlet	(b.) minor restrictions slow down the water	c. no, outlet has unrestricted flow

39 If the primary source of water is surface flow, is the inflow restricted?

	(a.) not restricted or if blocked, can be removed	b. permanent blockage exists, but may be breached (create new flow channel)	c. flow is restricted and cannot be restored

40 Has the stream flow or stream bank been modified by human activities (dams, levees, channelization, confinement of stream in a pipe) < 1 mile above the wetland?

	a. yes	(b.) no

Public Access to Wetland Site

41 Is the wetland open to the public for direct access or observation?

	a. yes	(b.) yes, but only by permission	c. no, access not allow

42 Are there visible hazards to the public at the wetland site? (busy road with no buffer or sidewalk, steep embankment, contaminated water)

	(a.) no	b. one or two visible safety hazards exist (describe)	c. more than two visible safety hazards exist (describe)

43 Are other natural landscape features (stream, lake, pond, forest, agricultural land) contiguous or adjacent to the wetland? (list type and extent)

	(a.) yes	b. no

logged forest

44 Is there existing physical public access to features listed in question 43? Wetland EC-d

	a. public access to other habitats exists or can be created easily	b. public access doesn't exist and can't be created easily, but observation of other features can be made	c. public access doesn't exist, can't be crated easily, and observation of other features can't be made
		(b)	

access to a viewing spot or wetland edge available for individuals with limited mobility? (does not have to meet ADA)

	a. yes	b. no	(list physical barriers)
	(a)		

46 Is there a public access point within 250 feet of the wetland's edge? (parking lots, transit stops, bike lanes, trails, water courses; maintained means designated car or transit area; unmaintained means road pull-off, etc. - describe)

	a. yes, maintained access point exists	b. yes, unmaintained access point exists	c. no access point exists, or the access point is hazardous	
		(b)		road side along Bonneville Rd.

Recreation

47 Is the wetland accessible by boat?

	a. boat launching areas or access points exist on site or within 1/2 mile on a connected lake, river, bay or other body of	b. potential to develop launching areas or access points exists, or are >1/2 mile but <1 mile from wetland	c. no boat launching areas exist within 1 mile of the wetland, and potential to develop launching areas or access points
			(c)

48 Are there trails, viewing areas or other structures that guide user movement to particular areas in or around the wetland?

	a. yes, developed or maintained trails or viewing areas exist	b. yes, undeveloped trails or viewing areas exist that do not disrupt wildlife or plant habitat	c. no trails or viewing areas exist, or those that do disrupt wildlife or plant habitat.
			(c)

49 Is fishing allowed at the wetland or adjacent water body? (answer "c" if 18="b or c", unless 21=OW>10%)

	a. yes (all or part of yea	b. no	c. not applicable
	(a)		

Is hunting allowed at the wetland? (If wetland is within city limits, answer is no)

	a. yes (all or part of yea	b. no
		(b)

Aesthetics

51 SKIP (for rural areas) what is the extent of visual contrast with the surrounding landscape? (see Figure p. 45)

	a. significant contrast	b. limited contrast	c. little or no contrast

52 For urban areas, what is the visual character of the surrounding area? (see Figure p. 46)

	a. open space or naturally landscaped	b. landscaped or manipulated by people	c. developed with no landscaping
		(b)	

53 Are there visual detractors at the site (abandoned cars, litter, shopping carts, etc.) that distract the viewer from the wetland?

	a. yes	b. no
		(b)

54 If the site contains visual detractors, can they be easily removed?

	a. yes	b. no

Locate the primary viewing area(s) for the following 4 questions (and mark on map)

55 What odors are present at the primary viewing location(s)?

	a. natural, pleasant odors only	b. unpleasant odors (auto exhaust, sewage) present at certain times	c. unpleasant odors are distinct and continuously present
	(a)		

56 What noises are audible at the primary viewing location(s)?

	a. bird and wildlife noises and other naturally occurring sounds	b. some traffic and other similar background sounds are audible in addition to naturally occurring	c. continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds	d. continuous traffic or other intrusive noise is audible, but no naturally occurring audible sounds are
		(b)		

How much of the wetland is visible from the viewing area(s)? Describe the view.

	a. >50%	b. bet. 25% & 50%	c. <25%
		(b)	

58 How many Cowardin classes are visible from the primary viewing area(s)? (question 21)

	a. > two	b. two	c. one
			(c)

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Questions - Answer Sheet
(4/96 edition with 7/97 addendum)

WETLAND EC-3 (Eel Creek)

Wildlife Habitat		
1	a	21
2	a	23
3	b	24
4	c	28
5	a	18
6	a	27
7	a	7+8
8	a	15
9b	a	26
Diverse		

Fish Habitat		
Streams and Rivers		
1	a	31
2	a	30
3	a	32
4	a	=WH7
5	a	=WH8
6	a	29
Lakes and Ponds		
1		33
2		35
3		34
4		=WH7
5		=WH8
6	a	29
Intact		

Water Quality (pollutant removal)		
1	a	36 (check)
2	a	37
3	a	21
4	a	17+27
5	c	15 (WH8 c=a, a=c, b=b)
6	c	7+8 (WH7 c=a, a=c, b=b)
Intact		

Hydrologic Control (flood control & water supply)		
1	b	19
2	a	37
3	a	17
4	b	38
5	a	23 (check)
6	c	16
7	a	6
Intact		

Sensitivity to Future Impacts		
1	a	27+40
2	b	5+27
3	c	=WQ6
4	c	=WQ5
5	c	20
6	a	23
Potentially sensitive		

Enhancement Potential*		
1		WH-FH-WQ-HC
2		36
3		39
4	a	17
5b	a	26
6		=SI

*skip if WH provides diverse

Education		
1	a	41
2	a	42
3	a	WH-FH
4	a	44
5	b	46
6	a	45
Provides educational uses		

Recreation		
1	b	46
2	c	47
3	c	48
4	a	WH
5	a	49
6	b	50
Potential recreational opportunities		

Aesthetic Quality		
1	b	58
2	c	57 (viewshed)
3	a	53+54
4	a	52
5	a	55
6	a	56
Moderately pleasing		

EC-3

City of Lakeside LWI Oregon Freshwater Wetland Assessment Questions (4/96 edition) (with 7/97 addendum)
(bold questions =field; office review important for 15, 16, 26)

Wetland EC-3 Plot 41

Observers MW+SB
Field Date 3/4/99
Revised

Wetland Structure and Landscape

15 What percentage of area within 500 feet of the wetland edge is dedicated to these land uses?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			95
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses	5		
5. Other			

16 What is the dominant existing land use within 500 feet of the wetland on the downstream or down-slope edge of the wetland?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			55
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses		45	
5. Other			

17 What is the (entire) wetland acreage?

	a. >5 acres	b. bet. 0.5 & 5 acres	c. < 0.5 acres
	(a)		(c)

18 How is wetland connected to a stream, lake, or pond ? (see Figure, p. 35)

	a. connected by surface water (culv., ditch, int./per. stream)	b. not connected to water body within 1 mile	c. not connected, no water bodies within 1 mile
	(a)		

19 Is all or part of the wetland located within the 100-year floodplain or within an enclosed basin?

	a. yes	b. no
		(b)

20 What is zoned percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			100
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses			
5. Other			

zoning: open space

Wetland Habitat

21 What is percentage wetland area by Cowardin class (10% or more)?

	a. bet. 70% & 100%	b. bet. 50% & <70%	c. bet. 20% & <50%	d. bet. 10% & <20%
Open water (OW >6.6ft)				
Emergent (EM)			30	
Scrub-shrub (SS)	70			
Forested (FO)				(trace)

22 How many wetland plant species are present (urban areas)?

	a. >5	b. bet. 2 & 5	c. 1 (monotypic)

23 What is the dominant wetland vegetation cover?

	a. woody (FO & SS)	b. emergent and ponding, or open water only (EM w/ water or OW)	c. emergent vegetation only or wet meadow (EM)
	(a)		

24 How interspersed are the Cowardin classes (and upland inclusions)? (see Figure p. 37)

	a. high	b. moderate	c. low
		(b)	

25 SKIP (for rural areas) what percentage of the wetland edge is bordered by upland wildlife habitat at least 150 feet wide?

	a. >40%	b. bet. 10% & 40%	c. <10%

26 For urban areas, what percentage of the wetland edge is bordered by a vegetative buffer at least 25 feet wide?

	a. >40%	b. bet. 10% & 40%	c. <10%
	(a)		

27 How is the wetland connected to other wetlands?

	a. connected within 3 miles by surface water	b. not connected; wetlands present within 3 miles	c. not connected, no other wetlands within 3 miles
	(a)		

28 Estimate area of unvegetated, open water within the wetland.

	a. >3 acres	b. >1 to 3 acres	c. bet. 0.5 & 1 acre	d. <0.5 acre
				(d)

Fisheries Habitat Wetland EC-3

29 Are fish present in a stream, lake or pond connected to the wetland?

	(a.) salmon, trout or sensitive species are present at some time during the year	b. other fish species are present at some time during the year	c. no species are present at any time during the year

Streams connected to the wetland

30 What is the physical character of the stream channel?

	(a.) natural channel, or modified portions are returning to a natural channel	b. only portions of stream modified	c. extensively modified or confined in a non-vegetated channel or pipe

31 What percentage of the stream is shaded by riparian vegetation?

	(a.) >75%	b. bet. 50% & 75%	c. bet. 25% & <50%	d. <25%

32 What percentage of the stream contains instream structures such as large woody debris, floating/submerged vegetation, large rocks or boulders?

	(a.) >25%	b. bet. 10% & 25%	c. <10%

Lakes or ponds (entire lake or pond and wetland complex)

33 Does the lake or pond contain areas of deep and shallow water?

	a. yes	b. cannot be determine	c. no

34 What percentage of the shoreline is shaded at the water's edge by forested or scrub-shrub vegetation?

	a. 60% or more	b. bet. 20% & <60%	c. <20%

35 What percentage of the wetland complex contains cover objects such as submerged logs, floating or submerged vegetation, large rocks or boulders?

	a. >25%	b. bet. 10% & 25%	c. <10%

Wetland Hydrology

36 What is the wetland's primary source of water? (emphasis on primary)

	(a.) surface flow, including streams and ditches	b. precipitation or sheet flow	c. groundwater, including springs or seeps

Is there evidence of flooding or ponding during a portion of the growing season?

	(a.) yes (describe)	b. unable to determine or not applicable	c. no

38 Is the water flow out of the wetland restricted (beaver dam, concrete structure, undersized culvert)?

	a. yes, restricted or no outlet	(b.) minor restrictions slow down the water	c. no, outlet has unrestricted flow

39 If the primary source of water is surface flow, is the inflow restricted?

	(a.) not restricted or if blocked, can be removed	b. permanent blockage exists, but may be breached (create new flow channel)	c. flow is restricted and cannot be restored

40 Has the stream flow or stream bank been modified by human activities (dams, levees, channelization, confinement of stream in a pipe) < 1 mile above the wetland?

	(a.) yes	b. no

Public Access to Wetland Site

41 Is the wetland open to the public for direct access or observation?

	(a.) yes	b. yes, but only by permission	c. no, access not allow

42 Are there visible hazards to the public at the wetland site? (busy road with no buffer or sidewalk, steep embankment, contaminated water)

	(a.) no	b. one or two visible safety hazards exist (describe)	c. more than two visible safety hazards exist (describe)

43 Are other natural landscape features (stream, lake, pond, forest, agricultural land) contiguous or adjacent to the wetland? (list type and extent)

	(a.) yes	b. no

Upland forest
Oregon Dunes National Recreation Area

44 Is there existing physical public access to features listed in question 43? Wetland EC-3

	a. public access to other habitats exists or can be created easily	b. public access doesn't exist and can't be created easily, but observation of other features can be made	c. public access doesn't exist, can't be crated easily, and observation of other features can't be made

45 Is access to a viewing spot or wetland edge available for individuals with limited mobility? (does not have to meet ADA)

	a. yes	b. no	(list physical barriers)

46 Is there a public access point within 250 feet of the wetland's edge? (parking lots, transit stops, bike lanes, trails, water courses; maintained means designated car or transit area; unmaintained means road pull-off, etc. - describe)

	a. yes, maintained access point exists	b. yes, unmaintained access point exists	c. no access point exists, or the access point is hazardous

road side along Hwy 101

Recreation

47 Is the wetland accessible by boat?

	a. boat launching areas or access points exist on site or within 1/2 mile on a connected lake, river, bay or other body of	b. potential to develop launching areas or access points exists, or are >1/2 mile but <1 mile from wetland	c. no boat launching areas exist within 1 mile of the wetland, and potential to develop launching areas or access points

48 Are there trails, viewing areas or other structures that guide user movement to particular areas in or around the wetland?

	a. yes, developed or maintained trails or viewing areas exist	b. yes, undeveloped trails or viewing areas exist that do not disrupt wildlife or plant habitat	c. no trails or viewing areas exist, or those that do disrupt wildlife or plant habitat.

49 Is fishing allowed at the wetland or adjacent water body? (answer "c" if 18="b or c", unless 21=OW>10%)

	a. yes (all or part of yea	b. no	c. not applicable

50 Is hunting allowed at the wetland? (If wetland is within city limits, answer is no)

	a. yes (all or part of yea	b. no

Aesthetics

51 SKIP (for rural areas) what is the extent of visual contrast with the surrounding landscape? (see Figure p. 45)

	a. *significant contrast*	b. *limited contrast*	c. *little or no contrast*

52 For urban areas, what is the visual character of the surrounding area? (see Figure p. 46)

	a. open space or naturally landscaped	b. landscaped or manipulated by people	c. developed with no landscaping

53 Are there visual detractors at the site (abandoned cars, litter, shopping carts, etc.) that distract the viewer from the wetland?

	a. yes	b. no

54 If the site contains visual detractors, can they be easily removed?

	a. yes	b. no

Locate the primary viewing area(s) for the following 4 questions (and mark on map)

55 What odors are present at the primary viewing location(s)?

	a. natural, pleasant odors only	b. unpleasant odors (auto exhaust, sewage) present at certain times	c. unpleasant odors are distinct and continuously present

56 What noises are audible at the primary viewing location(s)?

	a. *bird and wildlife* noises and other naturally occurring sounds	b. *some traffic and* other similar background sounds are audible in addition to naturally occurring	c. *continuous traffic or* other intrusive noise is audible in addition to naturally occurring sounds	d. *continuous traffic or* other intrusive noise is audible, but no naturally occurring audible sounds are

57 How much of the wetland is visible from the viewing area(s)? Describe the view.

	a. >50%	b. bet. 25% & 50%	c. <25%

58 How many Cowardin classes are visible from the primary viewing area(s)? (question 21)

	a. > two	b. two	c. one

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Questions - Answer Sheet
(4/96 edition with 7/97 addendum)

WETLAND RA-1 (Robin Hood Avenue)

Wildlife Habitat		
1	a	21
2	a	23
3	c	24
4	c	28
5	b	18
6	b	27
7	a	7+8
8	c	15
9b	b	26
Provides habitat for some species		

Fish Habitat		
Streams and Rivers		
1		31
2		30
3		32
4		=WH7
5		=WH8
6	c	29
Lakes and Ponds		
1	a	33
2	a	35
3	a	34
4	a	=WH7
5	c	=WH8
6	c	29
Impacted or degraded		

Water Quality (pollutant removal)		
1	a	36 (check)
2	a	37
3	a	21
4	b	17+27
5	a	15 (WH8 c=a, a=c, b=b)
6	c	7+8 (WH7 c=a, a=c, b=b)
Intact		

Hydrologic Control (flood control & water supply)		
1	b	19
2	a	37
3	b	17
4	a	38
5	a	23 (check)
6	a	16
7	a	6
Intact		

Sensitivity to Future Impacts		
1	a	27+40
2	a	5+27
3	c	=WQ6
4	a	=WQ5
5	a	20
6	a	23
Potentially Sensitive		

Enhancement Potential*		
1	a	WH-FH-WQ-HC
2	a	36
3	a	39
4	b	17
5b	b	26
6	b	=SI
High		

*skip if WH provides diverse

Education		
1	b	41
2	a	42
3	b	WH-FH
4	c	44
5	b	46
6	a	45
Potential educational use		

Recreation		
1	b	46
2	c	47
3	c	48
4	b	WH
5	a	49
6	b	50
Potential recreational opportunities		

Aesthetic Quality		
1	b	58
2	c	57 (viewshed)
3	a	53+54
4	b	52
5	a	55
6	a	56
moderately pleasing		

City of Lakeside LWI Oregon Freshwater Wetland Assessment Questions (4/96 edition) Wetland NA-1
(bold questions =field; office review important for 15, 16, 26) (with 7/97 addendum) Plot 10

Wetland Structure and Landscape

15 What percentage of area within 500 feet of the wetland edge is dedicated to these land uses?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space	5		
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses			95
5. Other			

Observers MW+SB
Field Date 11/20/98
Revised

16 What is the dominant existing land use within 500 feet of the wetland on the downstream or down-slope edge of the wetland?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses			100
5. Other			

17 What is the (entire) wetland acreage?

	a. >5 acres	(b) bet. 0.5 & 5 acres	c. < 0.5 acres

18 How is wetland connected to a stream, lake, or pond ? (see Figure, p. 35)

	a. connected by surface water (culv., ditch, int./per. stream)	(b) not connected to water body within 1 mile	c. not connected, no water bodies within 1 mile

19 Is all or part of the wetland located within the 100-year floodplain or within an enclosed basin?

	a. yes	(b) no

20 What is zoned percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses			100
5. Other			

Zoning = General residential

Wetland Habitat

21 What is percentage wetland area by Cowardin class (10% or more)?

	a. bet. 70% & 100%	b. bet. 50% & <70%	c. bet. 20% & <50%	d. bet. 10% & <20%
Open water (OW >6.6ft)				10
Emergent (EM)				
Scrub-shrub (SS)	90			
Forested (FO)				

22 How many wetland plant species are present (urban areas)?

	a. >5	(b) bet. 2 & 5	c. 1 (monotypic)

23 What is the dominant wetland vegetation cover?

	(a) woody (FO & SS)	b. emergent and ponding, or open water only (EM w/ water or OW)	c. emergent vegetation only or wet meadow (EM)

24 How interspersed are the Cowardin classes (and upland inclusions)? (see Figure p. 37)

	a. high	b. moderate	(c) low

25 SKIP (for rural areas) what percentage of the wetland edge is bordered by upland wildlife habitat at least 150 feet wide?

	a. >40%	b. bet. 10% & 40%	c. <10%

26 For urban areas, what percentage of the wetland edge is bordered by a vegetative buffer at least 25 feet wide?

	a. >40%	(b) bet. 10% & 40%	c. <10%

27 How is the wetland connected to other wetlands?

	a. connected within 3 miles by surface water	(b) not connected; wetlands present within 3 miles	c. not connected, no other wetlands within 3 miles

28 Estimate area of unvegetated, open water within the wetland.

	a. >3 acres	b. >1 to 3 acres	c. bet. 0.5 & 1 acre	(d) <0.5 acre

RA-1

Fisheries Habitat Wetland NM-1

29 Are fish present in a stream, lake or pond connected to the wetland?

	a. salmon, trout or sensitive species are present at some time during the year	b. other fish species are present at some time during the year	c. no species are present at any time during the year
			(c)

not applicable - isolated wetland

Streams connected to the wetland

30 What is the physical character of the stream channel?

	a. natural channel, or modified portions are returning to a natural channel	b. only portions of stream modified	c. extensively modified or confined in a non-vegetated channel or pipe

31 What percentage of the stream is shaded by riparian vegetation?

	a. >75%	b. bet. 50% & 75%	c. bet. 25% & <50%	d. <25%

32 What percentage of the stream contains instream structures such as large woody debris, floating/submerged vegetation, large rocks or boulders?

	a. >25%	b. bet. 10% & 25%	c. <10%

Lakes or ponds (entire lake or pond and wetland complex)

33 Does the lake or pond contain areas of deep and shallow water?

	a. yes	b. cannot be determine	c. no
	(a)		

34 What percentage of the shoreline is shaded at the water's edge by forested or scrub-shrub vegetation?

	a. 60% or more	b. bet. 20% & <60%	c. <20%
	(a)		

35 What percentage of the wetland complex contains cover objects such as submerged logs, floating or submerged vegetation, large rocks or boulders?

	a. >25%	b. bet. 10% & 25%	c. <10%
	(a)		

Wetland Hydrology

36 What is the wetland's primary source of water? (emphasis on primary)

	a. surface flow, including streams and ditches	b. precipitation or sheet flow	c. groundwater, including springs or seeps
	(a)		

37 Is there evidence of flooding or ponding during a portion of the growing season?

	a. yes (describe)	b. unable to determine or not applicable	c. no
	(a)		

38 Is the water flow out of the wetland restricted (beaver dam, concrete structure, undersized culvert)?

	a. yes, restricted or no outlet	b. minor restrictions slow down the water	c. no, outlet has unrestricted flow
	(a)		

39 If the primary source of water is surface flow, is the inflow restricted?

	a. not restricted or if blocked, can be removed	b. permanent blockage exists, but may be breached (create new flow channel)	c. flow is restricted and cannot be restored
	(a)		

40 Has the stream flow or stream bank been modified by human activities (dams, levees, channelization, confinement of stream in a pipe) < 1 mile above the wetland?

	a. yes	b. no

not applicable

Public Access to Wetland Site

41 Is the wetland open to the public for direct access or observation?

	a. yes	b. yes, but only by permission	c. no, access not allow
		(b)	

42 Are there visible hazards to the public at the wetland site? (busy road with no buffer or sidewalk, steep embankment, contaminated water)

	a. no	b. one or two visible safety hazards exist (describe)	c. more than two visible safety hazards exist (describe)
	(a)		

43 Are other natural landscape features (stream, lake, pond, forest, agricultural land) contiguous or adjacent to the wetland? (list type and extent)

	a. yes	b. no
		(b)

Wetland RA-1

44 Is there existing physical public access to features listed in question 43?

	a. public access to other habitats exists or can be created easily	b. public access doesn't exist and can't be created easily, but observation of other features can be made	(c.) public access doesn't exist, can't be crated easily, and observation of other features can't be made

none

s access to a viewing spot or wetland edge available for individuals with limited mobility? (does not have to meet ADA)

	(a.) yes	b. no	(list physical barriers) backyards

46 Is there a public access point within 250 feet of the wetland's edge? (parking lots, transit stops, bike lanes, trails, water courses; maintained means designated car or transit area; unmaintained means road pull-off, etc. - describe)

	a. yes, maintained access point exists	(b.) yes, unmaintained access point exists	c. no access point exists, or the access point is hazardous

road side along Robin Hood Ave.

Recreation

47 Is the wetland accessible by boat?

	a. boat launching areas or access points exist on site or within 1/2 mile on a connected lake, river, bay or other body of	b. potential to develop launching areas or access points exists, or are >1/2 mile but <1 mile from wetland	(c.) no boat launching areas exist within 1 mile of the wetland, and potential to develop launching areas or access points

48 Are there trails, viewing areas or other structures that guide user movement to particular areas in or around the wetland?

	a. yes, developed or maintained trails or viewing areas exist	b. yes, undeveloped trails or viewing areas exist that do not disrupt wildlife or plant habitat	(c.) no trails or viewing areas exist, or those that do disrupt wildlife or plant habitat.

49 Is fishing allowed at the wetland or adjacent water body? (answer "c" if 18="b or c", unless 21=OW>10%)

	(a.) yes (all or part of yea	b. no	c. not applicable

s hunting allowed at the wetland? (If wetland is within city limits, answer is no)

	a. yes (all or part of yea	(b.) no

Aesthetics

51 SKIP (for rural areas) what is the extent of visual contrast with the surrounding landscape? (see Figure p. 45)

	a. significant contrast	b. limited contrast	c. little or no contrast

52 For urban areas, what is the visual character of the surrounding area? (see Figure p. 46)

	a. open space or naturally landscaped	(b.) landscaped or manipulated by people	c. developed with no landscaping

53 Are there visual detractors at the site (abandoned cars, litter, shopping carts, etc.) that distract the viewer from the wetland?

	a. yes	(b.) no

54 If the site contains visual detractors, can they be easily removed?

	a. yes	b. no

Locate the primary viewing area(s) for the following 4 questions (and mark on map)

55 What odors are present at the primary viewing location(s)?

	(a.) natural, pleasant odors only	b. unpleasant odors (auto exhaust, sewage) present at certain times	c. unpleasant odors are distinct and continuously present

56 What noises are audible at the primary viewing location(s)?

	a. bird and wildlife noises and other naturally occurring sounds	(b.) some traffic and other similar background sounds are audible in addition to naturally occurring	c. continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds	d. continuous traffic or other intrusive noise is audible, but no naturally occurring audible sounds are

How much of the wetland is visible from the viewing area(s)? Describe the view.

	a. >50%	b. bet. 25% & 50%	(c.) <25%

not visible from road - view from backyards

58 How many Cowardin classes are visible from the primary viewing area(s)? (question 21)

	a. > two	(b.) two	c. one

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Questions - Answer Sheet
(4/96 edition with 7/97 addendum)

WETLAND SP-1 (Tugman State Park)

Wildlife Habitat		
1	b	21
2	a	23
3	c	24
4	c	28
5	b	18
6	b	27
7	a	7+8
8	a	15
9b	a	26
Provides habitat for some species		

Fish Habitat — Not Applicable		
Streams and Rivers		
1	NA	31
2	NA	30
3	NA	32
4	a	=WH7
5	a	=WH8
6	c	29
Lakes and Ponds		
1	NA	33
2	NA	35
3	NA	34
4	a	=WH7
5	a	=WH8
6	c	29
No fish habitat present		

Water Quality (pollutant removal)		
1	a	36 (check)
2	a	37
3	a	21
4	b	17+27
5	c	15 (WH8 c=a, a=c, b=b)
6	c	7+8 (WH7 c=a, a=c, b=b)
Intact		

Hydrologic Control (flood control & water supply)		
1	b	19
2	a	37
3	b	17
4	a	38
5	a	23 (check)
6	c	16
7	a	6
Intact		

Sensitivity to Future Impacts		
1	a	27+40
2	a	5+27
3	c	=WQ6
4	c	=WQ5
5	c	20
6	a	23
Potentially sensitive		

Enhancement Potential*		
1	b	WH-FH-WQ-HC
2	a	36
3	a	39
4	b	17
5b	a	26
6	b	=SI
moderate		

*skip if WH provides diverse

Education		
1	a	41
2	a	42
3	b	WH-FH
4	a	44
5	a	46
6	a	45
Educational uses		

Recreation		
1	a	46
2	c	47
3	a	48
4	b	WH
5	b	49
6	b	50
Provides recreational opportunities		

Aesthetic Quality		
1	c	58
2	a	57 (viewshed)
3	a	53+54
4	a	52
5	a	55
6	a	56
Pleasing		

SP-1

City of Lakeside LWI Oregon Freshwater Wetland Assessment Questions (4/96 edition) (with 7/97 addendum)
(bold questions =field; office review important for 15, 16, 26)

Wetland SP-1
Plot 25

Wetland Structure and Landscape

15 What percentage of area within 500 feet of the wetland edge is dedicated to these land uses?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			100
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses			
5. Other			

Observers MW + SB
Field Date 11/21/98
Revised

16 What is the dominant existing land use within 500 feet of the wetland on the downstream or down-slope edge of the wetland?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			100
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses			
5. Other			

17 What is the (entire) wetland acreage?

	a. >5 acres	(b) bet. 0.5 & 5 acres	c. < 0.5 acres

18 How is wetland connected to a stream, lake, or pond ? (see Figure, p. 35)

	a. connected by surface water (culv., ditch, int./per. stream)	(b) not connected to water body within 1 mile	c. not connected, no water bodies within 1 mile

19 Is all or part of the wetland located within the 100-year floodplain or within an enclosed basin?

	a. yes	(b) no

20 What is zoned percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			100
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses			
5. Other			

Zoning = open space

Wetland Habitat

21 What is percentage wetland area by Cowardin class (10% or more)?

	a. bet. 70% & 100%	b. bet. 50% & <70%	c. bet. 20% & <50%	d. bet. 10% & <20%
Open water (OW >6.6ft)				
Emergent (EM)				
Scrub-shrub (SS)				
Forested (FO)	100			

22 How many wetland plant species are present (urban areas)?

	(a) >5	b. bet. 2 & 5	c. 1 (monotypic)

23 What is the dominant wetland vegetation cover?

	(a) woody (FO & SS)	b. emergent and ponding, or open water only (EM w/ water or OW)	c. emergent vegetation only or wet meadow (EM)

24 How interspersed are the Cowardin classes (and upland inclusions)? (see Figure p. 37)

	a. high	b. moderate	(c) low

25 SKIP (for rural areas) what percentage of the wetland edge is bordered by upland wildlife habitat at least 150 feet wide?

	a. >40%	b. bet. 10% & 40%	c. <10%

26 For urban areas, what percentage of the wetland edge is bordered by a vegetative buffer at least 25 feet wide?

	(a) >40%	b. bet. 10% & 40%	c. <10%

27 How is the wetland connected to other wetlands?

	a. connected within 3 miles by surface water	(b) not connected; wetlands present within 3 miles	c. not connected, no other wetlands within 3 miles

28 Estimate area of unvegetated, open water within the wetland.

	a. >3 acres	b. >1 to 3 acres	c. bet. 0.5 & 1 acre	(d) <0.5 acre

SP-1

Fisheries Habitat

Wetland OF-1

29 Are fish present in a stream, lake or pond connected to the wetland?

	a. salmon, trout or sensitive species are present at some time during the year	b. other fish species are present at some time during the year	(c.) no species are present at any time during the year

not applicable - isolated wetland

Streams connected to the wetland

30 What is the physical character of the stream channel?

	a. natural channel, or modified portions are returning to a natural channel	b. only portions of stream modified	c. extensively modified or confined in a non-vegetated channel or pipe

wetland is not connected to a stream or lake

31 What percentage of the stream is shaded by riparian vegetation?

	a. >75%	b. bet. 50% & 75%	c. bet. 25% & <50%	d. <25%

32 What percentage of the stream contains instream structures such as large woody debris, floating/submerged vegetation, large rocks or boulders?

	a. >25%	b. bet. 10% & 25%	c. <10%

Lakes or ponds (entire lake or pond and wetland complex)

33 Does the lake or pond contain areas of deep and shallow water?

	a. yes	b. cannot be determine	c. no

34 What percentage of the shoreline is shaded at the water's edge by forested or scrub-shrub vegetation?

	a. 60% or more	b. bet. 20% & <60%	c. <20%

35 What percentage of the wetland complex contains cover objects such as submerged logs, floating or submerged vegetation, large rocks or boulders?

	a. >25%	b. bet. 10% & 25%	c. <10%

Wetland Hydrology

36 What is the wetland's primary source of water? (emphasis on primary)

	(a.) surface flow, including streams and ditches	b. precipitation or sheet flow	c. groundwater, including springs or seeps

's there evidence of flooding or ponding during a portion of the growing season?

	(a.) yes (describe)	b. unable to determine or not applicable	c. no

38 Is the water flow out of the wetland restricted (beaver dam, concrete structure, undersized culvert)?

	(a.) yes, restricted or no outlet	b. minor restrictions slow down the water	c. no, outlet has unrestricted flow

no outlet observed

39 If the primary source of water is surface flow, is the inflow restricted?

	(a.) not restricted or if blocked, can be removed	b. permanent blockage exists, but may be breached (create new flow channel)	c. flow is restricted and cannot be restored

40 Has the stream flow or stream bank been modified by human activities (dams, levees, channelization, confinement of stream in a pipe) < 1 mile above the wetland?

	a. yes	b. no

not applicable

Public Access to Wetland Site

41 Is the wetland open to the public for direct access or observation?

	(a.) yes	b. yes, but only by permission	c. no, access not allow

42 Are there visible hazards to the public at the wetland site? (busy road with no buffer or sidewalk, steep embankment, contaminated water)

	(a.) no	b. one or two visible safety hazards exist (describe)	c. more than two visible safety hazards exist (describe)

43 Are other natural landscape features (stream, lake, pond, forest, agricultural land) contiguous or adjacent to the wetland? (list type and extent)

	(a.) yes	b. no

upland forest

Wetland SP-1

44 Is there existing physical public access to features listed in question 43?

	(a) public access to other habitats exists or can be created easily	b. public access doesn't exist and can't be created easily, but observation of other features can be made	c. public access doesn't exist, can't be crated easily, and observation of other features can't be made

s access to a viewing spot or wetland edge available for individuals with limited mobility? (does not have to meet ADA)

	(a) yes	b. no	(list physical barriers)

46 Is there a public access point within 250 feet of the wetland's edge? (parking lots, transit stops, bike lanes, trails, water courses; maintained means designated car or transit area; unmaintained means road pull-off, etc. - describe)

	(a) yes, maintained access point exists	b. yes, unmaintained access point exists	c. no access point exists, or the access point is hazardous	Tugman State Park

Recreation

47 Is the wetland accessible by boat?

	a. boat launching areas or access points exist on site or within 1/2 mile on a connected lake, river, bay or other body of	b. potential to develop launching areas or access points exists, or are >1/2 mile but <1 mile from wetland	(c) no boat launching areas exist within 1 mile of the wetland, and potential to develop launching areas or access points

48 Are there trails, viewing areas or other structures that guide user movement to particular areas in or around the wetland?

	(a) yes, developed or maintained trails or viewing areas exist	b. yes, undeveloped trails or viewing areas exist that do not disrupt wildlife or plant habitat	c. no trails or viewing areas exist, or those that do disrupt wildlife or plant habitat.	Paved campground road

49 Is fishing allowed at the wetland or adjacent water body? (answer "c" if 18="b or c", unless 21=OW>10%)

	a. yes (all or part of yea	b. no	(c) not applicable

s hunting allowed at the wetland? (If wetland is within city limits, answer is no)

	a. yes (all or part of yea	(b) no

Aesthetics

51 SKIP (for rural areas) what is the extent of visual contrast with the surrounding landscape? (see Figure p. 45)

	a. significant contrast	b. limited contrast	c. little or no contrast

52 For urban areas, what is the visual character of the surrounding area? (see Figure p. 46)

	(a) open space or naturally landscaped	b. landscaped or manipulated by people	c. developed with no landscaping

53 Are there visual detractors at the site (abandoned cars, litter, shopping carts, etc.) that distract the viewer from the wetland?

	a. yes	(b) no

54 If the site contains visual detractors, can they be easily removed?

	a. yes	b. no

Locate the primary viewing area(s) for the following 4 questions (and mark on map)

55 What odors are present at the primary viewing location(s)?

	(a) natural, pleasant odors only	b. unpleasant odors (auto exhaust, sewage) present at certain times	c. unpleasant odors are distinct and continuously present

56 What noises are audible at the primary viewing location(s)?

	a. bird and wildlife noises and other naturally occurring sounds	(b) some traffic and other similar background sounds are audible in addition to naturally occurring	c. continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds	d. continuous traffic or other intrusive noise is audible, but no naturally occurring audible sounds are

How much of the wetland is visible from the viewing area(s)? Describe the view.

	(a) >50%	b. bet. 25% & 50%	c. <25%

58 How many Cowardin classes are visible from the primary viewing area(s)? (question 21)

	a. > two	b. two	(c) one

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Questions - Answer Sheet
(4/96 edition with 7/97 addendum)

WETLAND TL-1 (Tenmile Lake)

Wildlife Habitat		
1	a	21
2	a	23
3	b	24
4	a	28
5	a	18
6	a	27
7	c	7+8
8	c	15
9b	b	26
Provides habitat for some species		

Fish Habitat		
Streams and Rivers		
1	b	31
2	b	30
3	c	32
4	c	=WH7
5	c	=WH8
6	a	29
Lakes and Ponds		
1	0	33
2	0	35
3	0	34
4		=WH7
5		=WH8
6	a	29
Impacted or degraded		

Water Quality (pollutant removal)		
1	a	36 (check)
2	a	37
3	a	21
4	a	17+27
5	a	15 (WH8 c=a, a=c, b=b)
6	a	7+8 (WH7 c=a, a=c, b=b)
Intact		

Hydrologic Control (flood control & water supply)		
1	a	19
2	a	37
3	a	17
4	c	38
5	a	23 (check)
6	a	16
7	a	6
Intact		

Sensitivity to Future Impacts		
1	a	27+40
2	b	5+27
3	a	=WQ6
4	a	=WQ5
5	a	20
6	a	23
Potentially sensitive		

Enhancement Potential*		
1	a	WH-FH-WQ-HC
2	a	36
3	a	39
4	a	17
5b	b	26
6	b	=SI
High		

*skip if WH provides diverse

Education		
1	b	41
2	a	42
3	b	WH-FH
4	a	44
5	b	46
6	a	45
Potential educational uses		

Recreation		
1	b	46
2	a	47
3	b	48
4	b	WH
5	a	49
6	b	50
Provides recreational opportunities		

Aesthetic Quality		
1	b	58
2	a	57 (viewshed)
3	a	53+54
4	b	52
5	a	55
6	a	56
Pleasing		

City of Lakeside LWI Oregon Freshwater Wetland Assessment Questions (4/96 edition) (with 7/97 addendum)
(bold questions =field; office review important for 15, 16, 26)

Wetland TL + Off-Site

Wetland Structure and Landscape

15 What percentage of area within 500 feet of the wetland edge is dedicated to these land uses?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space		45	
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses			55
5. Other			

Observers MW + SB
Field Date 11/21/98
3/3/99
Revised

16 What is the dominant existing land use within 500 feet of the wetland on the downstream or down-slope edge of the wetland?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space		45	
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses			55
5. Other			

17 What is the (entire) wetland acreage?

	a. >5 acres	b. bet. 0.5 & 5 acres	c. < 0.5 acres
	(a)		

18 How is wetland connected to a stream, lake, or pond ? (see Figure, p. 35)

	a. connected by surface water (culv., ditch, int./per. stream)	b. not connected to water body within 1 mile	c. not connected, no water bodies within 1 mile
	(a)		

19 Is all or part of the wetland located within the 100-year floodplain or within an enclosed basin?

	a. yes	b. no
	(a)	

20 What is zoned percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space		45	
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses			* 55
5. Other			

Zoning = recreational/residential

* osprey point included as developed uses

Wetland Habitat

21 What is percentage wetland area by Cowardin class (10% or more)?

	a. bet. 70% & 100%	b. bet. 50% & <70%	c. bet. 20% & <50%	d. bet. 10% & <20%
Open water (OW >6.6ft)				15
Emergent (EM)				(trace)
Scrub-shrub (SS)	85			
Forested (FO)				(trace)

22 How many wetland plant species are present (urban areas)?

	a. >5	b. bet. 2 & 5	c. 1 (monotypic)
		(b)	

23 What is the dominant wetland vegetation cover?

	a. woody (FO & SS)	b. emergent and ponding, or open water only (EM w/ water or OW)	c. emergent vegetation only or wet meadow (EM)
	(a)		

24 How interspersed are the Cowardin classes (and upland inclusions)? (see Figure p. 37)

	a. high	b. moderate	c. low
		(b)	

25 SKIP (for rural areas) what percentage of the wetland edge is bordered by upland wildlife habitat at least 150 feet wide?

	a. >40%	b. bet. 10% & 40%	c. <10%

26 For urban areas, what percentage of the wetland edge is bordered by a vegetative buffer at least 25 feet wide?

	a. >40%	b. bet. 10% & 40%	c. <10%
		(b)	

27 How is the wetland connected to other wetlands?

	a. connected within 3 miles by surface water	b. not connected; wetlands present within 3 miles	c. not connected, no other wetlands within 3 miles
	(a)		

28 Estimate area of unvegetated, open water within the wetland.

	a. >3 acres	b. >1 to 3 acres	c. bet. 0.5 & 1 acre	d. <0.5 acre
	(a)			

TL-1

Fisheries Habitat Wetland IL-1

29 Are fish present in a stream, lake or pond connected to the wetland?

	(a.) salmon, trout or sensitive species are present at some time during the year	b. other fish species are present at some time during the year	c. no species are present at any time during the year

Streams connected to the wetland

30 What is the physical character of the stream channel?

	a. natural channel, or modified portions are returning to a natural channel	(b.) only portions of stream modified	c. extensively modified or confined in a non-vegetated channel or pipe

31 What percentage of the stream is shaded by riparian vegetation?

	a. >75%	(b.) bet. 50% & 75%	c. bet. 25% & <50%	d. <25%

32 What percentage of the stream contains instream structures such as large woody debris, floating/submerged vegetation, large rocks or boulders?

	a. >25%	b. bet. 10% & 25%	(c.) <10%

Lakes or ponds (entire lake or pond and wetland complex)

33 Does the lake or pond contain areas of deep and shallow water?

	(a.) yes	b. cannot be determine	c. no

34 What percentage of the shoreline is shaded at the water's edge by forested or scrub-shrub vegetation?

	a. 60% or more	b. bet. 20% & <60%	(c.) <20%

35 What percentage of the wetland complex contains cover objects such as submerged logs, floating or submerged vegetation, large rocks or boulders?

	a. >25%	b. bet. 10% & 25%	c. <10%

Wetland Hydrology

36 What is the wetland's primary source of water? (emphasis on primary)

	(a.) surface flow, including streams and ditches	b. precipitation or sheet flow	c. groundwater, including springs or seeps

Is there evidence of flooding or ponding during a portion of the growing season?

	(a.) yes (describe)	b. unable to determine or not applicable	c. no

38 Is the water flow out of the wetland restricted (beaver dam, concrete structure, undersized culvert)?

	a. yes, restricted or no outlet	b. minor restrictions slow down the water	(c.) no, outlet has unrestricted flow	minor restriction in north portion

39 If the primary source of water is surface flow, is the inflow restricted?

	(a.) not restricted or if blocked, can be removed	b. permanent blockage exists, but may be breached (create new flow channel)	c. flow is restricted and cannot be restored

40 Has the stream flow or stream bank been modified by human activities (dams, levees, channelization, confinement of stream in a pipe) < 1 mile above the wetland?

	(a.) yes	b. no

Public Access to Wetland Site

41 Is the wetland open to the public for direct access or observation?

	a. yes	(b.) yes, but only by permission	c. no, access not allow

42 Are there visible hazards to the public at the wetland site? (busy road with no buffer or sidewalk, steep embankment, contaminated water)

	(a.) no	b. one or two visible safety hazards exist (describe)	c. more than two visible safety hazards exist (describe)

43 Are other natural landscape features (stream, lake, pond, forest, agricultural land) contiguous or adjacent to the wetland? (list type and extent)

	(a.) yes	b. no

Temile Lake
Upland forest

44 Is there existing physical public access to features listed in question 43? Wetland IL-1

	a. public access to other habitats exists or can be created easily	b. public access doesn't exist and can't be created easily, but observation of other features can be made	c. public access doesn't exist, can't be crated easily, and observation of other features can't be made

access to a viewing spot or wetland edge available for individuals with limited mobility? (does not have to meet ADA)

	a. yes	b. no

(list physical barriers)

46 Is there a public access point within 250 feet of the wetland's edge? (parking lots, transit stops, bike lanes, trails, water courses; maintained means designated car or transit area; unmaintained means road pull-off, etc. - describe)

	a. yes, maintained access point exists	b. yes, unmaintained access point exists	c. no access point exists, or the access point is hazardous

road side along N. Lake Ave. or Osprey Point

Recreation

47 Is the wetland accessible by boat?

	a. boat launching areas or access points exist on site or within 1/2 mile on a connected lake, river, bay or other body of	b. potential to develop launching areas or access points exists, or are >1/2 mile but <1 mile from wetland	c. no boat launching areas exist within 1 mile of the wetland, and potential to develop launching areas or access points

48 Are there trails, viewing areas or other structures that guide user movement to particular areas in or around the wetland?

	a. yes, developed or maintained trails or viewing areas exist	b. yes, undeveloped trails or viewing areas exist that do not disrupt wildlife or plant habitat	c. no trails or viewing areas exist, or those that do disrupt wildlife or plant habitat.

49 Is fishing allowed at the wetland or adjacent water body? (answer "c" if 18="b or c", unless 21=OW>10%)

	a. yes (all or part of yea	b. no	c. not applicable

50 Is hunting allowed at the wetland? (If wetland is within city limits, answer is no)

	a. yes (all or part of yea	b. no

Aesthetics

51 SKIP (for rural areas) what is the extent of visual contrast with the surrounding landscape? (see Figure p. 45)

	a. significant contrast	b. limited contrast	c. little or no contrast

52 For urban areas, what is the visual character of the surrounding area? (see Figure p. 46)

	a. open space or naturally landscaped	b. landscaped or manipulated by people	c. developed with no landscaping

53 Are there visual detractors at the site (abandoned cars, litter, shopping carts, etc.) that distract the viewer from the wetland?

	a. yes	b. no

54 If the site contains visual detractors, can they be easily removed?

	a. yes	b. no

Locate the primary viewing area(s) for the following 4 questions (and mark on map)

55 What odors are present at the primary viewing location(s)?

	a. natural, pleasant odors only	b. unpleasant odors (auto exhaust, sewage) present at certain times	c. unpleasant odors are distinct and continuously present

56 What noises are audible at the primary viewing location(s)?

	a. bird and wildlife noises and other naturally occurring sounds	b. some traffic and other similar background sounds are audible in addition to naturally occurring	c. continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds	d. continuous traffic or other intrusive noise is audible, but no naturally occurring audible sounds are

How much of the wetland is visible from the viewing area(s)? Describe the view.

	a. >50%	b. bet. 25% & 50%	c. <25%

58 How many Cowardin classes are visible from the primary viewing area(s)? (question 21)

	a. > two	b. two	c. one

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Questions - Answer Sheet
(4/96 edition with 7/97 addendum)

WETLAND TL-2,3,4 (Tenmile Lake)

Wildlife Habitat		
1	a	21
2	b	23
3	a	24
4	a	28
5	a	18
6	a	27
7	c	7+8
8	a	15
9b	a	26
Diverse		

Fish Habitat		
Streams and Rivers		
1		31
2		30
3		32
4		=WH7
5		=WH8
6	a	29
Lakes and Ponds		
1	a	33
2	a	35
3	a	34
4	c	=WH7
5	a	=WH8
6	a	29
Intact		

Water Quality (pollutant removal)		
1	a	36 (check)
2	a	37
3	b	21
4	a	17+27
5	c	15 (WH8 c=a, a=c, b=b)
6	a	7+8 (WH7 c=a, a=c, b=b)
Intact		

Hydrologic Control (flood control & water supply)		
1	a	19
2	a	37
3	a	17
4	c	38
5	b	23 (check)
6	c	16
7	a	6
Intact		

Sensitivity to Future Impacts		
1	a	27+40
2	b	5+27
3	a	=WQ6
4	c	=WQ5
5	c	20
6	c	23
Potentially sensitive		

Enhancement Potential*		
1		WH-FH-WQ-HC
2		36
3		39
4	a	17
5b	a	26
6		=SI

*skip if WH provides diverse

Education		
1	b	41
2	a	42
3	a	WH-FH
4	a	44
5	a	46
6	a	45
Potential		

Recreation		
1	a	46
2	a	47
3	b	48
4	a	WH
5	a	49
6	b	50
Provides recreation opportunities		

Aesthetic Quality		
1	a	58
2	a	57 (viewshed)
3	a	53+54
4	b	52
5	a	55
6	a	56
Pleasing		

TL-2,3,4

City of Lakeside LWI Oregon Freshwater Wetland Assessment Questions (4/96 edition) (with 7/97 addendum)
(bold questions =field; office review important for 15, 16, 26)

Wetland TL-2,3,4
Plots 26+21+off-Site

Wetland Structure and Landscape

15 What percentage of area within 500 feet of the wetland edge is dedicated to these land uses?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			75
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses		25	
5. Other			

Observers MW+SB
Field Date 11/21/98
3/3/99
Revised

16 What is the dominant existing land use within 500 feet of the wetland on the downstream or down-slope edge of the wetland?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			100
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses			
5. Other			

17 What is the (entire) wetland acreage?

	a. >5 acres	b. bet. 0.5 & 5 acres	c. < 0.5 acres
	(a)		

18 How is wetland connected to a stream, lake, or pond ? (see Figure, p. 35)

	a. connected by surface water (culv., ditch, int./per. stream)	b. not connected to water body within 1 mile	c. not connected, no water bodies within 1 mile
	(a)		

19 Is all or part of the wetland located within the 100-year floodplain or within an enclosed basin?

	a. yes	b. no
	(a)	

20 What is zoned percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			*75
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses	25		
5. Other			

Zoning=
Recreational/residential
Public facilities
General commercial
Water use

* Abandoned mill site + lake included as open space

Wetland Habitat

21 What is percentage wetland area by Cowardin class (10% or more)?

	a. bet. 70% & 100%	b. bet. 50% & <70%	c. bet. 20% & <50%	d. bet. 10% & <20%
Aquatic bed + Open water (OW >6.6ft)			40	
Emergent (EM)				12
Scrub-shrub (SS)			40	
Forested (FO)				8

22 How many wetland plant species are present (urban areas)?

	a. >5	b. bet. 2 & 5	c. 1 (monotypic)
	(a)		

23 What is the dominant wetland vegetation cover?

	a. woody (FO & SS)	b. emergent and ponding, or open water only (EM w/ water or OW)	c. emergent vegetation only or wet meadow (EM)
		(b)	

24 How interspersed are the Cowardin classes (and upland inclusions)? (see Figure p. 37)

	a. high	b. moderate	c. low
	(a)		

25 SKIP (for rural areas) what percentage of the wetland edge is bordered by upland wildlife habitat at least 150 feet wide?

	a. >40%	b. bet. 10% & 40%	c. <10%

26 For urban areas, what percentage of the wetland edge is bordered by a vegetative buffer at least 25 feet wide?

	a. >40%	b. bet. 10% & 40%	c. <10%
	(a)		

27 How is the wetland connected to other wetlands?

	a. connected within 3 miles by surface water	b. not connected; wetlands present within 3 miles	c. not connected, no other wetlands within 3 miles
	(a)		

28 Estimate area of unvegetated, open water within the wetland.

	a. >3 acres	b. >1 to 3 acres	c. bet. 0.5 & 1 acre	d. <0.5 acre
	(a)			

(lake included)

Wetland TL-2,3,4

Fisheries Habitat

29 Are fish present in a stream, lake or pond connected to the wetland?

	(a.) salmon, trout or sensitive species are present at some time during the year	b. other fish species are present at some time during the year	c. no species are present at any time during the year

Streams connected to the wetland

30 What is the physical character of the stream channel?

	a. natural channel, or modified portions are returning to a natural channel	b. only portions of stream modified	c. extensively modified or confined in a non-vegetated channel or pipe

31 What percentage of the stream is shaded by riparian vegetation?

	a. >75%	b. bet. 50% & 75%	c. bet. 25% & <50%	d. <25%

32 What percentage of the stream contains instream structures such as large woody debris, floating/submerged vegetation, large rocks or boulders?

	a. >25%	b. bet. 10% & 25%	c. <10%

Lakes or ponds (entire lake or pond and wetland complex)

33 Does the lake or pond contain areas of deep and shallow water?

	(a.) yes	b. cannot be determine	c. no

34 What percentage of the shoreline is shaded at the water's edge by forested or scrub-shrub vegetation?

	(a.) 60% or more	b. bet. 20% & <60%	c. <20%

35 What percentage of the wetland complex contains cover objects such as submerged logs, floating or submerged vegetation, large rocks or boulders?

	(a.) >25%	b. bet. 10% & 25%	c. <10%

Wetland Hydrology

36 What is the wetland's primary source of water? (emphasis on primary)

	(a.) surface flow, including streams and ditches	b. precipitation or sheet flow	c. groundwater, including springs or seeps

Is there evidence of flooding or ponding during a portion of the growing season?

	(a.) yes (describe)	b. unable to determine or not applicable	c. no

38 Is the water flow out of the wetland restricted (beaver dam, concrete structure, undersized culvert)?

	a. yes, restricted or no outlet	b. minor restrictions slow down the water	(c.) no, outlet has unrestricted flow

39 If the primary source of water is surface flow, is the inflow restricted?

	(a.) not restricted or if blocked, can be removed	b. permanent blockage exists, but may be breached (create new flow channel)	c. flow is restricted and cannot be restored

40 Has the stream flow or stream bank been modified by human activities (dams, levees, channelization, confinement of stream in a pipe) < 1 mile above the wetland?

	(a.) yes	b. no

culvert to TL-3

Public Access to Wetland Site

41 Is the wetland open to the public for direct access or observation?

	a. yes	(b.) yes, but only by permission	c. no, access not allow

42 Are there visible hazards to the public at the wetland site? (busy road with no buffer or sidewalk, steep embankment, contaminated water)

	(a.) no	b. one or two visible safety hazards exist (describe)	c. more than two visible safety hazards exist (describe)

43 Are other natural landscape features (stream, lake, pond, forest, agricultural land) contiguous or adjacent to the wetland? (list type and extent)

	(a.) yes	b. no

Tennile Lake

44 Is there existing physical public access to features listed in question 43? Wetland TL-2,3,4

	(a.) public access to other habitats exists or can be created easily	b. public access doesn't exist and can't be created easily, but observation of other features can be made	c. public access doesn't exist, can't be crated easily, and observation of other features can't be made

s access to a viewing spot or wetland edge available for individuals with limited mobility? (does not have to meet ADA)

	(a.) yes	b. no	(list physical barriers)

46 Is there a public access point within 250 feet of the wetland's edge? (parking lots, transit stops, bike lanes, trails, water courses; maintained means designated car or transit area; unmaintained means road pull-off, etc. - describe)

	(a.) yes, maintained access point exists	b. yes, unmaintained access point exists	c. no access point exists, or the access point is hazardous	Tenmile Lake County Park

Recreation

47 Is the wetland accessible by boat?

	(a.) boat launching areas or access points exist on site or within 1/2 mile on a connected lake, river, bay or other body of	b. potential to develop launching areas or access points exists, or are >1/2 mile but <1 mile from wetland	c. no boat launching areas exist within 1 mile of the wetland, and potential to develop launching areas or access points

48 Are there trails, viewing areas or other structures that guide user movement to particular areas in or around the wetland?

	a. yes, developed or maintained trails or viewing areas exist	(b.) yes, undeveloped trails or viewing areas exist that do not disrupt wildlife or plant habitat	c. no trails or viewing areas exist, or those that do disrupt wildlife or plant habitat.

49 Is fishing allowed at the wetland or adjacent water body? (answer "c" if 18="b or c", unless 21=OW>10%)

	(a.) yes (all or part of yea	b. no	c. not applicable

s hunting allowed at the wetland? (If wetland is within city limits, answer is no)

	a. yes (all or part of yea	(b.) no

Aesthetics

51 SKIP (for rural areas) what is the extent of visual contrast with the surrounding landscape? (see Figure p. 45)

	a. significant contrast	b. limited contrast	c. little or no contrast

52 For urban areas, what is the visual character of the surrounding area? (see Figure p. 46)

	a. open space or naturally landscaped	(b.) landscaped or manipulated by people	c. developed with no landscaping

53 Are there visual detractors at the site (abandoned cars, litter, shopping carts, etc.) that distract the viewer from the wetland?

	a. yes	(b.) no

54 If the site contains visual detractors, can they be easily removed?

	a. yes	b. no

Locate the primary viewing area(s) for the following 4 questions (and mark on map)

55 What odors are present at the primary viewing location(s)?

	(a.) natural, pleasant odors only	b. unpleasant odors (auto exhaust, sewage) present at certain times	c. unpleasant odors are distinct and continuously present

56 What noises are audible at the primary viewing location(s)?

	a. bird and wildlife noises and other naturally occurring sounds	(b.) some traffic and other similar background sounds are audible in addition to naturally occurring	c. continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds	d. continuous traffic or other intrusive noise is audible, but no naturally occurring audible sounds are

How much of the wetland is visible from the viewing area(s)? Describe the view.

	(a.) >50%	b. bet. 25% & 50%	c. <25%

58 How many Cowardin classes are visible from the primary viewing area(s)? (question 21)

	(a.) > two	b. two	c. one

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Questions - Answer Sheet
(4/96 edition with 7/97 addendum)

WETLAND TL-5 (Tenmile Lake)

Wildlife Habitat		
1	a	21
2	a	23
3	b	24
4	a	28
5	a	18
6	a	27
7	c	7+8
8	a	15
9b	a	26
Diverse		

Fish Habitat		
Streams and Rivers		
1		31
2		30
3		32
4		=WH7
5		=WH8
6	a	29
Lakes and Ponds		
1	a	33
2	a	35
3	a	34
4	c	=WH7
5	a	=WH8
6	a	29
Intact		

Water Quality (pollutant removal)		
1	a	36 (check)
2	a	37
3	a	21
4	a	17+27
5	c	15 (WH8 c=a, a=c, b=b)
6	a	7+8 (WH7 c=a, a=c, b=b)
Intact		

Hydrologic Control (flood control & water supply)		
1	a	19
2	a	37
3	a	17
4	a	38
5	a	23 (check)
6	c	16
7	a	6
Intact		

Sensitivity to Future Impacts		
1	a	27+40
2	b	5+27
3	a	=WQ6
4	c	=WQ5
5	c	20
6	a	23
Potentially Sensitive		

Enhancement Potential*		
1		WH-FH-WQ-HC
2		36
3		39
4	a	17
5b	a	26
6		=SI

*skip if WH provides diverse

Education		
1	a	41
2	a	42
3	a	WH-FH
4	a	44
5	b	46
6	a	45
Provides educational uses		

Recreation		
1	b	46
2	a	47
3	c	48
4	a	WH
5	a	49
6	b	50
Provides recreational opportunities		

Aesthetic Quality		
1	a	58
2	a	57 (viewshed)
3	a	53+54
4	b	52
5	a	55
6	a	56
Pleasing		

TL-5

City of Lakeside LWI Oregon Freshwater Wetland Assessment Questions (4/96 edition) (with 7/97 addendum)
(bold questions =field; office review important for 15, 16, 26)

Wetland TL-5
Plot 38

Wetland Structure and Landscape

15 What percentage of area within 500 feet of the wetland edge is dedicated to these land uses?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			60
2. Agriculture		40 logged	
3. Exclusive Forest Use			
4. Developed uses			
5. Other			

Observers MW + SB
Field Date 3/3/99
Revised

16 What is the dominant existing land use within 500 feet of the wetland on the downstream or down-slope edge of the wetland?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			100
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses			
5. Other			

17 What is the (entire) wetland acreage?

	a. >5 acres	b. bet. 0.5 & 5 acres	c. < 0.5 acres
	(a)		

18 How is wetland connected to a stream, lake, or pond ? (see Figure, p. 35)

	a. connected by surface water (culv., ditch, int./per. stream)	b. not connected to water body within 1 mile	c. not connected, no water bodies within 1 mile
	(a)		

19 Is all or part of the wetland located within the 100-year floodplain or within an enclosed basin?

	a. yes	b. no
	(a)	

most outside Floodplain

20 What is zoned percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			100
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses			
5. Other			

Zoning = recreational/residential but no development within 500 feet + lake = water use

Wetland Habitat

21 What is percentage wetland area by Cowardin class (10% or more)?

	a. bet. 70% & 100%	b. bet. 50% & <70%	c. bet. 20% & <50%	d. bet. 10% & <20%
Open water (OW >6.6ft)			30	
Emergent (EM)			20	
Scrub-shrub (SS)				10
Forested (FO)		50		

22 How many wetland plant species are present (urban areas)?

	a. >5	b. bet. 2 & 5	c. 1 (monotypic)
	(a)		

23 What is the dominant wetland vegetation cover?

	a. woody (FO & SS)	b. emergent and ponding, or open water only (EM w/ water or OW)	c. emergent vegetation only or wet meadow (EM)
	(a)		

24 How interspersed are the Cowardin classes (and upland inclusions)? (see Figure p. 37)

	a. high	b. moderate	c. low
		(b)	

25 SKIP (for rural areas) what percentage of the wetland edge is bordered by upland wildlife habitat at least 150 feet wide?

	a. >40%	b. bet. 10% & 40%	c. <10%

26 For urban areas, what percentage of the wetland edge is bordered by a vegetative buffer at least 25 feet wide?

	a. >40%	b. bet. 10% & 40%	c. <10%
	(a)		

27 How is the wetland connected to other wetlands?

	a. connected within 3 miles by surface water	b. not connected; wetlands present within 3 miles	c. not connected, no other wetlands within 3 miles
	(a)		

28 Estimate area of unvegetated, open water within the wetland.

	a. >3 acres	b. >1 to 3 acres	c. bet. 0.5 & 1 acre	d. <0.5 acre
	(a)			

(lake included)

TL-5

Fisheries Habitat Wetland TL-5

29 Are fish present in a stream, lake or pond connected to the wetland?

	(a.) salmon, trout or sensitive species are present at some time during the year	b. other fish species are present at some time during the year	c. no species are present at any time during the year

Streams connected to the wetland

30 What is the physical character of the stream channel?

	a. natural channel, or modified portions are returning to a natural channel	b. only portions of stream modified	c. extensively modified or confined in a non-vegetated channel or pipe

31 What percentage of the stream is shaded by riparian vegetation?

	a. >75%	b. bet. 50% & 75%	c. bet. 25% & <50%	d. <25%

32 What percentage of the stream contains instream structures such as large woody debris, floating/submerged vegetation, large rocks or boulders?

	a. >25%	b. bet. 10% & 25%	c. <10%

Lakes or ponds (entire lake or pond and wetland complex)

33 Does the lake or pond contain areas of deep and shallow water?

	(a.) yes	b. cannot be determine	c. no

34 What percentage of the shoreline is shaded at the water's edge by forested or scrub-shrub vegetation?

	(a.) 60% or more	b. bet. 20% & <60%	c. <20%

35 What percentage of the wetland complex contains cover objects such as submerged logs, floating or submerged vegetation, large rocks or boulders?

	(a.) >25%	b. bet. 10% & 25%	c. <10%

Wetland Hydrology

36 What is the wetland's primary source of water? (emphasis on primary)

	(a.) surface flow, including streams and ditches	b. precipitation or sheet flow	c. groundwater, including springs or seeps

Is there evidence of flooding or ponding during a portion of the growing season?

	(a.) yes (describe)	b. unable to determine or not applicable	c. no	beaver pond

38 Is the water flow out of the wetland restricted (beaver dam, concrete structure, undersized culvert)?

	(a.) yes, restricted or no outlet	b. minor restrictions slow down the water	c. no, outlet has unrestricted flow

39 If the primary source of water is surface flow, is the inflow restricted?

	(a.) not restricted or if blocked, can be removed	b. permanent blockage exists, but may be breached (create new flow channel)	c. flow is restricted and cannot be restored	culvert under Deuce Arm Rd

40 Has the stream flow or stream bank been modified by human activities (dams, levees, channelization, confinement of stream in a pipe) < 1 mile above the wetland?

	(a.) yes	b. no

Public Access to Wetland Site

41 Is the wetland open to the public for direct access or observation?

	(a.) yes	b. yes, but only by permission	c. no, access not allow

42 Are there visible hazards to the public at the wetland site? (busy road with no buffer or sidewalk, steep embankment, contaminated water)

	(a.) no	b. one or two visible safety hazards exist (describe)	c. more than two visible safety hazards exist (describe)

43 Are other natural landscape features (stream, lake, pond, forest, agricultural land) contiguous or adjacent to the wetland? (list type and extent)

	(a.) yes	b. no	Tennile Lake upland forest

44 Is there existing physical public access to features listed in question 43? Wetland TL-5

	a. public access to other habitats exists or can be created easily	b. public access doesn't exist and can't be created easily, but observation of other features can be made	c. public access doesn't exist, can't be crated easily, and observation of other features can't be made

access to a viewing spot or wetland edge available for individuals with limited mobility? (does not have to meet ADA)

	a. yes	b. no	(list physical barriers)

46 Is there a public access point within 250 feet of the wetland's edge? (parking lots, transit stops, bike lanes, trails, water courses; maintained means designated car or transit area; unmaintained means road pull-off, etc. - describe)

	a. yes, maintained access point exists	b. yes, unmaintained access point exists	c. no access point exists, or the access point is hazardous

Road side along Devore Arm Rd.

Recreation

47 Is the wetland accessible by boat?

	a. boat launching areas or access points exist on site or within 1/2 mile on a connected lake, river, bay or other body of	b. potential to develop launching areas or access points exists, or are >1/2 mile but <1 mile from wetland	c. no boat launching areas exist within 1 mile of the wetland, and potential to develop launching areas or access points

48 Are there trails, viewing areas or other structures that guide user movement to particular areas in or around the wetland?

	a. yes, developed or maintained trails or viewing areas exist	b. yes, undeveloped trails or viewing areas exist that do not disrupt wildlife or plant habitat	c. no trails or viewing areas exist, or those that do disrupt wildlife or plant habitat.

49 Is fishing allowed at the wetland or adjacent water body? (answer "c" if 18="b or c", unless 21=OW>10%)

	a. yes (all or part of yea	b. no	c. not applicable

's hunting allowed at the wetland? (If wetland is within city limits, answer is no)

	a. yes (all or part of yea	b. no

Aesthetics

51 SKIP (for rural areas) what is the extent of visual contrast with the surrounding landscape? (see Figure p. 45)

	a. significant contrast	b. limited contrast	c. little or no contrast

52 For urban areas, what is the visual character of the surrounding area? (see Figure p. 46)

	a. open space or naturally landscaped	b. landscaped or manipulated by people	c. developed with no landscaping

logged upslope

53 Are there visual detractors at the site (abandoned cars, litter, shopping carts, etc.) that distract the viewer from the wetland?

	a. yes	b. no

54 If the site contains visual detractors, can they be easily removed?

	a. yes	b. no

Locate the primary viewing area(s) for the following 4 questions (and mark on map)

55 What odors are present at the primary viewing location(s)?

	a. natural, pleasant odors only	b. unpleasant odors (auto exhaust, sewage) present at certain times	c. unpleasant odors are distinct and continuously present

56 What noises are audible at the primary viewing location(s)?

	a. bird and wildlife noises and other naturally occurring sounds	b. some traffic and other similar background sounds are audible in addition to naturally occurring	c. continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds	d. continuous traffic or other intrusive noise is audible, but no naturally occurring audible sounds are

How much of the wetland is visible from the viewing area(s)? Describe the view.

	a. >50%	b. bet. 25% & 50%	c. <25%

58 How many Cowardin classes are visible from the primary viewing area(s)? (question 21)

	a. > two	b. two	c. one

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Questions - Answer Sheet
(4/96 edition with 7/97 addendum)

WETLAND TC-1 (Tenmile Creek)

Wildlife Habitat		
1	a	21
2	a	23
3	a	24
4	a	28
5	a	18
6	a	27
7	b	7+8
8	a	15
9b	a	26
Diverse		

Fish Habitat		
Streams and Rivers		
1	a	31
2	a	30
3	b	32
4	b	=WH7
5	a	=WH8
6	a	29
Lakes and Ponds		
1		33
2		35
3		34
4		=WH7
5		=WH8
6	a	29
Intact		

Water Quality (pollutant removal)		
1	a	36 (check)
2	a	37
3	a	21
4	a	17+27
5	c	15 (WH8 c=a, a=c, b=b)
6	b	7+8 (WH7 c=a, a=c, b=b)
Intact		

Hydrologic Control (flood control & water supply)		
1	a	19
2	a	37
3	a	17
4	b	38
5	a	23 (check)
6	c	16
7	a	6
Intact		

Sensitivity to Future Impacts		
1	b	27+40
2	b	5+27
3	b	=WQ6
4	c	=WQ5
5	c	20
6	a	23
Potentially Sensitive		

Enhancement Potential*		
1		WH-FH-WQ-HC
2		36
3		39
4	a	17
5b	a	26
6		=SI

*skip if WH provides diverse

Education		
1	b	41
2	a	42
3	a	WH-FH
4	b	44
5	b	46
6	a	45
Potential educational uses		

Recreation		
1	b	46
2	a	47
3	c	48
4	a	WH
5	a	49
6	b	50
Provides recreational opportunities		

Aesthetic Quality		
1	a	58
2	c	57 (viewshed)
3	a	53+54
4	b	52
5	a	55
6	a	56
Pleasing		

City of Lakeside LWI Oregon Freshwater Wetland Assessment Questions (4/96 edition) (with 7/97 addendum)
(bold questions =field; office review important for 15, 16, 26)

Wetland TC-1
Plots 5, 7 + 45 + off-site

Observers MW + SB
Field Date 11/20/98, 3/4/99
Revised

Wetland Structure and Landscape

15 What percentage of area within 500 feet of the wetland edge is dedicated to these land uses?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			60
2. Agriculture	5		
3. Exclusive Forest Use			
4. Developed uses		35	
5. Other			

16 What is the dominant existing land use within 500 feet of the wetland on the downstream or down-slope edge of the wetland?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			60
2. Agriculture	5		
3. Exclusive Forest Use			
4. Developed uses		35	
5. Other			

included everything north + south of Tenmile Creek

17 What is the (entire) wetland acreage?

	a. >5 acres	b. bet. 0.5 & 5 acres	c. < 0.5 acres
	(a)		

18 How is wetland connected to a stream, lake, or pond ? (see Figure, p. 35)

	a. connected by surface water (culv., ditch, int./per. stream)	b. not connected to water body within 1 mile	c. not connected, no water bodies within 1 mile
	(a)		

19 Is all or part of the wetland located within the 100-year floodplain or within an enclosed basin?

	a. yes	b. no
	(a)	

east portion within FP

20 What is zoned percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			60
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses		40	
5. Other			

Zoning = recreational/residential public facilities
Adjusted area (overlay)

Wetland Habitat

21 What is percentage wetland area by Cowardin class (10% or more)?

	a. bet. 70% & 100%	b. bet. 50% & <70%	c. bet. 20% & <50%	d. bet. 10% & <20%
Open water (OW >6.6ft)				17
Emergent (EM)			23	
Scrub-shrub (SS)		60		
Forested (FO)				(trace)

22 How many wetland plant species are present (urban areas)?

	a. >5	b. bet. 2 & 5	c. 1 (monotypic)
	(a)		

23 What is the dominant wetland vegetation cover?

	a. woody (FO & SS)	b. emergent and ponding, or open water only (EM w/ water or OW)	c. emergent vegetation only or wet meadow (EM)
	(a)		

24 How interspersed are the Cowardin classes (and upland inclusions)? (see Figure p. 37)

	a. high	b. moderate	c. low
	(a)		

25 SKIP (for rural areas) what percentage of the wetland edge is bordered by upland wildlife habitat at least 150 feet wide?

	a. >40%	b. bet. 10% & 40%	c. <10%

26 For urban areas, what percentage of the wetland edge is bordered by a vegetative buffer at least 25 feet wide?

	a. >40%	b. bet. 10% & 40%	c. <10%
	(a)		

27 How is the wetland connected to other wetlands?

	a. connected within 3 miles by surface water	b. not connected; wetlands present within 3 miles	c. not connected, no other wetlands within 3 miles
	(a)		

28 Estimate area of unvegetated, open water within the wetland.

	a. >3 acres	b. >1 to 3 acres	c. bet. 0.5 & 1 acre	d. <0.5 acre
	(a)			

TC-1

Fisheries Habitat Wetland TC-1

29 Are fish present in a stream, lake or pond connected to the wetland?

	(a.) salmon, trout or sensitive species are present at some time during the year	b. other fish species are present at some time during the year	c. no species are present at any time during the year

reams connected to the wetland

30 What is the physical character of the stream channel?

	(a.) natural channel, or modified portions are returning to a natural channel	b. only portions of stream modified	c. extensively modified or confined in a non-vegetated channel or pipe

31 What percentage of the stream is shaded by riparian vegetation?

	(a.) >75%	b. bet. 50% & 75%	c. bet. 25% & <50%	d. <25%

32 What percentage of the stream contains instream structures such as large woody debris, floating/submerged vegetation, large rocks or boulders?

	a. >25%	(b.) bet. 10% & 25%	c. <10%

Lakes or ponds (entire lake or pond and wetland complex)

33 Does the lake or pond contain areas of deep and shallow water?

	a. yes	b. cannot be determine	c. no

34 What percentage of the shoreline is shaded at the water's edge by forested or scrub-shrub vegetation?

	a. 60% or more	b. bet. 20% & <60%	c. <20%

35 What percentage of the wetland complex contains cover objects such as submerged logs, floating or submerged vegetation, large rocks or boulders?

	a. >25%	b. bet. 10% & 25%	c. <10%

Wetland Hydrology

36 What is the wetland's primary source of water? (emphasis on primary)

	(a.) surface flow, including streams and ditches	b. precipitation or sheet flow	c. groundwater, including springs or seeps

s there evidence of flooding or ponding during a portion of the growing season?

	(a.) yes (describe)	b. unable to determine or not applicable	c. no

38 Is the water flow out of the wetland restricted (beaver dam, concrete structure, undersized culvert)?

	a. yes, restricted or no outlet	(b.) minor restrictions slow down the water	c. no, outlet has unrestricted flow	oxbows

39 If the primary source of water is surface flow, is the inflow restricted?

	(a.) not restricted or if blocked, can be removed	b. permanent blockage exists, but may be breached (create new flow channel)	c. flow is restricted and cannot be restored

40 Has the stream flow or stream bank been modified by human activities (dams, levees, channelization, confinement of stream in a pipe) < 1 mile above the wetland?

	(a.) yes	b. no	Culverted under Hwy 101 + Wildwood Dr.

Public Access to Wetland Site

41 Is the wetland open to the public for direct access or observation?

	a. yes	(b.) yes, but only by permission	c. no, access not allow

42 Are there visible hazards to the public at the wetland site? (busy road with no buffer or sidewalk, steep embankment, contaminated water)

	(a.) no	b. one or two visible safety hazards exist (describe)	c. more than two visible safety hazards exist (describe)

43 Are other natural landscape features (stream, lake, pond, forest, agricultural land) contiguous or adjacent to the wetland? (list type and extent)

	(a.) yes	b. no	upland forest Tenmile Lake @ east agricultural land @ west

Wetland 1C-1

44 Is there existing physical public access to features listed in question 43?

	a. public access to other habitats exists or can be created easily	b. public access doesn't exist and can't be created easily, but observation of other features can be made	c. public access doesn't exist, can't be crated easily, and observation of other features can't be made
		(b)	

public access only to east portion within UGB

access to a viewing spot or wetland edge available for individuals with limited mobility? (does not have to meet ADA)

	a. yes	b. no
	(a)	

(list physical barriers) from Park Ave.

46 Is there a public access point within 250 feet of the wetland's edge? (parking lots, transit stops, bike lanes, trails, water courses; maintained means designated car or transit area; unmaintained means road pull-off, etc. - describe)

	a. yes, maintained access point exists	b. yes, unmaintained access point exists	c. no access point exists, or the access point is hazardous
		(b)	

access only to east portion from Park Ave.

Recreation

47 Is the wetland accessible by boat?

	a. boat launching areas or access points exist on site or within 1/2 mile on a connected lake, river, bay or other body of	b. potential to develop launching areas or access points exists, or are >1/2 mile but <1 mile from wetland	c. no boat launching areas exist within 1 mile of the wetland, and potential to develop launching areas or access points
	(a)		

48 Are there trails, viewing areas or other structures that guide user movement to particular areas in or around the wetland?

	a. yes, developed or maintained trails or viewing areas exist	b. yes, undeveloped trails or viewing areas exist that do not disrupt wildlife or plant habitat	c. no trails or viewing areas exist, or those that do disrupt wildlife or plant habitat.
			(c)

49 Is fishing allowed at the wetland or adjacent water body? (answer "c" if 18="b or c", unless 21=OW>10%)

	a. yes (all or part of yea	b. no	c. not applicable
	(a)		

's hunting allowed at the wetland? (If wetland is within city limits, answer is no)

	a. yes (all or part of yea	b. no
		(b)

Aesthetics

51 SKIP (for rural areas) what is the extent of visual contrast with the surrounding landscape? (see Figure p. 45)

	a. significant contrast	b. limited contrast	c. little or no contrast

52 For urban areas, what is the visual character of the surrounding area? (see Figure p. 46)

	a. open space or naturally landscaped	b. landscaped or manipulated by people	c. developed with no landscaping
		(b)	

open space to west of UGB

53 Are there visual detractors at the site (abandoned cars, litter, shopping carts, etc.) that distract the viewer from the wetland?

	a. yes	b. no
		(b)

54 If the site contains visual detractors, can they be easily removed?

	a. yes	b. no

Locate the primary viewing area(s) for the following 4 questions (and mark on map)

55 What odors are present at the primary viewing location(s)?

	a. natural, pleasant odors only	b. unpleasant odors (auto exhaust, sewage) present at certain times	c. unpleasant odors are distinct and continuously present
	(a)		

56 What noises are audible at the primary viewing location(s)?

	a. bird and wildlife noises and other naturally occurring sounds	b. some traffic and other similar background sounds are audible in addition to naturally occurring	c. continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds	d. continuous traffic or other intrusive noise is audible, but no naturally occurring audible sounds are
		(b)		

How much of the wetland is visible from the viewing area(s)? Describe the view.

	a. >50%	b. bet. 25% & 50%	c. <25%
			(c)

58 How many Cowardin classes are visible from the primary viewing area(s)? (question 21)

	a. > two	b. two	c. one
	(a)		

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Questions - Answer Sheet
(4/96 edition with 7/97 addendum)

WETLAND TC-2 (Tenmile Creek)

Wildlife Habitat		
1	a	21
2	a	23
3	c	24
4	c	28
5	a	18
6	a	27
7	b	7+8
8	a	15
9b	a	26
Provides habitat for some species		

Fish Habitat		
Streams and Rivers		
1	b	31
2	b	30
3	c	32
4	b	=WH7
5	a	=WH8
6	a	29
Lakes and Ponds		
1		33
2		35
3		34
4		=WH7
5		=WH8
6	a	29
Impacted or degraded		

Water Quality (pollutant removal)		
1	a	36 (check)
2	a	37
3	a	21
4	a	17+27
5	c	15 (WH8 c=a, a=c, b=b)
6	b	7+8 (WH7 c=a, a=c, b=b)
Intact		

Hydrologic Control (flood control & water supply)		
1	b	19
2	a	37
3	a	17
4	b	38
5	a	23 (check)
6	a	16
7	a	6
Intact		

Sensitivity to Future Impacts		
1	a	27+40
2	b	5+27
3	b	=WQ6
4	c	=WQ5
5	c	20
6	a	23
Potentially sensitive		

Enhancement Potential*		
1	a	WH-FH-WQ-HC
2	a	36
3	a	39
4	a	17
5b	a	26
6	b	=SI
High		

*skip if WH provides diverse

Education		
1	b	41
2	a	42
3	b	WH-FH
4	a	44
5	b	46
6	a	45
Potential educational use		

Recreation		
1	b	46
2	c	47
3	b	48
4	b	WH
5	b	49
6	b	50
Potential recreational opportunities		

Aesthetic Quality		
1	b	58
2	a	57 (viewshed)
3	a	53+54
4	b	52
5	a	55
6	a	56
Pleasing		

City of Lakeside LWI Oregon Freshwater Wetland Assessment Questions (4/96 edition) (with 7/97 addendum)
(bold questions =field; office review important for 15, 16, 26)

Wetland 1C - d off-site

Wetland Structure and Landscape

15 What percentage of area within 500 feet of the wetland edge is dedicated to these land uses?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			95 (incl. airport)
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses	5		
5. Other			

Observers
Field Date 11/21/98
Revised

16 What is the dominant existing land use within 500 feet of the wetland on the downstream or down-slope edge of the wetland?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space		40	
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses			60
5. Other			

South edge of wetland

17 What is the (entire) wetland acreage?

	a. >5 acres	b. bet. 0.5 & 5 acres	c. < 0.5 acres
	(a)		

18 How is wetland connected to a stream, lake, or pond ? (see Figure, p. 35)

	a. connected by surface water (culv., ditch, int./per. stream)	b. not connected to water body within 1 mile	c. not connected, no water bodies within 1 mile
	(a)		

19 Is all or part of the wetland located within the 100-year floodplain or within an enclosed basin?

	a. yes	b. no
		(b)

20 What is zoned percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			*75
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses	25		
5. Other			

Zoning = General residential, public facilities, recreational/residential, open space

Airport included as open space

Wetland Habitat

21 What is percentage wetland area by Cowardin class (10% or more)?

	a. bet. 70% & 100%	b. bet. 50% & <70%	c. bet. 20% & <50%	d. bet. 10% & <20%
Open water (OW >6.6ft)				
Emergent (EM)				15
Scrub-shrub (SS)	85			
Forested (FO)				

22 How many wetland plant species are present (urban areas)?

	a. >5	b. bet. 2 & 5	c. 1 (monotypic)
	(a)		

23 What is the dominant wetland vegetation cover?

	a. woody (FO & SS)	b. emergent and ponding, or open water only (EM w/ water or OW)	c. emergent vegetation only or wet meadow (EM)
	(a)		

24 How interspersed are the Cowardin classes (and upland inclusions)? (see Figure p. 37)

	a. high	b. moderate	c. low
			(c)

25 SKIP (for rural areas) what percentage of the wetland edge is bordered by upland wildlife habitat at least 150 feet wide?

	a. >40%	b. bet. 10% & 40%	c. <10%

26 For urban areas, what percentage of the wetland edge is bordered by a vegetative buffer at least 25 feet wide?

	a. >40%	b. bet. 10% & 40%	c. <10%
	(a)		

27 How is the wetland connected to other wetlands?

	a. connected within 3 miles by surface water	b. not connected; wetlands present within 3 miles	c. not connected, no other wetlands within 3 miles
	(a)		

28 Estimate area of unvegetated, open water within the wetland.

	a. >3 acres	b. >1 to 3 acres	c. bet. 0.5 & 1 acre	d. <0.5 acre
				(d)

TC-2

Fisheries Habitat Wetland IC-2

29 Are fish present in a stream, lake or pond connected to the wetland?

	(a.) salmon, trout or sensitive species are present at some time during the year	b. other fish species are present at some time during the year	c. no species are present at any time during the year

reams connected to the wetland

30 What is the physical character of the stream channel?

	a. natural channel, or modified portions are returning to a natural channel	(b.) only portions of stream modified	c. extensively modified or confined in a non-vegetated channel or pipe

31 What percentage of the stream is shaded by riparian vegetation?

	a. >75%	(b.) bet. 50% & 75%	c. bet. 25% & <50%	d. <25%

32 What percentage of the stream contains instream structures such as large woody debris, floating/submerged vegetation, large rocks or boulders?

	a. >25%	b. bet. 10% & 25%	(c.) <10%

Lakes or ponds (entire lake or pond and wetland complex)

33 Does the lake or pond contain areas of deep and shallow water?

	a. yes	b. cannot be determine	c. no

34 What percentage of the shoreline is shaded at the water's edge by forested or scrub-shrub vegetation?

	a. 60% or more	b. bet. 20% & <60%	c. <20%

35 What percentage of the wetland complex contains cover objects such as submerged logs, floating or submerged vegetation, large rocks or boulders?

	a. >25%	b. bet. 10% & 25%	c. <10%

Wetland Hydrology

36 What is the wetland's primary source of water? (emphasis on primary)

	(a.) surface flow, including streams and ditches	b. precipitation or sheet flow	c. groundwater, including springs or seeps

there evidence of flooding or ponding during a portion of the growing season?

	(a.) yes (describe)	b. unable to determine or not applicable	c. no

38 Is the water flow out of the wetland restricted (beaver dam, concrete structure, undersized culvert)?

	a. yes, restricted or no outlet	(b.) minor restrictions slow down the water	c. no, outlet has unrestricted flow

39 If the primary source of water is surface flow, is the inflow restricted?

	(a.) not restricted or if blocked, can be removed	b. permanent blockage exists, but may be breached (create new flow channel)	c. flow is restricted and cannot be restored

40 Has the stream flow or stream bank been modified by human activities (dams, levees, channelization, confinement of stream in a pipe) < 1 mile above the wetland?

	(a.) yes	b. no	Stream ditched along airport

Public Access to Wetland Site

41 Is the wetland open to the public for direct access or observation?

	a. yes	(b.) yes, but only by permission	c. no, access not allow

42 Are there visible hazards to the public at the wetland site? (busy road with no buffer or sidewalk, steep embankment, contaminated water)

	(a.) no	b. one or two visible safety hazards exist (describe)	c. more than two visible safety hazards exist (describe)

43 Are other natural landscape features (stream, lake, pond, forest, agricultural land) contiguous or adjacent to the wetland? (list type and extent)

	(a.) yes	b. no	upland forest

Wetland TC-2

44 Is there existing physical public access to features listed in question 43?

	(a.) public access to other habitats exists or can be created easily	b. public access doesn't exist and can't be created easily, but observation of other features can be made	c. public access doesn't exist, can't be crated easily, and observation of other features can't be made

s access to a viewing spot or wetland edge available for individuals with limited mobility? (does not have to meet ADA)

	(a.) yes	b. no (list physical barriers)

46 Is there a public access point within 250 feet of the wetland's edge? (parking lots, transit stops, bike lanes, trails, water courses; maintained means designated car or transit area; unmaintained means road pull-off, etc. - describe)

	a. yes, maintained access point exists	(b.) yes, unmaintained access point exists	c. no access point exists, or the access point is hazardous

Road Side along Airport Way

Recreation

47 Is the wetland accessible by boat?

	a. boat launching areas or access points exist on site or within 1/2 mile on a connected lake, river, bay or other body of	b. potential to develop launching areas or access points exists, or are >1/2 mile but <1 mile from wetland	(c.) no boat launching areas exist within 1 mile of the wetland, and potential to develop launching areas or access points

48 Are there trails, viewing areas or other structures that guide user movement to particular areas in or around the wetland?

	a. yes, developed or maintained trails or viewing areas exist	(b.) yes, undeveloped trails or viewing areas exist that do not disrupt wildlife or plant habitat	c. no trails or viewing areas exist, or those that do disrupt wildlife or plant habitat.

49 Is fishing allowed at the wetland or adjacent water body? (answer "c" if 18="b or c", unless 21=OW>10%)

	a. yes (all or part of yea	b. no	(c.) not applicable

's hunting allowed at the wetland? (If wetland is within city limits, answer is no)

	a. yes (all or part of yea	(b.) no

Aesthetics

51 SKIP (for rural areas) what is the extent of visual contrast with the surrounding landscape? (see Figure p. 45)

	a. significant contrast	b. limited contrast	c. little or no contrast

52 For urban areas, what is the visual character of the surrounding area? (see Figure p. 46)

	a. open space or naturally landscaped	(b.) landscaped or manipulated by people	c. developed with no landscaping

53 Are there visual detractors at the site (abandoned cars, litter, shopping carts, etc.) that distract the viewer from the wetland?

	a. yes	(b.) no

54 If the site contains visual detractors, can they be easily removed?

	a. yes	b. no

Locate the primary viewing area(s) for the following 4 questions (and mark on map)

55 What odors are present at the primary viewing location(s)?

	(a.) natural, pleasant odors only	b. unpleasant odors (auto exhaust, sewage) present at certain times	c. unpleasant odors are distinct and continuously present

56 What noises are audible at the primary viewing location(s)?

	a. bird and wildlife noises and other naturally occurring sounds	(b.) some traffic and other similar background sounds are audible in addition to naturally occurring	c. continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds	d. continuous traffic or other intrusive noise is audible, but no naturally occurring audible sounds are

How much of the wetland is visible from the viewing area(s)? Describe the view.

	(a.) >50%	b. bet. 25% & 50%	c. <25%

58 How many Cowardin classes are visible from the primary viewing area(s)? (question 21)

	a. > two	(b.) two	c. one

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Questions - Answer Sheet
(4/96 edition with 7/97 addendum)

WETLAND TC-3 (Tenmile Creek)

Wildlife Habitat		
1	a	21
2	a	23
3	b	24
4	b	28
5	a	18
6	a	27
7	b	7+8
8	a	15
9b	a	26
Provides diverse habitat		

Fish Habitat		
Streams and Rivers		
1	a	31
2	b	30
3	b	32
4	b	=WH7
5	a	=WH8
6	a	29
Lakes and Ponds		
1		33
2		35
3		34
4		=WH7
5		=WH8
6	a	29
Intact		

Water Quality (pollutant removal)		
1	a	36 (check)
2	a	37
3	a	21
4	b	17+27
5	c	15 (WH8 c=a, a=c, b=b)
6	b	7+8 (WH7 c=a, a=c, b=b)
Intact		

Hydrologic Control (flood control & water supply)		
1	a	19
2	a	37
3	b	17
4	b	38
5	a	23 (check)
6	c	16
7	a	6
Intact		

Sensitivity to Future Impacts		
1	b	27+40
2	b	5+27
3	b	=WQ6
4	c	=WQ5
5	c	20
6	a	23
Potentially sensitive		

Enhancement Potential*		
1		WH-FH-WQ-HC
2		36
3		39
4	b	17
5b	a	26
6		=SI

*skip if WH provides diverse

Education		
1	b	41
2	a	42
3	a	WH-FH
4	b	44
5	b	46
6	a	45
Potential educational use		

Recreation		
1	b	46
2	c	47
3	b	48
4	a	WH
5	a	49
6	b	50
Potential recreational opportunities		

Aesthetic Quality		
1	b	58
2	b	57 (viewshed)
3	a	53+54
4	a	52
5	a	55
6	a	56
Moderately pleasing		

City of Lakeside LWI Oregon Freshwater Wetland Assessment Questions (4/96 edition) (with 7/97 addendum)
(bold questions =field; office review important for 15, 16, 26)

Wetland TC-3
Plot 36

Observers MW + SB
Field Date 3/3/99
Revised

Wetland Structure and Landscape

15 What percentage of area within 500 feet of the wetland edge is dedicated to these land uses?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			95
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses	5		
5. Other			

16 What is the dominant existing land use within 500 feet of the wetland on the downstream or down-slope edge of the wetland?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			75
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses		25	
5. Other			

north of wetland south of Tenmile Creek

17 What is the (entire) wetland acreage?

	a. >5 acres	(b.) bet. 0.5 & 5 acres	c. < 0.5 acres

18 How is wetland connected to a stream, lake, or pond ? (see Figure, p. 35)

	(a.) connected by surface water (culv., ditch, int./per. stream)	b. not connected to water body within 1 mile	c. not connected, no water bodies within 1 mile

19 Is all or part of the wetland located within the 100-year floodplain or within an enclosed basin?

	(a.) yes	b. no

north portion of unit

20 What is zoned percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			95
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses	5		
5. Other			

Zoning: recreational/residential but only 5% developed within 500 feet

Wetland Habitat

21 What is percentage wetland area by Cowardin class (10% or more)?

	a. bet. 70% & 100%	b. bet. 50% & <70%	c. bet. 20% & <50%	d. bet. 10% & <20%
Open water (OW >6.6ft)			15	
Emergent (EM)			25	
Scrub-shrub (SS)				10
Forested (FO)		50		

22 How many wetland plant species are present (urban areas)?

	(a.) >5	b. bet. 2 & 5	c. 1 (monotypic)

23 What is the dominant wetland vegetation cover?

	(a.) woody (FO & SS)	b. emergent and ponding, or open water only (EM w/ water or OW)	c. emergent vegetation only or wet meadow (EM)

24 How interspersed are the Cowardin classes (and upland inclusions)? (see Figure p. 37)

	a. high	(b.) moderate	c. low

25 SKIP (for rural areas) what percentage of the wetland edge is bordered by upland wildlife habitat at least 150 feet wide?

	a. >40%	b. bet. 10% & 40%	c. <10%

26 For urban areas, what percentage of the wetland edge is bordered by a vegetative buffer at least 25 feet wide?

	(a.) >40%	b. bet. 10% & 40%	c. <10%

27 How is the wetland connected to other wetlands?

	(a.) connected within 3 miles by surface water	b. not connected; wetlands present within 3 miles	c. not connected, no other wetlands within 3 miles

28 Estimate area of unvegetated, open water within the wetland.

	a. >3 acres	b. >1 to 3 acres	(c.) bet. 0.5 & 1 acre	d. <0.5 acre

Fisheries Habitat Wetland IC-3

29 Are fish present in a stream, lake or pond connected to the wetland?

	(a.) salmon, trout or sensitive species are present at some time during the year	b. other fish species are present at some time during the year	c. no species are present at any time during the year

Streams connected to the wetland

30 What is the physical character of the stream channel?

	a. natural channel, or modified portions are returning to a natural channel	(b.) only portions of stream modified	c. extensively modified or confined in a non-vegetated channel or pipe

culverts

31 What percentage of the stream is shaded by riparian vegetation?

	(a.) >75%	b. bet. 50% & 75%	c. bet. 25% & <50%	d. <25%

32 What percentage of the stream contains instream structures such as large woody debris, floating/submerged vegetation, large rocks or boulders?

	a. >25%	(b.) bet. 10% & 25%	c. <10%

Lakes or ponds (entire lake or pond and wetland complex)

33 Does the lake or pond contain areas of deep and shallow water?

	a. yes	b. cannot be determine	c. no

34 What percentage of the shoreline is shaded at the water's edge by forested or scrub-shrub vegetation?

	a. 60% or more	b. bet. 20% & <60%	c. <20%

35 What percentage of the wetland complex contains cover objects such as submerged logs, floating or submerged vegetation, large rocks or boulders?

	a. >25%	b. bet. 10% & 25%	c. <10%

Wetland Hydrology

36 What is the wetland's primary source of water? (emphasis on primary)

	(a.) surface flow, including streams and ditches	b. precipitation or sheet flow	c. groundwater, including springs or seeps

Is there evidence of flooding or ponding during a portion of the growing season?

	(a.) yes (describe)	b. unable to determine or not applicable	c. no

38 Is the water flow out of the wetland restricted (beaver dam, concrete structure, undersized culvert)?

	a. yes, restricted or no outlet	(b.) minor restrictions slow down the water	c. no, outlet has unrestricted flow

39 If the primary source of water is surface flow, is the inflow restricted?

	(a.) not restricted or if blocked, can be removed	b. permanent blockage exists, but may be breached (create new flow channel)	c. flow is restricted and cannot be restored

40 Has the stream flow or stream bank been modified by human activities (dams, levees, channelization, confinement of stream in a pipe) < 1 mile above the wetland?

	a. yes	(b.) no

Public Access to Wetland Site

41 Is the wetland open to the public for direct access or observation?

	a. yes	(b.) yes, but only by permission	c. no, access not allow

42 Are there visible hazards to the public at the wetland site? (busy road with no buffer or sidewalk, steep embankment, contaminated water)

	(a.) no	b. one or two visible safety hazards exist (describe)	c. more than two visible safety hazards exist (describe)

43 Are other natural landscape features (stream, lake, pond, forest, agricultural land) contiguous or adjacent to the wetland? (list type and extent)

	(a.) yes	b. no

upland forest

Wetland IC-3

44 Is there existing physical public access to features listed in question 43?

	a. public access to other habitats exists or can be created easily	(b.) public access doesn't exist and can't be created easily, but observation of other features can be made	c. public access doesn't exist, can't be crated easily, and observation of other features can't be made

access to a viewing spot or wetland edge available for individuals with limited mobility? (does not have to meet ADA)

	(a.) yes	b. no	(list physical barriers)

46 Is there a public access point within 250 feet of the wetland's edge? (parking lots, transit stops, bike lanes, trails, water courses; maintained means designated car or transit area; unmaintained means road pull-off, etc. - describe)

	a. yes, maintained access point exists	(b.) yes, unmaintained access point exists	c. no access point exists, or the access point is hazardous

roadside north of Hilltop Dr.

Recreation

47 Is the wetland accessible by boat?

	a. boat launching areas or access points exist on site or within 1/2 mile on a connected lake, river, bay or other body of	b. potential to develop launching areas or access points exists, or are >1/2 mile but <1 mile from wetland	(c.) no boat launching areas exist within 1 mile of the wetland, and potential to develop launching areas or access points

48 Are there trails, viewing areas or other structures that guide user movement to particular areas in or around the wetland?

	a. yes, developed or maintained trails or viewing areas exist	(b.) yes, undeveloped trails or viewing areas exist that do not disrupt wildlife or plant habitat	c. no trails or viewing areas exist, or those that do disrupt wildlife or plant habitat.

49 Is fishing allowed at the wetland or adjacent water body? (answer "c" if 18="b or c", unless 21=OW>10%)

	(a.) yes (all or part of yea	b. no	c. not applicable

's hunting allowed at the wetland? (If wetland is within city limits, answer is no)

	a. yes (all or part of yea	(b.) no

Aesthetics

51 SKIP (for rural areas) what is the extent of visual contrast with the surrounding landscape? (see Figure p. 45)

	a. significant contrast	b. limited contrast	c. little or no contrast

52 For urban areas, what is the visual character of the surrounding area? (see Figure p. 46)

	(a.) open space or naturally landscaped	b. landscaped or manipulated by people	c. developed with no landscaping

53 Are there visual detractors at the site (abandoned cars, litter, shopping carts, etc.) that distract the viewer from the wetland?

	a. yes	(b.) no

54 If the site contains visual detractors, can they be easily removed?

	a. yes	b. no

Locate the primary viewing area(s) for the following 4 questions (and mark on map)

55 What odors are present at the primary viewing location(s)?

	(a.) natural, pleasant odors only	b. unpleasant odors (auto exhaust, sewage) present at certain times	c. unpleasant odors are distinct and continuously present

56 What noises are audible at the primary viewing location(s)?

	a. bird and wildlife noises and other naturally occurring sounds	(b.) some traffic and other similar background sounds are audible in addition to naturally occurring	c. continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds	d. continuous traffic or other intrusive noise is audible, but no naturally occurring audible sounds are

How much of the wetland is visible from the viewing area(s)? Describe the view.

	a. >50%	(b.) bet. 25% & 50%	c. <25%

only 1 emergent + 1 forested wetland visible, 3 ponds not visible

58 How many Cowardin classes are visible from the primary viewing area(s)? (question 21)

	a. > two	(b.) two	c. one

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Questions - Answer Sheet
(4/96 edition with 7/97 addendum)

WETLAND TC-4 (Tenmile Creek)

Wildlife Habitat		
1	a	21
2	b	23
3	b	24
4	c	28
5	a	18
6	a	27
7	b	7+8
8	a	15
9b	a	26
Diverse		

Fish Habitat		
Streams and Rivers		
1	a	31
2	b	30
3	a	32
4	b	=WH7
5	a	=WH8
6	a	29
Lakes and Ponds		
1		33
2		35
3		34
4		=WH7
5		=WH8
6	a	29
Intact		

Water Quality (pollutant removal)		
1	a	36 (check)
2	a	37
3	a	21
4	a	17+27
5	c	15 (WH8 c=a, a=c, b=b)
6	b	7+8 (WH7 c=a, a=c, b=b)
Intact		

Hydrologic Control (flood control & water supply)		
1	b	19
2	a	37
3	a	17
4	b	38
5	b	23 (check)
6	a	16
7	a	6
Intact		

Sensitivity to Future Impacts		
1	b	27+40
2	b	5+27
3	b	=WQ6
4	c	=WQ5
5	a	20
6	c	23
Potentially Sensitive		

Enhancement Potential*		
1		WH-FH-WQ-HC
2		36
3		39
4	a	17
5b	a	26
6		=SI

*skip if WH provides diverse

Education		
1	b	41
2	a	42
3	a	WH-FH
4	a	44
5	b	46
6	a	45
Potential educational use		

Recreation		
1	b	46
2	a	47
3	c	48
4	a	WH
5	a	49
6	b	50
Provides recreational opportunities		

Aesthetic Quality		
1	b	58
2	b	57 (viewshed)
3	a	53+54
4	b	52
5	a	55
6	a	56
Moderately pleasing		

TC-4

City of Lakeside LWI Oregon Freshwater Wetland Assessment Questions (4/96 edition) (with 7/97 addendum) Wetland TC-4 off-site

(bold questions =field; office review important for 15, 16, 26)

Wetland Structure and Landscape

15 What percentage of area within 500 feet of the wetland edge is dedicated to these land uses?

Observers MW + SB
Field Date 3/4/99
Revised

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			80
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses		20	
5. Other			

16 What is the dominant existing land use within 500 feet of the wetland on the downstream or down-slope edge of the wetland?

west of wetland east of Tenmile creek

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space		40	
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses			60
5. Other			

17 What is the (entire) wetland acreage?

	a. >5 acres	b. bet. 0.5 & 5 acres	c. < 0.5 acres
	(a)		

18 How is wetland connected to a stream, lake, or pond ? (see Figure, p. 35)

	a. connected by surface water (culv., ditch, int./per. stream)	b. not connected to water body within 1 mile	c. not connected, no water bodies within 1 mile
	(a)		

19 Is all or part of the wetland located within the 100-year floodplain or within an enclosed basin?

	a. yes	b. no
		(b)

20 What is zoned percentage of land use within 500 feet of the wetland edge?

zoning = Rural residential

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses			100
5. Other			

Wetland Habitat

21 What is percentage wetland area by Cowardin class (10% or more)?

	a. bet. 70% & 100%	b. bet. 50% & <70%	c. bet. 20% & <50%	d. bet. 10% & <20%
Open water (OW >6.6ft)				(trace)
Emergent (EM)		60		
Scrub-shrub (SS)			40	
Forested (FO)				

22 How many wetland plant species are present (urban areas)?

	a. >5	b. bet. 2 & 5	c. 1 (monotypic)
	(a)		

23 What is the dominant wetland vegetation cover?

	a. woody (FO & SS)	b. emergent and ponding, or open water only (EM w/ water or OW)	c. emergent vegetation only or wet meadow (EM)
		(b)	

24 How interspersed are the Cowardin classes (and upland inclusions)? (see Figure p. 37)

	a. high	b. moderate	c. low
		(b)	

25 SKIP (for rural areas) what percentage of the wetland edge is bordered by upland wildlife habitat at least 150 feet wide?

	a. >40%	b. bet. 10% & 40%	c. <10%

26 For urban areas, what percentage of the wetland edge is bordered by a vegetative buffer at least 25 feet wide?

	a. >40%	b. bet. 10% & 40%	c. <10%
	(a)		

27 How is the wetland connected to other wetlands?

	a. connected within 3 miles by surface water	b. not connected; wetlands present within 3 miles	c. not connected, no other wetlands within 3 miles
	(a)		

28 Estimate area of unvegetated, open water within the wetland.

	a. >3 acres	b. >1 to 3 acres	c. bet. 0.5 & 1 acre	d. <0.5 acre
				(d)

TC-4

Fisheries Habitat Wetland IC-4

29 Are fish present in a stream, lake or pond connected to the wetland?

	(a.) salmon, trout or sensitive species are present at some time during the year	b. other fish species are present at some time during the year	c. no species are present at any time during the year

Streams connected to the wetland

30 What is the physical character of the stream channel?

	a. natural channel, or modified portions are returning to a natural channel	(b.) only portions of stream modified	c. extensively modified or confined in a non-vegetated channel or pipe	modified along Wildwood Dr.

31 What percentage of the stream is shaded by riparian vegetation?

	(a.) >75%	b. bet. 50% & 75%	c. bet. 25% & <50%	d. <25%

32 What percentage of the stream contains instream structures such as large woody debris, floating/submerged vegetation, large rocks or boulders?

	(a.) >25%	b. bet. 10% & 25%	c. <10%

Lakes or ponds (entire lake or pond and wetland complex)

33 Does the lake or pond contain areas of deep and shallow water?

	a. yes	b. cannot be determine	c. no

34 What percentage of the shoreline is shaded at the water's edge by forested or scrub-shrub vegetation?

	a. 60% or more	b. bet. 20% & <60%	c. <20%

35 What percentage of the wetland complex contains cover objects such as submerged logs, floating or submerged vegetation, large rocks or boulders?

	a. >25%	b. bet. 10% & 25%	c. <10%

Wetland Hydrology

36 What is the wetland's primary source of water? (emphasis on primary)

	(a.) surface flow, including streams and ditches	b. precipitation or sheet flow	c. groundwater, including springs or seeps

Is there evidence of flooding or ponding during a portion of the growing season?

	(a.) yes (describe)	b. unable to determine or not applicable	c. no

38 Is the water flow out of the wetland restricted (beaver dam, concrete structure, undersized culvert)?

	a. yes, restricted or no outlet	(b.) minor restrictions slow down the water	c. no, outlet has unrestricted flow

39 If the primary source of water is surface flow, is the inflow restricted?

	(a.) not restricted or if blocked, can be removed	b. permanent blockage exists, but may be breached (create new flow channel)	c. flow is restricted and cannot be restored

40 Has the stream flow or stream bank been modified by human activities (dams, levees, channelization, confinement of stream in a pipe) < 1 mile above the wetland?

	a. yes	(b.) no

Public Access to Wetland Site

41 Is the wetland open to the public for direct access or observation?

	a. yes	(b.) yes, but only by permission	c. no, access not allow

42 Are there visible hazards to the public at the wetland site? (busy road with no buffer or sidewalk, steep embankment, contaminated water)

	(a.) no	b. one or two visible safety hazards exist (describe)	c. more than two visible safety hazards exist (describe)

43 Are other natural landscape features (stream, lake, pond, forest, agricultural land) contiguous or adjacent to the wetland? (list type and extent)

	(a.) yes	b. no

upland forest
Termile Creek
Oregon Dunes National Recreation Area

Wetland IC-4

44 Is there existing physical public access to features listed in question 43?

	(a) public access to other habitats exists or can be created easily	b. public access doesn't exist and can't be created easily, but observation of other features can be made	c. public access doesn't exist, can't be crated easily, and observation of other features can't be made

access to a viewing spot or wetland edge available for individuals with limited mobility? (does not have to meet ADA)

	(a) yes	b. no (list physical barriers)

46 Is there a public access point within 250 feet of the wetland's edge? (parking lots, transit stops, bike lanes, trails, water courses; maintained means designated car or transit area; unmaintained means road pull-off, etc. - describe)

	a. yes, maintained access point exists	(b.) yes, unmaintained access point exists	c. no access point exists, or the access point is hazardous

road side along Wildwood Dr. & Hwy 101

Recreation

47 Is the wetland accessible by boat?

	(a.) boat launching areas or access points exist on site or within 1/2 mile on a connected lake, river, bay or other body of	b. potential to develop launching areas or access points exists, or are >1/2 mile but <1 mile from wetland	c. no boat launching areas exist within 1 mile of the wetland, and potential to develop launching areas or access points

48 Are there trails, viewing areas or other structures that guide user movement to particular areas in or around the wetland?

	a. yes, developed or maintained trails or viewing areas exist	b. yes, undeveloped trails or viewing areas exist that do not disrupt wildlife or plant habitat	(c.) no trails or viewing areas exist, or those that do disrupt wildlife or plant habitat.

49 Is fishing allowed at the wetland or adjacent water body? (answer "c" if 18="b or c", unless 21=OW>10%)

	(a.) yes (all or part of yea	b. no	c. not applicable

Is hunting allowed at the wetland? (If wetland is within city limits, answer is no)

	a. yes (all or part of yea	(b.) no

Aesthetics

51 SKIP (for rural areas) what is the extent of visual contrast with the surrounding landscape? (see Figure p. 45)

	a. significant contrast	b. limited contrast	c. little or no contrast

52 For urban areas, what is the visual character of the surrounding area? (see Figure p. 46)

	a. open space or naturally landscaped	(b.) landscaped or manipulated by people	c. developed with no landscaping

53 Are there visual detractors at the site (abandoned cars, litter, shopping carts, etc.) that distract the viewer from the wetland?

	a. yes	(b.) no

54 If the site contains visual detractors, can they be easily removed?

	a. yes	b. no

Locate the primary viewing area(s) for the following 4 questions (and mark on map)

55 What odors are present at the primary viewing location(s)?

	(a.) natural, pleasant odors only	b. unpleasant odors (auto exhaust, sewage) present at certain times	c. unpleasant odors are distinct and continuously present

56 What noises are audible at the primary viewing location(s)?

	a. bird and wildlife noises and other naturally occurring sounds	(b.) some traffic and other similar background sounds are audible in addition to naturally occurring	c. continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds	d. continuous traffic or other intrusive noise is audible, but no naturally occurring audible sounds are

How much of the wetland is visible from the viewing area(s)? Describe the view.

	a. >50%	(b.) bet. 25% & 50%	c. <25%

58 How many Cowardin classes are visible from the primary viewing area(s)? (question 21)

	a. > two	(b.) two	c. one

City of Lakeside Local Wetlands Inventory
Oregon Freshwater Wetland Assessment Questions - Answer Sheet
(4/96 edition with 7/97 addendum)

WETLAND TC-5 (Tenmile Creek)

Wildlife Habitat		
1	a	21
2	a	23
3	b	24
4	c	28
5	a	18
6	a	27
7	b	7+8
8	a	15
9b	a	26
Diverse		

Fish Habitat		
Streams and Rivers		
1	b	31
2	b	30
3	a	32
4	b	=WH7
5	a	=WH8
6	a	29
Lakes and Ponds		
1		33
2		35
3		34
4		=WH7
5		=WH8
6	a	29
Intact		

Water Quality (pollutant removal)		
1	a	36 (check)
2	a	37
3	a	21
4	a	17+27
5	c	15 (WH8 c=a, a=c, b=b)
6	b	7+8 (WH7 c=a, a=c, b=b)
Intact		

Hydrologic Control (flood control & water supply)		
1	b	19
2	a	37
3	a	17
4	b	38
5	a	23 (check)
6	c	16
7	a	6
Intact		

Sensitivity to Future Impacts		
1	a	27+40
2	b	5+27
3	b	=WQ6
4	c	=WQ5
5	c	20
6	a	23
Potentially sensitive		

Enhancement Potential*		
1		WH-FH-WQ-HC
2		36
3		39
4	a	17
5b	a	26
6		=SI

*skip if WH provides diverse

Education		
1	a	41
2	a	42
3	a	WH-FH
4	a	44
5	a	46
6	a	45
Educational uses		

Recreation		
1	a	46
2	a	47
3	a	48
4	a	WH
5	a	49
6	b	50
Provides recreational opportunities		

Aesthetic Quality		
1	a	58
2	a	57 (viewshed)
3	a	53+54
4	a	52
5	a	55
6	a	56
Pleasing		

City of Lakeside LWI Oregon Freshwater Wetland Assessment Questions (4/96 edition) (with 7/97 addendum) Wetland TC-5 Plot 43

(bold questions =field; office review important for 15, 16, 26)

Wetland Structure and Landscape

15 What percentage of area within 500 feet of the wetland edge is dedicated to these land uses?

Observers MW + SB
Field Date 3/4/99
Revised

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			95 (incl. campground)
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses	5		
5. Other			

16 What is the dominant existing land use within 500 feet of the wetland on the downstream or down-slope edge of the wetland?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			100
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses			
5. Other			

north of wetland south of Tenmile Creek

17 What is the (entire) wetland acreage?

	(a) >5 acres	b. bet. 0.5 & 5 acres	c. < 0.5 acres

18 How is wetland connected to a stream, lake, or pond ? (see Figure, p. 35)

	(a) connected by surface water (culv., ditch, int./per. stream)	b. not connected to water body within 1 mile	c. not connected, no water bodies within 1 mile

19 Is all or part of the wetland located within the 100-year floodplain or within an enclosed basin?

	a. yes	(b) no

20 What is zoned percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			*100
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses			
5. Other			

zoning = open space

* includes Spinreel Campground

Wetland Habitat

21 What is percentage wetland area by Cowardin class (10% or more)?

	a. bet. 70% & 100%	b. bet. 50% & <70%	c. bet. 20% & <50%	d. bet. 10% & <20%
Open water (OW >6.6ft)				10
Emergent (EM)			40	
Scrub-shrub (SS)			40	
Forested (FO)				10

22 How many wetland plant species are present (urban areas)?

	(a) >5	b. bet. 2 & 5	c. 1 (monotypic)

23 What is the dominant wetland vegetation cover?

	(a) woody (FO & SS)	b. emergent and ponding, or open water only (EM w/ water or OW)	c. emergent vegetation only or wet meadow (EM)

24 How interspersed are the Cowardin classes (and upland inclusions)? (see Figure p. 37)

	a. high	(b) moderate	c. low

25 SKIP (for rural areas) what percentage of the wetland edge is bordered by upland wildlife habitat at least 150 feet wide?

	a. >40%	b. bet. 10% & 40%	c. <10%

26 For urban areas, what percentage of the wetland edge is bordered by a vegetative buffer at least 25 feet wide?

	(a) >40%	b. bet. 10% & 40%	c. <10%

27 How is the wetland connected to other wetlands?

	(a) connected within 3 miles by surface water	b. not connected; wetlands present within 3 miles	c. not connected, no other wetlands within 3 miles

28 Estimate area of unvegetated, open water within the wetland.

	a. >3 acres	b. >1 to 3 acres	c. bet. 0.5 & 1 acre	(d) <0.5 acre

TC-5

City of Lakeside LWI Oregon Freshwater Wetland Assessment Questions (4/96 edition) (with 7/97 addendum) Wetland 1C-2 Plot 43

(bold questions =field; office review important for 15, 16, 26)

Wetland Structure and Landscape

15 What percentage of area within 500 feet of the wetland edge is dedicated to these land uses?

Observers MW + SB
Field Date 3/4/99
Revised

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			95 (incl. campground)
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses	5		
5. Other			

16 What is the dominant existing land use within 500 feet of the wetland on the downstream or down-slope edge of the wetland?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			100
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses			
5. Other			

north of wetland south of Tenmile Creek

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	(a) >5 acres	b. bet. 0.5 & 5 acres	c. < 0.5 acres

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	(a) connected by surface water (culv., ditch, int./per. stream)	b. not connected to water body within 1 mile	c. not connected, no water bodies within 1 mile

19 Is all or part of the wetland located within the 100-year floodplain or within an enclosed basin?

	a. yes	(b) no

20 What is zoned percentage of land use within 500 feet of the wetland edge?

	a. <20%	b. bet. 20% & 50%	c. >50%
1. Open Space			*100
2. Agriculture			
3. Exclusive Forest Use			
4. Developed uses			
5. Other			

zoning = open space

* includes Spinreel Campground

Wetland Habitat

21 What is percentage wetland area by Cowardin class (10% or more)?

	a. bet. 70% & 100%	b. bet. 50% & <70%	c. bet. 20% & <50%	d. bet. 10% & <20%
Open water (OW >6.6ft)				10
Emergent (EM)			40	
Scrub-shrub (SS)			40	
Forested (FO)				10

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28 Estimate area of unvegetated, open water within the wetland.

	a. >3 acres	b. >1 to 3 acres	c. bet. 0.5 & 1 acre	(d) <0.5 acre

Fisheries Habitat Wetland TC-5

29 Are fish present in a stream, lake or pond connected to the wetland?

	(a) salmon, trout or sensitive species are present at some time during the year	b. other fish species are present at some time during the year	c. no species are present at any time during the year

Coho nursery sign posted at culvert at north end of unit in campground

Streams connected to the wetland

30 What is the physical character of the stream channel?

	a. natural channel, or modified portions are returning to a natural channel	(b) only portions of stream modified	c. extensively modified or confined in a non-vegetated channel or pipe

fish-friendly culverts at campground

31 What percentage of the stream is shaded by riparian vegetation?

	a. >75%	(b) bet. 50% & 75%	c. bet. 25% & <50%	d. <25%

32 What percentage of the stream contains instream structures such as large woody debris, floating/submerged vegetation, large rocks or boulders?

	(a) >25%	b. bet. 10% & 25%	c. <10%

Lakes or ponds (entire lake or pond and wetland complex)

33 Does the lake or pond contain areas of deep and shallow water?

	a. yes	b. cannot be determine	c. no

34 What percentage of the shoreline is shaded at the water's edge by forested or scrub-shrub vegetation?

	a. 60% or more	b. bet. 20% & <60%	c. <20%

35 What percentage of the wetland complex contains cover objects such as submerged logs, floating or submerged vegetation, large rocks or boulders?

	a. >25%	b. bet. 10% & 25%	c. <10%

Wetland Hydrology

36 What is the wetland's primary source of water? (emphasis on primary)

	(a) surface flow, including streams and ditches	b. precipitation or sheet flow	c. groundwater, including springs or seeps

's there evidence of flooding or ponding during a portion of the growing season?

	(a) yes (describe)	b. unable to determine or not applicable	c. no

38 Is the water flow out of the wetland restricted (beaver dam, concrete structure, undersized culvert)?

	a. yes, restricted or no outlet	(b) minor restrictions slow down the water	c. no, outlet has unrestricted flow

39 If the primary source of water is surface flow, is the inflow restricted?

	(a) not restricted or if blocked, can be removed	b. permanent blockage exists, but may be breached (create new flow channel)	c. flow is restricted and cannot be restored

40 Has the stream flow or stream bank been modified by human activities (dams, levees, channelization, confinement of stream in a pipe) < 1 mile above the wetland?

	(a) yes	b. no

Public Access to Wetland Site

41 Is the wetland open to the public for direct access or observation?

	(a) yes	b. yes, but only by permission	c. no, access not allow

42 Are there visible hazards to the public at the wetland site? (busy road with no buffer or sidewalk, steep embankment, contaminated water)

	(a) no	b. one or two visible safety hazards exist (describe)	c. more than two visible safety hazards exist (describe)

43 Are other natural landscape features (stream, lake, pond, forest, agricultural land) contiguous or adjacent to the wetland? (list type and extent)

	(a) yes	b. no

Oregon Dunes National Recreation Area upland forest Tenmile Creek

44 Is there existing physical public access to features listed in question 43? Wetland 1C-J

	(a.) public access to other habitats exists or can be created easily	b. public access doesn't exist and can't be created easily, but observation of other features can be made	c. public access doesn't exist, can't be crated easily, and observation of other features can't be made

access to a viewing spot or wetland edge available for individuals with limited mobility? (does not have to meet ADA)

	(a.) yes	b. no (list physical barriers)

46 Is there a public access point within 250 feet of the wetland's edge? (parking lots, transit stops, bike lanes, trails, water courses; *maintained means designated car or transit area; unmaintained means road pull-off, etc.* - describe)

	(a.) yes, maintained access point exists	b. yes, unmaintained access point exists	c. no access point exists, or the access point is hazardous	Spinreel Campground

Recreation

47 Is the wetland accessible by boat?

	(a.) boat launching areas or access points exist on site or within 1/2 mile on a connected lake, river, bay or other body of	b. potential to develop launching areas or access points exists, or are >1/2 mile but <1 mile from wetland	c. no boat launching areas exist within 1 mile of the wetland, and potential to develop launching areas or access points

48 Are there trails, viewing areas or other structures that guide user movement to particular areas in or around the wetland?

	(a.) yes, developed or maintained trails or viewing areas exist	b. yes, undeveloped trails or viewing areas exist that do not disrupt wildlife or plant habitat	c. no trails or viewing areas exist, or those that do disrupt wildlife or plant habitat.	Paved Campground road

49 Is fishing allowed at the wetland or adjacent water body? (answer "c" if 18="b or c", unless 21=OW>10%)

	(a.) yes (all or part of yea	b. no	c. not applicable

Is hunting allowed at the wetland? (If wetland is within city limits, answer is no)

	a. yes (all or part of yea	(b.) no

Aesthetics

51 SKIP (for rural areas) what is the extent of visual contrast with the surrounding landscape? (see Figure p. 45)

	a. significant contrast	b. limited contrast	c. little or no contrast

52 For urban areas, what is the visual character of the surrounding area? (see Figure p. 46)

	(a.) open space or naturally landscaped	b. landscaped or manipulated by people	c. developed with no landscaping

53 Are there visual detractors at the site (abandoned cars, litter, shopping carts, etc.) that distract the viewer from the wetland?

	a. yes	(b.) no

54 If the site contains visual detractors, can they be easily removed?

	a. yes	b. no

Locate the primary viewing area(s) for the following 4 questions (and mark on map)

55 What odors are present at the primary viewing location(s)?

	(a.) natural, pleasant odors only	b. unpleasant odors (auto exhaust, sewage) present at certain times	c. unpleasant odors are distinct and continuously present

56 What noises are audible at the primary viewing location(s)?

	a. bird and wildlife noises and other naturally occurring sounds	(b.) some traffic and other similar background sounds are audible in addition to naturally occurring	c. continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds	d. continuous traffic or other intrusive noise is audible, but no naturally occurring audible sounds are

How much of the wetland is visible from the viewing area(s)? Describe the view.

	(a.) >50%	b. bet. 25% & 50%	c. <25%

58 How many Cowardin classes are visible from the primary viewing area(s)? (question 21)

	(a.) > two	b. two	c. one

APPENDIX 6

SUPPLEMENTAL OFWAM INFORMATION

(WETLAND FUNCTIONS AND VALUES)

Pages 47-90
from OFWAM Manual

not copied for
DSL

DMian

APPENDIX 7

VEGETATION LIST

CITY OF LAKESIDE LOCAL WETLAND INVENTORY - VEGETATION			
Common Name	**Scientific Name**	**Wetland Indicator Status***	**Wetland / Upland**
grand fir	*Abies grandis*	FACU-	W & U
bentgrass	*Agrostis* species	-	W & U
red alder	*Alnus rubra*	FAC	W & U
meadow foxtail	*Alopecurus pratensis*	FACW	W & U
pearly-everlasting	*Anaphalis margaritacea*	NOL	U
madrone	*Arbutus menziesii*	NOL	U
bristly manzanita	*Arctostaphylos columbiana*	NOL	U
lady fern	*Athyrium filix-femina*	FAC	W
deer fern	*Blechnum spicant*	FAC+	W & U
brome grass	*Bromus* species	-	U
water-starwort	*Callitriche* species	probably OBL	W
slough sedge	*Carex obnupta*	OBL	W & U
chickweed	*Cerastium* species	FACU/NOL	U
horseweed	*Conyza canadensis*	FACU	W & U
pampas grass	*Cortaderia* species	NOL	W & U
hawthorn	*Crataegus* species	-	U
montbretia	*Crocosmia crocosmiiflora*	NOL	U
yellow nut-sedge	*Cyperus esculentis*	FACW	W & U
Scot's broom	*Cytisus scoparius*	NOL	U
orchard grass	*Dactylis glomerata*	FACU	W & U
foxglove	*Digitalis purpurea*	FACU	W & U
large barnyard grass	*Echinochloa crusgalli*	FACW	W
willow-herb	*Epilobium* species	-	W
tall fescue	*Festuca arundinacea*	FAC-	U
salal	*Gaultheria shallon*	FACU	U

CITY OF LAKESIDE LOCAL WETLAND INVENTORY - VEGETATION			
Common Name	**Scientific Name**	**Wetland Indicator Status***	**Wetland / Upland**
crane's-bill	*Geranium* species	FAC-/FACU+/NOL	U
English ivy	*Hedera helix*	NOL	U
common velvetgrass	*Holcus lanatus*	FAC	W & U
spotted cats-ear	*Hypochaeris radicata*	FACU	W & U
tapered rush	*Juncus acuminatus*	OBL	W
soft rush	*Juncus effusus*	FACW	W
dagger-leaf rush	*Juncus ensifolius*	FACW	W
pointed rush	*Juncus oxymeris*	FACW+	W
rush	*Juncus* species	FAC or wetter	W
lesser duckweed	*Lemna minor*	OBL	W
Italian ryegrass	*Lolium multiflorum*	NOL	U
black twinberry	*Lonicera involucrata*	FAC+	W
birdsfoot-trefoil	*Lotus corniculatus*	FAC	W & U
skunk cabbage	*Lysichitum* [[*Lysichiton*]] *americanum*	OBL	W
may lily	*Maianthemum dilatatum*	FAC	W & U
pennyroyal	*Mentha pulegium*	OBL	W
South American water-milfoil	*Myriophyllum brasiliense*	OBL	W
Pacific wax-myrtle	*Myrica californica*	FACW	W & U
yellow pond lily	*Nuphar polysepalum* [*luteum*]	OBL	W
water parsley	*Oenanthe sarmentosa*	OBL	W
yellow parentucellia	*Parentucellia viscosa*	FAC-	W
reed canarygrass	*Phalaris arundinacea*	FACW	W & U
Sitka spruce	*Picea sitchensis*	FAC	W & U

CITY OF LAKESIDE LOCAL WETLAND INVENTORY - VEGETATION			
Common Name	**Scientific Name**	**Wetland Indicator Status***	**Wetland / Upland**
lodge-pole or shore pine	*Pinus contorta*	FAC	W & U
bluegrass	*Poa* species	-	W & U
knotweed or smartweed	*Polygonum* species	-	W
licorice fern	*Polypodium glycyrrhiza*	NOL	U
sword fern	*Polystichum munitum*	FACU	W & U
pondweed	*Potamogeton* species	probably OBL	W
Pacific silverweed	*Potentilla pacifica* [*anserina*]	OBL	W
ornamental cherry	*Prunus* species	FAC-/FACU/NOL	U
Douglas fir	*Pseudotsuga menziesii*	FACU	W & U
bracken fern	*Pteridium aquilinum*	FACU	W & U
western crabapple	*Pyrus* [*Malus*] *fusca*	FACW	W
Oregon white oak	*Quercus garryana*	NOL	U
creeping buttercup	*Ranunculus repens*	FACW	W & U
cascara	*Rhamnus purshiana*	FAC-	W & U
Pacific rhododendron	*Rhododendron macrophyllum*	NOL	U
red-flowering currant	*Ribes sanguineum*	NOL	U
currant with green flower	*Ribes* species	-	U
watercress	*Rorippa nasturtium-aquaticum* [*Nasturtium officinale*]	OBL	W
rose - non-native	*Rosa* species	-	U
Himalayan blackberry	*Rubus discolor*	FACU	W & U
salmonberry	*Rubus spectabilis*	FAC+	W
Pacific blackberry	*Rubus ursinus*	FACU	W & U
sheep sorrel	*Rumex acetosella*	FACU+	U
dock	*Rumex* species	-	U
Hooker willow	*Salix hookeriana*	FACW-	W & U

CITY OF LAKESIDE LOCAL WETLAND INVENTORY - VEGETATION			
Common Name	**Scientific Name**	**Wetland Indicator Status***	**Wetland / Upland**
Pacific willow	*Salix lasiandra* [[*lucida* var. *lasiandra*]]	FACW+	W & U
red elderberry	*Sambucus racemosa*	FACU	W
hardstem or softstem bulrush	*Scirpus acutus* or *S. validus* [[*tabernaemontanii*]]	OBL	W
small-fruited bulrush	*Scirpus microcarpus*	OBL	W
golden blue-eyed grass	*Sisyrinchium californicum*	FACW+	W
starry false Solomon's seal	*Smilacina stellata*	FAC-	U
Douglas' spirea	*Spiraea douglasii*	FACW	W & U
marsh hedgenettle	*Stachys cooleyae* [*emersonii*]	FACW	W
common dandelion	*Taraxacum officinale*	FACU	U
western red cedar	*Thuja plicata*	FAC	W
red clover	*Trifolium pratense*	FACU	U
western hemlock	*Tsuga heterophylla*	FACU-	U
broad-leaf cattail	*Typha latifolia*	OBL	W
California laurel, Oregon myrtlewood	*Umbellularia californica*	NOL	U
evergreen blueberry	*Vaccinium ovatum*	NOL	U
American speedwell	*Veronica americana*	OBL	W
marsh speedwell	*Veronica scutellata*	OBL	W
vetch	*Vicia* species	-	W & U
unknown ornamental tree - mimosa like, very weedy, perhaps an *Acacia*?			U

*Wetland Indicator Status: From Reed's *National List of Plant Species that Occur in Wetlands: Northwest Region 9)* and the *1993 Supplement*. These indicators are:

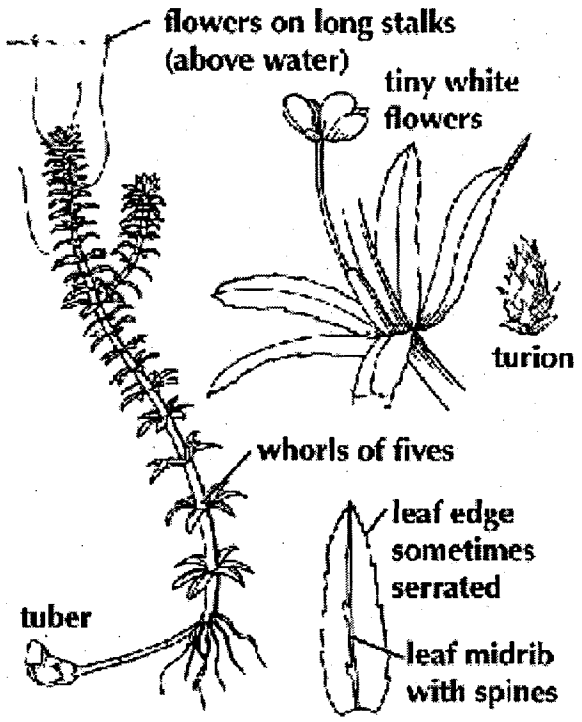
OBL - Obligate wetland (almost always occur in wetlands)
FACW - Facultative Wetland (usually occur in wetlands)
FAC - Facultative (equally likely to occur in wetlands or non-wetlands)
FACU - Facultative Upland (usually occur in non-wetlands)
UPL, NOL - Upland, Not Listed (almost always occur in non-wetlands)
NI - No Indicator (insufficient information available or plant is widely tolerant)

Plant taxonomy follows Hitchcock and Cronquist (1973) and synonymy follows Reed (1988); synonymy is shown in [single square brackets]. Taxonomy of some species has recently been changed (Kartesz 1994) and the new nomenclature is gradually working its way into common usage; the new name changes are shown in [[double square brackets]].

Wetland / Upland refers to the habitat in which the plant was found in this study.

Hydrilla *(Hydrilla verticillata)*

Class A Noxious Weed



HISTORY

This plant is native to Africa, Australia, and parts of Asia but was introduced to Florida in 1960 via the aquarium trade.

METHOD OF SPREAD

Hydrilla *(Hydrilla verticillata)* is considered the most problematic aquatic plant in the United States. It can grow an inch a day, forming dense mats that interfere with recreational uses and destroy fish and wildlife habitat. It will grow with less light and is more efficient using nutrients than other plants. Hydrilla reproduces easily - it can sprout new plants from root fragments or extremely small stem fragments, as well as from seeds, tubers and turions. The only known occurrence of hydrilla was discovered in King County in 1995. Eradication efforts are underway. The infestation most likely came from contaminated water lily rhizomes or through a aquarium.

METHODS OF CONTROL

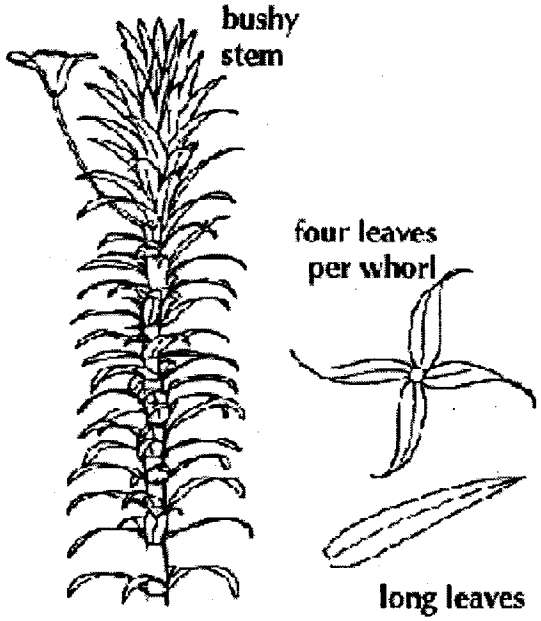
Different methods or combined methods can be used to control hydrilla depending on the management goal. In recreational waters the challenge is to control hydrilla selectively amid native vegetation. Management methods include herbicide, grass carp, and mechanical removal.

IDENTIFICATION

- commonly confused with Brazilian elodea *(Egeria densa)* and native American waterweed *(Elodea canadensis)*
- long, sinewy, underwater plant
- leaves are small and pointed, oppositely arranged, and generally grow in whorls of five
- leaves are sometimes serrated along the edges; midrib of leaf is often reddish and has one or more sharp spines
- flowers are tiny, white, and grow on long stalks
- distinct tubers are 1/4 to 1/2 inches long, off-white to yellowish, potato-like structures that attach to the roots

Brazilian elodea *(Egeria densa)*

Class B Noxious Weed



HISTORY

As its name indicates, Brazilian elodea is from South America and was originally introduced to North America for aquarium use. Up until 1996 it was commonly sold in Washington pet stores and plant nurseries.

METHOD OF SPREAD

Brazilian elodea reproduces by the spread of plant fragments. Branches sprout from "double nodes" located at intervals along the stems. The plant is probably spread most often when aquariums are dumped in our lakes or when boaters carry it from an infested lake into an uninfested waterbody.

Brazilian elodea grows very well in Washington lakes once introduced and soon forms dense mats that choke out our native aquatic plants. These mats are unsightly, interfere with swimming, boating and fishing, and provide poor habitat for fish.

METHODS OF CONTROL

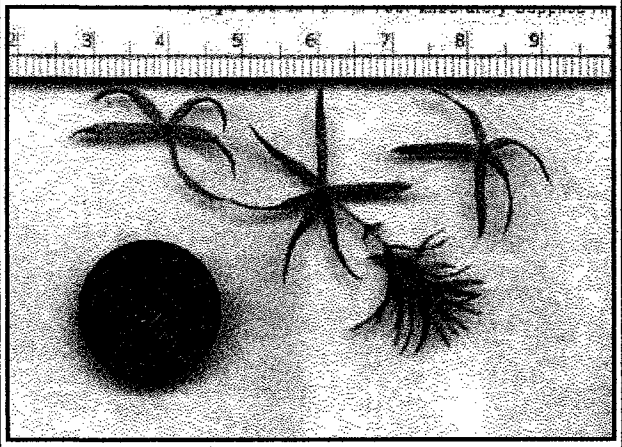
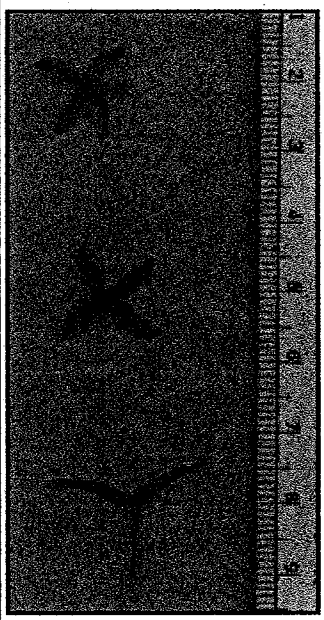
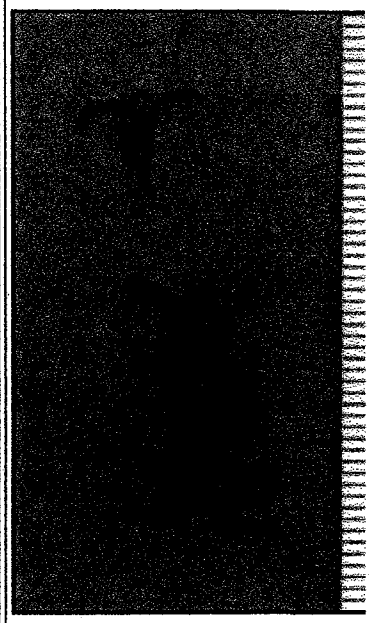
Brazilian elodea is difficult to control because it has few natural predators. Some aquatic herbicides are effective in controlling its growth. Grass carp have shown promise as a control technique, but are not an option in lakes with anadromous fish runs (salmon). Harvesting allows small plant fragments to spread to new areas, limiting its success as a control method.

IDENTIFICATION

- commonly confused with hydrilla and American waterweed (*Elodea canadensis*)
- leaves arranged in whorls of four
- stems are dense with bright green leaves
- flowers are small, white, and have three petals
- leaf structure looks similar to hydrilla but Brazilian elodea does not produce tubers

Simple Leaves

Carefully count the number of leaves in each whorl on the stem in at least 10 places. Be careful not to count at spots where the stem branches off. The three species here can be very difficult to tell apart. If everything doesn't fit, don't be too certain about what species you have found.

Hydrilla verticillata	Elodea densa	Elodea canadensis
		
most whorls have 5 leaves, but some may have 4. The leaves have teeth that are easily visible. If you collected roots, there may be some swollen root parts (tubers) sort of like little SAV potatoes!	most whorls have 4 leaves, but some may have 5 or 3. Some of the leaves are >3 mm (1/8 inch) wide. The whorls near the tips of this plant tend to be very tightly bunched. The leaves may have teeth, but they are very small and difficult to see.	most whorls have 3 leave some may have 4. All of leaves are less than 3 mn inch) wide. The leaves h teeth, but they are very s difficult to see.

If you don't think your plant is represented above try going **back a level** and chooing again.

If you have questions regarding identifying Bay Grassess please contact DNR's Mike Naylor **at 410-260-8652** or **mnaylor@dnr.state.md.us.**

Return to the Bay Grass Restoration Web Site

Return to the Chesapeake Bay Web Site

Elodea densa

Name: South American Elodea, *(Elodea densa)*

Picture of Flowers, Fruit- not known to fruit in Chesapeake Bay

Distribution:(include map) Infrequent, inland to tidal freshwater

Description: (Size) Rooted; stems many-branched. Dark to bright green leaves usually twice as long as wide (3/4" long and 1/3" wide) with finely toothed margins. Very tightly packed leaves towards the stem tips, leaves usually in whorls of fours.

Similar Species: Hydrilla verticillata, Elodea canadensis

Reproduction: vegetative

Comments: Non-native species very common in the aquarium trade, often mislabeled as *Elodea canadensis*

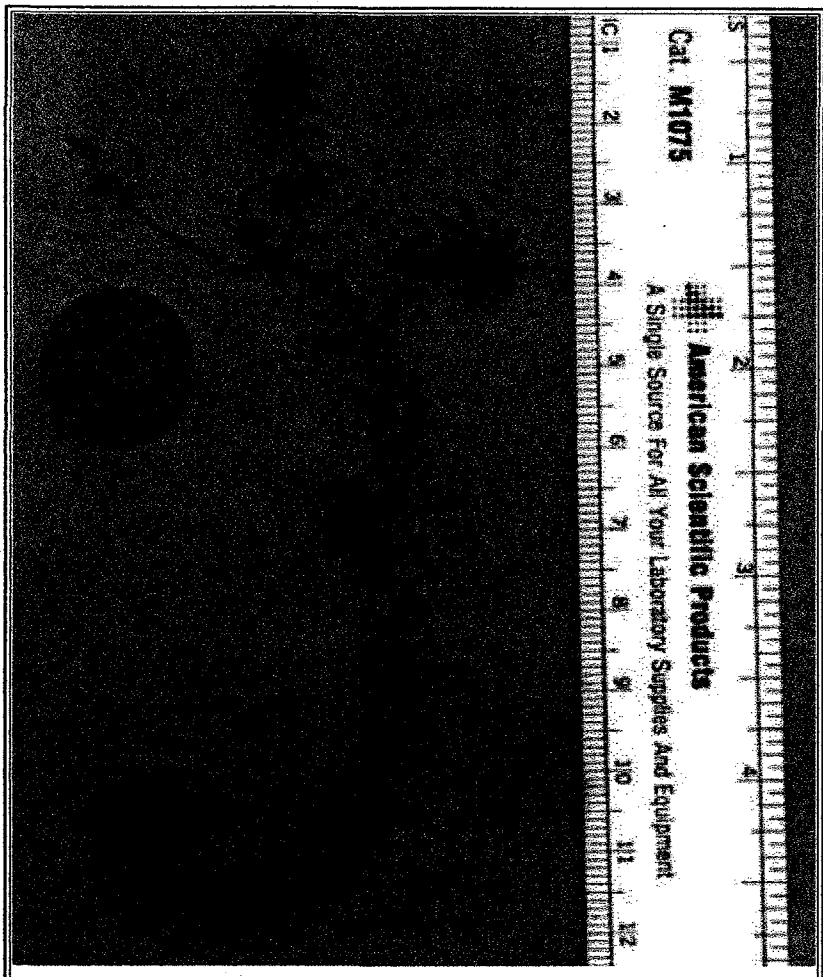
Click in the blue box or **here** to get a closer look of this subaquatic vegetation.
If you don't think your plant is represented above try going **back a level** and chooing again.

If you have questions regarding Bay Grasses please contact DNR's **Mike Naylor** at **410-260-8652** or **mnaylor@dnr.state.md.us.**

Return to the **Bay Grass Restoration** Web Site

Return to the **Chesapeake Bay** Web Site

Elodea canadensis



Flowers: White flowers may appear from July to September, but this species typically does not flower in Chesapeake Bay

Similar Species: *Hydrilla verticillata* - prominent teeth and leaves usually found in whorls of five or four, *Egeria densa*- leaves usually found in whorls of four

Name: Elodea, Common Waterweed (*Elodea canadensis*)

Picture of Flowers, Fruit- cylindrical shaped fruit capsules

Distribution: Inland, from freshwater streams and ponds to moderately brackinsh tidal tributaries.

Description: Rooted; stems many-branched. Dark green leaves usually greater than three times as long as wide (3/4" long and 1/4" wide), mostly drooping downward with finely toothed margins. Simple leaves usually in whorls of threes.

Reproduction: Usually vegetative reproduction

Comments: Native species displays extreme phenotypic plasticity (often has dramatically different physical appearance from one location to the next).

If you don't think your plant is represented above try going **back a level** and choosing again.

If you have questions regarding Bay Grasses please contact DNR's **Mike Naylor at 410-260-8652** or **mnaylor@dnr.state.md.us.**

Return to the **Bay Grass Restoration** Web Site

APPENDIX 8

SOIL PROFILES AND INFORMATION

Lakeside Soils

MAR 4 1991

HYDRIC SOILS IN COOS COUNTY AREA, OREGON

May 30, 89

MAP SYMBOL	MAP NAME	HYDRIC COMPONENT	LOCATION NOTES
2C	BANDON-BLACKLOCK COMPLEX, 0 TO 12 PERCENT SLOPES	BLACKLOCK (OR0213) ALL	NEARLY LEVEL AREAS OR IN DEPRESSIONS
5A	BLACKLOCK FINE SANDY LOAM, 0 TO 3 PERCENT SLOPES	BLACKLOCK (OR0213) ALL	N/A
5B	BLACKLOCK FINE SANDY LOAM, 3 TO 7 PERCENT SLOPES	BLACKLOCK (OR0213) ALL	N/A
7	BRALLIER MUCKY PEAT	[redacted]LIER (OR0675) ALL	N/A
9	CHETCO SILTY CLAY LOAM	CHETCO (OR0464) ALL	N/A
11	CLATSOP MUCKY PEAT	CLATSOP (OR0805) ALL	N/A
12	COQUILLE SILT LOAM	COQUILLE (OR0463) ALL	N/A
28	HECETA FINE SAND	HECETA (OR0466) ALL	N/A
29B	HECETA-WALDPORT FINE SANDS, 0 TO 7 PERCENT SLOPES	HECETA (OR0466) ALL	INTERDUNAL AREAS
31B	JOENEY VERY FINE SANDY LOAM, 0 TO 7 PERCENT SLOPES	JOENEY (OR0523) ALL	N/A
32B	JOENEY-TEMPLETON COMPLEX, 0 TO 7 PERCENT SLOPES	JOENEY (OR0523) ALL	DEPRESSIONS OR CONCAVE AND NEARLY LEVEL AREAS
34	LANGLOIS SILTY CLAY LOAM	LANGLOIS (OR0472) ALL	N/A
35	LANGLOIS PEATY SILTY CLAY LOAM	LANGLOIS (OR0472) ALL	N/A
42	NESTUCCA-WILLANCH COMPLEX	WILLANCH (OR0468) ALL	ABANDONED STREAM CHANNELS
47B	PYBURN SILTY CLAY, 0 TO 8 PERCENT SLOPES	PYBURN (OR0989) ALL	N/A
48	QUOSATANA SILT LOAM	QUOSATANA (OR0836) ALL	N/A
61D	WALDPORT-HECETA FINE SANDS, 0 TO 30 PERCENT SLOPES	HECETA (OR0466) ALL	INTERDUNAL AREAS
62	WILLANCH FINE SANDY LOAM	WILLANCH (OR0468) ALL	N/A
	YAQUINA LOAMY FINE SAND	YAQUINA (OR0643) ALL	N/A
	ZYZZUG SILT LOAM	ZYZZUG (OR0833) ALL	N/A
1B	BANDON SANDY LOAM, 0 TO 7 PERCENT SLOPES	BLACKLOCK SOIL INCLUSIONS	-
1C	BANDON SANDY LOAM, 7 TO 12 PERCENT SLOPES	BLACKLOCK AND HECETA SOIL INCLUSIONS	-
1D	BANDON SANDY LOAM, 12 TO 30 PERCENT SLOPES	BLACKLOCK AND HECETA SOIL INCLUSIONS	-
3	BEACHES	ALL	N/A
4D	BLACHLY SILTY CLAY LOAM, 0 TO 30 PERCENT SLOPES		
4E	BLACHLY SILTY CLAY LOAM, 30 TO 50 PERCENT SLOPES		
6E	BOHANNON-MILBURY COMPLEX, 30 TO 50 PERCENT SLOPES		
8B	BULLARDS SANDY LOAM, 0 TO 7 PERCENT SLOPES	BLACKLOCK SOIL INCLUSIONS	-
8C	BULLARDS SANDY LOAM, 7 TO 12 PERCENT SLOPES	BLACKLOCK SOIL INCLUSIONS	-
8D	BULLARDS SANDY LOAM, 12 TO 30 PERCENT SLOPES	BLACKLOCK SOIL INCLUSIONS	IN DEPRESSIONS
8E	BULLARDS SANDY LOAM, 30 TO 50 PERCENT SLOPES		
10A	CHISMORE SILT LOAM, 0 TO 3 PERCENT SLOPES	INCLUSIONS OF POORLY DRAINED SOIL	-
10B	CHISMORE SILT LOAM, 3 TO 7 PERCENT SLOPES		
10C	CHISMORE SILT LOAM, 7 TO 12 PERCENT SLOPES		
13C	DEMENT SILT LOAM, 2 TO 12 PERCENT SLOPES		
13D	DEMENT SILT LOAM, 12 TO 30 PERCENT SLOPES		
13E	DEMENT SILT LOAM, 30 TO 50 PERCENT SLOPES		
13F	DEMENT SILT LOAM, 50 TO 70 PERCENT SLOPES		
14F	DIGGER-PREACHER-UMPCOOS ASSOCIATION, 50 TO 80 PERCENT SLOPES		
15F	DIGGER-UMPCOOS-ROCK OUTCROP ASSOCIATION, 50 TO 90 PERCENT SLOPES		

HYDRIC SOILS IN COOS COUNTY AREA, OREGON May 30, 89

MAP SYMBOL	MAP NAME	HYDRIC COMPONENT	LOCATION NOTES
16	DUNE LAND	HECETA SOIL INCLUSIONS	-
17B	EILERTSEN SILT LOAM, 0 TO 7 PERCENT SLOPES		
18E	ETELKA SILT LOAM, 30 TO 50 PERCENT SLOPES		
19F	ETELKA-REMOTE COMPLEX, 50 TO 70 PERCENT SLOPES		
20D	ETELKA-RINEARSON-ORFORD COMPLEX, 12 TO 30 PERCENT SLOPES		
20E	ETELKA-RINEARSON-ORFORD COMPLEX, 30 TO 50 PERCENT SLOPES		
21D	ETELKA-WHOBREY SILT LOAMS, 7 TO 30 PERCENT SLOPES		
22E	ETELKA-WHOBREY-REMOTE COMPLEX, 30 TO 60 PERCENT SLOPES		
23	FLUVAQUENTS-HISTOSOLS COMPLEX	ALL	N/A
24	GARDINER SANDY LOAM	QUOSATANA SOIL INCLUSIONS	-
25	GAULDY VARIANT LOAM	PYBURN SOIL INCLUSIONS	-
26C	GEISEL SILT LOAM, 2 TO 12 PERCENT SLOPES		
26D	GEISEL SILT LOAM, 12 TO 30 PERCENT SLOPES		
26E	GEISEL SILT LOAM, 30 TO 50 PERCENT SLOPES		
27E	HARRINGTON VERY GRAVELLY LOAM, 30 TO 50 PERCENT SLOPES		
27F	HARRINGTON VERY GRAVELLY LOAM, 50 TO 70 PERCENT SLOPES		
30D	HONEYGROVE SILTY CLAY LOAM, 3 TO 30 PERCENT SLOPES		
30E	HONEYGROVE SILTY CLAY LOAM, 30 TO 50 PERCENT SLOPES		
33	KIRKENDALL SILT LOAM	INCLUSIONS OF VERY POORLY AND POORLY DRAINED SOILS	-
?	MCCURDY SILT LOAM, 3 TO 15 PERCENT SLOPES	INCLUSIONS OF POORLY DRAINED SOILS	-
36D	MCCURDY SILT LOAM, 15 TO 30 PERCENT SLOPES		
37C	MEDA LOAM, 3 TO 15 PERCENT SLOPES	PYBURN SOIL INCLUSIONS	-
38F	MILBURY-BOHANNON-UMPCOOS ASSOCIATION, 50 TO 80 PERCENT SLOPES		
39F	MILLICOMA-TEMPLETON COMPLEX, 50 TO 75 PERCENT SLOPES		
40	NEHALEM SILT LOAM — Coleman Arm	COQUILLE AND LANGLOIS SOIL INCLUSIONS	-
41	NESTUCCA SILT LOAM	LANGLOIS, COQUILLE AND CHETCO SOIL INCLUSIONS	-
43D	NETARTS LOAMY FINE SAND, 2 TO 30 PERCENT SLOPES	HECETA SOIL INCLUSIONS	-
44D	PREACHER-BLACHLY ASSOCIATION, 12 TO 30 PERCENT SLOPES		
44E	PREACHER-BLACHLY ASSOCIATION, 30 TO 60 PERCENT SLOPES		
45D	PREACHER-BLACHLY-DIGGER ASSOCIATION, 12 TO 30 PERCENT SLOPES		
45E	PREACHER-BLACHLY-DIGGER ASSOCIATION, 30 TO 60 PERCENT SLOPES		
46D	PREACHER-BOHANNON LOAMS, 3 TO 30 PERCENT SLOPES — Coleman Arm		
46E	PREACHER-BOHANNON LOAMS, 30 TO 60 PERCENT SLOPES		
46F	PREACHER-BOHANNON LOAMS, 60 TO 90 PERCENT SLOPES		
49E	REMOTE LOAM, 30 TO 50 PERCENT SLOPES		
49F	REMOTE LOAM, 50 TO 75 PERCENT SLOPES		
50D	REMOTE-DIGGER-PREACHER COMPLEX, 12 TO 30 PERCENT SLOPES		
50E	REMOTE-DIGGER-PREACHER COMPLEX, 30 TO 50 PERCENT SLOPES		
51D	RINEARSON SILT LOAM, 0 TO 30 PERCENT SLOPES		
51E	RINEARSON SILT LOAM, 30 TO 50 PERCENT SLOPES		
51F	RINEARSON SILT LOAM, 50 TO 70 PERCENT SLOPES		

HYDRIC SOILS IN COOS COUNTY AREA, OREGON May 30, 89

MAP SYMBOL	MAP NAME	HYDRIC COMPONENT	LOCATION NOTES
52D	SALANDER SILT LOAM, 2 TO 30 PERCENT SLOPES		
52E	SALANDER SILT LOAM, 30 TO 50 PERCENT SLOPES		
52F	SALANDER SILT LOAM, 50 TO 75 PERCENT SLOPES		
53D	SERPENTANO VERY STONY LOAM, 10 TO 35 PERCENT SLOPES		
53E	SERPENTANO VERY STONY LOAM, 35 TO 70 PERCENT SLOPES		
54B	TEMPLETON SILT LOAM, 0 TO 7 PERCENT SLOPES		
54D	TEMPLETON SILT LOAM, 7 TO 30 PERCENT SLOPES		
54E	TEMPLETON SILT LOAM, 30 TO 50 PERCENT SLOPES		
54F	TEMPLETON SILT LOAM, 50 TO 70 PERCENT SLOPES		
55D	TEMPLETON-BULLARDS COMPLEX, 3 TO 30 PERCENT SLOPES	INCLUSIONS OF DEEP POORLY DRAINED SOILS	-
55E	TEMPLETON-BULLARDS COMPLEX, 30 TO 50 PERCENT SLOPES		
56E	TEMPLETON-MILLICOMA COMPLEX, 12 TO 50 PERCENT SLOPES		
57	UDORTHENTS, LEVEL		
58F	UMPCOOS-ROCK OUTCROP ASSOCIATION, 70 TO 99 PERCENT SLOPES		
59D	WALDPORT FINE SAND, 0 TO 30 PERCENT SLOPES	HECETA SOIL INCLUSIONS	-
59E	WALDPORT FINE SAND, 30 TO 70 PERCENT SLOPES	HECETA SOIL INCLUSIONS	-
60D	WALDPORT-DUNE LAND COMPLEX, 12 TO 30 PERCENT SLOPES	HECETA SOIL INCLUSIONS	-
63B	WINTLEY SILT LOAM, 0 TO 8 PERCENT SLOPES		
63C	WINTLEY SILT LOAM, 8 TO 15 PERCENT SLOPES		
	WINTLEY SILT LOAM, 15 TO 30 PERCENT SLOPES		
	WATER		

Fishman Environmental Services

FES Project No. 98111 Date: 11.10.98 Staff CMW

Lakeside Soils

HYDRIC SOILS

(H) (28) Heceta fine sand P (Poorly Drained) can also have a chroma of 1 in A + C

A1 · 0-4" · 10YR 3/2 f. sa. (5/2 dry)

C · 4-60" · 2.5Y 5/2 sa. (7/2 d), cfd 10YR 4/3 motts along roots

Can have an O horizon 0.5-1 in thick

Apparent water table +1.0 -0.5 ft, Oct-May Typic Psammaquents

(H) (64) Yaquina Loamy fine sand SP (Somewhat Poorly Drained)

O · 2-0" · organic litter that is 20% sa grains

A2 · 0-5" · 10YR 4/1 L. fi. sa (6/1 d)

B1 · 5-12" · 10YR 5/6 Sa w/ light gray tongues (N 7/0) of A2-like material (dry 10YR 6/6, N 8/0, 10YR 7/2)
5% soft nodules 5-20 mm

B21ir · 12-21" · 5YR 4/4 + 7.5YR 6/2 sa (7.5YR 5/6 + 10YR 7/1 d)

B22ir · 21-27" · 5YR 3/4 sa (5YR 5/4 dry), cm + cd (10YR 6/2) motts

B3 · 27-35" · 10YR 6/3 sa

C · 35-60" · 10YR 6/3 sa

Apparent Water Table 0-2.0 Nov. - Apr.

A2 can have chroma of 2
Bir " " 3

Aquic Haplorthods

(H) (62) Willanch fine sandy loam P (Poorly Drained) → Apparent WT +0.5-2.0 Nov-Mar → Aeric Tropaquepts

Ap · 0-8" · 10YR 3/2 f. s. L (5/2 d), cfd 10YR 5/6 (or chroma 3)

AC · 8-13" · 10YR 3/3 f. s. L. (5/3 d), cfd 10YR 5/6

C1 · 13-35" · 2.5Y 4/2 saL (6/2 d), mmd 10YR 5/4 (or chroma of 1)
layers of 10YR 5/3 sa 1 in thick, 10% fi. gravel

C2 · 35-40" · 10YR 4/2 L. f. s., mmd 10YR 5/4
layer of dark grayish brown (2.5Y 4/2) silt loam 1" thick

(20-40-60" 2.5Y 4/2 + N 4/0 loamy sa, mmd 10YR 5/4 motts

Hydric w Non-Hydric Soils

(H) WILLANCH, continued

Unless drained, these soils are saturated during winter + have a hi seasonal WT during stormy periods.
- Umbric epipedon 10-24 in thick

(H) (42) Nestucca-Willanch Complex
45% sil 40% fi sal (cold stream channels)
WT 1.0-2.0 (N.) perched Dec-Apr
+0.5-2.0 (W) apparent Nov-Mar

(H) (61D) Waldport-Heceta fine sands, 0-30%
50% f.sa 30% f.sa WT +1-0.5 Apparent Oct-May

NON-HYDRIC SOILS (WITH INCLUSIONS LISTED)

(41) Nestucca silt loam → Aeric Tropaquepts SP (Somewhat Poorly Drained)
Ap · 0-6" · 10YR 3/3 sil (5/3 dry), cmd 10YR 4/2 + 5/8 motts
A1 · 6-14" · 10YR 3/2 sil (5/2 d), mmd 10YR 4/2 + 5/8
B2g · 14-40" · 10YR 4/2 SiCL (6/2 d), mmp 2.5Y 4/2 + 7.5YR 4/6 m
Cg · 40-60" · 2.5Y 4/4 SiC (5/4 d), mmp 2.5Y 4/2 + 10YR 5/8 m
These soils have a high WT during winter unless they are artificially drained. Umbric epipedon is 10-24 in thick
A horizon chroma 1-3 (Langlois, Coquille + Chetco
B2 " " 1-2 hydric soil inclusions)
Perched Water Table 1.0-2.0 ft Dec-Apr.

(59) D,E) Waldport fine sand, 0-30, 30-70% ED (Excessively Drained)
A1 · 0-7" · 10YR 3/2 fi sa (4/2 dry)
AC · 7-10" · 7.5YR 4/4 fi sa (5/4 d)
C · 10-60" · 10YR 4/4 fi sa (6/3 d)
solum 6-17 in
A horizon chroma of 1 or 2
AC " " 2-4 C chroma 1-4
(Heceta hydric soil inclusions)
Typic Tropopsamments
WT > 6.0 ft

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Non-Hydric Soils

Typic Haplorthods

(8DE) Bullards Sandy Loam 12-30, 30-50% W (Well-Drained)

O · 3-0" litter of leaves, twigs, + stems in various stages of decomp.
A1 · 0-7" · 10YR 3/2 sa.L (5/2d), ~10% hard nodules 2-5 mm
B21ir · 7-16" · 5YR 3/4 gr. sa.L (4/4d), ~20% hard " 2-10 mm
dark coatings on peds in upper part of horizon
B22ir · 16-27" · 7.5YR 3/4 gr. sa.L · (5YR4/4d) ~20% 2-10 mm nodules
B23ir · 27-41" · 7.5YR4/6 gr. sa.L. (5/6 d), ~25% hard nodules + cemented fragments 2-20%
C · 41-60" · 10YR5/6 sa (6/6 + 7/6 d)

Solum 10-35% rounded iron nodules 2-20 mm
A horizon chroma 1-3
Some have A2 horizon
B horizon hue 7.5YR, 5YR, 10YR, chroma 4-8, 1) gr sal, sa lm 3-8
C
WT > 6.0 feet
(8D has inclusions of Blacklock hydric soils), in depressions

(52D,E) Salander silt loam 2-30, 30-50 - W (Well Drained)

Typic Dystrandepts

A11 · 0-7" · 5YR 3/2 siL (4/2 dry)
A12 · 7-15" · " "
A3 · 15-26" · 5YR 3/3 siL (4/3 d)
B21 · 26-40" 5YR 3/3 siL (5/3d)
B22 · 40-55" 5YR 3/4 siCL (5/4 d)
B3 · 55-60" 5YR 4/4 siCL (5/4 d)

Solum 0-20% weathered sandstone gravel in lower part
Umbric epipedon > 20" thick
Hue of 5YR to 7.5YR
A horizon Chroma 2-3
B " " 3-4
C horizon is below a depth of 40" in in some pedons
WT > 6.0 ft

Fishman Environmental Services

FES Project No. _____ Date: _____ Staff _____

Non-Hydric Soils

Andic Humitropepts

(54D,E) Templeton Silt Loam, 7-30, 30-50 - W (Well Drained)

A11 · 0-6" · 7.5YR 2/2 SiL (10YR 4/2 d), ~15% partially weathered gravel 2-15 mm

A12 · 6-16" · 7.5YR 3/2 SiL (10YR 5/2 d), pores, ~10% " " 2-10 mm

B21 · 16-23" · 5YR 4/4 SiCL (7.5YR 5/4 d), ~10% gravel 2-10 mm

B22 · 23-30" · 5YR 5/6 SiCL (7.5YR 6/4 d), ~10% gravel 2-10 mm

B3 · 30-42" · 7.5YR 5/6, 5/8 SiCL (6/4 d), ~15% gr 2-15 mm

IICr · 42 in" · Multicolored (5YR to 10YR) partially weathered, fractured siltstone, f v fine roots in fractures

A O horizon 1-3 in thick is in forested areas

Solum 5-15% partially weathered gravel

Umbric epipedon 10-18 in thick

A horizon chroma 2-3

B " " 3-8

IICr " " 4-8 WT > 6.0 feet

(39F) Millicoma - Templeton Complex, 50-75%

55% gr. Lm 25% si Lm

WT > 6.0 feet

Millicoma - W (Well Drained) Typic Humitropepts

O · 3-0" · undecomposed litter of needles, leaves + twigs.

A11 · 0-7" · 10YR 2/2 gr. L. (4/2 d), 15% gr

A12 · 7-18" · 10YR 3/2 gr. L. (5/2 d), 25% gr + 5% cobbles

B2 · 18-35" · 10YR 4/3 V. gr. L. (6/3 d), 40% gr + 15% cobbles

IICr · 35 in" · 2.5Y 5/2 + 6/4 partially weathered sandstone

WT > 6.0 ft

16 Dune Land

(Hecata soil inclusions - hydric) WT > 6.0 ft

APPENDIX 9

FISH AND WILDLIFE LIST

CITY OF LAKESIDE LOCAL WETLAND INVENTORY - WILDLIFE		
Common Name	**Scientific Name**	**Location**
BIRDS		
pied-billed grebe	*Podilymbus podiceps*	Tenmile Lake
double-crested cormorant	*Phalacrocorax auritus*	Tenmile Lake, Coleman Arm
great blue heron	*Ardea herodias*	Tenmile Lake, TL-1, TL-3, EC-1, Coleman Arm
Canada goose	*Branta canadensis*	Tenmile Lake, etc.
wood duck	*Aix sponsa*	Tenmile Lake, TL-3
mallard	*Anas platyrhynchos*	Tenmile Lake, etc., BC-6
ring-necked duck	*Aythya collaris*	Tenmile Lake at TL-5
scaup	*Aythya* species	Tenmile Lake at TL-5
osprey	*Pandion haliaetus*	Tenmile Lake
bald eagle	*Haliaeetus leucocephalus*	Eel Lake
red-tailed hawk	*Buteo jamaicensis*	TL-1
American coot	*Fulica americana*	Tenmile Lake, TL-3
killdeer	*Charadrius vociferus*	BC-1
common snipe	*Gallinago gallinago*	TL-2, TC-1
gull	*Larus* species	
mourning dove	*Zenaida macroura*	
? rufous or Anna's hummingbird	*Selasphorus rufus* or *Calypte anna*	TC-4
belted kingfisher	*Ceryle alcyon*	TL-1, TL-5 beaver pond, TC-1
northern flicker	*Colaptes auratus*	
violet-green swallow	*Tachycineta thalassina*	Coleman Arm
Steller's jay	*Cyanocitta stelleri*	TC-1

CITY OF LAKESIDE LOCAL WETLAND INVENTORY - WILDLIFE		
Common Name	**Scientific Name**	**Location**
American crow	*Corvus brachyrhynchos*	
common raven	*Corvus corax*	
black-capped chickadee	*Parus atricapillus*	
red breasted nuthatch	*Sitta canadensis*	TC-4
marsh wren	*Cistothorus palustris*	TC-5
ruby-crowned kinglet	*Regulus calendula*	EC-1
American robin	*Turdus migratorius*	
hermit thrush	*Catharus guttatus*	TC-5
European starling	*Sturnus vulgaris*	
song sparrow	*Melospiza melodia*	
dark-eyed junco	*Junco hyemalis*	
western meadowlark	*Sturnella neglecta*	TL-1, by North Lake Ave.
red-winged blackbird	*Agelaius phoeniceus*	
Brewer's blackbird	*Euphagus cyanocephalus*	
MAMMALS		
beaver mark	*Castor canadensis*	TL-5 beaver pond, Tenmile Lake
mink	*Mustela vison*	Tenmile Creek
black-tailed deer track	*Odocoileus hemionus*	
AMPHIBIANS		
roughskin newt	*Taricha granulosa*	TL-5 beaver pond
Pacific treefrog	*Pseudacris regilla*	
FISH		
unknown fish		TL-5 beaver pond
coho salmon	*Oncorhynchus kisutch*	TC-5 (Saunders Creek)

APPENDIX 10

ADDENDA

ACKNOWLEDGMENT

The Wetlands Inventory was completed by the **Fishman Environmental Services**, 434 NW 6th Ave, Suite 304, Portland, Oregon, in 1999. By permission of Coral Mirth Walker, PWS of the Fishman Environmental Services and head of the group that did the inventory, I have attempted to do a true trace and coloring of the original Wetlands inventory maps. Only those original wetland inventory maps that are within the City of Lakeside's Urban Growth Boundary are shown in this atlas.

THIS ATLAS MAY BE USED AS A REFERENCE OF MAPPED WETLANDS WITHIN THE CITY OF LAKESIDE. IT IS NOT A LWI APPROVED PRODUCT. PLEASE REFER TO LWI APPROVED TAX LOT MAP SET AS NECESSARY

POW

Open Water: Areas of open water where there are no emergent, submergent, or floating vegetation (OFWAM Appendix D); or areas of water less than 6.6 feet deep, where submerged or floating-leaved plants often inhabit the shallower portions along the edges of the body of water (OFWAM Glossary.)

Open Water is not a Cowardin classification but is used on National Wetland Inventory maps and in OFWAM. For purposes of this inventory, the Aquatic Bed and Open Water classifications have been combined (POW/PAB)

PFO

Forested - Dominated by woody vegetation 20 feet (6 meters) tall or taller.

PSS

Scrub-Shrub - Dominated by woody vegetation less than 20 feet (6 meters) tall or taller.

PEM

Emergent - Dominated by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years, and is usually dominated by perennial plants.

Combination

Combination of any other the four above types.

Definitions of Map Symbols

CITY OF LAKESIDE LOCAL WETLANDS INVENTORY

FISHMAN ENVIRONMENTAL SERVICES PROJECT 98111
DRAFT MAP PREPARED 4/21/99, FINAL MAP PREPARED 6.1.99
COLOR AERIAL PHOTOGRAPH DATE 5/18/97

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- NS: NONSIGNIFICANT SITE
- U: UPLAND

SAMPLE PLOTS
⊕1 or ● 1: PLOT NUMBERS
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Map Title and Location

NW1/4 SW1/4 SEC. 17 T.23S. R.12W. W.M.
COOS COUNTY

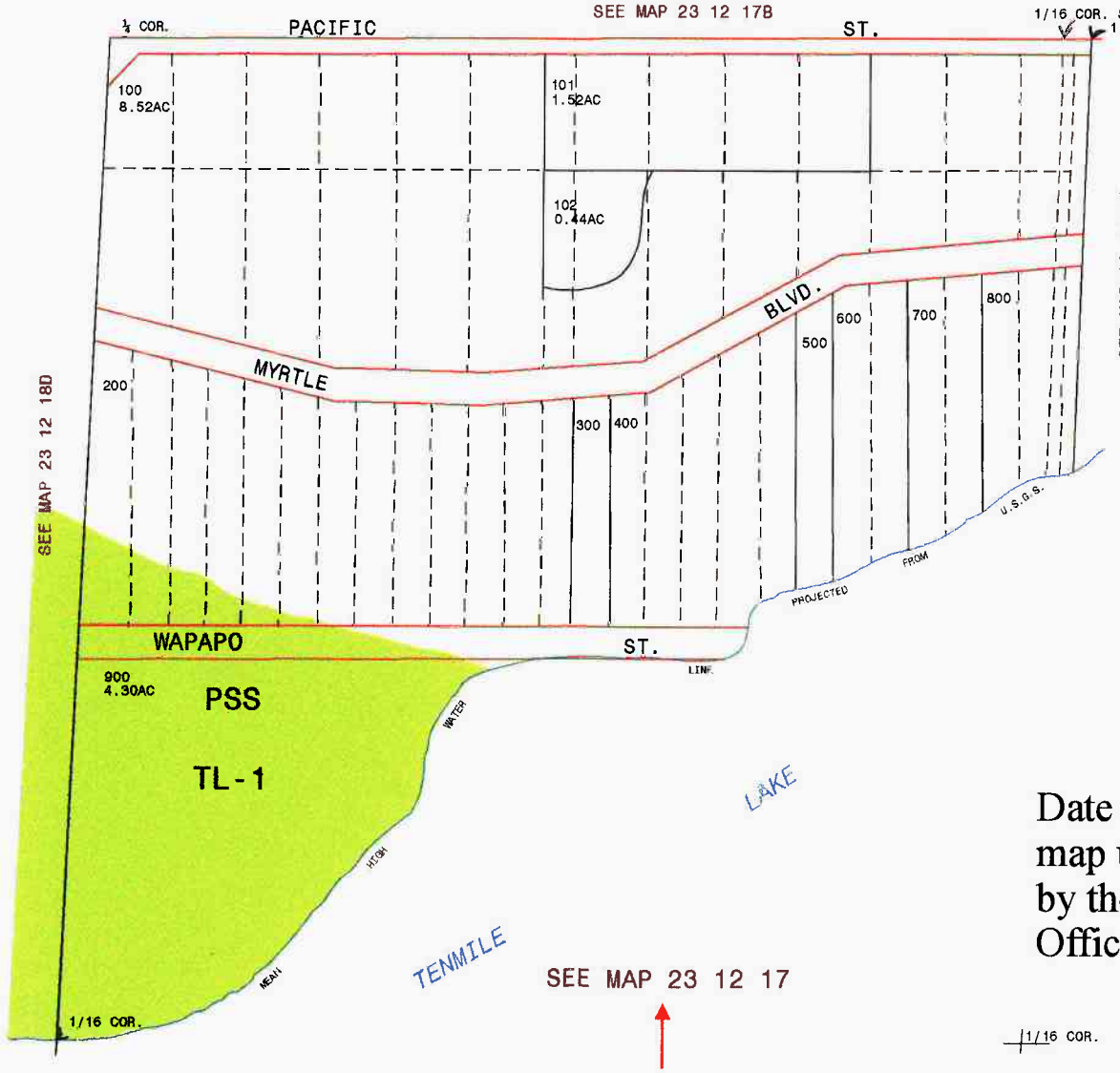
THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSE ONLY

1"=100'

Abbreviated Township, Range & Section

23 12 17CB (17)
LAKESIDE

Original Map Sheet number



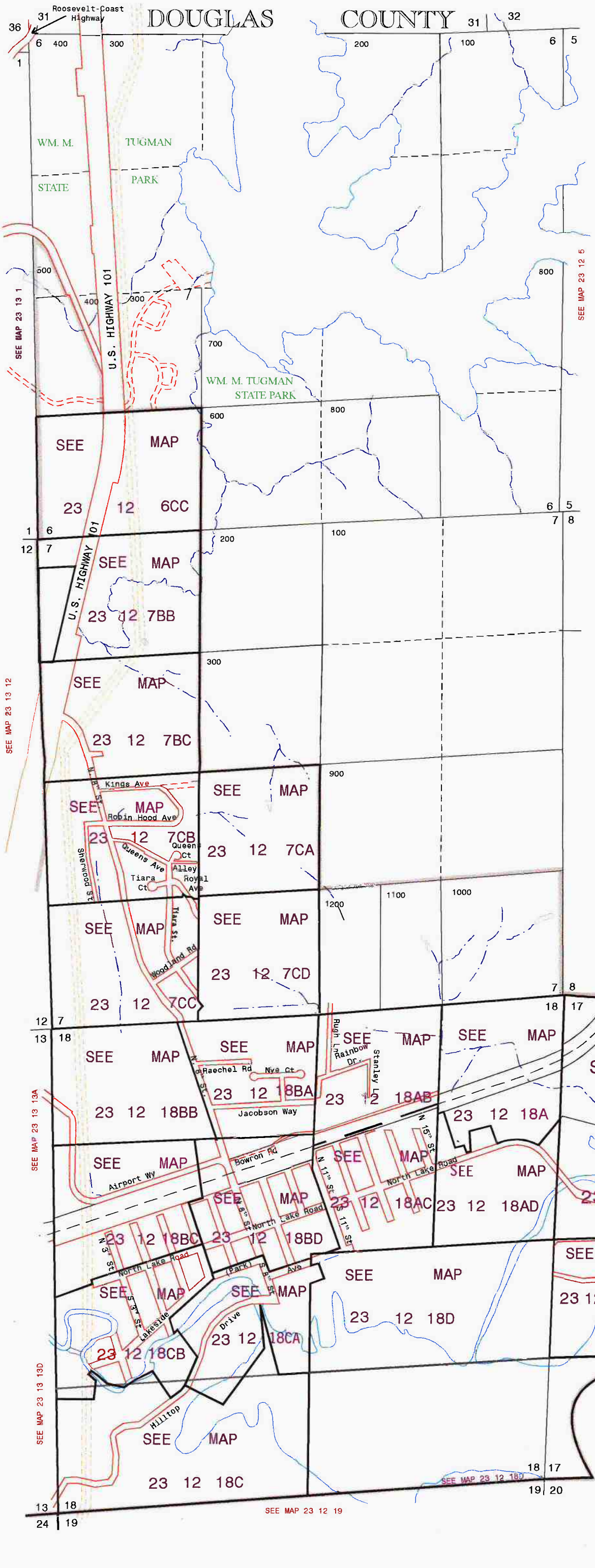
Traced County Tax Lot Map, showing the approximate location of Wetlands

Date of the last map update made by the County Surveyor's Office.

1/16 COR. 20-AUG-1998
23 12 17CB (17)
LAKESIDE

Adjacent Map Number

City of Lakeside
Wetlands
Tax Lot Index



INDEX TO SECTION MAPS:
SECTION
MAP SHEET NUMBER

RANGE 12

6	SHEET 1
6CC	SHEET 2
7	SHEET 3
7BB	SHEET 4
7BC	SHEET 5
7CA	SHEET 6
7CB	SHEET 7
7CC	SHEET 8
7CD	SHEET 9
17	SHEET 15
17B	SHEET 16
17CB	SHEET 17
18	SHEET 18
18A	SHEET 19
18AB	SHEET 20
18AC	SHEET 21
18AD	SHEET 22
18BA	SHEET 23
18BB	SHEET 24
18BC	SHEET 25
18BD	SHEET 26
18C	SHEET 27
18CA	SHEET 28
18CB	SHEET 29
18D	SHEET 30

RANGE 13

13	SHEET 40
13A	SHEET 41

Showing what area can be found on what map sheet. Sheet numbers correspond with map sheet numbers of original maps.

City of Lakeside
Wetlands
Overall Map & Legend
2000 Edition

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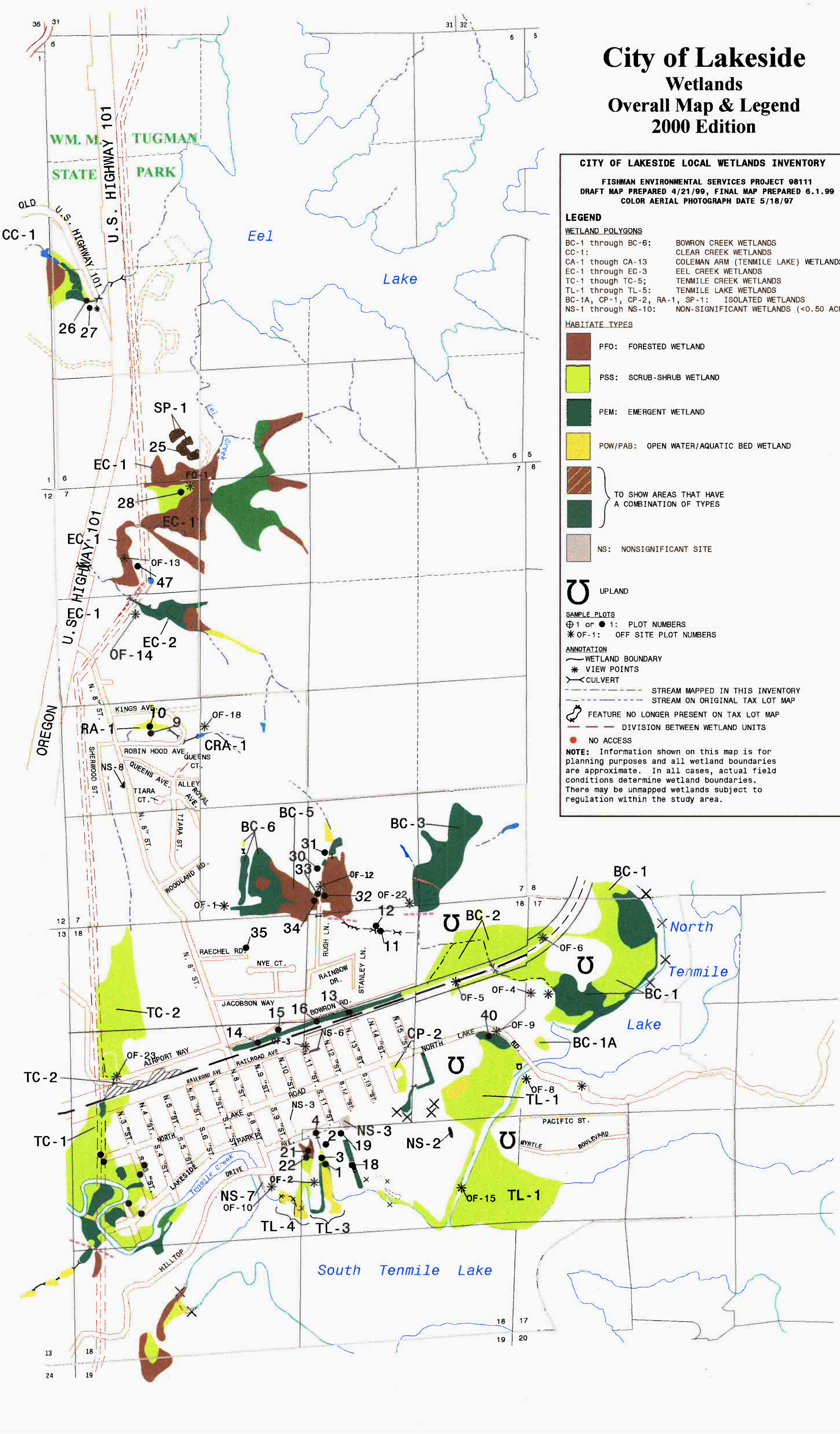

SECTION 6 T.23 S. R.12 W. W.M.
COOS COUNTY

23 12 6 ①
& INDEX
LAKESIDE

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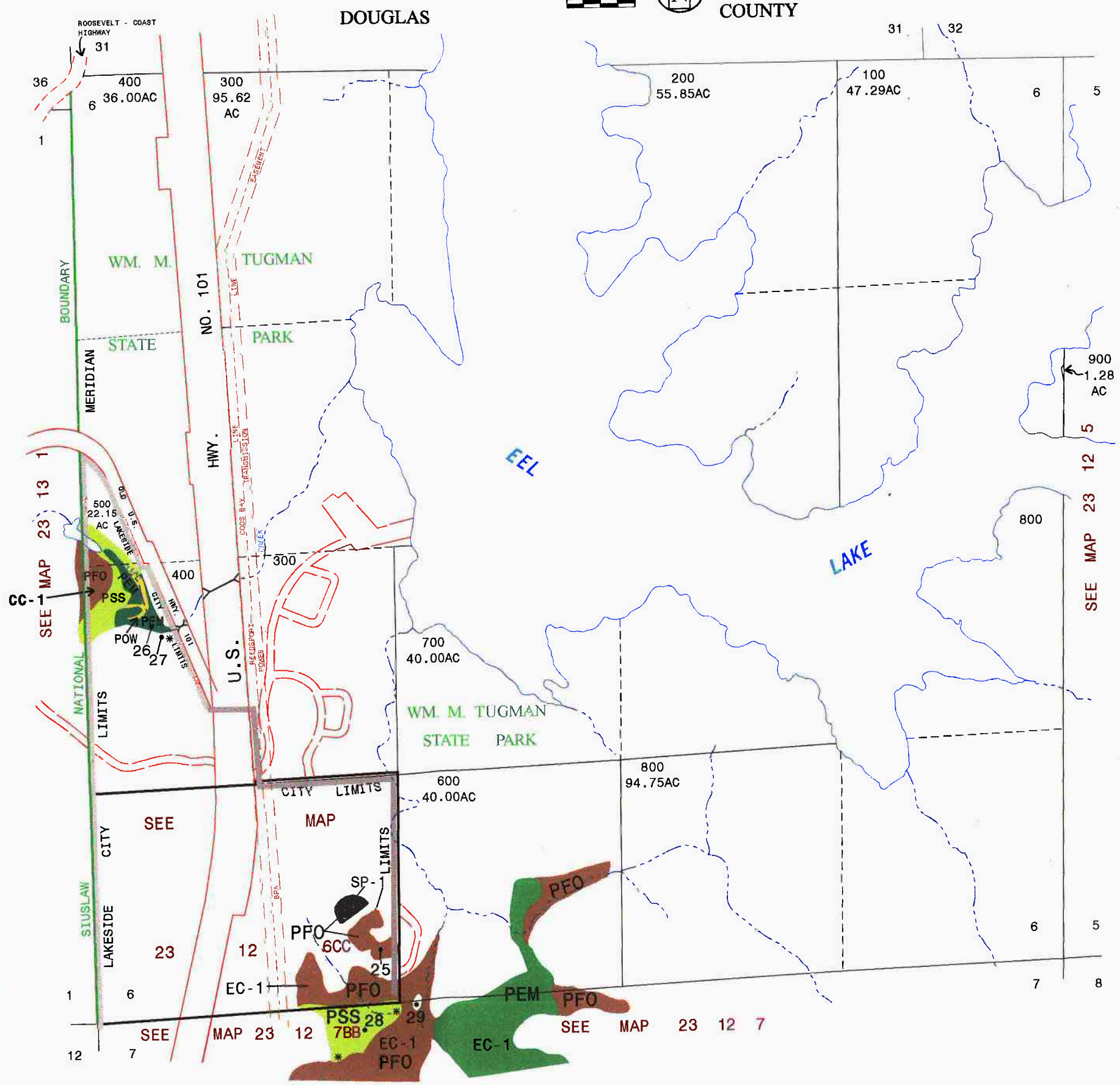
0 100 200 300 400



23 12 6
& INDEX
LAKESIDE ①

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SW1/4 SW1/4 SEC.6 T.23S. R.12W. W.M. 23 12 6CC ②
COOS COUNTY
LAKESIDE

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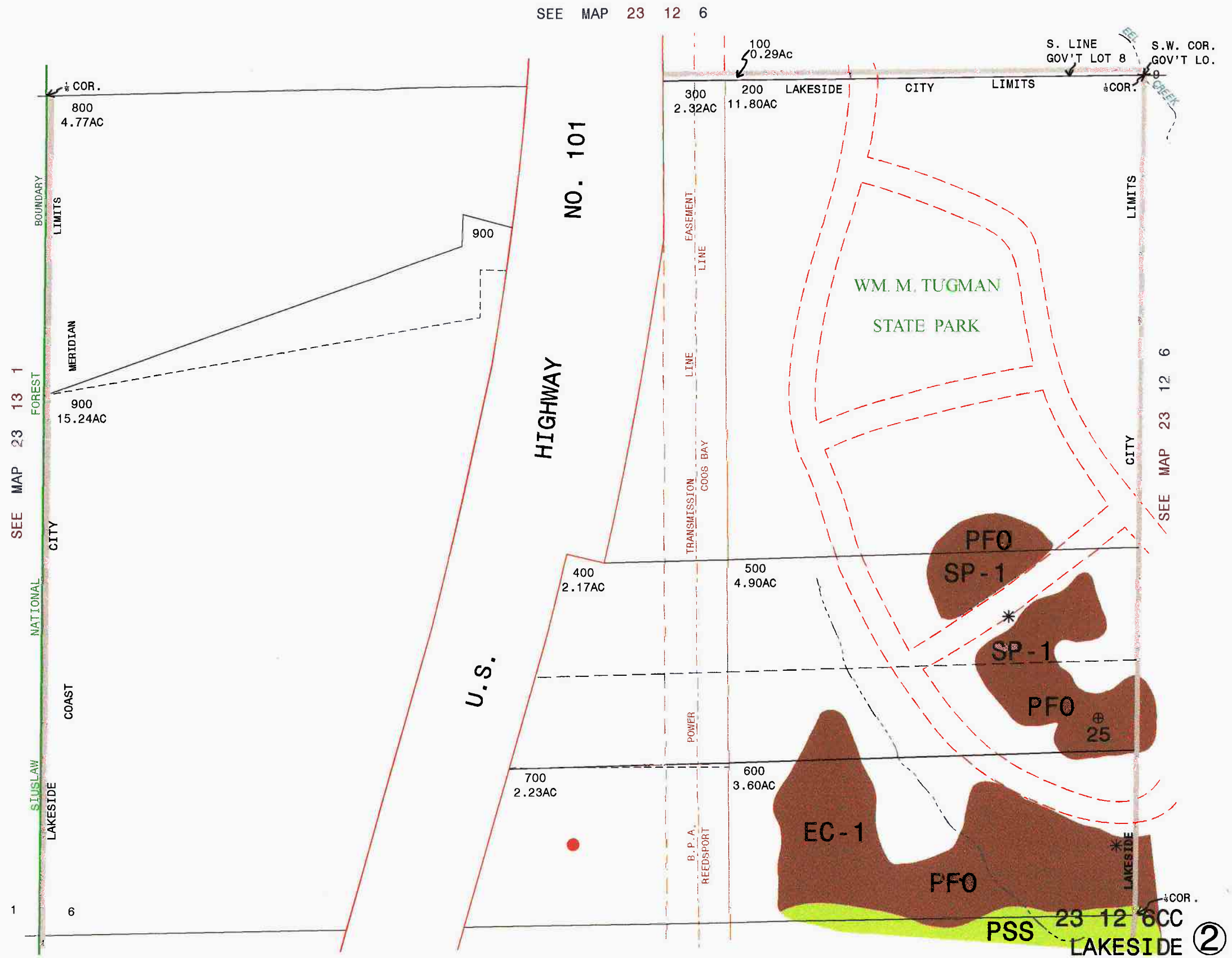
1"=100'
0 25 50 75 100

N



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SECTION 7 T.23S. R.12W.W.M.
COOS COUNTY

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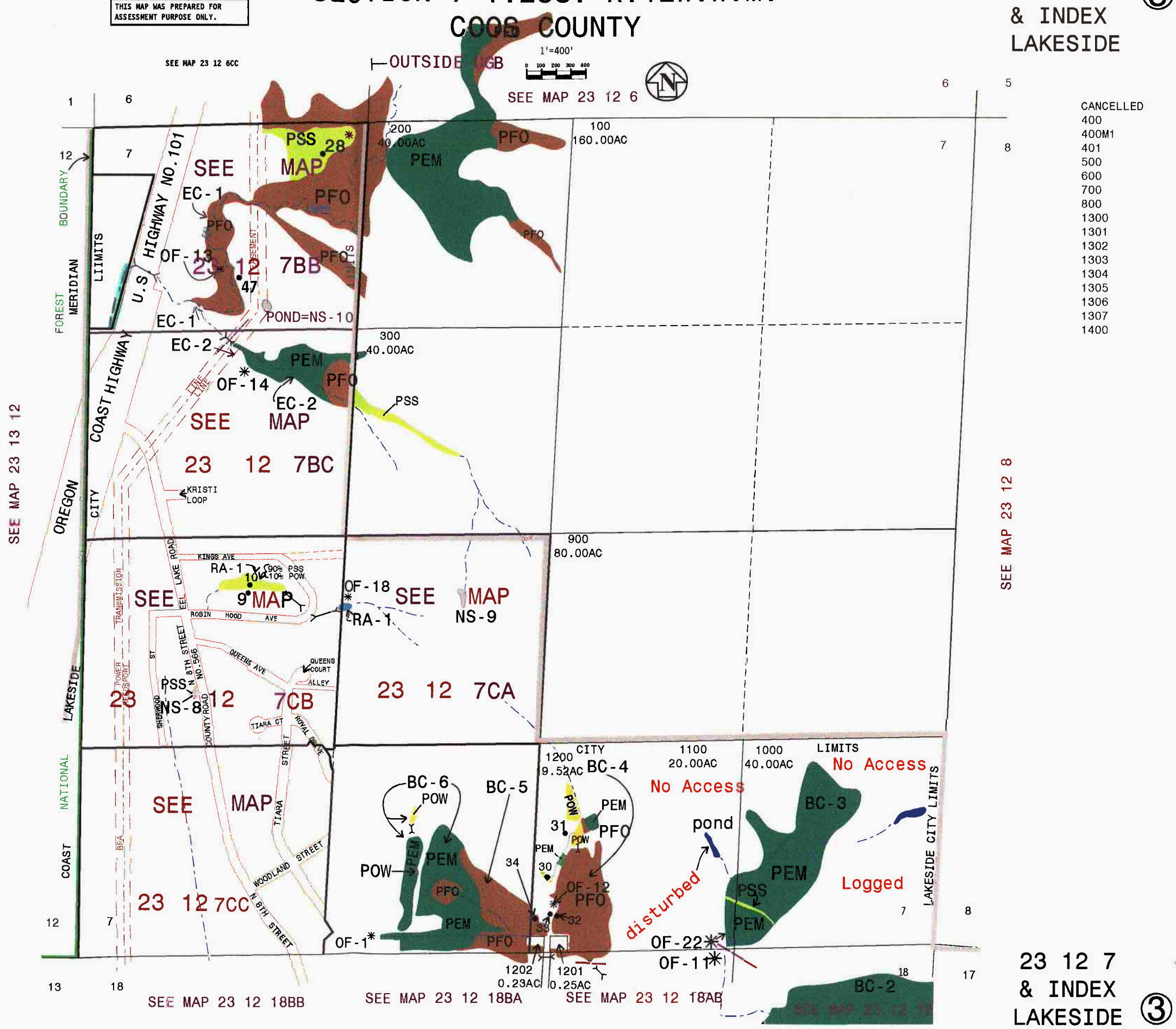
23 12 7 & INDEX LAKESIDE ③

CANCELLED
400
400M1
401
500
600
700
800
1300
1301
1302
1303
1304
1305
1306
1307
1400



23 12 7 & INDEX LAKESIDE ③

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NW3 NW3 T.23S R.12W. W.M.
COOS COUNTY

23 12 7BB
LAKESIDE
4
CANCELLED
302
601

1" = 100'

SEE MAP 23 12 6CC

SEE MAP 23 13 12

SEE MAP 23 12 7

SEE MAP 23 12 7BC

1 6 12 7

500 2.92AC

600 4.53AC

700 0.27AC

800 1.71AC

100 11.12AC

200 12.01AC

400 2.95AC

300 5.10AC

201 1.54AC

301 4.27AC

BOUNDARY LIMITS FOREST CITY

NATIONAL FOREST BOUNDARY

SIUSLAW LAKESIDE

U.S. HIGHWAY 101

COAST

OREGON

Eel Creek Approx.

EASEMENT LINE

TRANSMISSION LINE

COOS BAY POWER REEDSPORT

B.P.A.

CITY LIMITS

LAKESIDE

PFO

PSS

EC-1

28

47

OF-13

POW =NS-10

POND ON EC=2 PROPERTY

NE. COR GOVT. LOT

S.W. COR GOVT LOT1

SE. COR GOVT. LOT 1

23 12 7BB
LAKESIDE
4

CITY OF LAKESIDE LOCAL WETLANDS INVENTORY

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SW¼ NW¼ SEC. 7 T.23S. R.12W. W.M.
COOS COUNTY

23 12 7BC ⑤
LAKESIDE

CANCELLED
106
201
115
101
117

1"=100'
0 25 50 75 100
N

SEE MAP 23 12 7BB

200 2.03AC
207
206
205
204
203
202
300 1.68AC
114 0.57AC
100 7.63AC
¼COR.
EC-2
EC-2 PEM
EC-2 PFO
PSS
OF-14
113
112
125
111
110
119
118
116
109
108
107
121
120
144 2.11AC
126
127
128
129
130
123
124
122
142 0.36AC
140
139
138
137
131
132
133
134
135
143 0.33AC
141 1.14AC
136 0.47AC
900 0.19AC
901 0.20AC
400 2.55AC
1000
1100
1200
800
700
600
500
1300
1400
1500
145 0.19AC
146 0.20AC
147 0.22AC
148 0.23AC
157 0.20AC
156 0.24AC
155 0.24AC
154 0.24AC
153 0.42AC
152 0.37AC
151 0.36AC
150 0.35AC
102 0.16AC
104
103
1600 0.21AC
1700 0.30AC
1800 0.34AC
1900 0.29AC
2000 0.31AC
2001 0.19AC
105 0.23AC
2100 0.21AC
2200 0.20AC

U.S. HWY. NO. 101
COAST OREGON
BOUNDARY LIMITS
FOREST MERIDIAN
CREEK
CITY EEL
NATIONAL
COAST
STUSLAW
LAKESIDE
BONNEVILLE
ROAD
STREET
NICHOLAS AVE
LOOP
KRISTI
LINE
LAKESIDE CITY LIMITS
LINE EASEMENT REEDSPORT - COOS BAY WILL RODERS LN.
B.P.A. POWER TRANSMISSION
NO.199 EEL LAKE ROAD COUNTY ROAD (NO.566)
KRISTI LOOP

SEE MAP 23 13 12
SEE MAP 23 12 7
SEE MAP 23 12 7CB

W.3 COR.

19-JUN-1997
S.E. COR. GOVY. LOT 3

23 12 7BC ⑤
LAKESIDE

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COOS COUNTY

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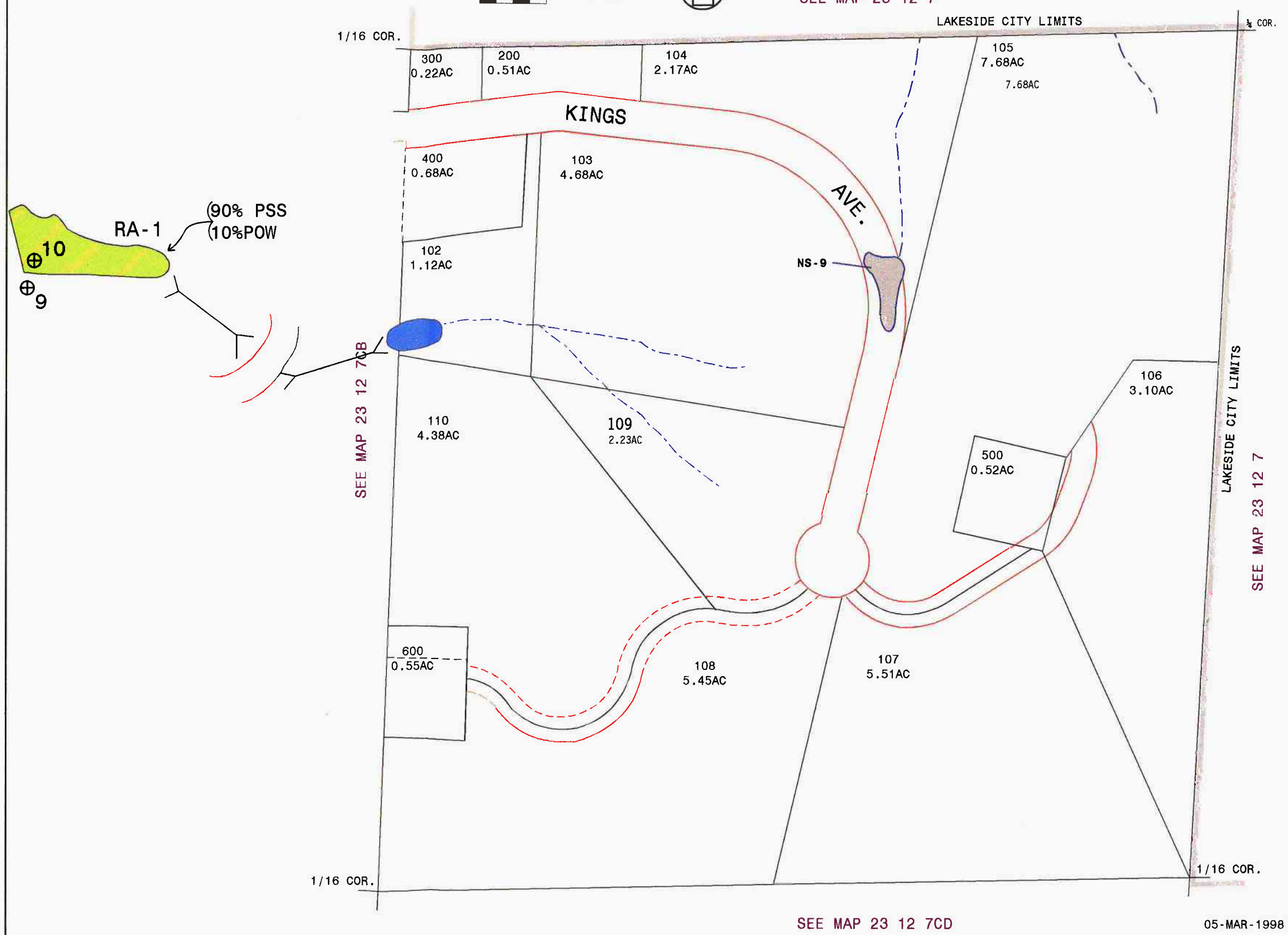
0 25 50 75 100 1"=100'

23 12 7CA
LAKESIDE
CANCELLED
101
6



05-MAR-1998

23 12 7CA
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PFO: FORESTED WETLAND

PSS: SCRUB-SHRUB WETLAND

PEM: EMERGENT WETLAND

POW/PAB: OPEN WATER/AQUATIC BED WETLAND

TO SHOW AREAS THAT HAVE A COMBINATION OF TYPES

NS: NONSIGNIFICANT SITE

UPLAND

SAMPLE PLOTS

⊕1 or ● 1: PLOT NUMBERS

✳OF-1: OFF SITE PLOT NUMBERS

ANNOTATION

WETLAND BOUNDARY

VIEW POINTS

CULVERT

STREAM MAPPED IN THIS INVENTORY

STREAM ON ORIGINAL TAX LOT MAP

FEATURE NO LONGER PRESENT ON TAX LOT MAP

DIVISION BETWEEN WETLAND UNITS

NO ACCESS

NOTE: Information shown on this map is for planning purposes and all wetland boundaries are approximate. In all cases, actual field conditions determine wetland boundaries. There may be unmapped wetlands subject to regulation within the study area.

NW1/4 SW1/4 SEC.7 T.23S. R.12W. W.M.
COOS COUNTY

23 12 7CB (7)
LAKESIDE

THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSE ONLY.

1"= 100'
0 25 50 75 100

N

SEE MAP 23 12 7BC

SEE MAP 23 13 12

SEE MAP 23 12 7CA

SEE MAP 23 12 7CC

OREGON COAST HIGHWAY U.S. NO. 101

1/4 COR.

BOUNDARY

CITY FOREST

LAKESIDE

NATIONAL

SIUSLAW

COAST

MERIDIAN

EASEMENT LINE

8601

COOS BAY LINE

TRANSMISSION

POWER

B.P.A.

REEDSPORT

8TH STREET NORTH

ROBIN HOOD AVE.

ROAD BY CO. RECORDS

SHERWOOD STREET

EEL LAKE ROAD NO. 566

COUNTY

KINGS AVENUE

ROBIN HOOD AVENUE

QUEENS AVENUE

QUEENS CT.

TIARA CT.

TIARA ST.

ROYAL DRIVE

ALLEY

RA-1

NS-8

APPROX. 1/16 COR.

S.E. COR. GOVT LOT 2

APPROX 1/16 COR

CANCELLED
500
7800
301
2700
6001
7500
2406
5901

8100 0.26AC
8200 0.47AC
8300 0.76AC
8400 0.62AC
8500 0.86 AC
8000 0.29AC
7900 0.25AC
9300 0.23AC
9300 7.02AC
8600 0.47AC
7700 0.57AC
8700 0.34AC
8701 0.20AC
8800 0.90AC
8900 0.36AC
9000 0.38AC
9100 0.41AC
9200 0.46AC
7600 0.65AC
7400 0.20AC
7300 0.36AC
7200 0.27AC
7100 0.19AC
7001 0.12AC
7000 2.57AC

1300 0.14 AC
1200 0.11 AC
1100 0.15 AC
900 0.30AC
1000
800 0.34AC
700 0.29AC
600 0.31AC
400 0.23AC
300 0.23AC
200 0.20AC
100 0.20AC
2900 0.34AC
3000 0.67AC
3101 0.34AC
3100 0.27AC
3200 0.35AC
3300 0.70AC
2000 0.30 AC
1900 0.18AC
1800 0.15 AC
1700 0.14 AC
1600 0.30AC
1500 0.23AC (90% PSS 10% POW)
1400 0.27AC
2100 0.33AC
2200 0.30AC
2300 0.19AC
2403 0.07AC
2402 0.07AC
2401 0.15AC
2501 0.37AC
2800 0.42AC
2404 0.31AC
2405 0.40AC
2400 0.40AC
2502 0.42AC
2500 0.42AC
2600 0.42AC
3900 0.20AC
3800 0.31AC
3700 0.30AC
3600 0.42AC
3500 0.48AC
3400 0.41AC
400 0.21AC
4100 0.30AC
4200 0.23AC
4300
4400
4500
4600 0.19AC
4602 0.13AC
4601 0.23AC
4700
4800
4900
6900 1.47AC
6901 0.23AC
6800
6700
6600
6902 0.47AC
6400
6500
6200
6300
6100
6000
6002
5900
5800
5700
5600
5500
5400 0.24AC
5100
5200
5300 0.34AC
5000 STREET PLUG

27-MAY-1997

23 12 7CB (7)
LAKESIDE

CITY OF LAKESIDE LOCAL WETLANDS INVENTORY

FISHMAN ENVIRONMENTAL SERVICES PROJECT 98111
DRAFT MAP PREPARED 4/21/99, FINAL MAP PREPARED 6.1.99
COLOR AERIAL PHOTOGRAPH DATE 5/18/97

LEGEND

WETLAND POLYGONS

BC-1 through BC-6:	BOWRON CREEK WETLANDS
CC-1:	CLEAR CREEK WETLANDS
CA-1 though CA-13	COLEMAN ARM (TENMILE LAKE) WETLANDS
EC-1 through EC-3	EEL CREEK WETLANDS
TC-1 though TC-5;	TENMILE CREEK WETLANDS
TL-1 through TL-5:	TENMILE LAKE WETLANDS
BC-1A, CP-1, CP-2, RA-1, SP-1:	ISOLATED WETLANDS
NS-1 through NS-10:	NON-SIGNIFICANT WETLANDS (<0.50 ACRE)

HABITATE TYPES

- PFO: FORESTED WETLAND
- PSS: SCRUB-SHRUB WETLAND
- PEM: EMERGENT WETLAND
- POW/PAB: OPEN WATER/AQUATIC BED WETLAND
- TO SHOW AREAS THAT HAVE A COMBINATION OF TYPES
- NS: NONSIGNIFICANT SITE
- UPLAND

SAMPLE PLOTS

- ⊕1 or ● 1: PLOT NUMBERS
- ✳OF-1: OFF SITE PLOT NUMBERS

ANNOTATION

- WETLAND BOUNDARY
- ✳ VIEW POINTS
- CULVERT
- STREAM MAPPED IN THIS INVENTORY
- STREAM ON ORIGINAL TAX LOT MAP
- FEATURE NO LONGER PRESENT ON TAX LOT MAP
- DIVISION BETWEEN WETLAND UNITS
- ● NO ACCESS

NOTE: Information shown on this map is for planning purposes and all wetland boundaries are approximate. In all cases, actual field conditions determine wetland boundaries. There may be unmapped wetlands subject to regulation within the study area.

SW1/4 SW1/4 SEC.7 T. 23S. R12W. W.M.
COOS COUNTY

23 12 7CC
LAKESIDE
8

THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSE ONLY

1"=100'
0 25 50 75 100

SEE MAP 23 12 7CB

1/16 COR.

4100
18.45AC

SHERWOOD STREET

4000
0.26 AC

3900
0.04 AC

3800
9.20AC

EEL LAKE STREET

TIARA

1ST ADDITION TO ROYAL ACRES

ROYAL DRIVE

1/16 COR

CANCELLED
5600
300
5300
6400
6500
600
6600
900

3700 1700
3600 1800
3500 2000
3400
3300 2100
3200 2200
3100 2300
3000 2400
2900 2500
2800 2000
2700

2 100 200
1600
1500
1400 400
1300 500
1200
1100 700
1000
900
800
6200
6100
6000
5900

BOUNDARY
FOREST
SEE MAP 23 13 12
EASEMENT
LINE
TRANSMISSION
LINE
COOS BAY
NATIONAL
POWER
B.P.A.
REEDSPORT
SIUSLAW

COUNTY ROAD NO. 566

WOODLAND

4202
0.36AC
4200
0.28AC
4201
0.34AC
4300
0.43AC
4401 0.03AC
4400
0.39AC
4500
0.36AC

5300
5200 5400
5100 5500
5000
4900 5700
4800 5800
0.33AC
4700
4600

SEE MAP 23 12 7CD

12 7
13 18

1/16 COR.

SEE MAP 23 12 18BB

23 12 7CC
LAKESIDE
8

CITY OF LAKESIDE LOCAL WETLANDS INVENTORY

FISHMAN ENVIRONMENTAL SERVICES PROJECT 98111
DRAFT MAP PREPARED 4/21/99, FINAL MAP PREPARED 6.1.99
COLOR AERIAL PHOTOGRAPH DATE 5/18/97

LEGEND

WETLAND POLYGONS

BC-1 through BC-6:	BOWRON CREEK WETLANDS
CC-1:	CLEAR CREEK WETLANDS
CA-1 though CA-13	COLEMAN ARM (TENMILE LAKE) WETLANDS
EC-1 through EC-3	EEL CREEK WETLANDS
TC-1 though TC-5;	TENMILE CREEK WETLANDS
TL-1 through TL-5:	TENMILE LAKE WETLANDS
BC-1A, CP-1, CP-2, RA-1, SP-1:	ISOLATED WETLANDS
NS-1 through NS-10:	NON-SIGNIFICANT WETLANDS (<0.50 ACRE)

HABITATE TYPES

PFO: FORESTED WETLAND

PSS: SCRUB-SHRUB WETLAND

PEM: EMERGENT WETLAND

POW/PAB: OPEN WATER/AQUATIC BED WETLAND

TO SHOW AREAS THAT HAVE A COMBINATION OF TYPES

NS: NONSIGNIFICANT SITE

UPLAND

SAMPLE PLOTS

⊕1 or ● 1: PLOT NUMBERS
✳OF-1: OFF SITE PLOT NUMBERS

ANNOTATION

WETLAND BOUNDARY
VIEW POINTS
CULVERT
STREAM MAPPED IN THIS INVENTORY
STREAM ON ORIGINAL TAX LOT MAP
FEATURE NO LONGER PRESENT ON TAX LOT MAP
DIVISION BETWEEN WETLAND UNITS
NO ACCESS

NOTE: Information shown on this map is for planning purposes and all wetland boundaries are approximate. In all cases, actual field conditions determine wetland boundaries. There may be unmapped wetlands subject to regulation within the study area.

SE1/4 SW1/4 SEC.. 7 T.23S. R.12W. W.M.
COOS COUNTY

23 12 7CD
LAKESIDE
9

THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSE ONLY.

1" =100'
0 25 50 75 100

N

SEE MAP 23 12 7CA

1/16 COR.

CANCELLED
101
102

300
7.76AC

400
0.19AC

301

500
0.20AC

200
4.62AC

100
10.87AC

ROYAL DRIVE

SEE MAP 23 12 7CC

BC-4
POW
PEM
PFO
POW
PFO/PSS
PEM
BC-4
PFO
OF-12
30
33
32
34
606
0.70AC
BC-5
PFO
610
0.22AC

SEE MAP 23 12 7

BC-6
POW
600
3.03AC
PEM
BC-6
POW
BC-6
PEM
608
6.97AC
PEM
BC-6
BC-6
PFO
BC-5
PFO
PEM
BC-5
PFO

700
0.66AC
604
0.39AC
701
0.28AC
609
0.28AC
TIARA ST.
601
0.20AC
OF-1
603
0.25AC
602
0.21AC
605
0.30AC
607
0.39AC
BC-6
PEM
611
2.32AC
PEM
BC-6
BC-5
PFO
1/16 COR.
7 1/4 COR.
18

SEE MAP 23 12 18BA

12-JUN-1998

23 12 7CD
LAKESIDE
9

CITY OF LAKESIDE LOCAL WETLANDS INVENTORY

FISHMAN ENVIRONMENTAL SERVICES PROJECT 98111
DRAFT MAP PREPARED 4/21/99, FINAL MAP PREPARED 6.1.99
COLOR AERIAL PHOTOGRAPH DATE 5/18/97

LEGEND

WETLAND POLYGONS

BC-1 through BC-6:	BOWRON CREEK WETLANDS
CC-1:	CLEAR CREEK WETLANDS
CA-1 though CA-13	COLEMAN ARM (TENMILE LAKE) WETLANDS
EC-1 through EC-3	EEL CREEK WETLANDS
TC-1 though TC-5;	TENMILE CREEK WETLANDS
TL-1 through TL-5:	TENMILE LAKE WETLANDS
BC-1A, CP-1, CP-2, RA-1, SP-1:	ISOLATED WETLANDS
NS-1 through NS-10:	NON-SIGNIFICANT WETLANDS (<0.50 ACRE)

HABITATE TYPES

- PFO: FORESTED WETLAND
- PSS: SCRUB-SHRUB WETLAND
- PEM: EMERGENT WETLAND
- POW/PAB: OPEN WATER/AQUATIC BED WETLAND
- TO SHOW AREAS THAT HAVE A COMBINATION OF TYPES
- NS: NONSIGNIFICANT SITE
- UPLAND

SAMPLE PLOTS

⊕1 or ●1: PLOT NUMBERS
✳OF-1: OFF SITE PLOT NUMBERS

ANNOTATION

- WETLAND BOUNDARY
- VIEW POINTS
- CULVERT
- STREAM MAPPED IN THIS INVENTORY
- STREAM ON ORIGINAL TAX LOT MAP
- FEATURE NO LONGER PRESENT ON TAX LOT MAP
- DIVISION BETWEEN WETLAND UNITS
- NO ACCESS

NOTE: Information shown on this map is for planning purposes and all wetland boundaries are approximate. In all cases, actual field conditions determine wetland boundaries. There may be unmapped wetlands subject to regulation within the study area.

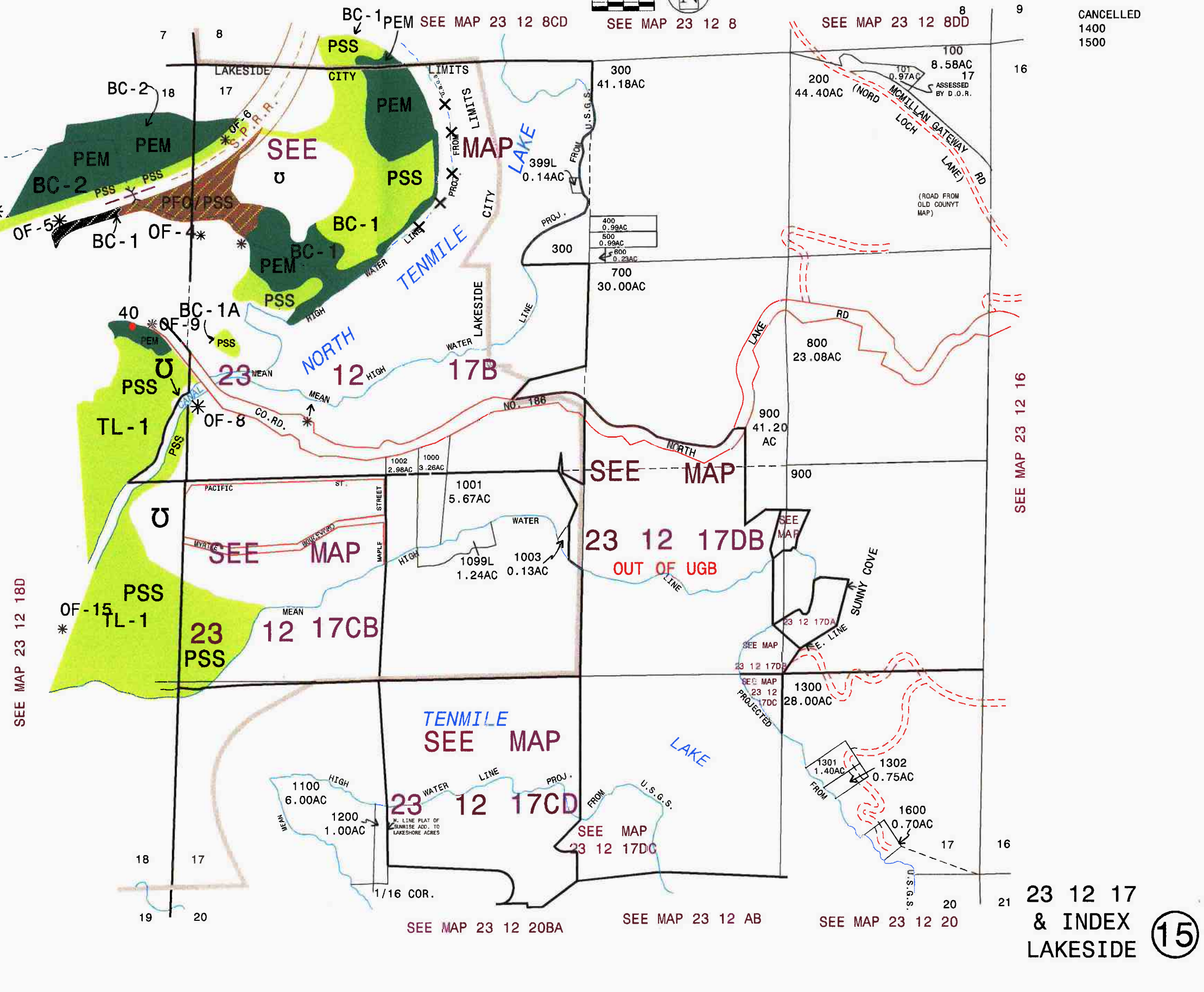
SECTION 17 T.23S. R.12W. W.M.
COOS COUNTY

THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSE ONLY.

1" =400'

23 12 17 & INDEX LAKESIDE (15)

CANCELLED
1400
1500



23 12 17 & INDEX LAKESIDE (15)

CITY OF LAKESIDE LOCAL WETLANDS INVENTORY

FISHMAN ENVIRONMENTAL SERVICES PROJECT 98111
DRAFT MAP PREPARED 4/21/99, FINAL MAP PREPARED 6.1.99
COLOR AERIAL PHOTOGRAPH DATE 5/18/97

LEGEND

WETLAND POLYGONS

BC-1 through BC-6:	BOWRON CREEK WETLANDS
CC-1:	CLEAR CREEK WETLANDS
CA-1 though CA-13	COLEMAN ARM (TENMILE LAKE) WETLANDS
EC-1 through EC-3	EEL CREEK WETLANDS
TC-1 though TC-5;	TENMILE CREEK WETLANDS
TL-1 through TL-5:	TENMILE LAKE WETLANDS
BC-1A, CP-1, CP-2, RA-1, SP-1:	ISOLATED WETLANDS
NS-1 through NS-10:	NON-SIGNIFICANT WETLANDS (<0.50 ACRE)

HABITATE TYPES

- PFO: FORESTED WETLAND
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- PEM: EMERGENT WETLAND
- POW/PAB: OPEN WATER/AQUATIC BED WETLAND
- TO SHOW AREAS THAT HAVE A COMBINATION OF TYPES
- NS: NONSIGNIFICANT SITE
- U UPLAND

SAMPLE PLOTS

- ⊕1 or ●1: PLOT NUMBERS
- ✳OF-1: OFF SITE PLOT NUMBERS

ANNOTATION

- WETLAND BOUNDARY
- ✳ VIEW POINTS
- CULVERT
- STREAM MAPPED IN THIS INVENTORY
- STREAM ON ORIGINAL TAX LOT MAP
- FEATURE NO LONGER PRESENT ON TAX LOT MAP
- DIVISION BETWEEN WETLAND UNITS
- NO ACCESS

NOTE: Information shown on this map is for planning purposes and all wetland boundaries are approximate. In all cases, actual field conditions determine wetland boundaries. There may be unmapped wetlands subject to regulation within the study area.

THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSE ONLY.

NW1/4 SEC. 17 T.23S. R. 12W. W.M. COOS COUNTY

23 12 17B LAKESIDE 16

1"-200'

SEE MAP 23 12 8

SEE MAP 23 12 8CD

SEE MAP 23 12 18A

SEE MAP 23 12 17

SEE MAP 23 12 17CB

BC-1 PSS PEM BC-2 PFO/PSS BC-3 BC-4 BC-5 BC-6 CC-1 CA-1 CA-2 CA-3 CA-4 CA-5 CA-6 CA-7 CA-8 CA-9 CA-10 CA-11 CA-12 CA-13 EC-1 EC-2 EC-3 TC-1 TC-2 TC-3 TC-4 TC-5 TL-1 TL-2 TL-3 TL-4 TL-5 BC-1A CP-1 CP-2 RA-1 SP-1 NS-1 NS-2 NS-3 NS-4 NS-5 NS-6 NS-7 NS-8 NS-9 NS-10

OF-1 OF-2 OF-3 OF-4 OF-5 OF-6 OF-7 OF-8 OF-9

7 8 17 18 40

LAKESIDE CITY LIMITS

R.R. PACIFIC SOUTHERN

LAKE TENMILE LAKE NORTH LAKE

CANAL MEAN HIGH WATER LINE PROJECTED

U.S.G.S. FROM

CO. RD. NO. 186

PACIFIC NORTH LINE ST. COUNCIL HILL

CEN. SEC. ¼ COR.

CANCELLED 2502 1604 1600 2301 2401

25-AUG-1997

23 12 17B LAKESIDE 16

CITY OF LAKESIDE LOCAL WETLANDS INVENTORY

FISHMAN ENVIRONMENTAL SERVICES PROJECT 98111
DRAFT MAP PREPARED 4/21/99, FINAL MAP PREPARED 6.1.99
COLOR AERIAL PHOTOGRAPH DATE 5/18/97

LEGEND

WETLAND POLYGONS

BC-1 through BC-6: BOWRON CREEK WETLANDS
CC-1: CLEAR CREEK WETLANDS
CA-1 though CA-13 COLEMAN ARM (TENMILE LAKE) WETLANDS
EC-1 through EC-3 EEL CREEK WETLANDS
TC-1 though TC-5; TENMILE CREEK WETLANDS
TL-1 through TL-5: TENMILE LAKE WETLANDS
BC-1A, CP-1, CP-2, RA-1, SP-1: ISOLATED WETLANDS
NS-1 through NS-10: NON-SIGNIFICANT WETLANDS (<0.50 ACRE)

HABITATE TYPES

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PSS: SCRUB-SHRUB WETLAND

PEM: EMERGENT WETLAND

POW/PAB: OPEN WATER/AQUATIC BED WETLAND

TO SHOW AREAS THAT HAVE A COMBINATION OF TYPES

NS: NONSIGNIFICANT SITE

UPLAND

SAMPLE PLOTS

⊕1 or ● 1: PLOT NUMBERS
✳OF-1: OFF SITE PLOT NUMBERS

ANNOTATION

WETLAND BOUNDARY
✳ VIEW POINTS
CULVERT
STREAM MAPPED IN THIS INVENTORY
STREAM ON ORIGINAL TAX LOT MAP
FEATURE NO LONGER PRESENT ON TAX LOT MAP
DIVISION BETWEEN WETLAND UNITS
● NO ACCESS

NOTE: Information shown on this map is for planning purposes and all wetland boundaries are approximate. In all cases, actual field conditions determine wetland boundaries. There may be unmapped wetlands subject to regulation within the study area.

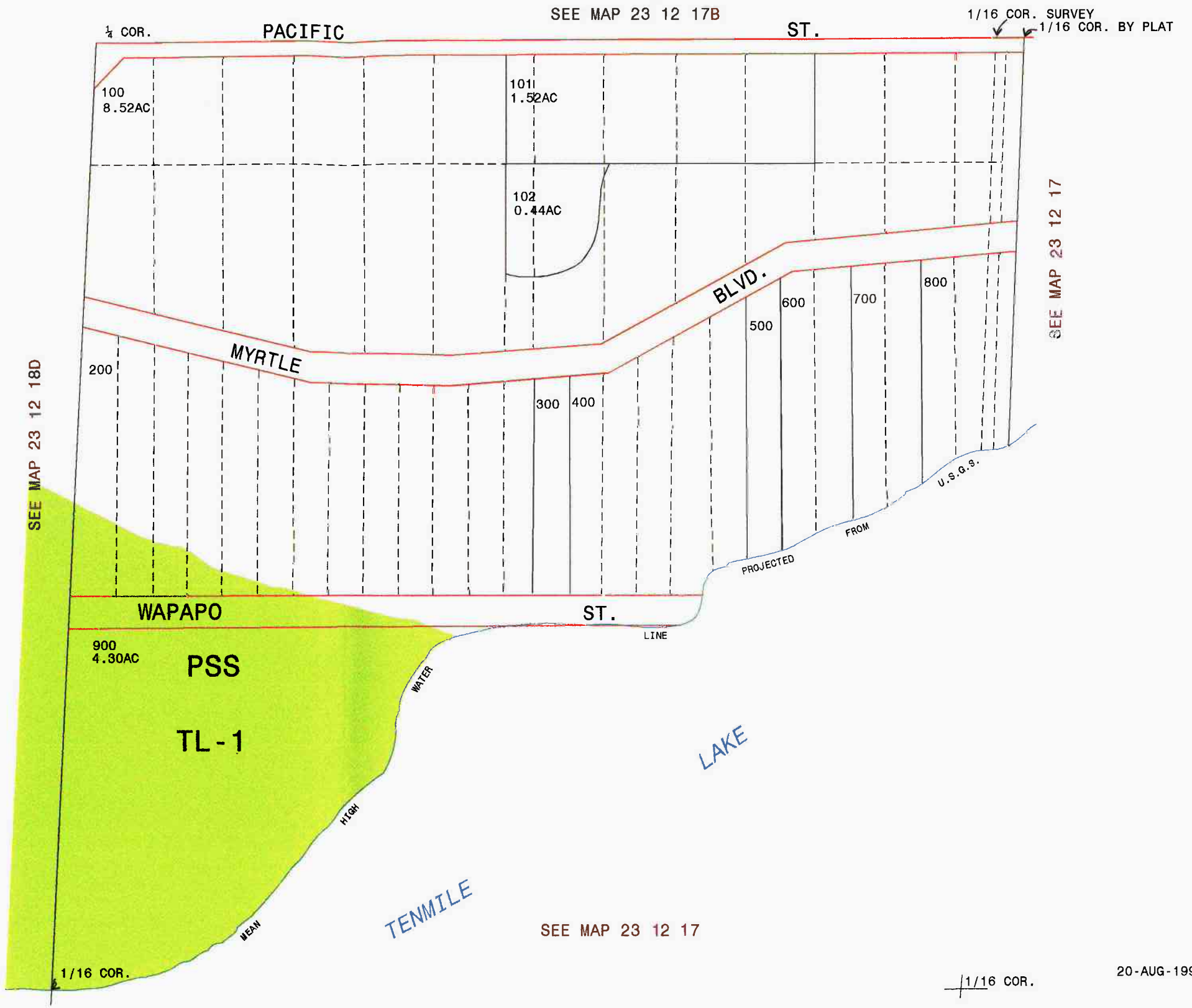
NW1/4 SW1/4 SEC. 17 T.23S. R.12W. W.M.
COOS COUNTY

23 12 17CB
LAKESIDE
17

THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSE ONLY

1" - 100'
0 25 50 75 100

N



20-AUG-1998

23 12 17CB
LAKESIDE
17

CITY OF LAKESIDE LOCAL WETLANDS INVENTORY

FISHMAN ENVIRONMENTAL SERVICES PROJECT 98111
DRAFT MAP PREPARED 4/21/99, FINAL MAP PREPARED 6.1.99
COLOR AERIAL PHOTOGRAPH DATE 5/18/97

LEGEND

WETLAND POLYGONS

BC-1 through BC-6:	BOWRON CREEK WETLANDS
CC-1:	CLEAR CREEK WETLANDS
CA-1 though CA-13	COLEMAN ARM (TENMILE LAKE) WETLANDS
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TC-1 though TC-5;	TENMILE CREEK WETLANDS
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BC-1A, CP-1, CP-2, RA-1, SP-1:	ISOLATED WETLANDS
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- NS: NONSIGNIFICANT SITE
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SAMPLE PLOTS

- ⊕1 or ● 1: PLOT NUMBERS
- ✳OF-1: OFF SITE PLOT NUMBERS

ANNOTATION

- WETLAND BOUNDARY
- VIEW POINTS
- CULVERT
- STREAM MAPPED IN THIS INVENTORY
- STREAM ON ORIGINAL TAX LOT MAP
- FEATURE NO LONGER PRESENT ON TAX LOT MAP
- DIVISION BETWEEN WETLAND UNITS
- NO ACCESS

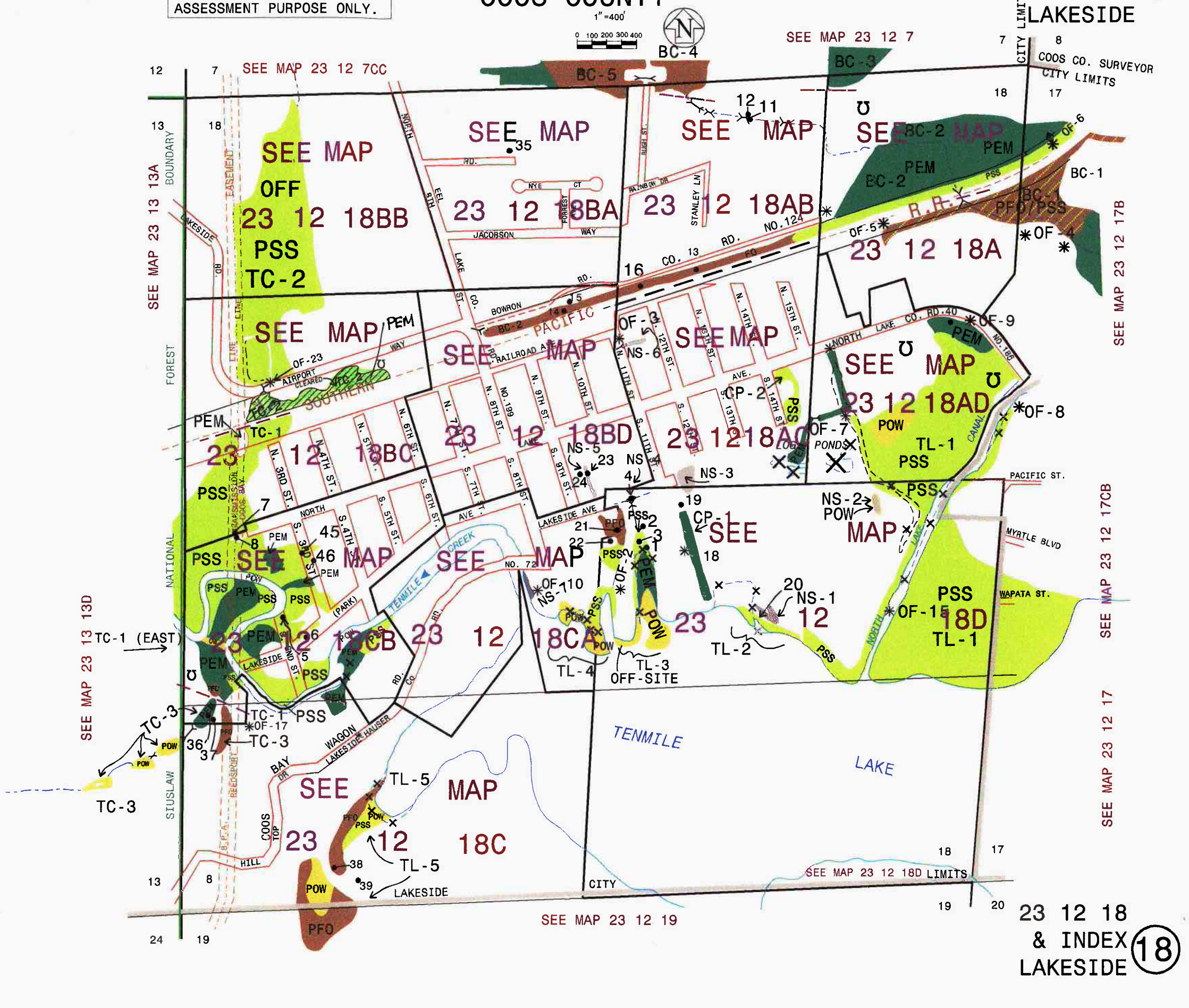
NOTE: Information shown on this map is for planning purposes and all wetland boundaries are approximate. In all cases, actual field conditions determine wetland boundaries. There may be unmapped wetlands subject to regulation within the study area.

SECTION 18 T.23S. R.12W. W.M.
COOS COUNTY

THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSE ONLY.

1"=400'
0 100 200 300 400

23 12 18 & INDEX
18
LAKESIDE



23 12 18 & INDEX
18
LAKESIDE

CITY OF LAKESIDE LOCAL WETLANDS INVENTORY

FISHMAN ENVIRONMENTAL SERVICES PROJECT 98111
DRAFT MAP PREPARED 4/21/99, FINAL MAP PREPARED 6.1.99
COLOR AERIAL PHOTOGRAPH DATE 5/18/97

LEGEND

WETLAND POLYGONS

BC-1 through BC-6:	BOWRON CREEK WETLANDS
CC-1:	CLEAR CREEK WETLANDS
CA-1 though CA-13	COLEMAN ARM (TENMILE LAKE) WETLANDS
EC-1 through EC-3	EEL CREEK WETLANDS
TC-1 though TC-5;	TENMILE CREEK WETLANDS
TL-1 through TL-5:	TENMILE LAKE WETLANDS
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- TO SHOW AREAS THAT HAVE A COMBINATION OF TYPES
- NS: NONSIGNIFICANT SITE
- U UPLAND

SAMPLE PLOTS

⊕1 or ● 1: PLOT NUMBERS
✳OF-1: OFF SITE PLOT NUMBERS

ANNOTATION

- WETLAND BOUNDARY
- ✳ VIEW POINTS
- CULVERT
- STREAM MAPPED IN THIS INVENTORY
- STREAM ON ORIGINAL TAX LOT MAP
- FEATURE NO LONGER PRESENT ON TAX LOT MAP
- DIVISION BETWEEN WETLAND UNITS
- ● NO ACCESS

NOTE: Information shown on this map is for planning purposes and all wetland boundaries are approximate. In all cases, actual field conditions determine wetland boundaries. There may be unmapped wetlands subject to regulation within the study area.

NE 1/4 SEC. 18 T.23S. R.12W. W.M.
COOS COUNTY

23 12 18A & INDEX LAKESIDE (19)

THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSE ONLY.

1" =200' 0 50 100 150 200

CANCELLED 800 401 402 500 600 601 700 900 102

SEE MAP 23 12 7

BC-4 BC-3 BC-2 EM BC-1 PFO/PSS PSS PEM POW PFO/PEM

NORTH ¼ COR.

12 11 7 8 18 17

100 14.62AC 101 0.51AC 200 7.19AC 300 10.90AC 400 5.12AC

SEE MAP 23 12 18BA

SEE MAP 23 12 18AB

SEE MAP 23 12 18AC

SEE MAP 23 12 18AD

SEE MAP 23 12 18BD

SEE MAP 23 12 17B

SEE MAP 23 12 18D

RUGH ST. RAINBOW DR. STANLEY LANE

UNK. TL = PART OF TL 200

PACIFIC NO. 124 RD

SOUTHERN PACIFIC RAILROAD

BOWRON AVE. CO RD

N. 11TH ST. N. 12TH ST. N. 13TH ST. N. 14TH ST. N. 15TH ST.

S. 11TH ST. S. 12TH ST. S. 13TH ST. S. 14TH ST.

LAKE AVE. NORTH LAKE CO RD NO. 186

LAKESIDE AVE. CANAL NORTH LAKE

OF-4 OF-5 OF-6 OF-7 OF-9

⊕16 ⊕13 ⊕19 40

TL-1 TL-2

NS-3 NS-2

INITIAL POINT ELK PARK ADD. TO LAKESIDE

CEN. SEC.

EAST ¼ COR. PACIFIC ST. NW COR COUNCIL HILL

LOG PONDS

CITY OF LAKESIDE LOCAL WETLANDS INVENTORY

FISHMAN ENVIRONMENTAL SERVICES PROJECT 98111
DRAFT MAP PREPARED 4/21/99, FINAL MAP PREPARED 6.1.99
COLOR AERIAL PHOTOGRAPH DATE 5/18/97

LEGEND

WETLAND POLYGONS

BC-1 through BC-6:	BOWRON CREEK WETLANDS
CC-1:	CLEAR CREEK WETLANDS
CA-1 though CA-13	COLEMAN ARM (TENMILE LAKE) WETLANDS
EC-1 through EC-3	EEL CREEK WETLANDS
TC-1 though TC-5;	TENMILE CREEK WETLANDS
TL-1 through TL-5:	TENMILE LAKE WETLANDS
BC-1A, CP-1, CP-2, RA-1, SP-1:	ISOLATED WETLANDS
NS-1 through NS-10:	NON-SIGNIFICANT WETLANDS (<0.50 ACRE)

HABITATE TYPES

- PFO: FORESTED WETLAND
- PSS: SCRUB-SHRUB WETLAND
- PEM: EMERGENT WETLAND
- POW/PAB: OPEN WATER/AQUATIC BED WETLAND
- TO SHOW AREAS THAT HAVE A COMBINATION OF TYPES
- NS: NONSIGNIFICANT SITE
- UPLAND

SAMPLE PLOTS

⊕1 or ● 1: PLOT NUMBERS
✳OF-1: OFF SITE PLOT NUMBERS

ANNOTATION

- WETLAND BOUNDARY
- ✳ VIEW POINTS
- CULVERT
- STREAM MAPPED IN THIS INVENTORY
- STREAM ON ORIGINAL TAX LOT MAP
- FEATURE NO LONGER PRESENT ON TAX LOT MAP
- DIVISION BETWEEN WETLAND UNITS
- ● NO ACCESS

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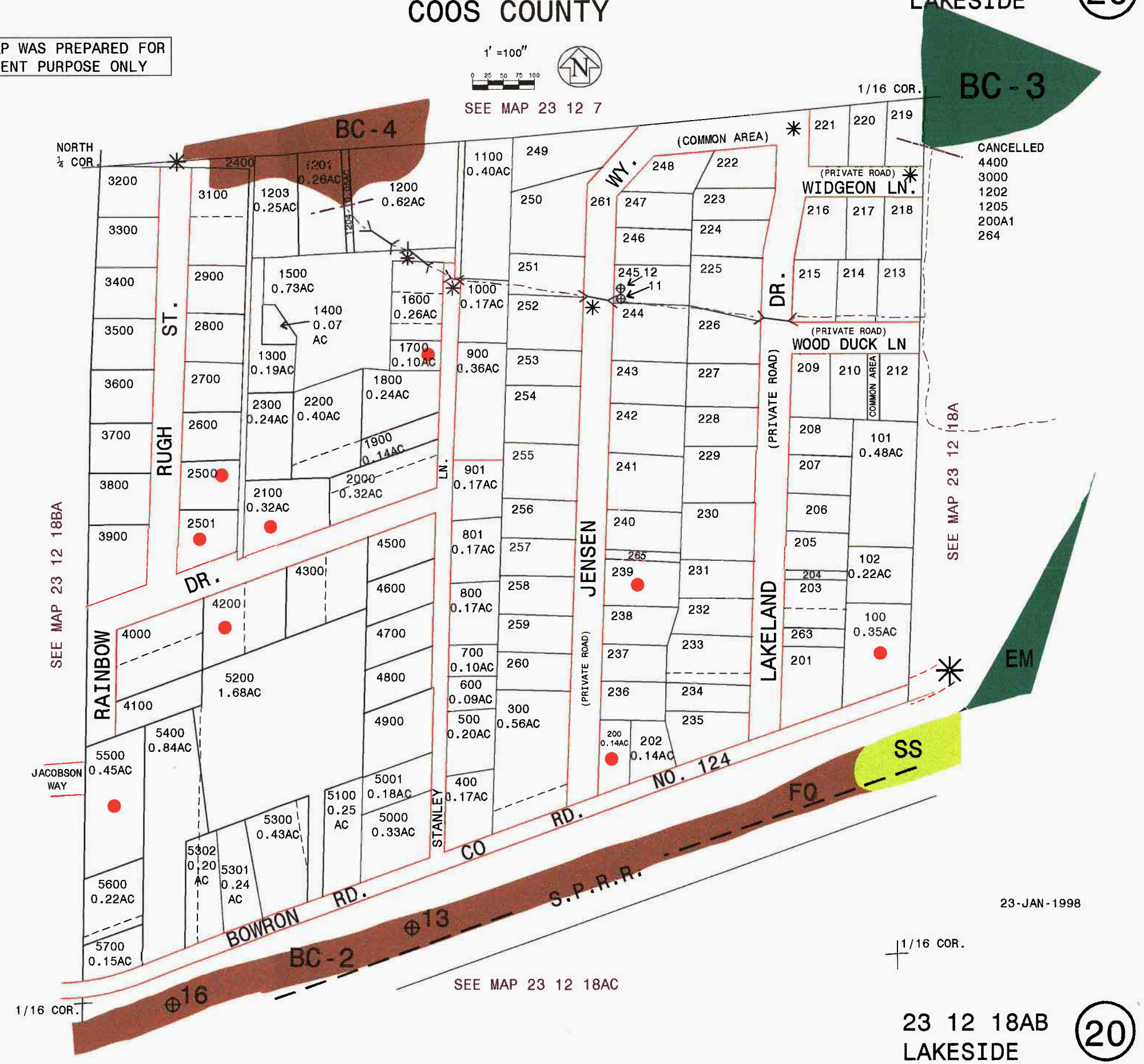
NW1/4 NE1/4 SEC. 18 T.23S. R.12W. W.M.
COOS COUNTY

23 12 18AB
LAKESIDE
20

THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSE ONLY

1" =100'
0 25 50 75 100



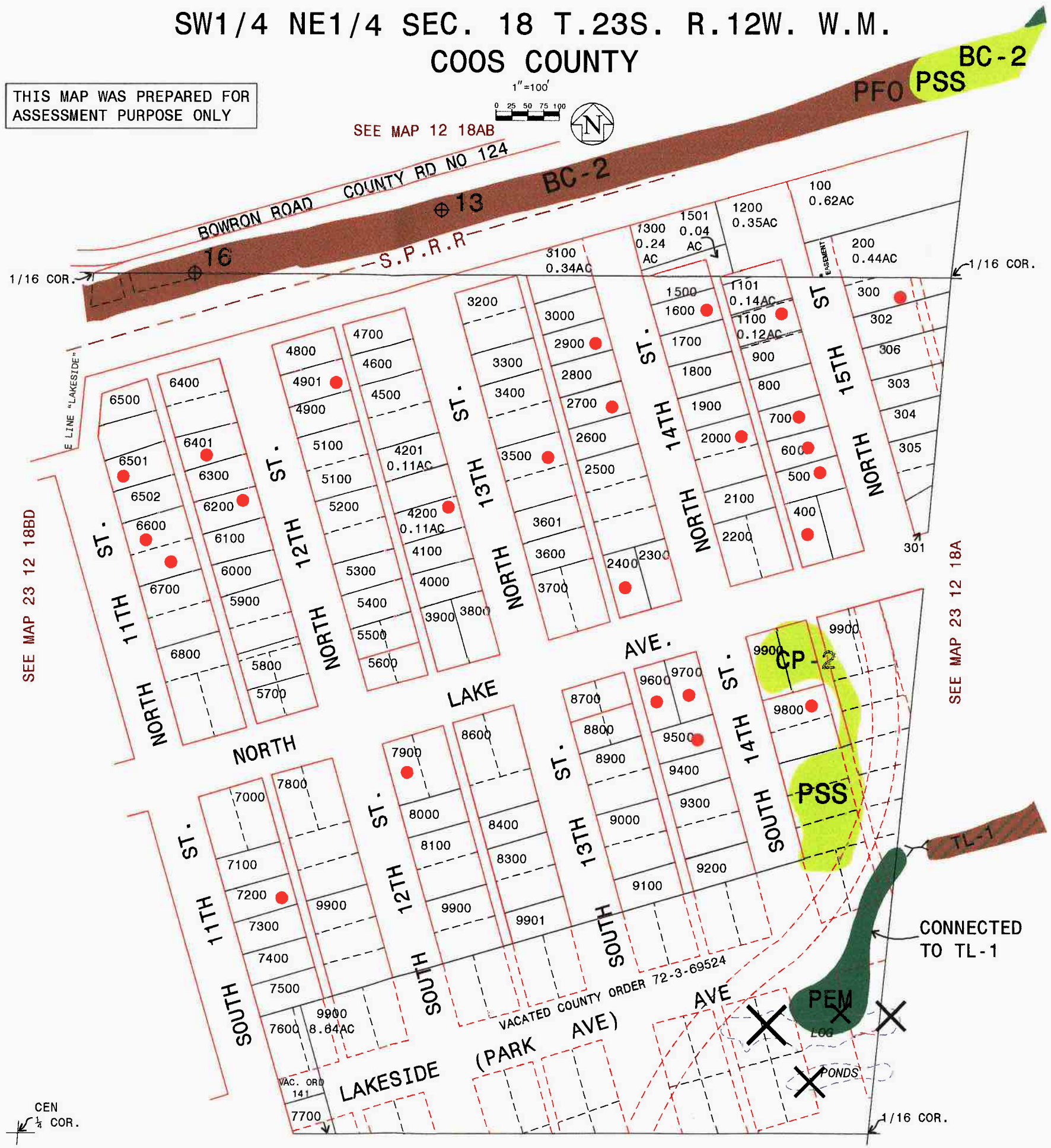
SW1/4 NE1/4 SEC. 18 T.23S. R.12W. W.M.
COOS COUNTY

23 12 18AC
LAKESIDE
21

CANCELLED NO
8500
6701
9200
4400
1000
1400
5000
6900
1301

THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSE ONLY

1"=100'
0 25 50 75 100



CITY OF LAKESIDE LOCAL WETLANDS INVENTORY

FISHMAN ENVIRONMENTAL SERVICES PROJECT 98111
DRAFT MAP PREPARED 4/21/99, FINAL MAP PREPARED 6.1.99
COLOR AERIAL PHOTOGRAPH DATE 5/18/97

LEGEND

WETLAND POLYGONS

BC-1 through BC-6: BOWRON CREEK WETLANDS
CC-1: CLEAR CREEK WETLANDS
CA-1 though CA-13 COLEMAN ARM (TENMILE LAKE) WETLANDS
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TC-1 though TC-5; TENMILE CREEK WETLANDS
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BC-1A, CP-1, CP-2, RA-1, SP-1: ISOLATED WETLANDS
NS-1 through NS-10: NON-SIGNIFICANT WETLANDS (<0.50 ACRE)

HABITATE TYPES

PFO: FORESTED WETLAND

PSS: SCRUB-SHRUB WETLAND

PEM: EMERGENT WETLAND

POW/PAB: OPEN WATER/AQUATIC BED WETLAND

TO SHOW AREAS THAT HAVE A COMBINATION OF TYPES

NS: NONSIGNIFICANT SITE

UPLAND

SAMPLE PLOTS

⊕1 or ● 1: PLOT NUMBERS
✳OF-1: OFF SITE PLOT NUMBERS

ANNOTATION

WETLAND BOUNDARY
VIEW POINTS
CULVERT
STREAM MAPPED IN THIS INVENTORY
STREAM ON ORIGINAL TAX LOT MAP
FEATURE NO LONGER PRESENT ON TAX LOT MAP
DIVISION BETWEEN WETLAND UNITS
NO ACCESS

NOTE: Information shown on this map is for planning purposes and all wetland boundaries are approximate. In all cases, actual field conditions determine wetland boundaries. There may be unmapped wetlands subject to regulation within the study area.

23 12 18AC
LAKESIDE
21

CITY OF LAKESIDE LOCAL WETLANDS INVENTORY

FISHMAN ENVIRONMENTAL SERVICES PROJECT 98111
DRAFT MAP PREPARED 4/21/99, FINAL MAP PREPARED 6.1.99
COLOR AERIAL PHOTOGRAPH DATE 5/18/97

LEGEND

WETLAND POLYGONS

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- ⊕1 or ● 1: PLOT NUMBERS
- ✳OF-1: OFF SITE PLOT NUMBERS

ANNOTATION

- WETLAND BOUNDARY
- VIEW POINTS
- CULVERT
- STREAM MAPPED IN THIS INVENTORY
- STREAM ON ORIGINAL TAX LOT MAP
- FEATURE NO LONGER PRESENT ON TAX LOT MAP
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SE1/4 NE1/4 SEC. 18 T.23S. R.12W. W.M.
COOS COUNTY

23 12 18AD
LAKESIDE
22

THIS MAP WAS PRERARED FOR ASSESSMENT PURPOSE ONLY.

1"=100'
0 25 50 75 100
N

06-JAN-1999

23 12 18AD
LAKESIDE
22

CITY OF LAKESIDE LOCAL WETLANDS INVENTORY

FISHMAN ENVIRONMENTAL SERVICES PROJECT 98111
DRAFT MAP PREPARED 4/21/99, FINAL MAP PREPARED 6.1.99
COLOR AERIAL PHOTOGRAPH DATE 5/18/97

LEGEND

WETLAND POLYGONS

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CC-1: CLEAR CREEK WETLANDS
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TC-1 though TC-5; TENMILE CREEK WETLANDS
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BC-1A, CP-1, CP-2, RA-1, SP-1: ISOLATED WETLANDS
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SAMPLE PLOTS

⊕1 or ● 1: PLOT NUMBERS
✳OF-1: OFF SITE PLOT NUMBERS

ANNOTATION

WETLAND BOUNDARY
VIEW POINTS
CULVERT
STREAM MAPPED IN THIS INVENTORY
STREAM ON ORIGINAL TAX LOT MAP
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NO ACCESS

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NE1/4 NW1/4 SEC. 18 T.23S. R.12W. W.M.
COOS COUNTY

23 12 18BA
LAKESIDE
23

THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSE ONLY.

1"=100'
0 25 50 75 100

N

BC-5
PFO

N ¼ COR.

1/16 COR.

SEE MAP 23 12 7

CANCELLED
1900
500
203
4501

200 1.16AC
202 0.15AC
201 0.17AC
300 0.94AC
100 11.02AC
401 0.36AC
400 0.55AC
500 0.44AC
600 0.22AC
601 0.25AC
700 2.31 AC
35

(EEL LAKE RD CO RD NO 199)

SEE MAP 23 12 18BB

RACHEL ROAD

900 1000 1100 1200 1300 1400 1500 1600 1700 1800
901
NYE CT.

3500 0.87AC
3400 3300 3200
3000 2900 2600
3100 2800 2700
2500 2200 2100 2000
2400 2300 2000
FORREST AVE

3600 0.18AC
3700 0.28AC
3800 0.23AC
3900 0.23AC

JACOBSON WAY

4000 0.16AC
4005 0.16AC
4003 0.16AC
4004 0.16AC
4001 0.16AC
4002 0.16AC
4100 0.32AC
4101 0.54AC
4200 1.12AC
4300 0.75AC
4400 0.85AC
4500 1.05AC
4600 0.62AC
4700 0.32AC
4800 0.38AC
4601 0.20AC
5100 0.11AC
5000 0.12AC
4900 0.46AC

NORTH 8TH ST.

SEE MAP 23 12 18AB

1/16 COR

SEE MAP 23 12 18BD

1/16 COR.

NE COR ELK PARK ADD TO LAKESIDE

23 12 18BA
LAKESIDE
23

CITY OF LAKESIDE LOCAL WETLANDS INVENTORY

FISHMAN ENVIRONMENTAL SERVICES PROJECT 98111
DRAFT MAP PREPARED 4/21/99, FINAL MAP PREPARED 6.1.99
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LEGEND

WETLAND POLYGONS

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TO SHOW AREAS THAT HAVE A COMBINATION OF TYPES

NS: NONSIGNIFICANT SITE

UPLAND

SAMPLE PLOTS

⊕1 or ● 1: PLOT NUMBERS
✳OF-1: OFF SITE PLOT NUMBERS

ANNOTATION

WETLAND BOUNDARY
VIEW POINTS
CULVERT
STREAM MAPPED IN THIS INVENTORY
STREAM ON ORIGINAL TAX LOT MAP
FEATURE NO LONGER PRESENT ON TAX LOT MAP
DIVISION BETWEEN WETLAND UNITS
NO ACCESS

NOTE: Information shown on this map is for planning purposes and all wetland boundaries are approximate. In all cases, actual field conditions determine wetland boundaries. There may be unmapped wetlands subject to regulation within the study area.

NW1/4 NW1/4 SEC. 18 T.23S. R.12W. W.M.
COOS COUNTY

23 12 18BB
LAKESIDE
24

CANCELLED
2500
900
401
402
1501
2103
2104

THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSE ONLY.

1" =100'
0 25 50 75 100

N

SEE MAP 23 12 7CC

1/16 COR.

12 7 18 13

2700
15.00AC

2600
14.34AC

PSS

2800
0.86AC

2701
1.75AC

2702
8.50AC

PSS

TC-2 OFF

2400
0.38AC

100
0.45AC

2402 0.06AC

2401
0.38AC

200
0.41AC

300
0.17AC

400
0.44AC

500
0.53AC

600
0.25AC

700
0.27AC

800
0.59AC

1000
0.25AC

1100
0.25AC

1200
0.35AC

1302
0.43AC

1301 0.10AC

1300
0.40AC

1500
0.40AC

1600
0.23AC

1400
0.83AC

1700
0.22AC

2300
0.31AC

2200
0.14AC

2201
0.22AC

1800
0.26AC

2300
0.31 AC

2101
0.15 AC

2102
0.18AC

1900
0.24AC

2000
0.24AC

BOUNDARY
FOREST
T23S R13W
T23S R12W
EASEMENT
LINE
LINE
COOS BAY
NATIONAL
LAKESIDE RD.
TRANSMISSION
REEDSPORT
POWER
B.P.A.
SIUSLAW
AIRPORT WAY
(LAKESIDE EEL LAKE CO RD NO 199)
NORTH 8TH ST.

SEE MAP 23 13 13A
SEE MAP 23 12 18BA
SEE MAP 23 12 18BC

1/16 COR.
1/16 COR.

23 12 18BB
LAKESIDE
24

CITY OF LAKESIDE LOCAL WETLANDS INVENTORY

FISHMAN ENVIRONMENTAL SERVICES PROJECT 98111
DRAFT MAP PREPARED 4/21/99, FINAL MAP PREPARED 6.1.99
COLOR AERIAL PHOTOGRAPH DATE 5/18/97

LEGEND

WETLAND POLYGONS

BC-1 through BC-6:	BOWRON CREEK WETLANDS
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ANNOTATION

- WETLAND BOUNDARY
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CITY OF LAKESIDE LOCAL WETLANDS INVENTORY

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DRAFT MAP PREPARED 4/21/99, FINAL MAP PREPARED 6.1.99
COLOR AERIAL PHOTOGRAPH DATE 5/18/97

LEGEND

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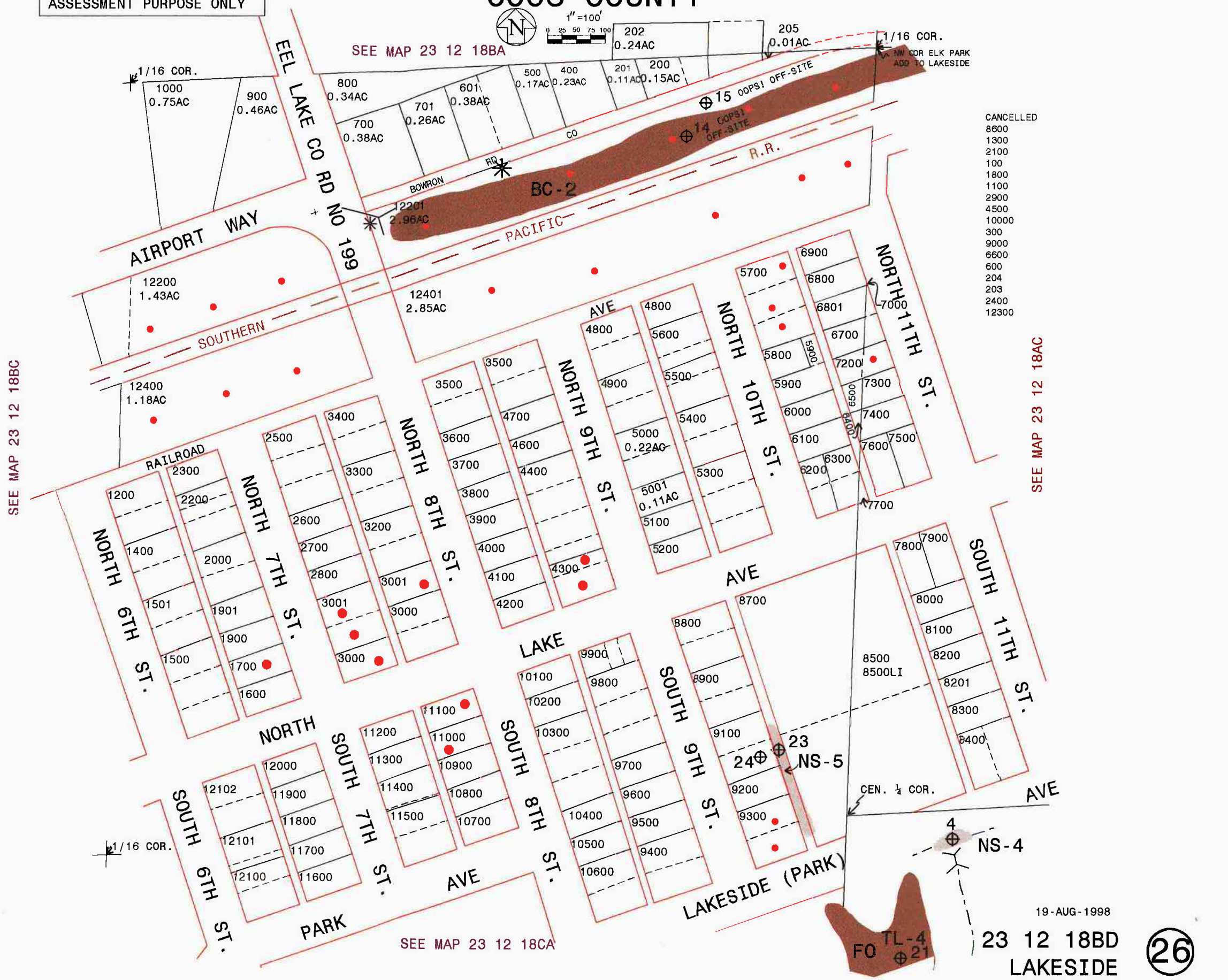
SE1/4 NW1/4 SEC. 18 T.23S. R.12W. W.M.
COOS COUNTY

23 12 18BD
LAKESIDE
26

THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSE ONLY

1"=100'
0 25 50 75 100



CANCELLED
8600
1300
2100
100
1800
1100
2900
4500
10000
300
9000
6600
600
204
203
2400
12300

19-AUG-1998

23 12 18BD
LAKESIDE
26

CITY OF LAKESIDE LOCAL WETLANDS INVENTORY

FISHMAN ENVIRONMENTAL SERVICES PROJECT 98111
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COLOR AERIAL PHOTOGRAPH DATE 5/18/97

LEGEND

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THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSE ONLY.

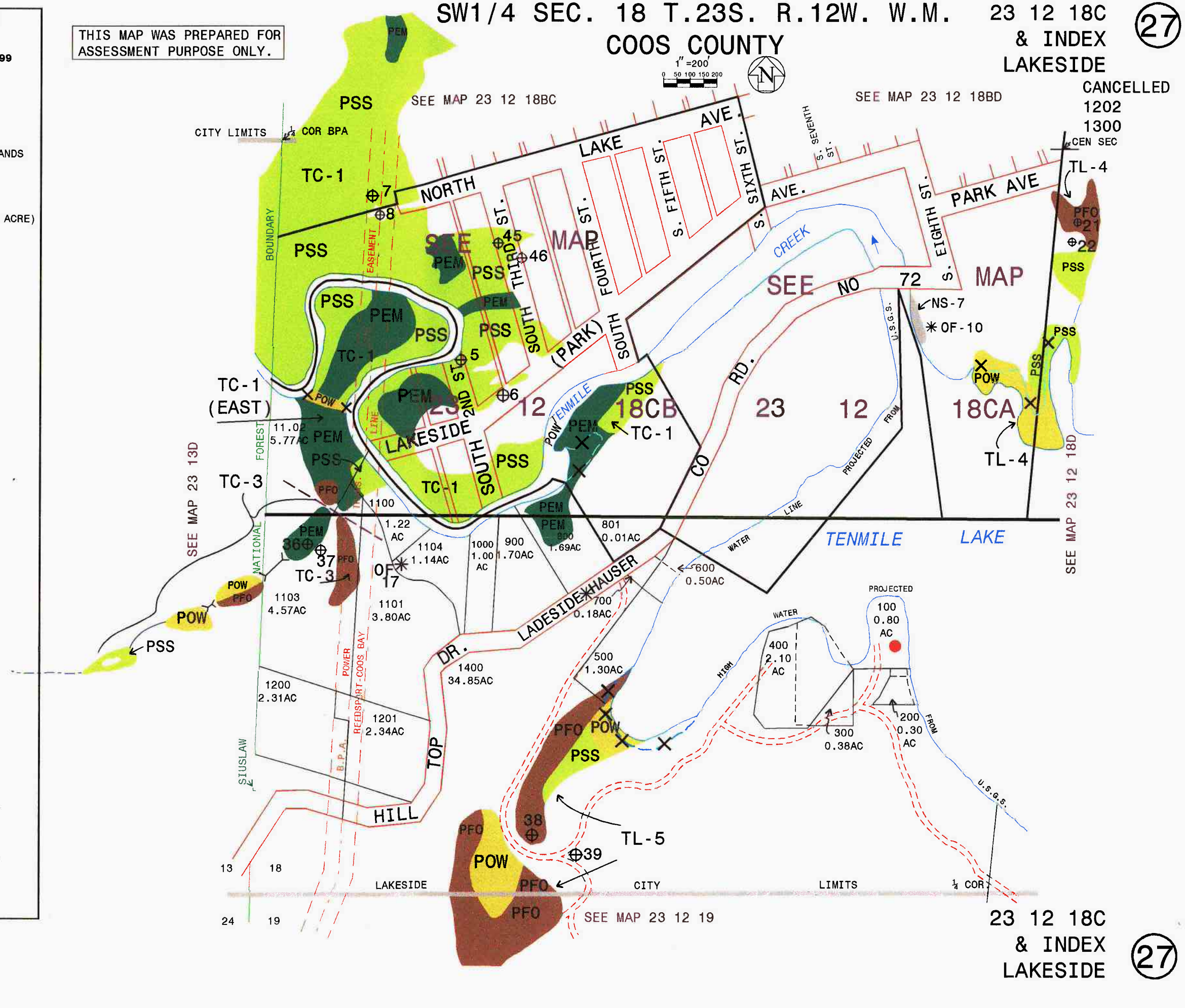
SW1/4 SEC. 18 T.23S. R.12W. W.M.
COOS COUNTY

23 12 18C & INDEX LAKESIDE

27

1" =200'
0 50 100 150 200

CANCELLED 1202 1300



23 12 18C & INDEX LAKESIDE

27

CITY OF LAKESIDE LOCAL WETLANDS INVENTORY

FISHMAN ENVIRONMENTAL SERVICES PROJECT 98111
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NE1/4 SW1/4 SEC. 18 T.23S. R.12W. W.M.
COOS COUNTY

23 12 18CA
LAKESIDE
28

1" =100'
0 25 50 75 100

CANCELLED
1000
3900
100
200
500
900
3499
401

THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSE ONLY

SEE MAP 23 12 18BD

SEE MAP 23 12 18CB

SEE MAP 23 12 18D

SEE MAP 23 12 18C

1/16 COR.

CEN. SEC.

LAKESIDE AVE.

SEVENTH S. ST.

NINTH S. ST.

PARK AVE.

EIGHTH S. ST.

SOUTH SIXTH ST.

FIFTH S. ST.

FOURTH ST.

LAKESIDE

TENMILE CREEK

NO 72 RD

CO HAUSER LAKESIDE-

TENMILE LAKE

1600 1700 1800 1900 2000 2100 2200 2300 2400 2500 2600 2700 2800 1.40AC 2900 0.60AC 3000 0.44AC 3100 0.41AC 3200 0.91AC 3300 0.82AC 3400 4.91AC 3500 0.62 AC 3600 0.65AC 3700 1.05AC 3800 0.50AC 4000 0.55AC 1400 1500 1300 1200 1100 800 0.24AC 700 0.38AC 600 0.34AC 300 2.08AC 400 4.68AC 301 0.05AC

SS NS-7

✳OF-10

PFO TL-4 21

22

TL-4

PSS

DISTURBED

PSS TL-4

POW

POW

POW

TL-4

17-AUG-1998

23 12 18CA
LAKESIDE
28

CITY OF LAKESIDE LOCAL WETLANDS INVENTORY

FISHMAN ENVIRONMENTAL SERVICES PROJECT 98111
DRAFT MAP PREPARED 4/21/99, FINAL MAP PREPARED 6.1.99
COLOR AERIAL PHOTOGRAPH DATE 5/18/97

LEGEND

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TO SHOW AREAS THAT HAVE A COMBINATION OF TYPES

NS: NONSIGNIFICANT SITE

U UPLAND

SAMPLE PLOTS

⊕1 or ● 1: PLOT NUMBERS

✳OF-1: OFF SITE PLOT NUMBERS

ANNOTATION

WETLAND BOUNDARY

VIEW POINTS

CULVERT

STREAM MAPPED IN THIS INVENTORY

STREAM ON ORIGINAL TAX LOT MAP

FEATURE NO LONGER PRESENT ON TAX LOT MAP

DIVISION BETWEEN WETLAND UNITS

NO ACCESS

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NW1/4 SW1/4 SEC. 18 T.23S. R.12W. W.M.
COOS COUNTY

23 12 18CB
LAKESIDE
29

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1" = 100'
0 25 50 75 100

SEE MAP 23 12 18BC

SEE MAP 23 13 13D

SEE MAP 23 12 18CA

SEE MAP 23 12 18C

TC-1 (EAST)

WEST ¼ COR

1/16 COR

PSS
TC-1
NORTH
SOUTH FIRST ST.
SOUTH SECOND
SOUTH THIRD ST
SOUTH FOURTH ST
SOUTH FIFTH ST
S. SIXTH ST.
LAKE
AVE.
(PARK AVE.)
TENMILE POW
PEM
PSS
TC-1
TC-1 (EAST)
POW
POW
TC-1
PEM
PFO
U
LAKESIDE
PEM
PSS
6800
2.90AC
6900
1.14AC
7000
1.09AC
POW CREEK
PEM
TC-I
LAKESIDE CO RD
7100
0.11AC
16 RD EASEMENT
1/16 COR
1/16 COR
B.P.A.
TRAIL
REEDSPORT COOS
NATIONAL COAST FOREST
SIUSLAW
T23S R13W BOUNDARY
T23S R12W
WILLAMETTE MERIDIAN

CANCELLED
5802
5803
5804
5805
800
2000
2200
5800
5801
5300
5400
5900
6200U2A1
6200U1
6200U2
6201

23 12 18CB
LAKESIDE
29

CITY OF LAKESIDE LOCAL WETLANDS INVENTORY

FISHMAN ENVIRONMENTAL SERVICES PROJECT 98111
DRAFT MAP PREPARED 4/21/99, FINAL MAP PREPARED 6.1.99
COLOR AERIAL PHOTOGRAPH DATE 5/18/97

LEGEND

WETLAND POLYGONS

BC-1 through BC-6:	BOWRON CREEK WETLANDS
CC-1:	CLEAR CREEK WETLANDS
CA-1 though CA-13	COLEMAN ARM (TENMILE LAKE) WETLANDS
EC-1 through EC-3	EEL CREEK WETLANDS
TC-1 though TC-5;	TENMILE CREEK WETLANDS
TL-1 through TL-5:	TENMILE LAKE WETLANDS
BC-1A, CP-1, CP-2, RA-1, SP-1:	ISOLATED WETLANDS
NS-1 through NS-10:	NON-SIGNIFICANT WETLANDS (<0.50 ACRE)

HABITATE TYPES

- PFO: FORESTED WETLAND
- PSS: SCRUB-SHRUB WETLAND
- PEM: EMERGENT WETLAND
- POW/PAB: OPEN WATER/AQUATIC BED WETLAND
- TO SHOW AREAS THAT HAVE A COMBINATION OF TYPES
- NS: NONSIGNIFICANT SITE
- UPLAND

SAMPLE PLOTS

- ⊕1 or ● 1: PLOT NUMBERS
- ✳OF-1: OFF SITE PLOT NUMBERS

ANNOTATION

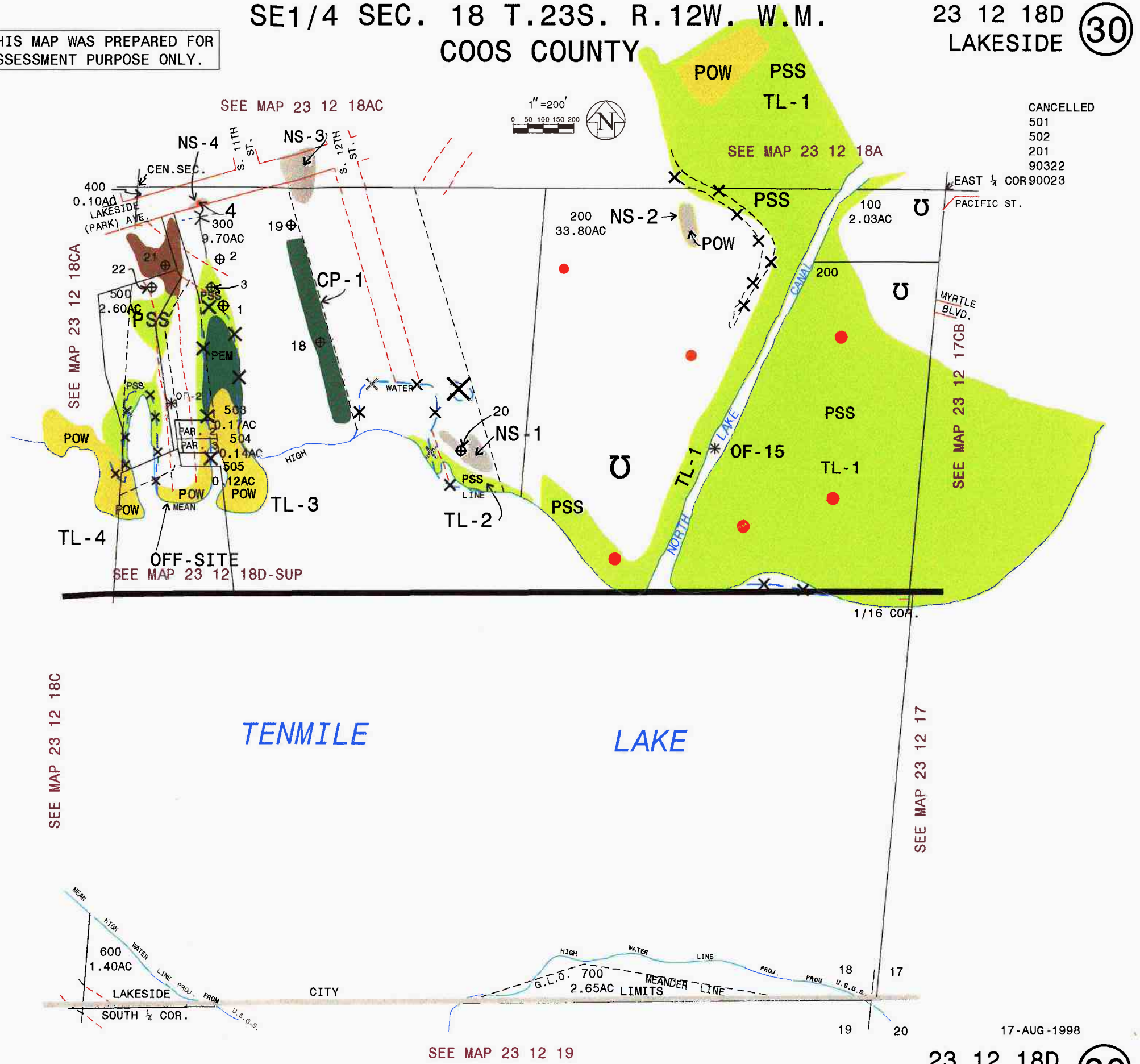
- WETLAND BOUNDARY
- ✳ VIEW POINTS
- CULVERT
- STREAM MAPPED IN THIS INVENTORY
- STREAM ON ORIGINAL TAX LOT MAP
- FEATURE NO LONGER PRESENT ON TAX LOT MAP
- DIVISION BETWEEN WETLAND UNITS
- ● NO ACCESS

NOTE: Information shown on this map is for planning purposes and all wetland boundaries are approximate. In all cases, actual field conditions determine wetland boundaries. There may be unmapped wetlands subject to regulation within the study area.

THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSE ONLY.

SE1/4 SEC. 18 T.23S. R.12W. W.M.
COOS COUNTY

23 12 18D
LAKESIDE
30



17-AUG-1998

23 12 18D
LAKESIDE
30

CITY OF LAKESIDE LOCAL WETLANDS INVENTORY

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DRAFT MAP PREPARED 4/21/99, FINAL MAP PREPARED 6.1.99
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VIEW POINTS
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STREAM MAPPED IN THIS INVENTORY
STREAM ON ORIGINAL TAX LOT MAP
FEATURE NO LONGER PRESENT ON TAX LOT MAP
DIVISION BETWEEN WETLAND UNITS
NO ACCESS

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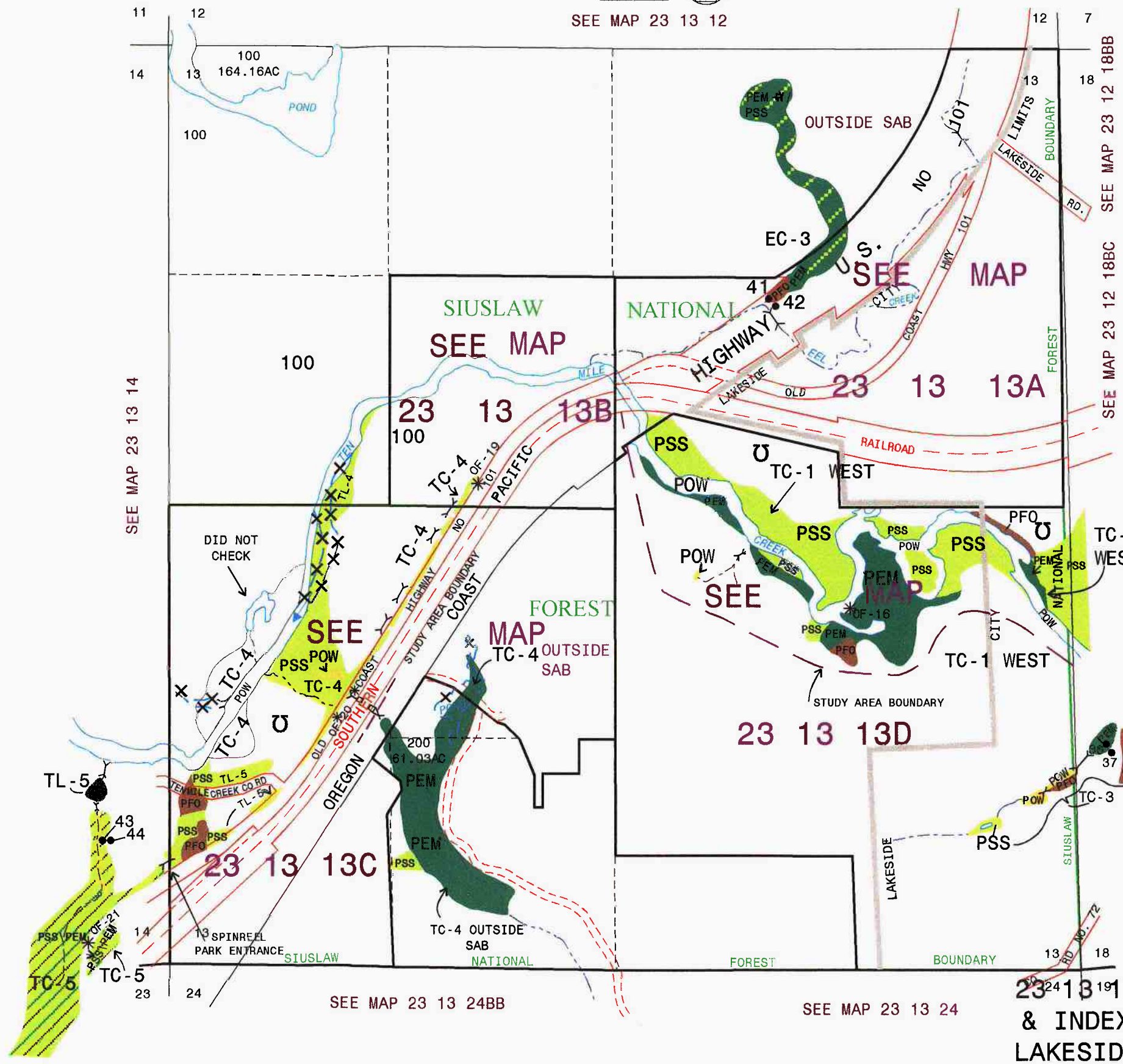
SECTION 13 T.23S. R.13W. W.M.
COOS COUNTY

THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSE ONLY.

1" =400'
0 100 200 300 400

23 13 13 & INDEX LAKESIDE

40


SEE MAP 23 13 12
SEE MAP 23 13 14
SEE MAP 23 12 18BB
SEE MAP 23 12 18BC
SEE MAP 23 12 18CB
SEE MAP 23 12 18C
SEE MAP 23 13 24BB
SEE MAP 23 13 24
SEE MAP 23 13 13 & INDEX LAKESIDE
OUTSIDE SAB
SIUSLAW
NATIONAL
FOREST
HIGHWAY
RAILROAD
PACIFIC
COAST
STUDY AREA BOUNDARY
OREGON
SOUTHERN
LAKESIDE
LIMITS
BOUNDARY
TENMILE CREEK CO RD
SPINREEL PARK ENTRANCE
DID NOT CHECK
POND
100
164.16AC
200
61.03AC
23 13 13A
23 13 13B
23 13 13C
23 13 13D
TC-1 WEST
TC-4 OUTSIDE SAB
EC-3
TC-5
TL-5
PSS
PEM
POW
PFO
PSS PEM OF-21
PSS PEM OF-16
PSS PFO
PSS POW
PSS PEM PFO
PEM PSS
PFO PEM PSS
PSS PEM
PEM PFO
PSS PEM PFO
PSS PFO
PSS POW PFO
PSS PEM PSS
PSS PEM
PSS POW

CITY OF LAKESIDE LOCAL WETLANDS INVENTORY

FISHMAN ENVIRONMENTAL SERVICES PROJECT 98111
DRAFT MAP PREPARED 4/21/99, FINAL MAP PREPARED 6.1.99
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- DIVISION BETWEEN WETLAND UNITS
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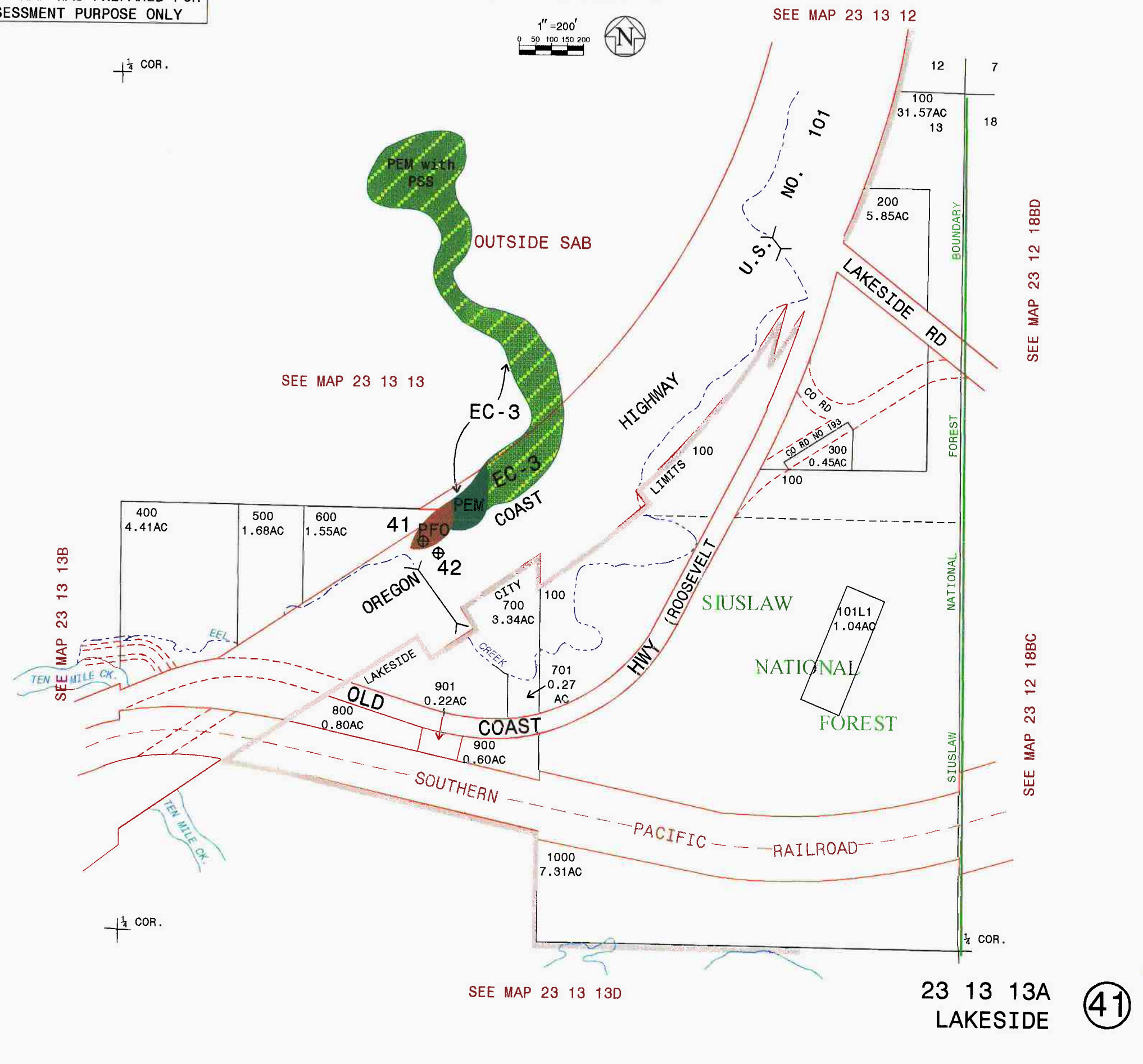
THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSE ONLY

NE1/4 SEC. 13 T.23S. R.13W. W.M.
COOS COUNTY

23 13 13A
LAKESIDE
41

1" =200'
0 50 100 150 200



23 13 13A
LAKESIDE
41

Fishman Environmental Services

FES Project No. 98111 Date: 12·30·98 Staff SB

Permission to Access

Charles Dale	550+560 Bonneville Rd.
Lakeside Lions Hall (Ellen Karan, Secretary)	Bowron Rd.
Leo Leetch	902 Bowron Rd.
William + Margaret Deh?	1210 Bowron Rd.
Pearl Derrick	1220 Bowron Rd.
Alfred Skaggs	10868 Coast Hwy.
* → "Please make yourself known when you are out here"	
John Roderick	11216 Coast Hwy.
Strinchfield	1 Falling Tree Lane
Amy Belcher	247 Hall
Carolyn Lindstrom Estate (Sharon Bessey, personal rep.)	100 Hilltop Dr.
E.G McNutt	160 Hilltop Dr.
L. Dean Warner	305 Hilltop Dr.
William + Angela Hatch	401 Hilltop Dr.
Moench	640 Hilltop Dr.
Carl Loucks	690 Hilltop Dr.
R. M. Hancza?	920 Jacobsen Way
Fred Noah, Jr.	1015 Jacobsen Way
Leroy Reynolds	1020 Jacobsen Way
Fred Lewis	124 Jensen Way
J.E. miller	595 Kings Ave.
Gerald + Janet Fagan	1320 Kristi Loop
Thomas + ___ O'Brien	1550 Kristi Loop
mr. + mrs. Gosnell	1580 Kristi Loop
Carol Rafferty	1595 Kristi Loop
Ellen + Larry Karan	1615 Kristi Loop
John Snyder	217 Lakeland Dr.
Walter Walsh	510 N. Lake Rd.
Marilyn Waterman	910 N. Lake Rd.
Ed Cowan	1575 N. Lake Rd.
Bruce + Suzan Marcy	1605 N. Lake Rd.
North Lake Resort	2090 N. Lake Rd.

→ Property is fenced + gated, contact owners agent for access - Dan Seleshanleo

Fishman Environmental Services

FES Project No. _____ Date: _____ Staff _____

Permission to access, page 3

L + S Mansee	120 S. 5th St.
Larry Mansee	540 S. 5th St.
Fred Stribe	115 S. 6th St.
Joe Hanna	130 S. 6th St.
Ronald Howales	150 S. 6th St.
Marvin Wire	130 S. 7th St.
Community Presbyterian	100 + 340 N. 8th St.
Dennis Hancock	277 + 279 8th St. (N or S?) - re discontinuing chipper - wants reply

"How can you pay for this so called wetlands inventories?"

Walter Prrogee	295 N. 8th St.
Roger Campbell	452 N. 8th St.
Donald + Gail McDonald	420 N. 8th St.
Howard + Barbara Rondeae?	515 N. 8th St.
Frank Woods	545 N. 8th St.
Harmecnies	626 N. 8th St.
Lakeside Baptist Church	720 N. 8th St.
Kathleen Boddie	1015 N 8th St.
Gary Bell	1110 N. 8th St.
George Huchendorf	1120 N. 8th St.
Roger Campbell	235 S. 8th St.
Jerry Freed	165 N. 10th St.
Chris + Sewell Scriner Trust?	130 N. 12th St.
Chuck Finlayson?	155 N. 13th St.
William Zelus	155 S. 13th St.
Jim Brown	190 or 192 N. 14th St.
(address "failed up")	
Al Winters	197 N. 15th St.

No address given -

James Nevill
Cecil Davidson
Richard Torrey
Kenneth Townsend
David + Rebecca Winans
Ned Wilson
Lester Miller
S. M. Randall

Permission to access property

The property owner's (See Attached) (name) hereby give permission X yes ____ no
For environmental consultants to enter upon my property located at William Tugman State Park
In Lakeside, Oregon for purposes of obtaining information/data for the City's wetland inventories.

All permission/denial slips must be returned to Lakeside City Hall by November 13th, 1998, or the City will presume that permission has been granted to enter the property. Thank you for you cooperation.

[illegible] and Recreation Department grants permission for the environmental consultants, contracted by and working for, the City of Lakeside to enter upon the real property of William Tugman State Park located within the Urban Growth Boundary (UGB) of Lakeside for the sole purpose of conducting a wetland inventory as specifies in the request for permission. The granting of the access is subject to the following conditions:

- The Sunset Bay park office (phone 541-888-3778) will be notified at least 12 hours prior to each occurrence of any work.
- The environmental consultants or representatives of the City of Lakeside should carry a copy of this letter on their person while on the property for inventory reasons.
- The inventory process will not disturb soils or vegetation without the express permission of the park manager.
- The City of Lakeside shall provide the Oregon Parks and Recreation Department with a complementary copy of the survey text and maps the encompass state park property.
- The City of Lakeside shall defend, save, hold harmless, and indemnify the State of Oregon and Agency, their officers, employees, agents, and members, from all suits, or actions of whatsoever nature resulting from or arising out of the activities of the City of Lakeside or its employees, representatives, subcontractors, or agents under this contract.

This right of entry is limited solely for the legitimate purpose of wetland inventory as requested by the City of Lakeside.

If you have any questions, please contact at the Sunset Bay Management Unit office.

Sincerely,

Larry E Becker

Larry Becker, Manager
Sunset Bay Management Unit

cc: Andy LaTomme
Kathy Schutt
Dave Wright

10965 Cape Arago Hwy.
Coos Bay, OR 97420
(541) 888-3778
FAX (541) 888-5650

Fishman Environmental Services

FES Project No. 98111 Date: 11/19/98 Staff

pop 1420

4:30-5, 9:30-10:30

6CC?

NO ACCESS

John Prescott	11023 Coast Hwy	23-12-7BB	TL	700
Elbert L Giurn?	10960 Hwy 101	—		400
Osuna	525 Bonnenille Rd	7BC		107
Dennis+Debbie Sargent	705 Bonnerille Rd	—		301, 100
Phillip Noorlander	10750 Coast Hwy	—		200
Diane Nicolle	565 Bonneville Rd	—		111 dogs
Ken +Lorraine? Knowlton	620 Queens Ct	—		4800
David+Joyce Pinckley	1130 N 8th St	—		901
Frank Barnhardt	615 Bonnenille	—		113
Al Porter	920 N 8th	7CB		2100
Joseph Walker	910 N 8th St	—		2200
Frank Kocsis	640 Royal Dr	—		5400
Elaine Pappas	740 Tiara	—		5100
David L Smith	714 N 8th	—		6902
WT+GE Gannon	850 N 8th (+Robinhood)	—		3400 appt rec. (pet)
Jacobsen	700 N 8th St	—		6100 not in Por WLs
Loyd T Fronterhouse	930 N 8th St (+kings)	—		2000
Georgia White	750 sherwood	—		7400
Curtis Coffman	710 sherwood	~~7CC~~		4000
Liedtke's	555+557 Kings	7CB		1600
Sally Malloy	645 Tiara	7CC		2200
Griffin	600 N 8th	—		2700
Manuel+Mary Rose	555 Woodland Rd	—		5300
Karen Oberstaller	520 N 8th	—		4800
James McMahon	690 N 8th St	—		3600
Dorothy V Amate?	605 Tiara	—		2600

Fishman Environmental Services

FES Project No. _____ Date: _____ Staff _____

No Access p2

Dalton Tweed	700 Tiara Dr	23 12-7CC	TL 1600	
Donald Root/Rost?	600 Tiara St	—	800	
Sherych	685 Tiara St	—	1800	
Mode	545 " "	—	5400	
Walter + Barbara Hansen	665 Tiara	—	2000	only by appt
David + Phyllis Shisler	425 Fern Lane	7CD?	608	
Richard Klassen	520 Tiara St	7CD	700	
Daniel B Daffron	475 " "	7CA	602	
Foster, Dave	430 " "	7CD	600	

Note Tiara St is a private rd begining @ #470 + Fernlane - access denied beginning @ driveway - wants direct mailing of reg. notice

Clyde L Griffith	455 " "	—	607	
Robert + Emerson	2300 N. Lake Rd	17B	2501	
Monson Frances	1610 Bowron Rd	18A	100	
Gary Freelend?	1620 " "	—	101	
Douglas + Nancy Owen	1215 Rainbow Dr	18AD	4200	
Counts	400 Roga/Ruga? Rugh	18AB	2500	
Nadine Hogue?	425 Stanley Lane	—	1700	
David Mosher	1620 Bowron Rd	—	100	
Jack + Muriel Bowron	1600 " "	—	200	
Wm + Dorothy Tennant	1210 Rainbow Dr	—	2100	
Carl Mead	106 Jensen Way	—	239	
Rick Wellman?	240 Rainbow Dr	—	5500	no at own risk
Ruth Pace	1200 " "	—	2501	
Richard Stedman	175 N 15th St	18AC	1100	
Clayton Heley	150 N 11th	—	6600	
Robert Hogue	180 N 14th 145 N 15th Wildwood	—	1600, 700 900	
Kenneth L + Josephine M Asman	1415 N 13th St	—	4200	
Florence Main	13th St, 165 14th St, — Jacobsen Way	—	3500, 2700	
Robert King	170 N 15th	BA	4000-1, 2-3-4-5	
		18AC	300	
* James White	180 N 11th	—	6501	

"I hate all Environmental Consultants... All Consultants with cards will be shot!!!"

Fishman Environmental Services

FES Project No. _____ Date: _____ Staff _____

No Access p3

Alan Tweed	165 N 12th	23-12-18AC TL	6200
Richard J Lind	130 S 14th St	—	9800
Allen Albee	185 N 14	—	2900
Evelyn Corcorran	130 S 11th St	—	7200
Catherine Chapman	100 S 12th St	—	7900
Clair Farnsworth	190 N 12th St	—	4901
Douglas + Stella Johnson	185 N 12th	—	6401
Jim Bradley	130 N 14th St	—	2000
Gene Snodgrass	1520, 1530, 1540 N Lake Rd	—	?, 500, 400
Richard Blank	1320 N Lake Rd	—	2400
Karole Stevens	1325 + 1335 N Lake, 125 S 14th	—	9600, 9700, 9500
Tammy Trost	450 N 8th	18BA	201
Mark Fly	945 Jacobson	—	4502
Jim + Zehner	905 Jacobson Way	—	4300
Donald Gray	860 " "	—	3900
Leo R Behnke	1005 Jacobson	—	4600
X Ben or Marsha Carlin	460 N 8th	— 200	By appt only 759-4686 or 269-7833 (wk)
Ruby Cossette	1020 N 4E	—	1600
Gary Vaughn	925 Jacobsen Way	—	4400
Carla Smith, Ira Castle	345 N 8th St	18BB	16 or 1700
* Harlon Green	175, 185 N 3rd 160 N 3rd 140, 185 N 4th	18BC	3500, 3501 4302 5200, 4400
? Marty Slechta		—	1000, 1100
Dennis + Melissa King	210 Sarah Lane	—	700
Erma Vansell	310 Airport Way	—	600
Roland Raymer	145 N 5th St	—	5800 until we find out more about this
Mary Carley	115 S 8th	18BD	11000
Coldwell Banker/Agent - 180 N 9th -		—	9300 - unable to get permission from owner
Robert J Edwards	1200 N 8th/215 S 8th	— BD	300 1500

PF? No answer at

Fishman Environmental Services

FES Project No. _____ Date: _____ Staff _____

No Access pt

Charles Turner	145 N 11th St	23 12	18 BD	7200+6600
Stephan Garrett	715 Lake/105 S 8th		—	11100
Thurman Mutchell	810 N Lake Rd		—	~~15~~ 4300
John R Henning	115 N 7th		—	1700
Edward N Lopez	125 N 8th st / 110, 120 N 7th St		—	3001, 3000, 2900
Georgia E Tweed	150(160?)170 N 10th St		—	5700-5800
Phillip Drehmer 759-3098	860 Falling Tree Lane		18C	100 perm. granted if present/24hr notice
Phil + Janet Swinford	295 Hilltop		18CA	3600
Robert Anthony	377 Hilltop Dr		—	3800
Michael Armstrong	415 Park St		—	2700
Macduff	420+430 Hilltop Dr		18CB	6900, 7000
Elbert J Guin (?)	120 Hilltop Dr		18CA	3200
Richard Gerisch	210 Park Ave		18CB	4301 ?
2X James R Houser	315 " "		—	6600
Robert Argott	305 " "		—	6500
Liedtke	125 S 5th		—	1400
J Robert + Mary A Friend	275 Park Ave		—	6300
* Mr Sunfield	Park 500		—	500

"I understand its hard to accept "go to hell" as answr, but please accept it as the answr, unless a warrant is issued, The answr is ~~No Entry~~ !! No Trespassing"

Sandra Minard	165 N 5th		18BC	5700
Glenn Harvey	135 S 4th St		18CB	2600
Marvin Stemmerman	155 S. 4th St		—	2700
Michael A Hutchens	115 S 4th		—	2400
B+D Stubblefield	105 S 6th		—	100
Osprey Point R.V. Resort	1505 N. Lake Rd		18AD	200 600 700 1600 1700 1800 1900

Fishman Environmental Services

FES Project No. _____ Date: _____ Staff _____

No Access p5

Pier Condos - "Do not have permission from all 5 homes 23 12 18D 90016-90020
+ it must be okayed by all"

Ron + Glenda Gray	1200 Hilltop Dr	23	13	24	600
Carl Lindgren	1170 "	"		—	501
"please do not enter our property. We have 3 dogs.					
Juli Vaughn	1100 "	"	13	130	1100